

REC-2 RECREATION FACILITIES USE ASSESSMENT CAMERA STUDY PLAN

**KERN RIVER No. 3 HYDROELECTRIC PROJECT
*FERC PROJECT No. 2290***

PREPARED FOR:



October 2024

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LIST OF ACRONYMS AND ABBREVIATIONS

AI	artificial intelligence
API	Application Programming Interface
FERC	Federal Energy Regulatory Commission
Forest Service	USDA Forest Service
KR3	Kern River No. 3
NFKR	North Fork Kern River
NFS	National Forest System
PFD	personal flotation device
PM&E	protection, mitigation, and enhancement
Project	Kern River No. 3 Hydroelectric Project (FERC Project No. 2290)
QA/QC	quality assurance / quality control
SCE	Southern California Edison
SQF	Sequoia National Forest
USR	Updated Study Report

1.0 NEED FOR STUDY PLAN MODIFICATION

1.1. BACKGROUND

On May 30, 2024, the Federal Energy Regulatory Commission (FERC) issued a Determination on Requests for Study Modifications and New Studies (FERC Accession No. 20240530-3030; FERC, 2024) directing Southern California Edison (SCE) to collect additional data regarding commercial and non-commercial boating activities on the North Fork Kern River (NFKR) to provide FERC staff sufficient information to inform potential license conditions (Section 5.9(b)(5)). Therefore, FERC modified the *REC-2 Recreation Facilities Assessment Study Plan* as follows:

...staff still do not have the necessary information to inform potential license conditions [section 5.9(b)(5)]. The Whitewater Boating Study's Desktop Review includes no information about the amount of non-commercial boating use. The results of the structured interviews and single flow survey for the Whitewater Boating Study, and the visitor questionnaire for the Recreation Facilities Use Assessment provide information about types of watercrafts used, flow preferences, and the number of boaters represented in the sample, but they do not provide monthly or annual estimates of non-commercial river use in the project area. Additionally, while SCE consulted stakeholders in their initial attempts to install cameras, they did not consult with stakeholders regarding the spot and calibration count variances. For these reasons, we do not approve SCE's study variance.

Instead, SCE should work with Sequoia National Forest to install cameras at all river access locations along the Fairview Dam bypassed reach and above Fairview Dam to Johnsondale Bridge to capture: (1) use-estimates including percent capacity at all river access locations; (2) activity-type estimates, specifically commercial vs. non-commercial boaters, including the type of watercrafts used. The cameras should be deployed for one calendar year and capture use at reasonable intervals to record boating activity, or set to sense motion, depending on camera placement and its ability to detect movement at the river access.

This Study Plan modification describes SCE's planned activities to address FERC's direction for using trail cameras to capture and analyze a year's worth of visitor use data at the river access sites above (1.9-mile segment above Fairview Dam) and along the Fairview Dam Bypass Reach¹. This focused Study Plan outlines the scope and study site locations, duration, and methodologies to meet FERC's study objectives.

¹ Fairview Dam Bypass Reach is defined as the approximately 16-mile segment of the NFKR from Fairview Dam down to the Kern River No. 3 (KR3) Powerhouse.

1.2. STUDY PLAN DEVELOPMENT CONSULTATION

Per FERC’s Determination on Request for Study Modification and New Studies, SCE conducted outreach with the U.S. Department of Agriculture Forest Service (Forest Service) regarding installation of cameras on National Forest System (NFS) lands on June 17 and July 31, 2024. SCE and the Forest Service discussed the purpose and intent of the cameras, the types of information the cameras would collect, and suitable locations on NFS lands. As stated in Forest Service communication dated August 21, 2023, and reiterated again in the July 31, 2024, meeting, cameras would not be allowed at campgrounds managed by the Sequoia National Forest (SQF) and their campground concessionaire because cameras *“may violate reasonable expectations of privacy that paying visitors may have while staying at the campgrounds”* (see the consultation log that is included as Appendix E to the REC-1 Interim Technical Memorandum [SCE, 2023]). SCE evaluated the study sites included as part of the REC-2 Study Plan to ensure they were consistent with Forest Service guidance and determined which ones have river access and are not fee-based. SCE provided the Forest Service with 12 proposed camera locations, as described in Table 4-1 and shown in Appendix A, *Proposed Camera Locations*.

Following these discussions, SCE received an email from the SQF Recreation Officer William “Billy” Brown regarding the 12 camera locations, stating the Forest Service *“doesn’t see any concerns related to privacy issues as they are all in publicly accessible areas that would not have any expectation of privacy.”* On August 14, 2024, SCE provided the Forest Supervisor with a formal request for approval of the camera locations. The Forest Service also provided guidance that some of the camera locations would require a formalized Special Use Permit with the Forest Service for their installation, specifically for camera locations outside of the FERC Project Boundary, where not currently covered under other Master Special Use Permits (e.g., not on an SCE power pole).

On August 29, 2024, SCE invited other resource agencies and interested boaters to attend a call where SCE provided an update on Forest Service consultation and presented the proposed camera locations. Discussions during and via emailed comments as a follow-up to the meeting, boaters provided feedback on the proposed camera locations. In response to their comments, SCE agreed to include three additional camera locations, subject to Forest Service approval, and to adjust photograph frequency from every 15 minutes to every 5 minutes.

SCE provided the Forest Service an updated request to the SQF recreation lands officer and Forest Supervisor on September 27, 2024, that included the three additional camera locations. Final approval from the Forest Supervisor (including special use authorization for installation) for the 15 camera locations (16 cameras total due to 2 cameras planned at the KR3 Powerhouse Put-In/Take-Out) is still pending at the time of this filing.

Copies of meeting materials and meeting notes and email communications are included in Appendix B, *Consultation Record*.

2.0 PROJECT NEXUS AND HOW THE RESULTS WILL BE USED

As acknowledged in the approved *REC-2 Recreation Facilities Assessment Study Plan* (FERC, 2022), the current Project operations may promote use of the Project Area for recreational purposes, specifically whitewater boating. The study results from this focused Study Plan will be used to further document and augment the understanding of recreation use specific to the river access sites and river uses above (1.9-mile segment above Fairview Dam) and along the Fairview Dam Bypass Reach.

3.0 STUDY GOALS AND OBJECTIVES

The primary goal of this Study Plan modification is to collect additional information on recreation use at river access sites above and along the Fairview Dam Bypass Reach. The objectives of this study plan modification are to:

- Document and estimate river-focused recreation use including validating use estimates and percent capacity (as noted in the REC-2 Technical Memorandum) at river access sites; and
- Compile estimates of other use characteristics at each study site including: (1) commercial and non-commercial whitewater boating recreation use levels, and (2) types of watercraft.

4.0 STUDY AREA AND STUDY SITES

The study sites included in this Study Plan modification include the river access sites above (1.9-mile reach above Fairview Dam) and along the Fairview Dam Bypass Reach (Figure 4-1). In general, the camera locations are at the non-fee day-use/dispersed camping sites and are aligned with the nine whitewater boating runs/segments along the Fairview Dam Bypass Reach section of the NFKR and the associated put-in and/or take-out locations as described in the REC-1 Whitewater Boating Level 1 Interim Technical Memorandum (SCE, 2023).

A total of 16 cameras at 15 locations along the NFKR are included as part of this study. Table 4-1 lists the recreation sites above and along the bypass reach and indicates which sites where cameras are proposed. The table also provides the rationale and other pertinent information regarding the site selection for the cameras. Per the direction of the Forest Service, cameras are not allowed at developed (fee based) campgrounds², as noted in Table 4-1. Also, final approval of camera locations and position (field of view) are subject to approval from the SQF at Forest Service managed recreation sites and on NFS lands. Additional approval via a Special Use Permit authorization is required for the installations not on SCE poles. Example photographs are provided in Appendix A from the 10 Forest Service day-use/dispersed camping recreation sites, SCE recreation site (this site has two cameras), three river view sites, and one road shoulder pull-off where cameras are proposed. The photographs show the camera installation locations and approximate field(s) of view.

² Fairview Campground, Goldledge Campground, Hospital Flat Campground, Thunderbird Group Campground, Camp 3 Campground, Headquarters Campground, and Halfway Group Campground.

Table 4-1. Recreation Sites and Camera Locations

REC-2 ID ^a	Camera ID	Site Name	Site Type	Camera Proposed?	Rationale/Notes
1	1	Johnsondale Bridge River Access	Day Use	Yes	<ul style="list-style-type: none"> River access location/Limestone whitewater run put-in Install camera on tree facing river access put-in (access via stairs). Views of path, river put-in and start of river run.
2	2	Brush Creek Dispersed Camping	Dispersed Camping	Yes	<ul style="list-style-type: none"> Site located between whitewater run. While this site is not typically used by non-commercial boaters, it may periodically be used as an overflow parking and put-in location if the Johnsondale Bridge River Access parking lot is full by the commercial rafting companies.^b Camera analysis at this site will be focused on documenting occurrence of commercial boating use. Install on pole along Sherman Pass Road with view of parking area.
3		Limestone Campground	Developed Campground	No	<ul style="list-style-type: none"> Forest Service fee campground (cameras are not allowed at fee campgrounds)
4	3	Willow Point Whitewater Take-out	Day Use	Yes	<ul style="list-style-type: none"> River access location Limestone whitewater run take-out Install camera on tree with “take-out” sign. Camera facing downstream toward take-out and some river views.
	4	Upstream of Roads End Picnic Site	Shoulder pull-off	Yes	<ul style="list-style-type: none"> Non-commercial river access location Fairview whitewater run put-in Install camera on SCE pole upstream of road shoulder parking area

REC-2 ID ^a	Camera ID	Site Name	Site Type	Camera Proposed?	Rationale/Notes
5	5	Roads End Picnic Site and Whitewater Put-in	Day Use	Yes	<ul style="list-style-type: none"> River access location Sidewinder/Bombs Away whitewater run take-out/Fairview whitewater run put-in Install camera on tree next to restroom. Camera facing boater access route with some river views.
6		Packsaddle Trail Trailhead	Trailhead	No	<ul style="list-style-type: none"> No river access
7		Fairview Campground	Developed Campground	No	<ul style="list-style-type: none"> Forest Service fee campground (cameras are not allowed at fee campgrounds per previous direction)
8	6	Calkins Flat Dispersed Camping	Dispersed Camping	Yes	<ul style="list-style-type: none"> River access location Fairview whitewater run take-out Chamise Gorge whitewater run put-in Install camera on tree across from road. Camera facing boater access route with some river views.
9		Chamise Dispersed Camping	Dispersed Camping	No	<ul style="list-style-type: none"> Site located in middle of whitewater run Cameras at put-in/take-out of run
--	7	Chamise Gorge Run	NFKR view	Yes	<ul style="list-style-type: none"> Chamise Gorge whitewater run take-out Start of Salmon Falls whitewater run Camera in tree along upper road segment (installed 7/14/2024)
10		Rincon Trailhead	Trailhead	No	<ul style="list-style-type: none"> No river access

REC-2 ID ^a	Camera ID	Site Name	Site Type	Camera Proposed?	Rationale/Notes
11	8	Ant Canyon Dispersed Camping	Dispersed Camping	Yes	<ul style="list-style-type: none"> River access location Salmon Fall whitewater run take-out Goldledge whitewater run put-in Install camera on tree across street from site to obtain view of whole parking area Camera facing parking lot/river access routes (commercial put in downstream end; non-commercial put-in upstream end). Port-a-potty seen in foreground.
-	9	NFKR Goldledge Run	NFKR view	Yes	<ul style="list-style-type: none"> Install camera between Goldledge Campground and Springhill Dispersed Campground pending identification of site with suitable river field of view.
12		Old Goldledge Dispersed Camping	Dispersed Camping	No	<ul style="list-style-type: none"> Site located in middle of whitewater run Cameras at put-in/take-out of run
13		Goldledge Campground and Whitewater Put-in/Take-out	Developed Campground and Day Use	No	<ul style="list-style-type: none"> Forest Service fee campground (cameras are not allowed at fee campgrounds per previous direction) Site also located within a whitewater run segment
14		Springhill Dispersed Camping	Dispersed Camping	No	<ul style="list-style-type: none"> Site located between whitewater run segments Cameras at put-in/take-outs
15	10	Corral Creek Picnic Site and Whitewater Take-out	Day Use	Yes	<ul style="list-style-type: none"> River access location Goldledge whitewater run take-out Thunder Run whitewater run put-in Camera in tree with view of the parking area..
16		Corral Creek Dispersed Camping	Dispersed Camping	No	<ul style="list-style-type: none"> Site located between whitewater run segments Cameras at put-in/take-outs

REC-2 ID ^a	Camera ID	Site Name	Site Type	Camera Proposed?	Rationale/Notes
17		Hospital Flat Campground	Developed Campground	No	<ul style="list-style-type: none"> Forest Service fee campground (cameras are not allowed at fee campgrounds per previous direction)
18		Chico Flat Dispersed Camping	Dispersed Camping	No	<ul style="list-style-type: none"> Site located between whitewater run segments Cameras at put-in/take-outs
19	11	Thunderbird Group Campground and Whitewater Put-in/Take-out	Developed Campground and Day Use	Yes	<ul style="list-style-type: none"> River access location Thunder Run whitewater run take-out Cable/Camp whitewater run put-in for non-commercial boaters Install on SCE pole across street; angle camera to capture only parking area and road parking, not the adjacent Forest Service fee campground
20	12	Camp 3 Campground and Whitewater Put-in/Take-out	Developed Campground and Day Use	Yes	<ul style="list-style-type: none"> River access location Thunder Run whitewater run take-out Cable / Camp whitewater run put-in for commercial boaters Install on SCE pole across street, angle camera to capture only parking area not the adjacent Forest Service fee campground
21		Halfway Group Campground and Whitewater Put-in/Take-out	Developed Campground and Day Use	No	<ul style="list-style-type: none"> Camera field of view would capture adjacent Forest Service fee campground Located within whitewater run segment Cameras at put-in/take-outs
22		Headquarters Campground	Developed Campground	No	<ul style="list-style-type: none"> Forest Service fee campground (cameras are not allowed at fee campgrounds per previous direction)

REC-2 ID ^a	Camera ID	Site Name	Site Type	Camera Proposed?	Rationale/Notes
23	13	Riverkern Beach Picnic Site	Day Use	Yes	<ul style="list-style-type: none"> • River access location • Cable/Camp 3 whitewater run take-out • Lickety Split whitewater run put-in • Install on tree/t-post on hill above larger parking area (not capturing road-shoulder parking).
--	14	NFKR above KR3 Powerhouse	NFKR view	Yes	<ul style="list-style-type: none"> • Riverkern Beach whitewater run • Mounted on SCE catwalk on back of the powerhouse
24	15/16	KR3 Powerhouse Whitewater Put-in/Take-out (SCE Project facility)	Day Use	Yes (2)	<ul style="list-style-type: none"> • River access location • Riverkern Beach whitewater run take-out • Lickety Split whitewater run put-in • Two cameras SCE pole; looking upstream parking area/river and downstream parking area/river
25		Whiskey Flat Trailhead	Trailhead	No	<ul style="list-style-type: none"> • No river access

KR3 = Kern River No. 3; NFKR = North Fork Kern River; SCE = Southern California Edison

^a Site numbers referenced in the REC-2 Recreation Facilities Use Assessment Technical Memorandum; Sites 1 to 4 are located above Fairview Dam and Sites 5 to 25 are located along the NFKR Bypass Reach.

^b “Brush Creek is not used as a NF Kern whitewater put-in or takeout by noncommercial boaters and is only used by commercial outfitters when the Johnsondale Bridge loading zone is too crowded, or occasionally as a lunch site for paying guests.” (email communication from Kern River Boaters dated 3/17/2023, refer to REC-2 Technical Memorandum, Appendix E [SCE, 2023]).

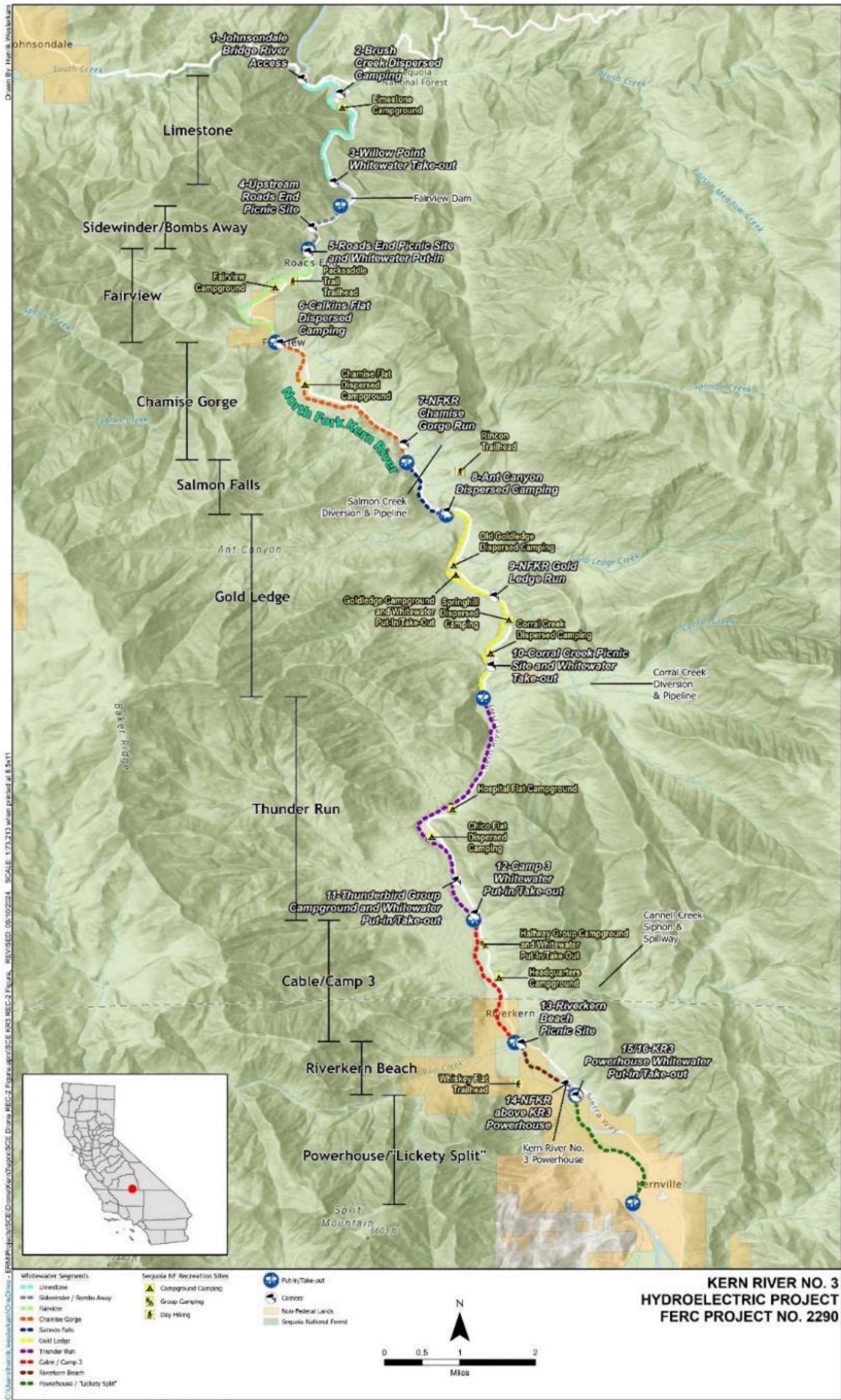


Figure 4-1. Whitewater Runs and Recreation Sites Above Fairview Dam and Along the Fairview Dam Bypass Reach.

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5.0 EXISTING INFORMATION

Results of this study will also reference, or incorporate as applicable, other ongoing relicensing FERC-approved study plans including:

1. REC-1 Whitewater Boating Flow Study Technical Memorandum (SCE, 2024a, 2024b; October 9, 2023; March 1, 2024; March 29, 2024)
2. REC-2 Recreation Facilities Use Assessment Technical Memorandum (SCE, 2024c; July 1, 2024)

6.0 STUDY APPROACH

To accomplish the goals and objectives of the river use estimates Study Plan modification, SCE will use trail cameras to record visitor use at multiple river access sites in the study area. The cameras will be in place to record visitor use for 1 year and will provide a basis to derive quantitative estimates of recreation use, specifically targeting non-commercial boater use, and other key metrics as directed by FERC. A more detailed description of the camera approach is provided below.

6.1. CAMERA INSTALLATION

SCE will install high resolution trail (outdoor) cameras that include a 120-degree detection angle). The cameras will be secured to SCE power poles where possible, or attached to trees, posts, or other landscape features. SCE will generally attempt to install the cameras in inconspicuous locations at each site to help minimize the potential for vandalism or theft. The cameras will be positioned to allow adequate viewing of the ingress/egress location and adjacent parking area that boaters are most likely to use. For river-reach viewing segments, the viewing length of the river segment will be considered when selecting final camera placement to provide for the longest viewing segment possible.

Additionally, to further help address any potential privacy concerns, the cameras will be positioned such that they minimize views of restroom facilities whenever feasible.

6.2. CAMERA USE AND PHOTOGRAPH MANAGEMENT

SCE will program the cameras to take one photograph every 5 minutes (as suggested by both Forest Service and boaters during consultation) from dawn to dusk³. This programmed schedule would result in 12 photographs every hour, resulting in approximately 108 to 144 photos per day/per camera over the 9- to 12-hour period of daily data collection.

SCE will deploy staff to routinely check that the cameras are functioning and to download photos. All downloaded photographs will be organized electronically by site and date. In addition, they will be subject to a quality assurance/quality control (QA/QC) check (date,

³ Approximately 7 a.m. to 7 p.m. in spring through fall (April 1 to September 30) and 8 a.m. to 5 p.m. late fall through winter (October 1 to March 31).

time, location, field of view, etc.). All digital files will be subject to SCE's electronic data storage and backup processes.

SCE will install and maintain the cameras for the 1-year study period. If a camera is not functioning properly, SCE will replace the camera and continue to collect data as soon as possible. SCE will notify the Forest Service within 5 working days following discovery if a camera malfunctions and needs to be replaced. If the cameras are vandalized or stolen, SCE will replace the camera once during the study period. Additionally, if a camera is stolen, alternative locations will be evaluated and if an alternative location is identified, SCE will notify the Forest Service of the revised location for their approval prior to installation.

Any data collection variances that occur over the year of data collection will be noted in the final Technical Memorandum.

6.3. ANALYSIS OF PHOTOGRAPHS

6.3.1. ARTIFICIAL INTELLIGENCE

Given the anticipated number of photographs (potentially more than 730,000), SCE plans to leverage the capabilities of available artificial intelligence (AI) models to perform an initial analysis of the photographs. SCE data scientists will use the Google Gemini Application Programming Interface (API) to create a custom AI model (based on existing models) that can be used to identify specific features in photographs (e.g., presence of watercraft, etc.). The base Gemini API is able to describe the elements or content in a photograph, quantify and summarize elements, and extrapolate quantitative summaries for additional analysis. To help improve the accuracy of this process, SCE will fine-tune Google Gemini on several existing sets of photographs that are available for some of the river access sites. This domain-specific fine-tuning will allow the model to extract the specific types of data and information needed to address the study objectives. During the development of the AI solution, SCE data scientists will also include an active learning loop where photographs with misclassified objects are identified and added back to the training dataset with corrected labels to iteratively improve model performance.

SCE will verify the accuracy of the extracted data by conducting spot checks on the photographs. Staff will randomly select a minimum of 10 photographs per month to view and compare the actual vehicle, people, and other characteristics present to the AI extracted data. Updates will be made, as necessary, to both the AI model, as well as any statistical adjustments to the analysis to account for accuracy concerns.

Related to accuracy, in preliminary testing the Gemini API is highly accurate (97 percent) at correctly identifying and counting the number of people and vehicles present in a photograph. Additionally, preliminary testing indicates that the model is also able to identify various watercraft (by type and total count) and distinguish differences between commercial and non-commercial boaters based on specific criteria (see below). However, these additional characteristics may prove more challenging to consistently and

accurately extract from the photographs. Therefore, SCE will use AI in a tiered approach to analyze the photographs:

1. Use AI to conduct a preliminary analysis to determine if boats/boaters are present at each location.
2. From the subset of photographs where boats/boaters are detected, conduct additional analyses on a sub-set of the photographs to complete a more detailed review and summary of these other visitor characteristics. A stratified approach will be applied to select a random set of days and photographs for further analysis. At a minimum, the year-long study period would be split into two strata: (1) peak whitewater boating season (April 1 through July 31), and (2) non-peak season (August 1 through March 30). Additional strata may also be defined, as needed, to facilitate the analysis potentially including weekday and weekend days, days at specific flow ranges, and others. Sample days and photographs will then be selected randomly within the identified strata. Photographs on the randomly selected days will then be assessed for the other visitor characteristics (commercial and non-commercial use, watercraft types) and summarized (Section 6.3.2).

AI capabilities are rapidly evolving; new techniques and improvements may be available throughout the yearlong period and into the analysis phase of this study. SCE may incorporate any model improvements and new extraction techniques as feasible during the study to help improve the outcomes.

6.3.2. PHOTOGRAPH DATA AND INFORMATION

To facilitate the analysis, SCE will compile the following primary types of data and information from the photographs:

- Metadata for each photograph including:
 - Location (river access site)
 - Date
 - Time
- Using the Gemini API model (to the greatest level of accuracy possible), extract data including:
 - Number of vehicles
 - Number of people
 - Boater/boating criteria identified (Yes/No) (refer to Section 6.4, *Data Analysis*, for a description of the criteria to be used)
 - If yes,
 - Number of commercial and non-commercial boaters
 - Count of watercraft types

The metadata and extracted data and information from the photographs will then be used to establish use estimates, trends and patterns, and visitor characteristics (see Section 6.4).

6.4. DATA ANALYSIS

SCE will analyze the data and information extracted from the photographs to address the study objectives, including:

- Estimate of river-focused recreation use. Based on both photograph analysis approaches (the presence/absence of boaters and boater vehicle and boater counts), SCE will estimate the amount of river-focused recreation at the river access sites. The estimate will be presented as a range of use levels as opposed to a discrete number (a discrete number implies a level of precision that is generally infeasible in studies with spatial and temporal variability). While a 5-minute time interval on the photos provides a high level of coverage of the river access sites, it is not a census of all recreational users on the river. In particular, there are additional dispersed recreation use areas that provide river access that are not included in the study. Furthermore, all use level estimates will be provided in recreation days (a visit to the area for any portion of a 24-hour period) and not individual visitors.

Use levels will be estimated for each river access site with a camera and aggregated across the entire study area. In addition, trends and use patterns will also be assessed and compiled. These trends and patterns will be based on the relative percentage of use compared to other sites, as well as to specific time periods (e.g., weekdays and weekend days, monthly, seasonal, flow levels, etc.).

Since most of the camera locations do not capture the full extent of parking areas at the river access sites, parking capacity estimates will instead be determined based on the parking area visible within the frame of view. The number of vehicles in a photograph will be compared to the parking area in the frame of view to estimate a parking utilization (capacity) for each river access site.

Note: given the 5-minute frequency of photographs, there is a high potential to double-count visitors and vehicles. Statistical adjustments may occur to account for any potential double-counting and varying lengths of stay.

- Estimates of other use characteristics. In addition to general use level estimates, SCE, through the use of Gemini API model, will also use the photographs to estimate commercial versus non-commercial boating use, as well as the types of watercraft used in the study area. The intent is to determine the relative percentage of types of boaters (commercial, non-commercial) and their respective use patterns in the study area (e.g., access locations, timing, etc.). The summary of boat types will inform the distinction between boater type and will also be used as an indicator of the types of boating opportunities available in the study area (to augment the results from the REC-1 study).

There are a number of different types of watercraft used in the study area (see REC-1 Technical Memorandum discussion). To help facilitate AI analysis and reporting, watercraft will be grouped into the following categories to the greatest extent possible utilizing the Gemini API model:

- Individual rafts (one to two person) (i.e., paddle rafts, oar rafts, catarafts, and shredders)
- Large rafts (i.e., paddle rafts for four to eight people)
- Kayaks (if possible, differentiate hardshell from inflatable and packrafts)
- Other (i.e., standup paddle board, inner tube, etc.)

The following criteria will be used to help identify and/or distinguish between non-commercial and commercial boaters (not all criteria may be exclusive to commercial boating, but photographs would be flagged for further analysis):

- Parked van, bus, or other logoed⁴ commercial outfitter vehicle
- Large groups of boaters
- Logoed boating gear from the authorized outfitters such as personal flotation devices (PFDs), helmets, paddles, etc.
- Large rafts that accommodate parties of four to eight or more people

Note: The estimates of commercial boating may also be augmented with information from the Forest Service (outfitter permits) and/or outfitter customer data pending availability of this information.

With the large volume of photographs collected and the estimated storage requirement (4 to 5 terabytes), representative photographs will be appended to the final Technical Memorandum.

7.0 REPORTING

SCE will prepare an addendum to the REC-2 Technical Memorandum following the completion of data collection from the installed cameras and file it with FERC. The Technical Memorandum will describe the methods and approach used to install the cameras and data collection efforts; describe in detail the methods used to analyze the photos collected; the data analysis; a summary of consultation, including SQF approval of camera locations; and any study plan variances that occurred.

⁴ Commercial outfitters with permits to operate on the NFKR include Momentum River Expeditions, Sierra South, and Whitewater Voyages.

8.0 SCHEDULE

SCE is proposing to conduct this study as outlined below.

Timeframe	Activity
July–September 2024	<ul style="list-style-type: none"> Consult with the Forest Service on use and installation of cameras. Outreach to interested agencies and boating community regarding study approach and methodology. Request for additional camera installation locations.
12 months (estimated October ^a 2024–October 2025)	<ul style="list-style-type: none"> Install cameras and begin data collection effort. Routinely download data from cameras. Conduct monthly QA/QC of data.
October 2024	<ul style="list-style-type: none"> Include study proposal as part of Updated Study Report (USR) filing, including documentation of consultation efforts. Obtain FERC ruling on study approach (expected February 2025).
Fall/Winter 2025	<ul style="list-style-type: none"> Following completion of 1-year data collection, analyze photographs and prepare REC-2 Technical Memorandum Addendum.
Winter 2025/Spring 2026	<ul style="list-style-type: none"> File REC-2 Technical Memorandum Addendum with FERC. Consult with agencies and relicensing participants on Technical Memorandum Addendum.

PM&E = protection, mitigation, and enhancement; QA/QC = quality assurance / quality control.

^a Installation pending Forest Service approval and initiates the 1-year of data collection.

9.0 LEVEL OF EFFORT AND COST

The estimated total cost of the study is approximately \$450,000 (2024 dollars). This cost estimate is based on the following:

- Trail cameras and associated hardware: \$10,000
- Forest Service and Stakeholder consultation: \$10,000
- Camera installation: \$15,000
- Periodic download of data; post-field data organization and QA/QC: \$225,000
- AI photo analysis (AI database creation and analysis): \$115,000
- AI QA/QC and final data analysis: \$35,000
- Reporting: \$40,000

10.0 REFERENCES

FERC (Federal Energy Regulatory Commission). 2022. *Study Plan Determination for the Kern River No. 3 Hydroelectric Project*. Accession No. 20221012-3024. October 12.

FERC (Federal Energy Regulatory Commission). 2024. *Determination of Requests for Study Modification and New Studies*. Accession No. 20240530-3030. May 30.

SCE (Southern California Edison). 2023. *Kern River No. 3 Hydroelectric Project, FERC Project No. 2290-122; Initial Study Report*. Accession No. 20231009-5229. Filed with FERC on October 9, 2023.

SCE (Southern California Edison). 2024a. *Kern River No. 3 Hydroelectric Project, FERC Project No. 2290-122; Request to File Study Results*. Accession No. 20240301-5315. Filed with FERC on March 1, 2024. (REC-1 TM, Level 1 structured interview questionnaire).

SCE (Southern California Edison). 2024b. *Kern River No. 3 Hydroelectric Project, FERC Project No. 2290-122; Addendum to Initial Study Report*. Accession No. 20240329-5136. Filed with FERC on March 29, 2024 (REC-1 TM, Level 3 single flow survey).

SCE (Southern California Edison). 2024c. *Kern River No. 3 Hydroelectric Project, FERC Project No. 2290-122; Draft License Application*. Accession No. 20240701-5180. Filed with FERC on July 1, 2024. (Vol II, Appendix E2, REC-2 TM).

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APPENDIX A PROPOSED CAMERA LOCATIONS

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1: JOHNSONDALE BRIDGE RIVER ACCESS

Camera mount on tree looking across stream to river/river access location. Access install site from hiker steps on far side of parking area.



2: BRUSH CREEK DISPERSED CAMPGROUND

Mount on SCE pole located above site along Sherman Pass Road.



3: WILLOW POINT WHITEWATER TAKE-OUT

Mount camera on V in tree with danger/take-out sign. Orange box denotes the take-out location.



4: ROADS END NON-COMMERCIAL BOATER PUT-IN

Shoulder pull-off upstream of Roads End site. SCE pole at upstream end. Site used by non-commercial boaters.



5: ROADS END PICNIC AREA AND WHITEWATER PUT-IN

Install on tree adjacent to restroom building; view of boater access location and some river views.



6: CALKINS FLAT DISPERSED CAMPING

Install on tree across street from upstream entrance, view of boater access location to river. Orange box in photos denote boater access point and will attempt to angle camera to capture as much of the parking lot as possible.



7: CHAMISE GORGE RUN

Install along upper roadway on tree looking down/upstream of the Chamise Gorge whitewater run. Camera in tree along upper road segment.



8: ANT CANYON DISPERSED CAMPING

Large tree across street from entrance of parking area and will attempt to angle camera to capture as much of the parking lot as possible.



9: NFKR GOLDEDGE RUN

Camera placement in final review but will be angled to capture views of the NFKR between Goldledge Campground and Springhill Dispersed Campground. Red bracket denotes targeted stream reach.



10: CORRAL CREEK PICNIC SITE AND WHITEWATER TAKEOUT

Tree located on picnic/river side looking toward parking area.



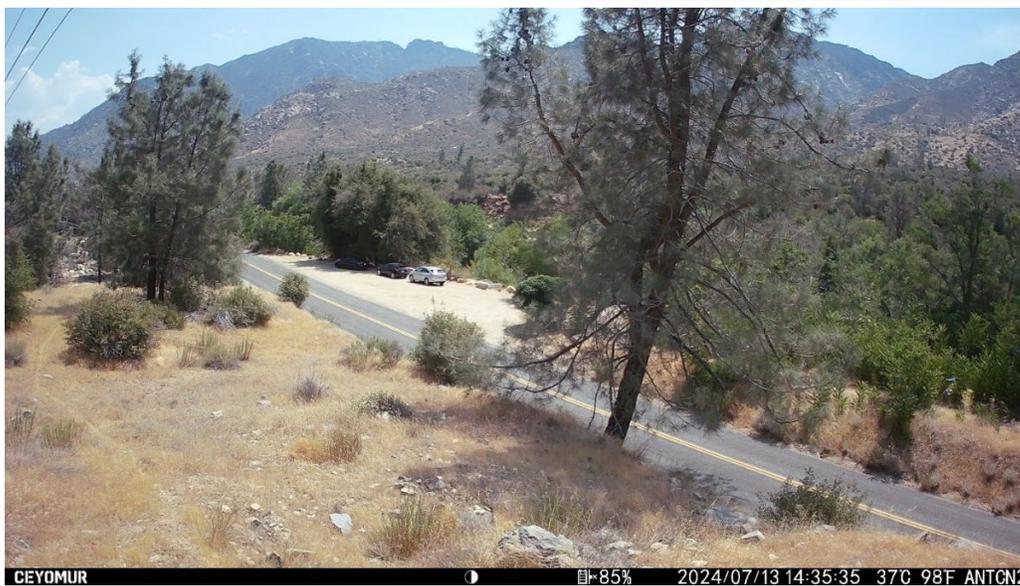
11: THUNDERBIRD GROUP CAMPGROUND AND WHITEWATER ACCESS

Camera on SCE pole facing WW/DU parking on river side and shoulder parking across street. Camera would not capture any of the group campground.



12: CAMP 3 WHITEWATER PUT-IN/TAKE-OUT

SCE pole across street and slightly upstream of parking area. Do best to angle camera to capture parking area and downstream road only. Edge of one campsite may be in the frame of view but is mostly blocked by an existing tree.



13: RIVERKERN BEACH PICNIC SITE

Camera mounted on t-post alongside of cliff. Camera facing south to capture roadside parking and larger parking area across street.



14: NFKR ABOVE KR3 POWERHOUSE

Mounted camera on railing at powerhouse. View of river upstream.



15/16: KR3 POWERHOUSE PUT-IN/TAKE-OUT

Two cameras on same pole upstream of SCE garage located in middle of site to capture upstream and downstream parking areas.



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APPENDIX B
CONSULTATION RECORD

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June 17, 2024
USFS Consultation

From: [Meg Richardson](#)
To: [Watson, Alfred -FS](#); [Edwards, Anthony - FS, CA](#); [karen.miller@usda.gov](#); [Steele watt, Kristen - FS](#); [Lundgren, Eric - FS, CA](#); [Maureen.Wooley@usda.gov](#); [Kelly, Tim- FS](#); [monique.sanchez@usda.gov](#); [Alvarez, Dawn -FS](#); [Aguirre orozco, Victor - FS, CA](#); [Rozar, Ronald - FS, CA](#); [Holland, Nicole - FS, CA](#); [Stone, Keith -FS](#); [Bonnette, Anna - FS, CA](#); [Block, Brian - FS, CA](#); [Johnston, Barbara - FS, PORTERVILLE, CA](#)
Cc: [Smith, Julie](#); [Cornelio Artienda](#); [Stephanie Fincher](#); [Meg Richardson](#); [Jillian Roach](#); [Audry Williams](#); [Daniel Keverline](#); [Ramon Anzaldo](#); [Martin Ostendorf](#); [Ryan, Kendra](#); [Sussman, Patricia](#)
Subject: SCE/USFS - Kern River No. 1 (FERC No. 1930) Relicensing TSP Implementation Updates - VIRTUAL
Date: Monday, June 17, 2024 4:30:15 PM
Attachments: [image001.png](#)
[Kern River No. 1 FERC SOF June 2024 .pdf](#)
[20240530-3030 P-2290-122 Study Modification Determination.pdf](#)

EXTERNAL MESSAGE

Good afternoon. Thank you to everyone who was able to participate in today's SCE/USFS Kern River No. 1 P-1930 meeting. I have attached a.pdf version of our presentation used during the meeting (*first attachment*) .

SCE also shared FERC's Study Modification Determination (*second attachment*) and its directive on cameras for the Kern River No. 3 P-2290 relicensing. SCE appreciates the USFS willingness to further review/discuss the potential locations for camera installation, and understands that the prior USFS OGC determination that any cameras in fee-campgrounds is a definite NO.

Action Items

KR3

- Coordinate virtual Working Session to Review Camera Locations – SCE to coordinate a date with USFS team for some time in July

KR1

- Survey Box Installation - Cultural and Bio Memos – SCE to email to USFS team for review/concurrence
- Facility Condition Assessment Form – SCE to email to USFS team for review/concurrence
- Land Reconnaissance Survey Methods Memo – SCE to email to USFS team for review/concurrence
- Camera Memo Review with USFS OGC – In Progress/ USFS tracking

SCE noted a few USFS Contact Updates:

- William "Billy" Brown will be the KRRD point of contact into the future for items related to FERC. His start date is today June 17th (USFS please provide Billy's email address)
- Al Watson, District Ranger Kern River Ranger District, but will be moving to Montana as the supervisor on the Beaverhead Deerlodge National Forest and Dillon Mt. - alfred.watson@usda.gov **CONGRATULATIONS!**
- Victor Aguirre Orozco, social scientist with the hydropower assistance team - victor.aguirreorozco@usda.gov add to all communications related to Borel, Kern River No. 1, and Kern River No. 3

Please reach out to me with any questions or feedback. Thank you for your continued coordination and collaboration on this Project and across all of SCE's work.

Stay Safe. Be Well. Practice Kindness.

Meg

Mary M. Richardson “Meg”

She/Her/Hers Pronouns

Borel Hydroelectric Project, Kern River No. 1 Project, and Kaweah Project LSA/DP – Project Manager [Hydro Relicensing \(sce.com\)](#)

Dam and Public Safety, Emergency Preparedness and Security, FERC Licensing- Senior Advisor Generation

M: 626.238.2902

[Meg Richardson | LinkedIn](#)

mary.m.richardson@sce.com

See something strange, say something! – Contact Edison Security Operation Center (ESOC) at 626-815-5611 24x7 to report any suspicious activity. Stay Secure and Be Safe!



USFS – SQF Review/Approval/Concurrence Kern River No. 3 P-2290 - REC-2 Recreation Facilities Use Assessment - Cameras – *Meg Richardson and Leo Artienda supporting effort*

May 30, 2024 – FERC issued Determination on Requests for Study Modifications and New Studies for Kern River No. 3 P-2290

[Link 20240530-3030 P-2290-122 Study Modification Determination.pdf](#)

FERC did not approve SCE's variance to not install cameras and conduct spot counts and **directed SCE to coordinate with USFS-SQF to install cameras:**

SCE should work with Sequoia National Forest to install cameras at all river access locations along the Fairview Dam bypassed reach and above Fairview Dam to Johnsondale Bridge to capture:

- (1) use-estimates including percent capacity at all river access locations;*
- (2) activity-type estimates, specifically commercial vs. non-commercial boaters, including the type of watercrafts used.*

The cameras should be deployed for one calendar year and capture use at reasonable intervals to record boating activity, or set to sense motion, depending on camera placement and its ability to detect movement at the river access.

If the Forest Service continues to assert that no cameras should be used, SCE must consult with interested stakeholders to determine any additional variances before implementing them. We estimate that redeploying trail cameras at each river access location in the study area, as recommended, would cost an additional \$1,000.

USFS – SQF Review/Approval/Concurrence

Kern River No. 3 P-2290 - REC-2 Recreation Facilities Use Assessment - Cameras

ASK-

Is USFS open to consideration/discussion on installation at approximately 14 rec sites?

- If YES – with whom should SCE coordinate with from USFS for review/approval?
- If YES – would like to try to install end of July – as soon as approved as will need to be in place one full year.
- If YES – dates for detailed working session to review approximately 14 locations.

From: [Meg Richardson](#)
To: karen.miller@usda.gov; monique.sanchez@usda.gov; [Aquirre orozco, Victor - FS, CA](#); [Edwards, Anthony - FS, CA](#); [Watson, Alfred -FS](#)
Cc: [Cornelio Artienda](#); [Meg Richardson](#)
Subject: IMPORTANT: Please Reply - Dates for SCE/USFS Kern River No. 3 Working Session for Cameras
Date: Tuesday, June 18, 2024 8:40:27 AM
Attachments: [image003.png](#)
[image004.png](#)
[20240530-3030_P-2290-122_Study Modification Determination.pdf](#)
Importance: High

(corrected address for Al Watson – we have an Al Watson at SCE, too:)

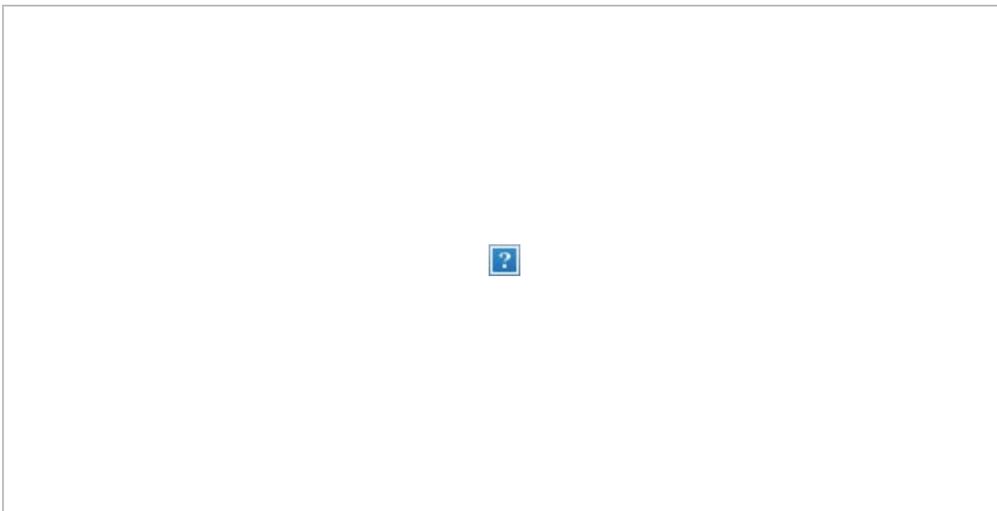
Good morning. Following up on our meeting yesterday, SCE committed to coordinating with USFS to find a date for SCE/USFS to review the FERC Study Modification Determination (attached) and discuss the camera installation options. This working session will be virtual.

Will any of these dates and times work for you in July:

July , Wednesday 1-2:50PM
July 24, Wednesday 1-2:50 PM
July 31, Wednesday 1-2:50 PM

Thank you in advance for your time and consideration.

We do not have an email for William “Billy” Brown; albeit I have found the following listings with USDA – please provide Billy’s email.



Stay Safe. Be Well. Practice Kindness.

Meg

July 31, 2024
USFS Consultation

From: [Jillian Roach](#)
To: [Meg Richardson](#); [Stephanie Fincher](#); [Martin Ostendorf](#); [Cornelio Artienda](#); [Sergio Capozzi](#); [Miller, Karen - FS, CA](#); [Edwards, Anthony - FS, CA](#); [Sanchez, Monique - FS, CA](#); [Holland, Nicole - FS, CA](#); [Aguirre orozco, Victor - FS, CA](#); [Brown, William - FS, CA](#); [Alvarez, Dawn -FS](#)
Cc: [Daniel Keverline](#); [Ramon Anzaldo](#); [Natalie Ho](#); [Ryan, Kendra](#)
Subject: (External):RE: Kern River No. 3 FERC 2290 SCE/USFS Revised Study Plan for Cameras - Working Session
Date: Tuesday, July 30, 2024 11:40:25 AM
Attachments: [image003.png](#)
[image004.png](#)
[REC-2_Camera Locations_2024 River Access-SQF Meeting_073124.pdf](#)
[20240530-3030_P-2290-122_Study Modification Determination \(1\).pdf](#)
[KR3 REC-2 Camera Install Overview_07-31-2024.pdf](#)

Team

In preparation for tomorrow's call to discuss the proposed locations for camera installation at KR3, please see the attached files for additional information that will be discussed in more detail on the call.

- FERC's Study Plan Order (see pg. B19-B23)
- Overview slide deck
- Map and site photos of proposed locations

Please reach out if you have any questions.

Thank you,
Jillian



Jillian Roach

Principal Consultant, Project Manager

980 9th St, Ste 750 Sacramento, erm.com
CA
M. 916.201.7746

-----Original Appointment-----

From: Meg Richardson <Mary.M.Richardson@sce.com>

Sent: Tuesday, June 18, 2024 8:45 AM

To: Meg Richardson; Stephanie Fincher; Jillian Roach; Martin Ostendorf; Cornelio Artienda; Sergio Capozzi; Miller, Karen - FS, CA; Edwards, Anthony - FS, CA; Sanchez, Monique - FS, CA; Holland, Nicole - FS, CA; Aguirre orozco, Victor - FS, CA; Brown, William - FS, CA; Alvarez, Dawn -FS

Cc: Daniel Keverline; Ramon Anzaldo; Natalie Ho; Ryan, Kendra

Subject: Kern River No. 3 FERC 2290 SCE/USFS Revised Study Plan for Cameras - Working Session

When: Wednesday, July 31, 2024 1:00 PM-2:30 PM (UTC-08:00) Pacific Time (US & Canada).

Where: Microsoft Teams Meeting

WARNING: The sender of this email could not be validated and may not match the person in the "From" field.

EXTERNAL MESSAGE

Greetings and Happy Summer! Following up on our meeting June 17th (*notes attached*) , SCE committed to coordinating with USFS on the FERC Study Modification Determination and discuss the camera installation options. This working session will be virtual.

SCE and our Kern River No. 3 Consultant team will provide the potential camera locations, suggested schedule, and other pertinent details for discussion.

Thank you in advance for your time and continued collaboration.

Stay Safe. Be Well. Practice Kindness.

Meg

Mary M. Richardson “Meg”

She/Her/Hers Pronouns

Borel Hydroelectric Project, Kern River No. 1 Project, and Kaweah Project LSA/DP – Project Manager [Hydro Relicensing \(sce.com\)](#)

Dam and Public Safety, Emergency Preparedness and Security, FERC Licensing- Senior Advisor
Generation

M: 626.238.2902

[Meg Richardson | LinkedIn](#)

mary.m.richardson@sce.com

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Microsoft Teams [Need help?](#)

[Join the meeting now](#)

Meeting ID: 249 740 490 029

Kern River No. 3 Project (P-2290)

REC-2 Recreation Facilities Use Assessment
FERC Study Plan Determination - Camera
Modification

July 2024

Purpose of Meeting

- Obtain USFS approval for camera locations for FERC-required camera study

FERC Determination on Study Modifications (May 30, 2024):

SCE should work with Sequoia National Forest to install cameras at all river access locations along the Fairview Dam bypassed reach and above Fairview Dam to Johnsondale Bridge to capture:

- (1) use-estimates including percent capacity at all river access locations;*
- (2) activity-type estimates, specifically commercial vs. non-commercial boaters, including the type of watercrafts used.*

The cameras should be deployed for one calendar year and capture use at reasonable intervals to record boating activity, or set to sense motion, depending on camera placement and its ability to detect movement at the river access.

Study Goals and Objectives

- Document and estimate recreation use and percent capacity at each river access site
- Compile estimates of other use characteristics of each site:
 - 1) types of river-based activities
 - 2) types of river access site users (e.g., commercial versus non-commercial whitewater boaters)
 - 3) types of watercraft

Camera Installation

- Temporarily attached to SCE power poles, facilities, or trees in inconspicuous locations to minimize the potential for vandalism or theft
- Positioned to view river access locations
 - including instream and land-based use (the width of the river and the riverbank put-in/take-out area where possible)
- Cameras equipped with solar power and battery backup
- Routinely download photos to reduce potential data loss

Proposed Camera Locations

- 12 total proposed monitoring locations (13 cameras)
- [REC-2 Camera Locations 2024 River Access](#)

Camera Site ID	Site Name	Site Type
1	Johnsondale Bridge River Access	Day Use
2	Willow Point Whitewater Take-out	Day Use
3	Roads End Picnic Site and Whitewater Put-in	Day Use
4	Calkins Flat Dispersed Camping	Dispersed Camping
5	NFKR Chamise Gorge Run	NFKR view
6	Ant Canyon Dispersed Camping	Dispersed Camping
7	Corral Creek Picnic Site and Whitewater Take-out	Day Use
8	Thunderbird Group Campground and Whitewater Put-in/Take-out	Day Use portion of site
9	Camp 3 Whitewater Put-in/Take-out	Day Use
10	Riverkern Beach Picnic Site	Day Use
11	NFKR above KR3 Powerhouse	NFKR view
12 / 13	KR3 Powerhouse Whitewater Put-in/Take-out	Day Use

Photo Analysis

- Record key information from each photo:
 - Number of people and vehicles visible
 - Classify boating activity as commercial or non-commercial use
 - Watercraft types
 - Other recreation activities observed
- Given large number of photographs SCE is exploring options:
 - AI assisted photo processing
 - Stratified random sampling approach

Draft Schedule

Date	Activity
July/August 2024	Consult with the USFS on use and installation of cameras; obtain concurrence of camera locations Provide boating community with draft proposal for review and comment
Sep* 2024 – Sep 2025	Install cameras and begin data collection effort; routinely download data from cameras; conduct monthly QA/QC of data (*contingent on USFS approval)
October 2024	Include study proposal as part of Updated Study Report (USR) filing-including documentation of consultation efforts; obtain FERC ruling on study approach (January 2025)
Sep – Nov 2025	Analyze full data set and prepare Technical Memorandum; File with FERC
November 2025+	Consult with Agencies and Stakeholders on data and whitewater boating PM&E measure; file amended License Application

Next Steps

- Camera Location Review Process
 1. USFS approval of camera install locations (documentation)
 2. Boating community concurrence of locations
- Camera Installation
 - Coordination with SCE T&D and Veg. Mgmt
 - USFS notification?
- Study Implementation
 - One calendar year data collection
 - Routine site visit and photo downloads
 - Inform stakeholders of any theft or vandalism

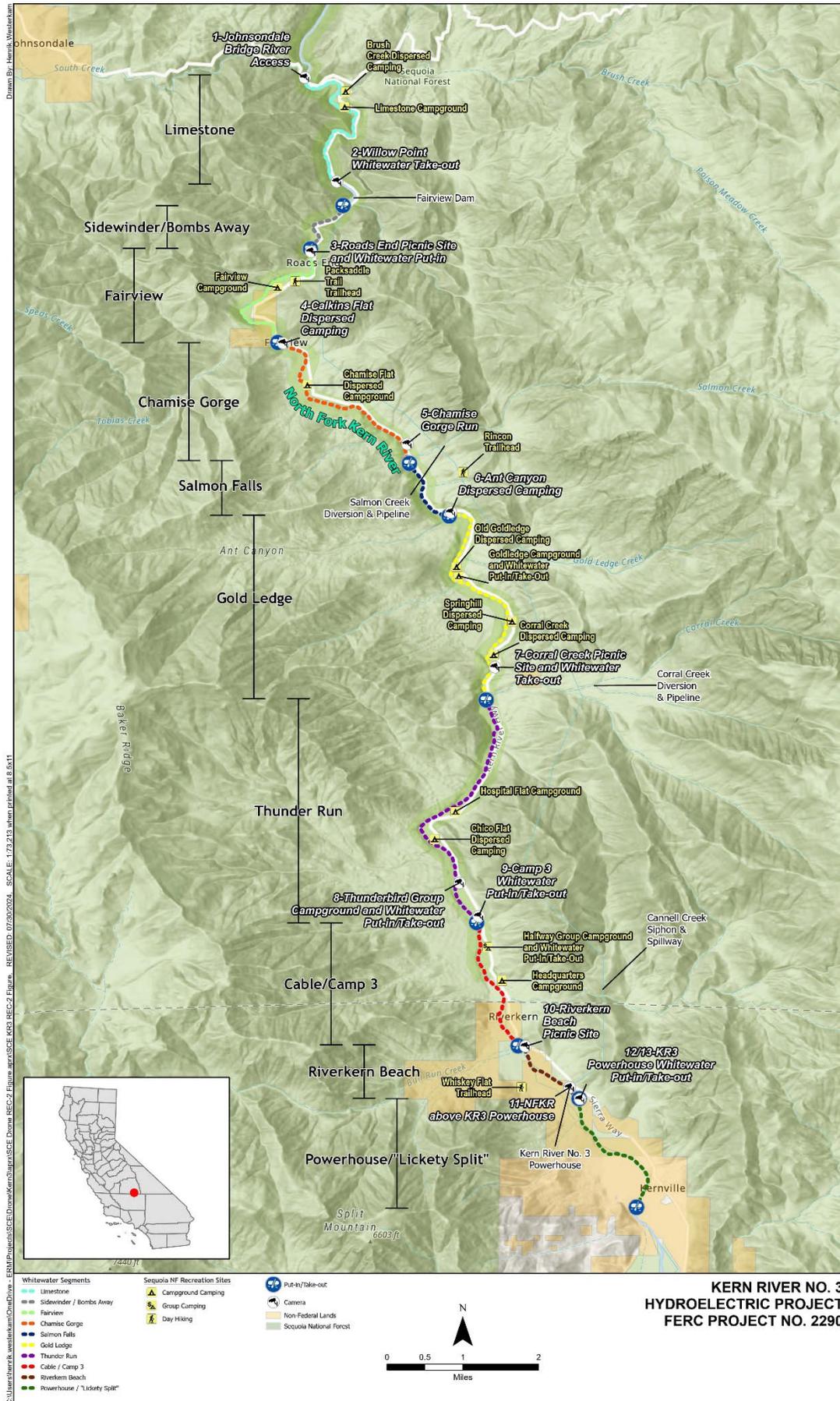


Figure 1. REC-2 Recreation Facility Use Assessment Recreation Study Plan Camera Locations.

Table 1. Recreation Facilities and Proposed Camera Locations

Camera ID Number	Site Name	Site Type	Camera	Rationale/Notes
1	Johnsondale Bridge River Access	Day Use	Yes	-River access location; Limestone whitewater run Put-in -Install camera on tree facing river access put-in (access via stairs). Views of path, river put-in and start of river run
	Brush Creek Dispersed Camping	Dispersed Camping	No	-Site located between whitewater run; not used by non-commercial boaters ^a
	Limestone Campground	Developed Campground	No	-USFS fee campground
2	Willow Point Whitewater Take-out	Day Use	Yes	-River access location; Limestone whitewater run Take-out -Install camera on tree with "take-out" sign. Camera facing downstream towards take-out and possibly some river views. Seasonal port-a-potty may be seen from afar
3	Roads End Picnic Site and Whitewater Put-in	Day Use	Yes	-River access location; Sidewinder / Bombs Away whitewater run Take-out/Fairview whitewater run put-in. -Install camera on tree next to restroom. Camera facing boater access route, possibly some river views
	Packsaddle Trail Trailhead	Trailhead	No	-No river access
	Fairview Campground	Developed Campground	No	-USFS fee campground
4	Calkins Flat Dispersed Camping	Dispersed Camping	Yes	-River access location; Fairview whitewater run take-out/ Chamise Gorge whitewater run put-in -Install camera on tree across from road. Camera facing boater access route, possibly some river views. Port-a-potty seen in foreground
	Chamise Dispersed Camping	Dispersed Camping	No	-Site located in middle of whitewater run; cameras upstream/downstream at put-in/take-out. Not needed here.
5	NFKR Chamise Gorge Run	NFKR view	Yes	-Chamise Gorge whitewater run; Take-out/start of Salmon Falls whitewater run. -Camera in tree along upper road segment.
	Rincon Trailhead	Trailhead	No	-No river access
6	Ant Canyon Dispersed Camping	Dispersed Camping	Yes	-River access location; Salmon Fall whitewater run take-out/ Gold Ledge whitewater run put-in -Install camera on tree across street from site; obtain view of whole parking area -Camera facing parking lot/river access routes (commercial put in downstream end; non-commercial put-in upstream end). Port-a-potty seen in foreground

Camera ID Number	Site Name	Site Type	Camera	Rationale/Notes
	Old Goldledge Dispersed Camping	Dispersed Camping	No	-Site located between whitewater run segments, cameras at put-in/take-outs
	Goldledge Campground and Whitewater Put-in/Take-out	Developed Campground and Day Use	No	-River access within USFS fee campground; site located within whitewater run segment
	Springhill Dispersed Camping	Dispersed Camping	No	-Site located between whitewater run segments, cameras at put-in/take-outs
7	Corral Creek Picnic Site and Whitewater Take-out	Day Use	Yes	-River access location; Gold Ledge whitewater run take-out/Thunder Run whitewater run put-in -Camera in tree across from parking area; data collected from parking area. No view of river access (no trees to install camera)
	Corral Creek Dispersed Camping	Dispersed Camping	No	-Site located within whitewater run segment, cameras at put-in/take-outs
	Hospital Flat Campground	Developed Campground	No	-USFS fee campground
	Chico Flat Dispersed Camping	Dispersed Camping	No	-Site located within whitewater run segment, cameras at put-in/take-outs
	Thunderbird Group Campground	Developed Campground	No	-USFS fee campground
8	Thunderbird Group Campground and Whitewater Put-in/Take-out	Day Use	Yes	-River access location; Thunder Run whitewater run take-out/Cable / Camp 3 whitewater run put-in for non-commercial boaters -Install on SCE pole across street, angle camera to capture only parking area and road should parking, not the adjacent to USFS fee campground
	Camp 3 Campground and Whitewater Put-in/Take-out	Developed Campground	No	-USFS fee campground
9	Camp 3 Whitewater Put-in/Take-out	Day Use	Yes	-River access location; Thunder Run whitewater run take-out/Cable / Camp 3 whitewater run put-in for commercial boaters -Install on SCE pole across street, angle camera to capture only parking area not the adjacent to USFS fee campground
	Halfway Group Campground and Whitewater Put-in/Take-out	Developed Campground and Day Use	No	-Adjacent to USFS fee campground; located within whitewater run segment, cameras at put-in/take-outs
	Headquarters Campground	Developed Campground	No	-USFS fee campground

Camera ID Number	Site Name	Site Type	Camera	Rationale/Notes
10	Riverkern Beach Picnic Site	Day Use	Yes	-River access location; Cable / Camp 3 whitewater run take-out/Lickety Split put-in -Install on tree/t-post on hill above larger parking area (not capturing road-should parking). View of restroom
11	NFKR above KR3 Powerhouse	NFKR view	Yes	-Riverkern Beach whitewater run -Mounted on SCE powerhouse
12 13	KR3 Powerhouse Whitewater Put-in/Take-out	Day Use	Yes	River access location; Riverkern Beach whitewater run Take-out/Lickety Split whitewater run Put-in -2 cameras SCE pole; looking upstream parking area/river and downstream parking area/river
	Whiskey Flat Trailhead	Trailhead	No	No river access

^a"Brush Creek is not used as a NF Kern whitewater put-in or takeout by noncommercial boaters, and is only used by commercial outfitters when the Johnsondale Bridge loading zone is too crowded, or occasionally as a lunch site for paying guests." (email communication from Kern River Boaters dated 3/17/2023, refer to REC-2 Technical Memorandum, Appendix E).

Camera 1-Johnsondale Bridge Access

Camera mount on tree looking across stream to river/river access location. Access install site from hiker steps on far side of parking area, climb tree to mount.



Camera 2- Willow Point Whitewater Takeout

Mount camera on V in tree with Danger/Take out sign. Orange box denotes the take-out location.



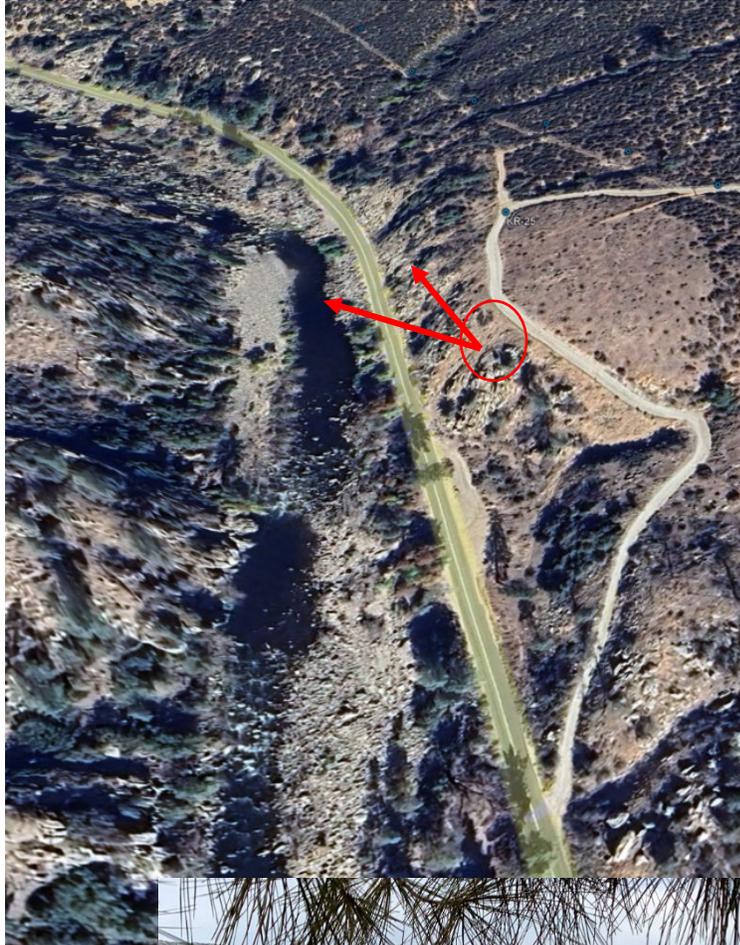
Camera 3 - Roads End Picnic Area/WHITEWATER Put in

Install on tree adjacent to restroom building; view of boater access location and possibly some river views.



Camera 4 - NFKR@ Chamise Gorge Run

Install along upper roadway on tree looking down/upstream of the-Chamise Gorge whitewater run.
Camera in tree along upper road segment.



Camera 5 - Calkins Flat Dispersed

Install on tree across street from upstream entrance, view of boater access location to river. Note view of restrooms in the foreground. Orange box in photos denote boater access point



Camera 6 - Ant Canyon Dispersed

Large tree across street from entrance of parking area.



Camera 7 - Corral Creek Picnic Site and Whitewater Takeout

Tree located on picnic/river side above sign/picnic table looking toward parking area.



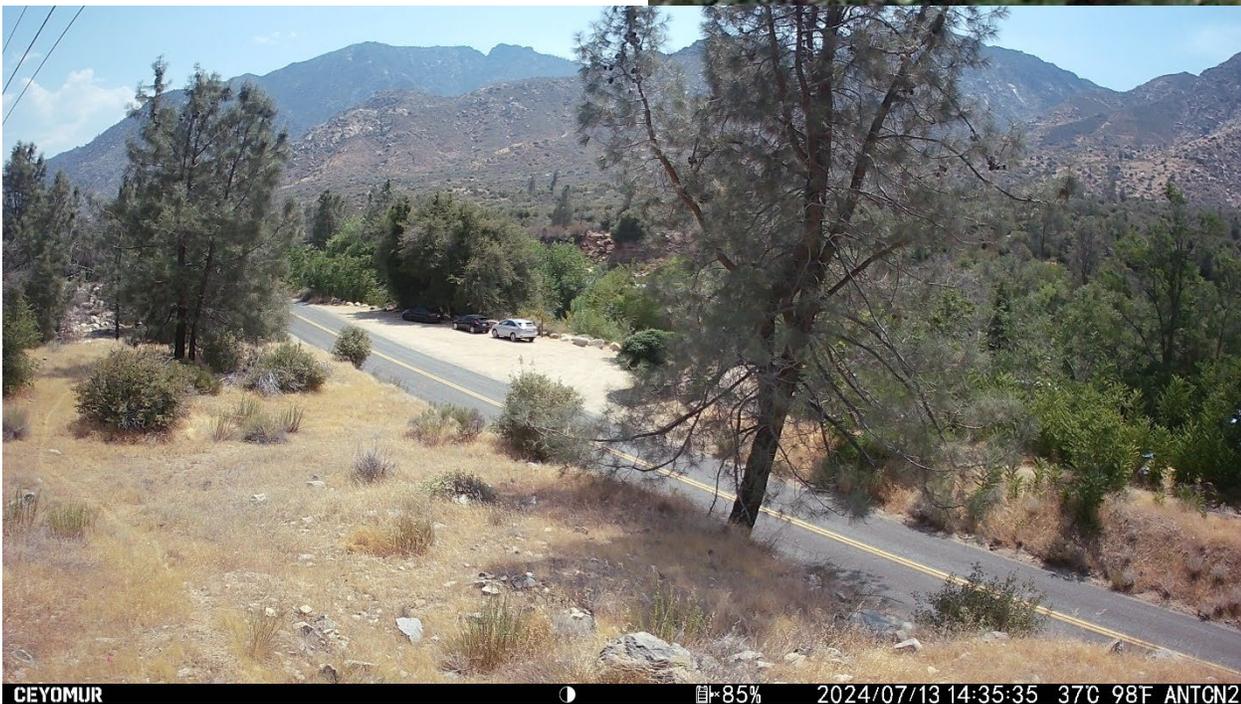
Camera 8 - Thunderbird Group Campground and Whitewater Access

Camera on SCE pole facing day-use parking on river side and shoulder parking across street. Camera would not capture any of the Group Campground.



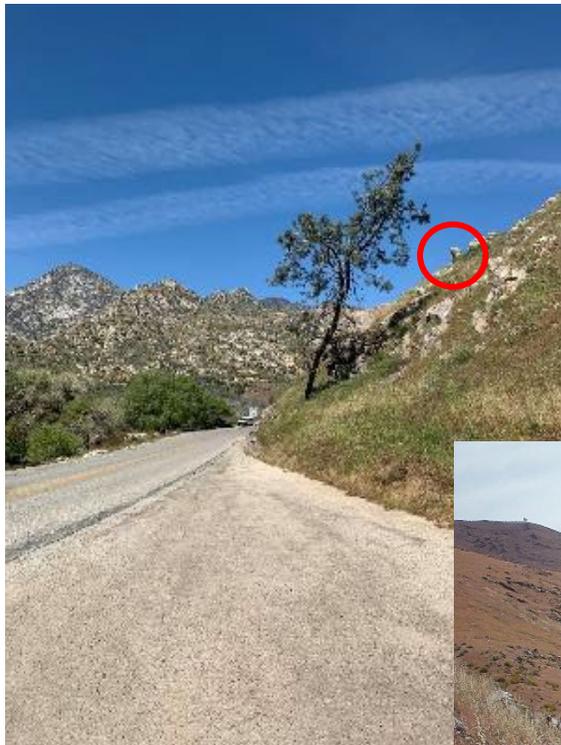
Camera 9 - Camp 3 Whitewater Put In

SCE Pole across street and slightly upstream of parking area. Angle camera to capture parking area and downstream road only. Note, edge of 1 campsite may be in the viewshed, but is mostly blocked by an existing tree



Camera 10 - Riverkern Beach Picnic Site

Camera mount on t-post along side of cliff. Camera facing south to capture larger parking area.



Camera 11 - NFKR Lickety Split @ KR3 Powerhouse:

Mount camera on railing at Powerhouse. View of river looking upstream.



Cameras 12/13 - KR3 Powerhouse Put-in/Take Out

2 cameras on same SCE pole upstream of garage, capture upstream and downstream parking areas.

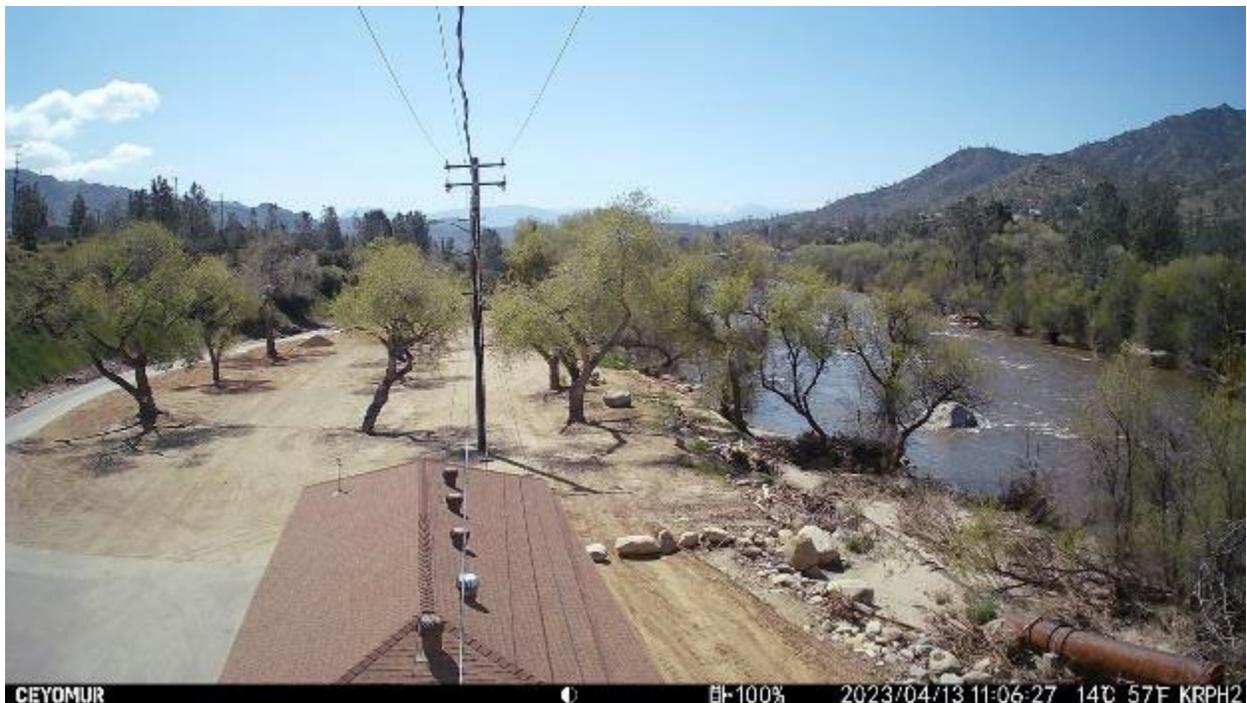


KR3 Powerhouse Put-in/Take Out, cont.

KRPH1 facing upstream towards PH



KRPH2 facing downstream towards WHITEWATER parking area



August 13, 2024

USFS Communication Regarding Proposed Camera Locations

From: [Johnston, Barbara - FS, CA](#)
To: [Jillian Roach](#); [Stephanie Fincher](#)
Cc: [Meg Richardson](#); [Miller, Karen - FS, CA](#); [Sanchez, Monique - FS, CA](#); [Brown, William - FS, CA](#)
Subject: Kern River No. 3 FERC 2290 SCE/USFS use of cameras
Date: Tuesday, August 13, 2024 9:51:39 AM

You don't often get email from barbara.johnston@usda.gov. [Learn why this is important](#)

EXTERNAL MESSAGE

Good morning! Billy Brown reviewed the proposed locations for the cameras you are proposing to use to get an idea of the number of boaters using the Kern River for recreational boating. Billy sent me his review:

I reviewed locations of all suggested camera placements and don't see any concerns related to privacy issues as they are all in publicly accessible areas that would not have any expectation of privacy. I think the camera locations were well thought out and should be able to capture the desired data.

Therefore, the Forest Service is approving the use of the cameras at the proposed locations.

Thank you,
Barbara

Barbara Johnston
Affiliate
Sequoia National Forest
220 East Morton Avenue
Porterville, CA 93257
barbara.johnston@usda.gov

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August 23, 2024

**SCE Formal Submittal and Request for Approval of Proposed Camera Locations
and Special Use Permit Application**

September 27, 2024

**SCE Updated Request for Approval of Proposed Camera Locations
and Special Use Permit Application**

From: [Chung Jordan](#)
To: [Johnston, Barbara - FS, PORTERVILLE, CA](#); [Edwards, Anthony - FS, CA](#); [Miller, Karen G -FS; monique.sanchez@usda.gov](#); [William.Brown2@usda.gov](#)
Cc: [Chung Jordan](#); [Stephanie Fincher](#); [Martin Ostendorf](#); [Meg Richardson](#); [Cornelio Artienda](#); [Jillian Roach](#); [Sergio Capozzi](#)
Subject: Kern River No. 3 FERC 2290 - REQUEST for Approval of Cameras (and SUP Submittal)
Date: Friday, August 23, 2024 10:41:06 AM
Attachments: [image002.png](#)
[image003.png](#)
[SF299 Att_REC-2 Camera Locations_2024 River Access.pdf](#)
[KR3 Rec Camera Locations.kmz](#)
[Att1_FERC Study Modification Determination.pdf](#)
[1_KR3 REC-2 Camera USFS Approval Request Letter_081424.pdf](#)
[SF299-23.pdf Cameras .pdf](#)

WARNING: The sender of this email could not be validated and may not match the person in the "From" field.

EXTERNAL MESSAGE

Hello Everyone,
Please see the attached documentation in support of the KR3 camera installations. SCE has a total of 12 camera locations, with 8 being outside the FERC Boundary and requiring forest authorization. See attachment SF299 Att REC-2 Camera locations. The 8 locations needing forest approval are identified on page 2 and 3.

After your review of the attached documentation, please let me know when SCE has approval to proceed with the installation of the cameras.

If you have any questions, or need any additional information, please let me know.
Thanks

Chung "Cissy" Jordan
Senior Right of Way Agent – Government Lands Department
Vegetation, Inspections & Operational Services (VI&OS)
Transmission & Distribution (T&D)
T. 559-684-3571 | C. 559-903-5360
2425 South Blackstone, Tulare, CA 93274



"You can never learn that Christ is all you need, until Christ is all you have."
-Corrie Ten Boom-

From: [Johnston, Barbara - FS, CA](#)
To: [Jillian Roach](#)
Cc: [Stephanie Fincher](#); Chung.Jordan@sce.com
Subject: RE: [External Email]RE: SCE Kern River No. 3: Recreation Camera Installation; Meeting follow-up
Date: Tuesday, September 17, 2024 9:50:41 AM
Attachments: [image001.png](#)
[SF299 KR3 Cameras.pdf](#)

You don't often get email from barbara.johnston@usda.gov. [Learn why this is important](#)

EXTERNAL MESSAGE

We need your application updated with the changes you are proposing in this email. Also, add details as to how the cameras will be attached to any trees if they are the most logical option.

I also received an application from Cissy. I have not had time to compare them. Are they the same or is Cissy's updated from the one I received on 8/14? I am forwarding Cissy's to you so you can see what I have from her.

Please send me one updated package unless there are actually 2 applications, and I am at fault for not taking the time to compare them.

Please let me know what is good and what isn't!

Thanks,
Barbara

Barbara Johnston
Affiliate
Sequoia National Forest
220 East Morton Avenue
Porterville, CA 93257
barbara.johnston@usda.gov

From: Jillian Roach <Jillian.Roach@erm.com>
Sent: Monday, September 9, 2024 12:38 PM
Cc: Stephanie Fincher <stephanie.fincher@sce.com>
Subject: [External Email]RE: SCE Kern River No. 3: Recreation Camera Installation; Meeting follow-up

[External Email]

If this message comes from an **unexpected sender** or references a **vague/unexpected topic**;
Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

Sent on behalf of SCE.

Dear Agencies and interested boaters

Thank you to those that attended the call on August 29th regarding the proposed camera locations to support the REC-2 study plan. For those of you who could not attend, SCE has attached a copy of the information presented during the call which summarized SCE's proposed camera locations.

A few key take-aways from the call include:

- SCE agreed to increase the picture frequency from 15 minutes to every 5 minutes
- Obtained feedback on proposed camera locations (see additional notes below)
- A detailed methodology and analysis for the camera study will be part of the USR filing due in October
 - SCE is finalizing the photo analysis methodology and study approach
 - If SCE has the methodology finalized prior to the filing of the Updated Study Report by October 11th, then SCE will provide it in advance

Additional changes following the call in response to Stakeholder feedback:

- All cameras will be set to record at 5 min intervals (rather than 15 min intervals as originally proposed)
- SCE will add 2-3 new camera locations, pending USFS approval (see below), for a total of 15-16 cameras as part of this study.

During the call and in a follow up email, comments were provided regarding proposed camera locations. Please see email attached. SCE has considered a few revisions to the camera locations, as noted below in [blue \(reordered upstream to downstream\)](#). For locations where additional cameras are proposed, SCE will conduct follow-up consultation with the USFS for final approval.

- Include parking lot activity at Brush Creek
 - [SCE will add a camera at this location that focuses on the parking lot, pending USFS approval.](#)
 - [Note, the purpose of this location is to evaluate potential overflow parking due to crowding concerns that may occur at Johnsondale Bridge put-in; as such this location may not be analyzed to the same level of detail as the other camera locations.](#)
- Noncommercial Fairview Segment Put In (USFS put in: kiosk/manifest box)
 - [SCE will add a camera at this location, pending USFS final approval.](#)
- Calkins Flat, expand coverage not just iron ranger location:
 - [The camera is focused on the primary boater access location where the “iron ranger” is located. SCE will attempt to angle to camera to capture as much of the](#)

- parking lot as possible.
 - Also, camera #5 (Chamise Gorge Run) has a view of the river and boating use along this whitewater run and use can be accounted for from that camera.
- River cam near the Chamise segment takeout, but there are three actual places boaters take out (red boxes at parking areas); each are frequently used depending on personal preference; however, large rafts only use the northernmost one.
 - Comment noted. Camera #5 (Chamise Gorge Run) has a view of this river segment and boating use will be accounted for with that view.
- Ant Canyon, there are five places boaters put in, much of it is personal preference (each has its own trail of varying difficulty and beach of varying size); as a result, their cars could be anywhere in the big lot:
 - Comment noted. When installing the camera, SCE will attempt to angle to camera to capture as much of the parking lot as possible.
 - Also, see response to “Geno creek” takeout below.
- Noncommercial “Geno creek” Ant Canyon Takeout, near MM16 on M99:
 - SCE will conduct a reconnaissance trip to evaluate if there is a suitable location along the Gold Ledge whitewater run to install a camera with a view of the river. Once a location is identified, SCE will consult with the USFS for final approval prior to installation.
- Dispersed camping area at Corral Creek
 - SCE has included the day-use parking site (#7) located just downstream. However, as noted in the bullet above, if a suitable river view location is identified along the Gold Ledge WW run (put in at Ant Canyon-take out at Corral Ck), boaters along this reach will be accounted for.
 - Also, the camera viewshed to capture the Corral Creek dispersed camping site would overlap with the private/paid camping facility located to the north, as such there is a reasonable expectation of privacy at that location.
- Halfway day use lot
 - The configuration of the developed (fee-based) facility and camera viewshed to capture the day use parking lot would overlap, as such this is not an accepted location by the USFS.
- Riverside Park (many who put in at Ant, Thunder, or Cables take out at Riverside Park *[below the project in Kernville]*).
 - Boaters would be captured/counted from the PH river camera (#11) and/or KR3 Powerhouse cameras (#12/13) that capture river views.

Meeting notes and other communication/consultation will be included as part of the Updated Study Report (USR) filing in Oct.

Thank you all for your continued support and interest in the KR3 Relicensing. If you have any questions, please reach out to Stephanie Fincher-DeMillo at stephanie.fincher@sce.com.



ERM

Sustainability is our business

Jillian Roach

Principal Consultant, Project Manager

980 9th St, Ste 750 Sacramento, erm.com
CA
M. 916.201.7746

From: Jillian Roach

Sent: Friday, August 16, 2024 9:43 AM

Cc: Stephanie Fincher <stephanie.fincher@sce.com>

Subject: SCE Kern River No. 3: Recreation Camera Installation

Agencies and interested boaters:

Southern California Edison (SCE) has initiated consultation with the Sequoia National Forest (SQF) regarding the installation of cameras at river access locations to support the KR3 relicensing effort. Specifically, this effort is to support the REC-2: Recreation Facilities Use Assessment Study Plan, per direction from the Federal Energy Regulatory Commission's (FERC) May 30, 2024 Determination on Requests for Study Modifications and New Studies.

SCE held discussions with the SQF on June 17 and July 31, 2024 to discuss and review proposed camera installation locations and is currently awaiting formal written approval from SQF.

Before proceeding with the camera installations, SCE would like to share the proposed locations with other agencies and interested boaters. SCE is scheduling a call to review the proposed camera locations along the North Fork Kern River, from Johnsondale Bridge and down along the Fairview Dam bypass reach to the KR3 Powerhouse put-in/take-out location.

Call Details:

- **Date:** Thursday, August 29, 2024
- **Time:** 1:00 PM - 2:00 PM Pacific
- **Meeting Link:** [[Teams Meeting Link](#)]
- **Call In:** 213-279-1475 ID: 463 615 051#

If you would like to participate in this call, please use the link provided above to join the Teams meeting.

Following formal approval from SQF, SCE will proceed with camera installation. The cameras

will be deployed for one calendar year as stipulated by FERC's Order. A summary of SCE's consultation with SQF, agencies and interested boaters, along with a detailed study approach and methodology, will be included in the Updated Study Report (USR) to be filed with FERC by October 11, 2024.

We look forward to your participation and feedback.

-Stephanie Fincher-DeMillo (SCE KR3 Relicensing Manager)



ERM

Sustainability is our business

Jillian Roach

Principal Consultant, Project Manager

980 9th St, Ste 750 Sacramento, erm.com
CA
M. 916.201.7746

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From: [Jillian Roach](#)
To: [Johnston, Barbara - FS, CA](#); [Edwards, Anthony - FS, CA](#); [Karen Miller](#); [Sanchez, Monique - FS](#); [Brown, William - FS, CA](#)
Cc: [Stephanie Fincher](#); Chung.Jordan@sce.com; [Cornelio Artienda](#); [Sergio Capozzi](#)
Subject: RE: Kern River No. 3 FERC 2290 - UPDATED REQUEST for Approval of Cameras (and SUP Submittal)
Date: Friday, September 27, 2024 9:38:00 AM
Attachments: [1_KR3 REC-2 Camera Approval Letter Updated Sept 2024.pdf](#)
[KR3 Rec Camera Locations.kmz](#)
[image001.png](#)
[SF299 Att2_REC-2 Camera Locations_2024 River Access_Updated Sept 2024.pdf](#)
[Kern River No. 3 FERC 2290 - REQUEST for Approval of Cameras \(and SUP Submittal\).msg](#)

Sent on behalf of SCE

Dear Forest Service,

Please see the attached **revised** documentation in support of the KR3 camera installations.

Based on feedback from the boating community, SCE is now proposing a total of 15 camera locations, with 11 locations outside the FERC Boundary and requiring forest authorization. At 9 of these locations, cameras would be installed on a tree or t-post (rather than on SCE powerpole). See attachment SF299 Att REC-2 Camera locations. Additional locations are shown in **red text**.

After your review of the attached documentation, please let SCE (Stephanie Fincher) know when they have approval to proceed with the installation of the cameras.

If you have any questions, please reach out to either myself or SCE (Cissy or Stephanie) if you need any additional information.

Thank you,

Jillian



ERM

Sustainability is our business

Jillian Roach

Principal Consultant, Project Manager

980 9th St, Ste 750 Sacramento, erm.com
CA
M. 916.201.7746

From: Johnston, Barbara - FS, CA <Barbara.Johnston@usda.gov>

Sent: Tuesday, September 17, 2024 9:50 AM

To: Jillian Roach <Jillian.Roach@erm.com>

Cc: Stephanie Fincher <stephanie.fincher@sce.com>; Chung.Jordan@sce.com
Subject: RE: [External Email]RE: SCE Kern River No. 3: Recreation Camera Installation; Meeting follow-up

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EXTERNAL MESSAGE

We need your application updated with the changes you are proposing in this email. Also, add details as to how the cameras will be attached to any trees if they are the most logical option.

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Barbara

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220 East Morton Avenue
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barbara.johnston@usda.gov

From: Jillian Roach <Jillian.Roach@erm.com>
Sent: Monday, September 9, 2024 12:38 PM
Cc: Stephanie Fincher <stephanie.fincher@sce.com>
Subject: [External Email]RE: SCE Kern River No. 3: Recreation Camera Installation; Meeting follow-up

[External Email]

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Sent on behalf of SCE.

August 29, 2024

Boater Outreach Consultation

(meeting invitation, meeting materials, and notes)

From: [Jillian Roach](#)
Cc: [Stephanie Fincher](#)
Bcc: [Sanchez, Monique - FS](#); [lilian_jonas@contractor.nps.gov](#); [stephen_bowes@nps.gov](#); [barbara_rice@nps.gov](#); [anna_tamura@nps.gov](#); [Susan_Rosebrough@nps.gov](#); [patrick_johnston@nps.gov](#); [alyssa_l_walker@nps.gov](#); [catherine_brown@nps.gov](#); [Brown, William - FS, CA](#); [Aguirre_orozco, Victor - FS, CA](#); [Barbara.Johnston@usda.gov](#); [Edwards, Anthony - FS, CA](#); [Karen Miller](#); [NNIKIRK62@GMAIL.COM](#); [lacey2u@sbcglobal.net](#); [bethjens@gmail.com](#); [riverlakere@gmail.com](#); [laceypayne89@gmail.com](#); [tsherman91@gmail.com](#); [johnwarnshuis@att.net](#); [joshbull@icloud.com](#); [johnryan009@yahoo.com](#); [kirillmyagkov1@gmail.com](#); [anthea_raymond@gmail.com](#); [calmyoga@gmail.com](#); [lizbrackbill@gmail.com](#); [mtndjd@gmail.com](#); [farrelmj@lacitycollege.edu](#); [joseluispino@gmail.com](#); [allisonstrabic@gmail.com](#); [amin.nikravan@gmail.com](#); [olly@gotel.net](#); [wade1larry@gmail.com](#); [lynn.siodmak@gmail.com](#); [mhittle24@gmail.com](#); [ellenkenney@gmail.com](#); [evan@sierrasouth.com](#); [scottwilson54321@live.com](#); [nicholasw5@hotmail.com](#); [ekroh@socalgas.com](#); [brettduxbury@mac.com](#); [dbernsten@gmail.com](#); [dunawayfields@yahoo.com](#); [calmyoga@gmail.com](#); [ben@burde.org](#); [friedbodfish@gmail.com](#); [amin.nikravan@gmail.com](#); [dave.waner@gmail.com](#); [jmwucb@gmail.com](#); [olly@gotel.net](#); [david@davidmichael.org](#); [johnarmstrong5@mac.com](#); [ndex_mail@yahoo.com](#); [joelrem@gmail.com](#); [pauljreep@gmail.com](#); [ravenhall_99@msn.com](#); [anastassia2108@gmail.com](#); [anatolm07@gmail.com](#); [katharine4@gmail.com](#); [samsparhawk@gmail.com](#); [olivialemlay16@gmail.com](#); [alvarovilla95@gmail.com](#); [christianabuckley@gmail.com](#); [timothyjbrown1@gmail.com](#); [rushing661@aol.com](#); [prahareal@gmail.com](#); [mikecroak@sbcglobal.net](#); [garycca@yahoo.com](#); [denrushing@gmail.com](#); [dlemley68@gmail.com](#); [kseeger1@gmail.com](#); [jmigoni@yahoo.com](#); [johnwarnshuis@att.net](#); [jonathan.cizmar@gmail.com](#); [scottwilson54321@live.com](#); [geimanbill@hotmail.com](#); [dylan.warburg@gmail.com](#); [potatosachs@yahoo.com](#); [jtgelder@yahoo.com](#); [bengilliland@gmail.com](#); [karacampbell4@yahoo.com](#); [krdrkrdr@gmail.com](#); [allison@extremeline.com](#); [rpoudrier90@gmail.com](#); [dlharrisx2@aol.com](#); [TJCormack@gmail.com](#); [cottmtoland@gmail.com](#); [diangeloandrew01@gmail.com](#); [carolirving@mac.com](#); [cvmattox@gmail.com](#); [dkoutzoukis@gmail.com](#); [geoffcj@gmail.com](#); [jason559559559@gmail.com](#); [mebaier00@yahoo.com](#); [matt.mayry@gmail.com](#); [thesensingsamurai@gmail.com](#); [mffu@att.net](#); [nadiaalmuti@yahoo.com](#); [nzmeyewski@gmail.com](#); [peppermalo@gmail.com](#); [bubnlu@hotmail.com](#); [ryanguy@gmail.com](#); [scottbdonachie@gmail.com](#); [scott_timmons@yahoo.com](#); [spencershepard45@gmail.com](#); [tomlivingstone30@gmail.com](#); [tlawson@lqcgteotechnical.com](#); [Martin Ostendorf](#); [Sergio Capozzi](#); [Samantha Bennett](#); [Long, Garrett@Waterboards](#); [Cornelio Artienda](#); [Leon, Abimael \(Abimael.Leon@wildlife.ca.gov\)](#); [brian.beal \(brian.beal@wildlife.ca.gov\)](#); [Eric.Jones@wildlife.ca.gov](#); [Dale.Stanton@wildlife.ca.gov](#); [alexandra.clarfield@gmail.com](#); [ross.emerson.allen@gmail.com](#); [bioschmid@gmail.com](#); [caleb.fujimori@gmail.com](#); [jackschurman@gmail.com](#); [ajtritt@fastmail.com](#); [dirtybootned@gmail.com](#); [tom@sierrasouth.com](#); [bioschmid@gmail.com](#); [jeffventurino@americanwhitewater.org](#); [Jessica.Fefer@ferc.gov](#); [Quinn.Emmering@ferc.gov](#); [Jillian Roach](#); [Mary Margaret Richardson](#)
Subject: SCE Kern River No. 3: Recreation Camera Installation
Date: Friday, August 16, 2024 9:42:00 AM
Attachments: [image001.png](#)

Agencies and interested boaters:

Southern California Edison (SCE) has initiated consultation with the Sequoia National Forest (SQF) regarding the installation of cameras at river access locations to support the KR3 relicensing effort. Specifically, this effort is to support the REC-2: Recreation Facilities Use Assessment Study Plan, per direction from the Federal Energy Regulatory Commission's (FERC) May 30, 2024 Determination on Requests for Study Modifications and New Studies.

SCE held discussions with the SQF on June 17 and July 31, 2024 to discuss and review proposed camera installation locations and is currently awaiting formal written approval from SQF.

Before proceeding with the camera installations, SCE would like to share the proposed locations with other agencies and interested boaters. SCE is scheduling a call to review the proposed camera locations along the North Fork Kern River, from Johnsondale Bridge and down along the Fairview Dam bypass reach to the KR3 Powerhouse put-in/take-out location.

Call Details:

- **Date:** Thursday, August 29, 2024

- **Time:** 1:00 PM - 2:00 PM Pacific
- **Meeting Link:** [\[Teams Meeting Link\]](#)
- **Call In:** 213-279-1475 ID: 463 615 051#

If you would like to participate in this call, please use the link provided above to join the Teams meeting.

Following formal approval from SQF, SCE will proceed with camera installation. The cameras will be deployed for one calendar year as stipulated by FERC's Order. A summary of SCE's consultation with SQF, agencies and interested boaters, along with a detailed study approach and methodology, will be included in the Updated Study Report (USR) to be filed with FERC by October 11, 2024.

We look forward to your participation and feedback.

-Stephanie Fincher-DeMillo (SCE KR3 Relicensing Manager)



Jillian Roach

Principal Consultant, Project Manager

980 9th St, Ste 750 Sacramento, erm.com
CA
M. 916.201.7746

Kern River No. 3 Project (P-2290)

REC-2 Recreation Facilities Use
Assessment:

Camera Study

August 29, 2024

Purpose of Meeting

- Inform agencies and interested boaters of proposed camera locations

FERC Determination on Study Modifications (May 30, 2024):

SCE should work with Sequoia National Forest to install cameras at all river access locations along the Fairview Dam bypassed reach and above Fairview Dam to Johnsondale Bridge to capture:

- (1) use-estimates including percent capacity at all river access locations;*
- (2) activity-type estimates, specifically commercial vs. non-commercial boaters, including the type of watercrafts used.*

The cameras should be deployed for one calendar year and capture use at reasonable intervals to record boating activity, or set to sense motion, depending on camera placement and its ability to detect movement at the river access.

Consultation Update

- June 17 and July 31, 2024
 - SCE and SQF reviewed FERC's Order, discussed proposed camera locations, and provided an overview of the scope of work associated with the cameras
- August 13, 2024
 - SQF-Recreation Officer provided verbal (email) approval of the camera locations
- August 14, 2024
 - SCE provided Forest Supervisor a formal request for approval and Special Use Permit to install the cameras

Camera Installation

- Day-use/dispersed camping locations and 2 river-view locations
 - Put-in/take-outs associated with the ww rapid segments
 - Does not include locations where there is a “reasonable expectation of privacy” (i.e., campground)
 - Includes 10 of the 25 sites of the REC-2 Study
- Attach to SCE power poles, trees, or other inconspicuous locations to minimize the potential for vandalism or theft
- Positioned to capture river/river access locations
 - Where possible includes both instream and land-based use (parking)
 - Collect photos from dawn-dusk every 15 min
- Routinely download photos over the year to reduce potential data loss

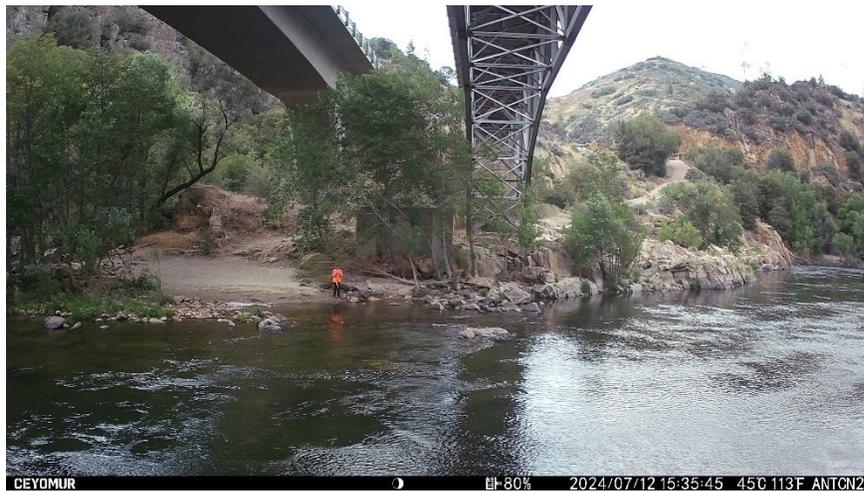
Proposed Camera Locations

- 12 Locations (13 cameras)

Camera Site ID	Site Name	Site Type
1	Johnsondale Bridge River Access	Day Use
2	Willow Point Whitewater Take-out	Day Use
3	Roads End Picnic Site and Whitewater Put-in	Day Use
4	Calkins Flat Dispersed Camping	Dispersed Camping
5	NFKR Chamise Gorge Run	NFKR view
6	Ant Canyon Dispersed Camping	Dispersed Camping
7	Corral Creek Picnic Site and Whitewater Take-out	Day Use
8	Thunderbird Group Campground and Whitewater Put-in/Take-out	Day Use portion of site
9	Camp 3 Whitewater Put-in/Take-out	Day Use portion of site
10	Riverkern Beach Picnic Site	Day Use
11	NFKR above KR3 Powerhouse	NFKR view
12 / 13	KR3 Powerhouse Whitewater Put-in/Take-out	Day Use

1-Johnsondale Bridge River Access

Camera mount on tree looking across stream to river/river access location.



2-Willow Point Whitewater Takeout

Mount camera in tree. Orange box denotes the take-out location.



3-Roads End Picnic Area and Whitewater Put-in

Install on tree adjacent to restroom building; view of boater access location and some river views.



T



4-Calkins Flat Dispersed Camping

Install on tree across street from upstream entrance, view of boater access location to river..
Orange box in photos denote boater access point



5-NFKR Chamise Gorge Run

Install along upper roadway on tree looking down/upstream of the-Chamise Gorge whitewater run.



6-Ant Canyon Dispersed Camping

Large tree across street from entrance of parking area.



7-Corral Creek Picnic Site and Whitewater Takeout

Tree located on picnic/river side above sign/picnic table looking toward parking area.



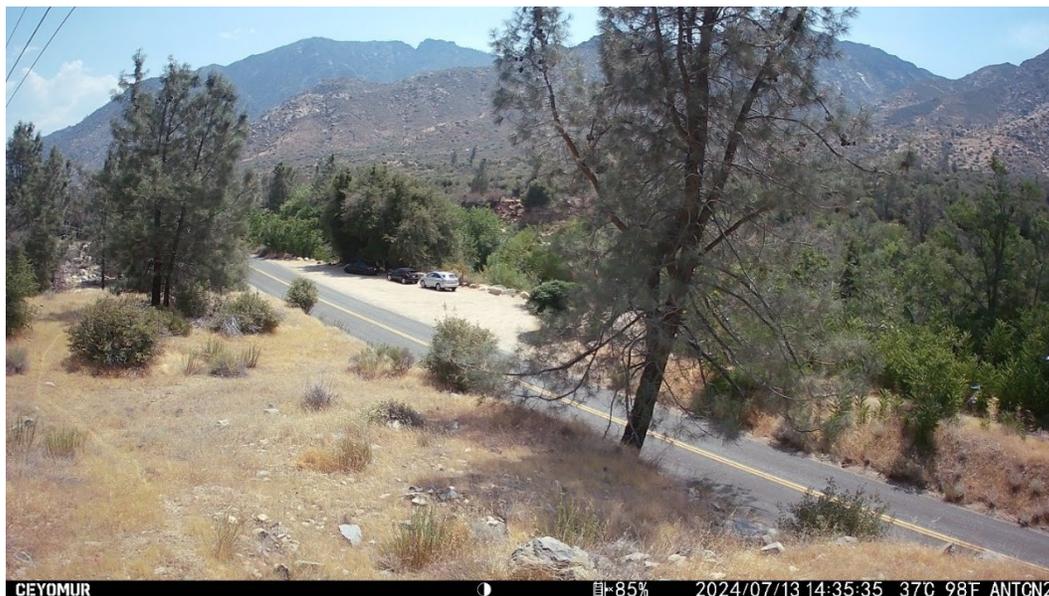
8-Thunderbird Group Campground and Whitewater Access

Camera on SCE pole facing WW/DU parking on river side and shoulder parking across street. Camera would not capture any of the Group Campground.



9-Camp 3 Whitewater Put-In/Takeout

SCE Pole across street and slightly upstream of parking area. Do best to angle camera to capture parking area and downstream road only. Note, edge of 1 campsite may be in the frame of view, but is mostly blocked by an existing tree.



10-Riverkern Beach Picnic Site

Camera mounted on t-post alongside of cliff. Camera facing south to capture roadside parking and larger parking area across street.



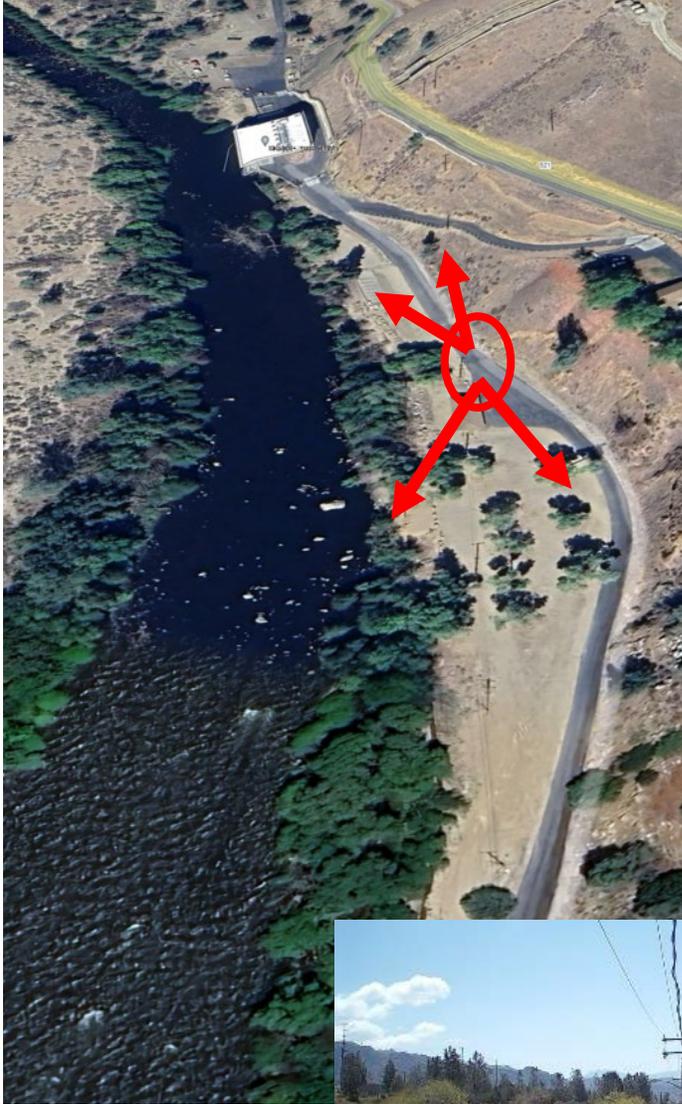
11-NFKR Above KR3 Powerhouse

Mount camera on railing at Powerhouse. View of river upstream.



12/13-KR3 Powerhouse Put-in/Takeout

Two cameras on same pole upstream of garage, capture upstream and downstream parking areas.



Draft Schedule

Date	Activity
July-Sept 2024	-Consult with the USFS on use and installation of cameras; obtain formal concurrence of camera installation locations -Update agencies/boating community with proposed camera locations
October 2024	Include detailed study proposal as part of Updated Study Report (USR) filing to further describe study approach and methodology
Oct* 2024 – Oct 2025	-Install cameras and begin data collection effort; -routinely download data from cameras; conduct monthly QA/QC of data
Fall/Winter 2025	Analyze full data set and prepare Technical Memorandum; File with FERC
Winter 2025+	Consult with Agencies and Stakeholders on data collected and supplemental filing to License Application

*Installation following USFS approval

Next Steps

- Upon USFS written approval, SCE to install cameras (est Oct); initiate one-year study timeframe
- SCE to provide study approach and methodology with the USR filing (file by October 9th)
 - Stakeholders have opportunity to provide formal comments to FERC per the ILP Relicensing Process Plan and Schedule

SCE KR3 Recreation Camera Installation Meeting

August 29, 2024

1:00 PM – 2:00 PM PST

Meeting Attendants:

- Jillian Roach (ERM)
- Lia Conrath (ERM)
- Catherine M Brown – NPS Hydropower
- Brett and Liz Duxbury - Kern River Boaters (KRB)
- Lilian M Jonas – Contractor with the Park Service
- Stephanie Fincher (SCE)
- Martin Ostendorf (SCE)
- Sergio Capozzi (ERM)
- Meg Richardson (SCE)
- Jeff Venturino - American Whitewater

See slide deck for material/information presented (see attached).

A summary of comments and discussion following the presentation is summarized below regarding proposed camera locations and data collection approach:

- Johnsondale bridge parking lot is not included but should be because it is used often when the flows below Fairview Dam are lower and crowding at this location is a concern, especially for boaters accessing the river.
 - o Response: SCE was following FERC's direction to focus on river access locations, rather than parking capacity. SCE has captured vehicle counts and visitor use over the past year and reported this data as part of the other REC-2 study components.
- Recommendation to collect photos every 5 minutes instead of 15 minutes as boaters can have gear on prior to arriving at a location (or may not need to unload a vehicle) and can quickly put on the river in less time, thus the 15 min photo frequency may not capture them.
 - o Response: SCE will take this recommendation into consideration.
- Comments that installation of a camera that captures above Fairview dam and one that captures below Fairview dam would be helpful, but not necessarily sufficient
- Why wasn't Brush Creek parking lot considered? Especially during those times of high flow above the dam, but flows are reduced below the dam. During this time, the put in at Johnsondale parking lot may be full, and commercial boaters especially will utilize this location, and possibly non-commercial use it too.
 - o Response: SCE noted that use information from commercial boating may provide information about their use of Brush Creek, therefore a camera may not be necessary. Use along this river segment will also be captured by the camera at the Willow Point Take Out.
 - o Roads End Picnic Area- The FS recreation site is pretty much solely used by commercial boaters. The non-commercial boaters utilize a shoulder pull-off

upstream of this location, and only use the Roads End site if their preferred location is full.

- Response: SCE will review potential camera locations for consideration to add this location.
- Calkins Flat – this is a large parking lot and boaters could access the river at various locations.
 - Response: Agreed, however SCE has focused the camera at the location with the “iron ranger”. These photos are approximate views, the final camera installation will angle the camera that captures the largest extent of the parking area.
- Chamise Gorge Run - boaters could get through that stretch in less than 15 minutes; 10 minutes may capture most boaters.
 - Response: SCE will review photo frequency based on your recommendations.
- Ant Canyon – SCE mentioned 2 spots people walk in, but KRB knows of 4 at this location. This could cause some data gaps.
 - Response: Similar to Calkins Flat, SCE will focus the camera angle that captures the largest extent of the parking area.
- Corral Creek – There is an undeveloped camping area around the corner that might be used by boaters for putting in or taking out. Also noted there is an easier takeout is around mile marker 15, downstream around the corner – popular spot for putting in/taking out that is not a Forest Service spot.
 - Response: Understood that there are many places boaters can get on/off the river and it's just not physically possible to capture every location. Also, there is a private campground adjacent to the dispersed camping site you noted and camera angles would likely overlap that area; therefore, not a preferred camera location (per USFS direction).
- Thunderbird Campground looks good.
- Halfway Campground is a location some people will use and its popular during high water in 2023 because it's easier to put in/take out.
 - Response: Not an approved location as the developed campsite area is adjacent to the parking area/would be in the camera's view, which could cause a privacy issue (per USFS direction).
- Camp 3-location is good, but many people may just drop off, so a photo every 15 minutes may not capture all use. Similarly, at Riverkern and below, boaters could go by pretty quick, consider a 5-minute interval.
 - Response: SCE will take this recommendation into consideration, as above.
- How will you avoid double counting boaters during this study?
 - Response: SCE noted that double counting and identifying the same party is likely to occur and is something that SCE is trying to iron out as we are actively working on the methodology right now.

- KR3 Powerhouse – Many people will park along the stretch and not in the KR3 Powerhouse parking lot, so they wouldn't be captured. That stretch can go quickly, so would suggest pictures every 5 minutes at this reach.
- This effort and costs appear to be a bit bigger than FERC noted in their filing; has SCE considered AI or other tools as part of this study?
 - o Response: SCE is still working out some approaches and more detailed methodology analysis as part of the USR filing; however, AI is definitely being considered and looking for cost savings and efficiencies, where possible.
- Will the map and locations be shared after this call?
 - o Response: Yes, the slide deck with map will be sent to agencies and interested boaters invited to this call.
- What is the timeline and schedule for camera deployment; is there a way for SCE to distribute the methodology prior to the USR filing?
 - o Response: SCE is currently waiting written approval from the Forest Supervisor to install cameras. Upon Forest approval, SCE will work to install the cameras. Additionally, SCE is currently finalizing the methodology, and if there is time prior to the USR, SCE may provide the document for an informal review. SCE also noted that there is time during the USR comment period for stakeholders to comment and/or make recommendations.
- Would there be benefit to putting the cameras on the river instead of the parking lots?
 - o Response: SCE is following the direction FERC provided where they asked about the put ins/take outs; however, SCE has identified a few river view locations as well.

Action Items:

- Brett to provide alternative locations/suggestions as noted in his comments to SCE.
- SCE to provide the meeting materials/map to the group following this meeting.

August 30, 2024
Email from Brett Duxbury

From: [brett@subury](#)
To: [Dustin@subury](#), [Alan@subury](#)
Cc: [brett@subury](#), [Alan@subury](#), [jason@subury](#), [jason@subury](#), [jason@subury](#), [jason@subury](#), [jason@subury](#), [jason@subury](#)
Subject: R3 Trail Camera
Date: Friday, August 30, 2024 11:37:48 AM
Attachments: [Screenshot 2024-08-30 at 8:20:56 AM.png](#)
[Screenshot 2024-08-30 at 8:20:56 AM.png](#)

You don't often get email from brettsubury@mac.com. [Learn why this is important](#)

EXTERNAL MESSAGE

Download full resolution images
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Hi Martin & Jillian,

First below are the sites w/o cameras I referenced yesterday. Two pictures of each (close-up and then backed out). Hopefully the coordinates/orientation pix work; if not, let me know and we can figure something else out.

Below those are pictures showing alternate put-ins that may not get picked up by the proposed cameras.

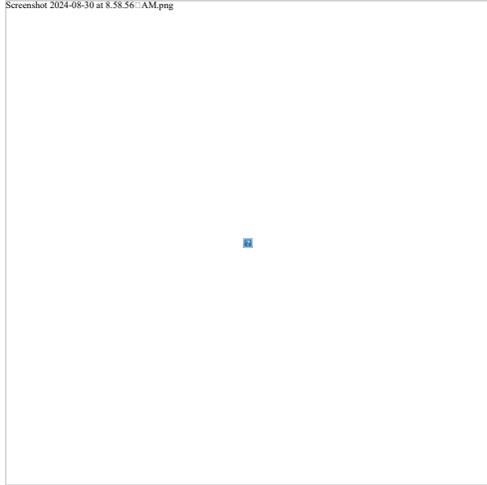
Finally, I summarize the known omitted sites where the proposal will miss parking lot traffic.

Thanks & have a great Holiday weekend!

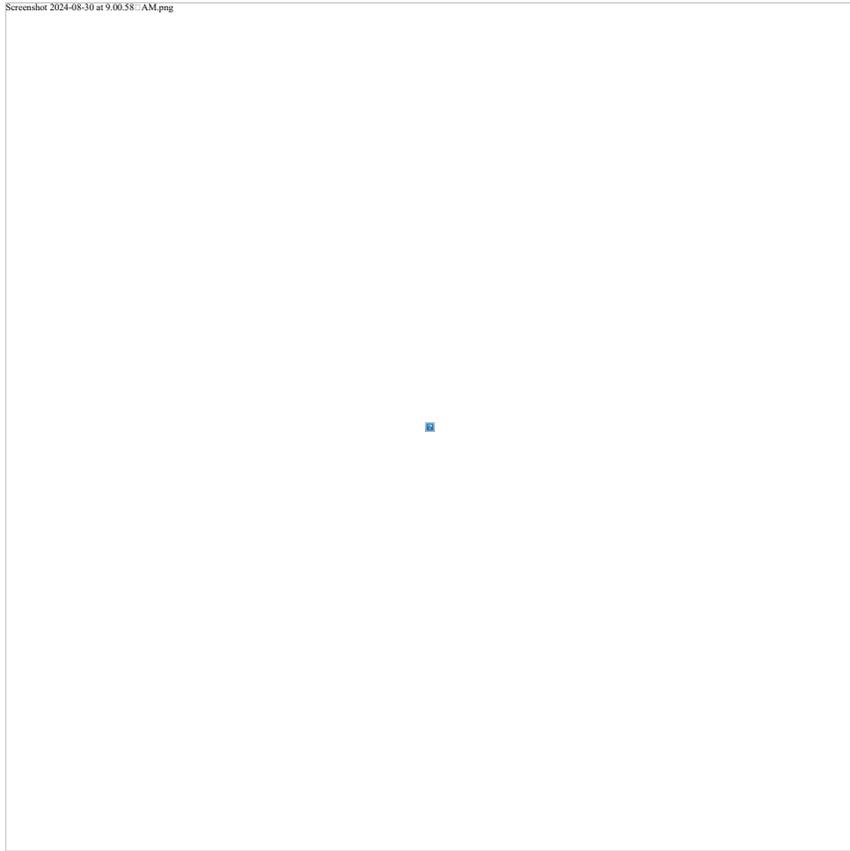
Brett

Noncommercial Fairview Segment Put In (USFS put in: kiosk/manifest box there):

Screenshot 2024-08-30 at 8:58:56 AM.png

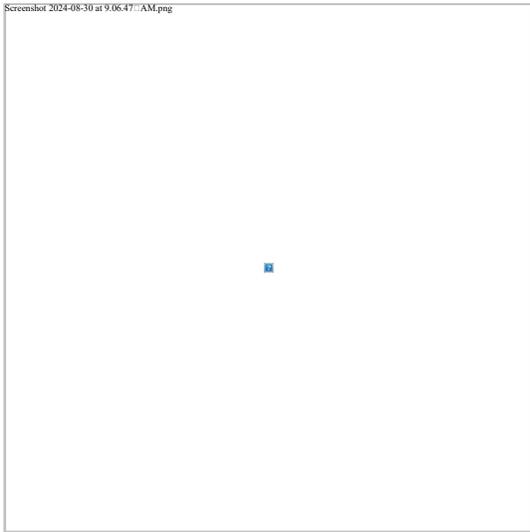


Screenshot 2024-08-30 at 9:00:58 AM.png

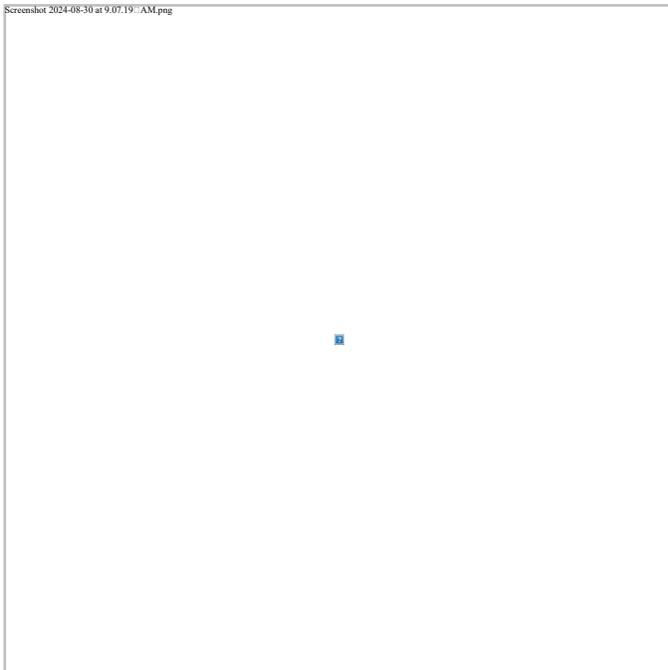


Noncommercial "Geno creek" Ant Canyon Takeout, near MM16 on M99:

Screenshot 2024-08-30 at 9:06:47 AM.png

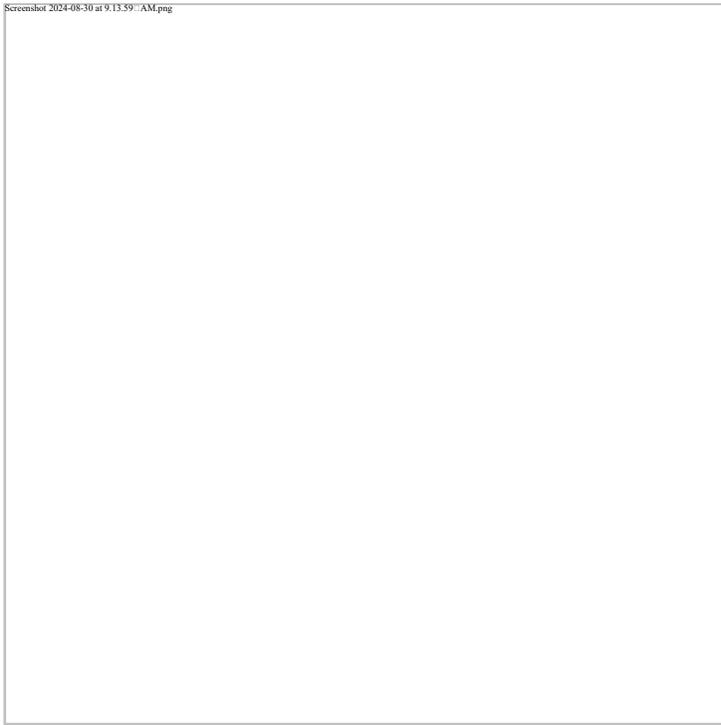


Screenshot 2024-08-30 at 9:07:19 AM.png



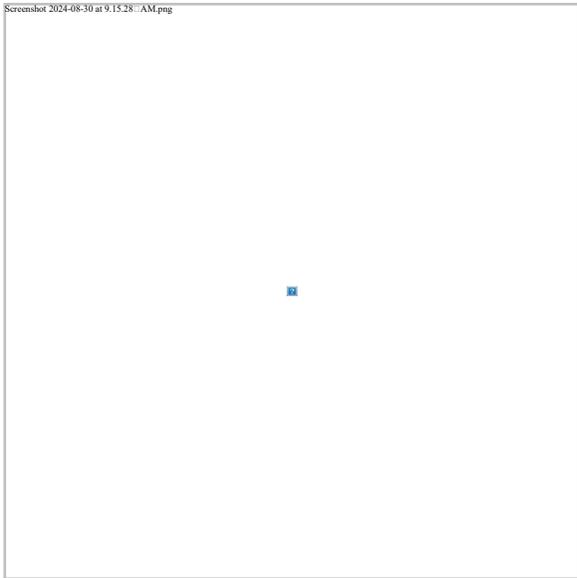
When crowded, folks put in at Calkins Flat all along the riverbank, not just where your red box is pointed (but you camera would admittedly up some (can't tell how much) of the downriver activity):

Screenshot 2024-08-30 at 9:13:59 AM.png



I know you have a river cam near the Chamise segment takeout, but FYI here are the three actual places bouters take out (red boxes at parking areas); each are frequently used depending on personal preference; however, large rafts only use the northernmost one .

Screenshot 2024-08-30 at 9:15:28 AM.png



These are the five places bouters put in at Ant Canyon, much of it is personal preference (each has its own trail of varying difficulty and beach of varying size); as a result, their cars could be anywhere in the big lot:

And as we discussed, the proposal may also miss parking lot activity at Brush Creek, the dispersed camping area at Corral Creek, the Halfway day use lot, and Riverside Park (many who put in at Ant, Thunder, or Cables take out at Riverside Park). The incredible choices of access to the world-class whitewater in this roadside stretch of river gives boaters the ability to customize their run(s) based on flow/skill/mood — a truly unique and valuable affordance for Southern Californian boaters when flows are able to overcome the diversion.

September 9, 2024

Email from SCE summarizing August 29, 2024 meeting and SCE's response to Stakeholder feedback

From: Jillian Roach

Sent: Monday, September 9, 2024 12:38 PM

Cc: Stephanie Fincher <stephanie.fincher@sce.com>

Subject: RE: SCE Kern River No. 3: Recreation Camera Installation; Meeting follow-up

Sent on behalf of SCE.

Dear Agencies and interested boaters

Thank you to those that attended the call on August 29th regarding the proposed camera locations to support the REC-2 study plan. For those of you who could not attend, SCE has attached a copy of the information presented during the call which summarized SCE's proposed camera locations.

A few key take-aways from the call include:

- SCE agreed to increase the picture frequency from 15 minutes to every 5 minutes
- Obtained feedback on proposed camera locations (see additional notes below)
- A detailed methodology and analysis for the camera study will be part of the USR filing due in October
 - SCE is finalizing the photo analysis methodology and study approach
 - If SCE has the methodology finalized prior to the filing of the Updated Study Report by October 11th, then SCE will provide it in advance

Additional changes following the call in response to Stakeholder feedback:

- All cameras will be set to record at 5 min intervals (rather than 15 min intervals as

originally proposed)

- SCE will add 2-3 new camera locations, pending USFS approval (see below), for a total of 15-16 cameras as part of this study.

During the call and in a follow up email, comments were provided regarding proposed camera locations. Please see email attached. SCE has considered a few revisions to the camera locations, as noted below in blue (reordered upstream to downstream). For locations where additional cameras are proposed, SCE will conduct follow-up consultation with the USFS for final approval.

- Include parking lot activity at Brush Creek
 - SCE will add a camera at this location that focuses on the parking lot, pending USFS approval.
 - Note, the purpose of this location is to evaluate potential overflow parking due to crowding concerns that may occur at Johnsondale Bridge put-in; as such this location may not be analyzed to the same level of detail as the other camera locations.
- Noncommercial Fairview Segment Put In (USFS put in: kiosk/manifest box)
 - SCE will add a camera at this location, pending USFS final approval.
- Calkins Flat, expand coverage not just iron ranger location:
 - The camera is focused on the primary boater access location where the “iron ranger” is located. SCE will attempt to angle to camera to capture as much of the parking lot as possible.
 - Also, camera #5 (Chamise Gorge Run) has a view of the river and boating use along this whitewater run and use can be accounted for from that camera.
- River cam near the Chamise segment takeout, but there are three actual places boaters take out (red boxes at parking areas); each are frequently used depending on personal preference; however, large rafts only use the northernmost one.
 - Comment noted. Camera #5 (Chamise Gorge Run) has a view of this river segment and boating use will be accounted for with that view.
- Ant Canyon, there are five places boaters put in, much of it is personal preference (each has its own trail of varying difficulty and beach of varying size); as a result, their cars could be anywhere in the big lot:
 - Comment noted. When installing the camera, SCE will attempt to angle to camera to capture as much of the parking lot as possible.
 - Also, see response to “Geno creek” takeout below.
- Noncommercial “Geno creek” Ant Canyon Takeout, near MM16 on M99:
 - SCE will conduct a reconnaissance trip to evaluate if there is a suitable location along the Gold Ledge whitewater run to install a camera with a view of the river. Once a location is identified, SCE will consult with the USFS for final approval prior to installation.
- Dispersed camping area at Corral Creek
 - SCE has included the day-use parking site (#7) located just

downstream. However, as noted in the bullet above, if a suitable river view location is identified along the Gold Ledge WW run (put in at Ant Canyon-take out at Corral Ck), boaters along this reach will be accounted for.

- Also, the camera viewshed to capture the Corral Creek dispersed camping site would overlap with the private/paid camping facility located to the north, as such there is a reasonable expectation of privacy at that location.
- Halfway day use lot
 - The configuration of the developed (fee-based) facility and camera viewshed to capture the day use parking lot would overlap, as such this is not an accepted location by the USFS.
- Riverside Park (many who put in at Ant, Thunder, or Cables take out at Riverside Park *[below the project in Kernville]*).
 - Boaters would be captured/counted from the PH river camera (#11) and/or KR3 Powerhouse cameras (#12/13) that capture river views.

Meeting notes and other communication/consultation will be included as part of the Updated Study Report (USR) filing in Oct.

Thank you all for your continued support and interest in the KR3 Relicensing. If you have any questions, please reach out to Stephanie Fincher-DeMillo at stephanie.fincher@sce.com.



ERM

Sustainability is our business

Jillian Roach

Principal Consultant, Project Manager

980 9th St, Ste 750 Sacramento, erm.com
CA
M. 916.201.7746