



**El Dorado Hydroelectric Project**

**FERC Project No. 184**

# **Recreation Survey Monitoring Plan**

EL DORADO IRRIGATION DISTRICT

2890 Mosquito Road

Placerville, CA 95667

May 2017

The El Dorado Irrigation District (District or EID) presents this Recreation Survey Monitoring Plan (Plan) to identify the strategies and methods for successful compliance with U.S. Forest Service (FS) 4(e) Condition No. 47 of the Federal Energy Regulatory Commission license for the El Dorado Hydroelectric Project No. 184 (Project 184).

## 1.0 License Requirements

This Plan is submitted in compliance with the El Dorado Hydroelectric Project FERC License Condition No. 47, which states:

### Condition No. 47 - Recreation Survey

The licensee shall conduct a Recreational Survey and prepare a Report on Recreational Resources that is approved by the FS every 6 years from the date of license issuance. The Recreational Survey shall include, but not be limited to, changes in kinds of use and use patterns, levels of use, user survey as to preferences in recreation activities, kinds and sizes of recreation vehicles, preference for day use versus overnight use, carrying capacity information sufficient to indicate changes in capacity, and recreation user trends within the Project area. The Report on Recreational Resources shall comply with FERC's regulations at 18 CFR section 4.51(f) (1996), or as amended, and shall be provided to FS for review and comment prior to being filed with FERC. Within 1 year of submission of the Report on Recreation Resources, the FS, ERC, and other interested parties will meet to discuss the results of the Report and make recommendations to address the findings. In accordance with Condition No. 4, the FS reserves the authority to require changes in the Project and its operation to accomplish protection and utilization of National Forest resources identified as a result of these surveys.

The licensee will not be required to construct additional recreational improvements as the remedy for a FS determination that carrying capacity is being exceeded anywhere in the Project area. The licensee may be required to address resource impacts from Project-related recreation.

Per Condition No. 47, the District would utilize the recreation survey data to prepare a Report on Recreation Resources that complies with FERC Regulations 18 CFR section 4.51 (f)(5) (1996), as amended, which states:

**(5) Report on recreational resources.** The report must discuss existing and proposed recreational facilities and opportunities at the project. The report must be prepared in consultation with local, state, and regional recreation agencies and planning commissions, the National Park Service, and any other state or Federal agency with managerial authority over any part of the project lands. Consultation must be documented by appending to the report a letter from each agency consulted indicating the nature, extent, and results of the consultation. The report must contain:

- (i)** A description of any existing recreational facilities at the project, indicating whether the facilities are available for public use;
- (ii)** An estimate of existing and potential recreational use of the project area, in daytime and overnight visits;
- (iii)** A description of any measures or facilities recommended by the agencies consulted for the purpose of creating, preserving, or enhancing recreational opportunities at the project and in its vicinity (including opportunities for the handicapped), and for the purpose of ensuring the safety of the public in its use of project lands and waters;
- (iv)** A statement of the existing measures or facilities to be continued or maintained and the new measures or facilities proposed by the applicant for the purpose of creating, preserving, or enhancing recreational opportunities at the project and in its vicinity, and for the purpose of ensuring the safety of the public in its use of project lands and waters, including an explanation of why the applicant has rejected any measures or facilities recommended by an agency and described under paragraph (f)(5)(iii) of this section; and
- (v)** The following materials and information regarding the measures and facilities identified under paragraphs (f)(5) (i) and (iv) of this section:
  - (A)** Identification of the entities responsible for implementing, constructing, operating, or maintaining any existing or proposed measures or facilities;
  - (B)** A schedule showing the intervals following issuance of a license at which implementation of the measures or construction of the facilities would be commenced and completed;
  - (C)** An estimate of the costs of construction, operation, and maintenance of any proposed facilities, including a statement of the sources and extent of financing;
  - (D)** A map or drawing that conforms to the size, scale, and legibility requirements of § 4.39 showing by the use of shading, cross-hatching, or other symbols the identity and location of any facilities, and indicating whether each facility is existing or proposed (the maps or drawings in this exhibit may be consolidated); and
- (vi)** A description of any areas within or in the vicinity of the proposed project boundary that are included in, or have been designated for study for inclusion in, the National Wild and Scenic Rivers System, or that have been designated as wilderness area, recommended for such designation, or designated as a wilderness study area under the Wilderness Act.

## **2.0 Purpose of the Recreation Survey**

The purpose of ongoing recreation surveys is to measure changes in user preferences, use patterns, recreational equipment design and quantity and quality of services provided in order to maintain an appropriate level of public use and satisfaction over the life of the license. The results of the survey will help the FS and EID prioritize necessary maintenance, rehabilitation, construction, and reconstruction work that is identified as part of FS 4(e) Condition 49 – Review of Recreation Developments.

## **3.0 Recreation Facilities Associated with Project No. 184**

Recreation facilities associated with Project No. 184 that are incorporated into conditions of the FERC license include the following FS owned developments:

- Silver Lake East Campground
- Martin Meadow Overflow Camping Area
- Caples Lake Campground
- Caples Lake Auxiliary Dam Parking Area
- Caples Lake Boat Launching Facility
- Woods Creek Fishing Access
- Pacific Crest National Scenic Trail Crossing
- Echo Lakes Trailhead and Upper Parking Facility

Recreation facilities associated with Project No. 184 that are incorporated into conditions of the FERC license include the following EID owned developments:

- Silver Lake West Campground
- Ferguson Point
- Sandy Cove Day-use Area
- Silver Lake Boat Launching Facility

Figure 1 presents a map showing the locations of recreation facilities associated with Project 184.

## **4.0 Survey Methods**

This section describes the specific methods and data sources that will be collected during the recreation survey. The survey will be structured such that measureable criteria and quantifiable data can be used to track changes in recreation use and trends throughout the term of the Project No. 184 FERC license.

This Plan focuses on collecting information regarding the quantity and quality of recreation experiences to evaluate recreation use and trends at recreation facilities associated with Project No. 184:

## **Quantity:**

- Number of people recreating at each developed site
- Number of people recreating in general forest areas within the license boundary
- Locations where dispersed recreation occurs
- Number of people engaged in various activities
- Number of types and sizes of recreational equipment
- Number of day use vs. Overnight users
- Number of turn-away days at each developed site

## **Quality:**

- User satisfaction of facilities (including availability and condition of accessible amenities)
- Perception of personal safety
- Feelings of being over-crowded
- Opportunities and demand for recreation experiences not currently provided

### *Calculating Recreation Use*

Recreation use is separated into two separate categories; developed and dispersed. Developed use is that which occurs within the boundary of a built facility. Dispersed use occurs in the general forest area.

Developed recreation use is relatively easy to count. Counts can be done on a regular basis. The measure is finite i.e. campsites, picnic sites or parking spaces occupied. The use is associated with a specific campground, picnic area, boatramp, trailhead or parking area. User surveys can be accomplished at the location of the recreation experience. Obtaining survey data from developed sites is relatively easy due to the limited movement of the users.

Dispersed recreation use occurs in areas away from developed sites i.e. trail, shoreline, surface of lakes or general forest area. Concentrated Use Areas (CUA's) are finite spaces, usually at accessible locations near water or special places, which draw large numbers of people to recreate where no built facilities exist. To capture information from dispersed recreation users, data has to be collected at CUA's or recreationist's point of dispersion. Most dispersion occurs from a developed parking facility or wide spots along roads which can accommodate several vehicles. It is common to use factors to estimate dispersed recreation use. Based on agency familiarity of day use sites (number of people/vehicle, turnover, hours/activity) recreation use can be extrapolated.

### *Existing Data Collection Sources*

The ENF requires the hosts at Silver Lake East C.G. and Caples Lake C.G. to collect use data under the concessionaire permit. This information includes daily counts of number of sites occupied, number of total people and total number of sites by equipment type (tent, trailer RV).

The ENF collects use data under the Desolation Wilderness permit system for both overnight and day use. Data is collected for destination zones accessed by two trailheads included under the

FERC 184 license, Echo Summit and Pyramid Creek. The overnight permit data includes the date, permits sold, number of people/permit and 1<sup>st</sup> night's camping destination. The day use information includes date, number of permits, people/permit and planned destination.

EID collects occupancy use data for Silver Lake West C.G. which includes daily counts of the number of sites occupied and equipment types (e.g., tents, trailer).

EID collects vehicle counts from revenue receipts at Caples Lake Boatramp. The use counts are divided into two categories; parking spaces used by vehicle/boat trailers and single vehicles attributed to day users. Boating recreationists are assumed to spend the majority of their time on the surface of the lake or shoreline physically separated from the boatramp. Day users are assumed to recreate physically at or adjacent to the boatramp.

EID collects vehicle counts from revenue receipts at Silver Lake. Vehicles are counted at the boatramp, at designated parking spaces along Kays Rd., and at the Silver Lake Dam. The parking areas are not associated with a developed site. EID collects vehicle counts from revenue receipts at Sandy Cove picnic area, which is considered a developed site.

*Sampling Protocol*

The following tables, calendar and voluntary questionnaires provide the specific details regarding data collection efforts for this Plan. This survey effort is intended to provide sufficient data to make well-informed decisions regarding potential changes to the recreation program for the six year period following the completion of the Report on Recreational Resources.

<b>Developed Campgrounds (with campground host)</b>				
Campground	Sample Days	Dates 2017	Data collected	Data Collector
Silver Lake East	Mon - Sun	5/31 – 9/21	<ul style="list-style-type: none"> <li>• Campsites occupied</li> <li>• People/Site</li> <li>• Camping Equipment (tent, trailer/rv)</li> <li>• Voluntary Questionnaire</li> </ul>	ENF campground concessionaire*
Caples Lake	Mon - Sun	5/31 – 9/21	<ul style="list-style-type: none"> <li>• Campsites occupied</li> <li>• People/Site</li> <li>• Camping Equipment (tent, trailer/rv)</li> <li>• Voluntary Questionnaire</li> </ul>	ENF campground concessionaire*
Silver Lake West	Mon - Sun	5/31 – 9/21	<ul style="list-style-type: none"> <li>• Campsites occupied</li> <li>• People/Site</li> <li>• Camping Equipment (tent, trailer/rv)</li> <li>• Voluntary Questionnaire</li> </ul>	EID recreation staff

A voluntary questionnaire shall be made available to all campers at the check-in boards (questionnaire below)

\*ENF shall make available to EID within 30 days following annual seasonal closure.

<b>Martin Meadow Overflow Camping Area Survey</b>			
Sample Days	Dates 2017	Data collected	Data Collector
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Campsites occupied</li> <li>• Camping Equipment (tent, trailer/rv)</li> </ul>	<ul style="list-style-type: none"> <li>• EID employee will provide use logs</li> </ul>
See calendar (Silver Complex)	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Voluntary questionnaire (see below)</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> </ul>

<b>Caples Lake Boat Launching Facility Survey</b>			
Sample Days	Dates 2017	Data collected	Data Collector
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Vehicle/Boat trailer spaces occupied</li> <li>• Vehicle spaces occupied</li> </ul>	<ul style="list-style-type: none"> <li>• EID will provide from receipts</li> </ul>
See calendar (Caples Complex)	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Voluntary questionnaire (see below)</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> </ul>

\*Days and number of vehicles when parking occurs outside of designated spaces within the developed site and along the Hwy adjacent to the site.

<b>Caples Lake Auxiliary Dam Parking Survey</b>			
Sample Days	Dates 2017	Data collected	Data Collector
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Parking spaces within site occupied</li> <li>• Turn-away days *</li> </ul>	<ul style="list-style-type: none"> <li>• EID employee will provide use logs</li> </ul>
See Calendar (Caples Complex)	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Voluntary questionnaire (see below)</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> </ul>

\* Days and number of vehicles parked along the highway and adjacent to the site when the trailhead is full.

<b>Echo Lakes Trailhead and Upper Parking Facility Survey</b>			
Sample Days	Dates 2017	Data collected	Data Collector
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Parking spaces within site occupied</li> <li>• Turn-away days*</li> </ul>	<ul style="list-style-type: none"> <li>• EID employee will provide use logs</li> </ul>
See Calendar (Hwy 50 Complex)	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Voluntary questionnaire (see below)</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> </ul>
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Overnight use of wilderness users parked at Echo Lake TH</li> </ul>	<ul style="list-style-type: none"> <li>• ENF Desolation permits for all zones accessed by Echo Lakes Upper Parking Facility **</li> </ul>

\*Days and number of vehicles parked along the highway and adjacent to the site when the trailhead is full.

\*\*ENF shall make available to EID (by written request) within 30 days of request annually.

<b>Pyramid Creek Survey</b>			
Sample Days	Dates 2017	Data collected	Data Collector
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Parking spaces within site occupied</li> <li>• Turn-away days*</li> </ul>	<ul style="list-style-type: none"> <li>• EID employee will provide use logs</li> </ul>
See Calendar (Hwy 50 Complex)	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Voluntary questionnaire (see below)</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> </ul>
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Overnight use of wilderness users parked at Pyramid TH</li> </ul>	<ul style="list-style-type: none"> <li>• ENF Desolation permits for all zones accessed by Pyramid TH **</li> </ul>

\*Days and number of vehicles parked along the highway and adjacent to the site when the trailhead is full.

\*\*ENF shall make available to EID (by written request) within 30 days of request annually.

<b>Sandy Cove P.G. Survey</b>			
Sample Days	Dates 2017	Data collected	Data Collector
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Parking spaces within site occupied</li> </ul>	<ul style="list-style-type: none"> <li>• EID will provide from receipts</li> </ul>
See Calendar (Silver Complex)	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Voluntary questionnaire (see below)</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> </ul>

<b>Woods Creek Fishing Access Survey</b>			
Sample Days	Dates 2017	Data collected	Data Collector
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Parking spaces within site occupied</li> <li>• Number of vehicles parking adjacent to site when the site is full</li> </ul>	<ul style="list-style-type: none"> <li>• EID employee will provide use logs</li> </ul>
See Calendar (Caples Complex)	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Voluntary questionnaire (see below)</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> </ul>

<b>Silver Lake Boatramp/Kays Rd./Silver Lake Dam Survey</b>			
Sample Days	Dates 2017	Data collected	Data Collector
Mon - Sun	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Parking spaces within site occupied</li> </ul>	<ul style="list-style-type: none"> <li>• EID will provide from receipts</li> </ul>
See Calendar (Silver Complex)	May 31 – Sept 21	<ul style="list-style-type: none"> <li>• Voluntary questionnaire (see below)</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant</li> </ul>



USE LOGS

Use Logs for sites that do not currently have a tracking system:

<b>Site Name: Martin Meadow</b>				
Date	Number Tent Sites	Number Truck/Trailer Sites	Number RV Sites	Vehicle Only (Day Use)

<b>Site Name: Caples Lake Dam Parking</b>		
Date	Number Parking Spaces Occupied	Number Vehicles Parked Outside of Designated Spaces and Along the Hwy Adjacent to the Trailhead (When Site is Full)

<b>Site Name: Pyramid Creek Dam Parking</b>		
Date	Number Parking Spaces Occupied	Number Vehicles Parked Outside of Designated Spaces and Along the Hwy Adjacent to the Trailhead (When Site is Full)

<b>Site Name: Echo Lakes TH Parking</b>		
Date	Number Parking Spaces Occupied	Number Vehicles Parked Outside of Designated Spaces (When Site is Full)

<b>Site Name: Woods Lake Fishing Access</b>		
Date	Number Parking Spaces Occupied	Number Vehicles Parked Outside of Designated Spaces (When Site is Full)

## **VOLUNTARY QUESTIONNAIRE**

A voluntary questionnaire (Attachment A) will be the survey instrument used to collect recreation user information.

Campground hosts will provide questionnaires to campground users. Collection boxes will be provided at the entrance station or at the host site for users to deposit completed questionnaires. Questionnaires will be provided at the following campground facilities:

- Silver Lake East C.G.
- Silver Lake West C.G.
- Caples Lake C.G.

For all other recreation facilities associated with Project No. 184, in-person interviews will be conducted at the locations and intervals provided in the 2017 calendar (Attachment B). AM hours denoted on the calendars are intended to fall generally between 9:00 – noon. PM hours denoted on the calendars are intended to fall generally between 1:00 – 5:00 p.m. Every party encountered shall be asked if they are willing to take a 10 minute interview. The interviewer will fill out the voluntary questionnaire (Attachment A) for each party willing to be interviewed. The total number of parties that are asked to respond to the voluntary survey at each site will be recorded for each survey day.

ATTACHMENT A

Project No. 184 Recreation Questionnaire

Project No. 184 Recreation Questionnaire

Location: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Are you camping in the area or just here for the day? \_\_\_\_\_ If camping, how many days? \_\_\_\_\_

How many people in the party? \_\_\_\_\_ Do you and your party need more than one camp unit to accommodate everyone? Y/N

Do you prefer camping in a tent / trailer / motorhome / or other? \_\_\_\_\_

Site:	Excellent	Good	Average	Fair	Poor	N/A
How is the condition of the restrooms						
How is the cleanliness of the restrooms						
How is the condition of your picnic site						
Is the size of your site adequate for your party						
Is the size of your site adequate for your recreational equipment						
Did you have convenient access to potable water?						
How is the condition of the roads						
How is the availability of accessible facilities						
How is the condition of accessible facilities						
Do you feel safe during your visit						
Do you feel your property is safe						

When camping / visiting do you like to:

- 1) meet new people
- 2) spend time with family and friends
- 3) spend time alone

Have you been here before? Y/N If so, how does this experience compare with previous ones?

\_\_\_\_\_

\_\_\_\_\_

During your visit, do you visit other sites from here? Y/N If so, where? \_\_\_\_\_

\_\_\_\_\_

Did you or anyone in your party participate in the following activities and if so please describe where (for example Fishing at Silver Lake, Dirt bike riding on Squaw Ridge, Hiking in Mokelumne Wilderness):

Activity	Approximately how long (days)	Approximately how long (hrs)	Number of People in Party	Location
Camping Overnight				
Picnicking				
Fishing				
Bicycle Riding				
Sail Boating				
Kayaking				
ATV Riding				
Horseback Riding				
Hiking				
Motor Boating				
Canoeing				
Water skiing				
Dirt Bike Riding				
Swimming				
Other				

Was there any activity you were hoping to do on your visit but weren't able to do because the resources were not available?

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Are the campground / picnic areas free of litter? Y/N

Have you or anyone in your party discovered something new here this year?

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Additional Comments:

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ATTACHMENT B  
2017 Survey Calendar

JUNE 2017						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
			31	1	2	3
			Hwy 50 Complex AM		Silver Complex PM	Caples Complex AM
						Hwy 50 Complex PM
4	5	6	7	8	9	10
Silver Complex PM	Caples Complex AM		Silver Complex AM	Hwy 50 Complex PM	Caples Complex PM	Silver Complex PM
11	12	13	14	15	16	17
Caples Complex AM				Silver Complex PM		Caples Complex PM
Hwy 50 Complex PM						Hwy 50 Complex AM
18	19	20	21	22	23	24
Silver Complex AM	Hwy 50 Complex AM		Caples Complex AM			Silver Complex AM
25	26	27	28	29	30	
Caples Complex PM	Silver Complex PM			Caples Complex PM	Hwy 50 Complex AM	
Hwy 50 Complex AM						

2017 Sampling Calendar Continued

JULY 2017						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1
						Caples Complex AM
						Hwy 50 Complex PM
2	3	4	5	6	7	8
Silver Complex PM	Caples Complex AM		Silver Complex AM	Hwy 50 Complex PM	Caples Complex PM	Silver Complex PM
9	10	11	12	13	14	15
Caples Complex AM		Caples Complex PM		Silver Complex PM		Caples Complex PM
Hwy 50 Complex PM						Hwy 50 Complex AM
16	17	18	19	20	21	22
Silver Complex AM	Hwy 50 Complex AM		Caples Complex AM		Hwy 50 Complex AM	Silver Complex AM
23	24	25	26	27	28	29
Caples Complex PM	Silver Complex PM	Hwy 50 Complex PM			Silver Complex PM	Caples Complex PM
Hwy 50 Complex AM						Hwy 50 Complex AM
30	31					
Silver Complex AM						



2017 Sampling Calendar Continued

August 2017						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
				Hwy 50 Complex AM	Silver Complex AM	Caples Complex AM Hwy 50 Complex PM
6	7	8	9	10	11	12
Silver Complex PM		Caples Complex PM	Hwy 50 Complex PM		Caples Complex PM	Silver Complex PM
13	14	15	16	17	18	19
Caples Complex AM Hwy 50 Complex PM			Silver Complex PM			Caples Complex PM Hwy 50 Complex AM
20	21	22	23	24	25	26
Silver Complex AM	Hwy 50 Complex AM	Silver Complex AM		Caples Complex AM	Hwy 50 Complex AM	Silver Complex AM
27	28	29	30			
Caples Complex PM Hwy 50 Complex AM	Silver Complex PM		Caples Complex PM			

2017 Sampling Calendar Continued

September 2017						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
				Hwy 50 Complex AM	Silver Complex PM	Caples Complex AM
						Hwy 50 Complex PM
4	5	6	7	8	9	10
Silver Complex PM	Caples Complex AM		Hwy 50 Complex PM		Caples Complex PM	Silver Complex PM
11	12	13	14	15	16	17
Caples Complex AM			Silver Complex AM	Caples Complex PM	Hwy 50 Complex AM	Caples Complex PM
						Silver Complex AM
18	19	20	21	22	23	24
Hwy 50 Complex PM		Silver Complex PM				
25	26	27	28	29	30	