



Filed Electronically

November 15, 2018

Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426

Subject:

Kaweah Project (FERC Project No. 298) 2018 Initial Study Report Meeting Summary

Dear Secretary Bose:

This report provides a summary of Southern California Edison's (SCE) 2018 Initial Study Report Meeting for the Kaweah Project (Project). The meeting was held on November 1, 2018 at the Wyndham Visalia, Cedar Room, 9000 W. Airport Drive, Visalia, California.

During the meeting, SCE provided an overview of the progress made on implementation of 17 Technical Study Plans (TSP) included in the Revised Study Plan filed with the Federal Energy Regulatory Commission (FERC or Commission) on September 19, 2017¹. During the meeting, SCE described minor variances that have occurred during study implementation and one study modification. Attachment A provides a summary of questions/comments received by stakeholders during the meeting as well as SCE's responses and/or follow-up actions. Attachment B includes the PowerPoint presentation and meeting sign-in sheet. The following summarizes the meeting discussion.

Meeting Overview

SCE began the meeting by providing an overview of the relicensing process to date, including major Project filings that have occurred.

SCE then described technical study implementation progress. In general, SCE completed the first year of studies, as outlined in the approved TSPs and has begun preparing a series of Technical Study Reports (TSR) documenting study methods and results. SCE described remaining data collection efforts that will continue into 2019 and preliminary findings of studies that have been completed.

SCE reviewed the components of the Initial Study Report which was filed with the FERC on October 18, 2018 and discussed minor study variances and one study modification that are detailed in Attachment B of the report. Variances generally fall into three categories: (1) survey timing; (2) study approach refinement; and (3) report distribution. SCE reviewed each technical study that incurred a variance and discussed the reason for the variance and the implications going forward. Since some of the variances will result in a change to the timing of the distribution

Three comments were filed on the Proposed Study Plan (PSP), however, they did not result in revisions to any of the study plans. Therefore, SCE filed a Revised Study Plan (RSP) which stated that the PSP, without revision, constituted its RSP. The FERC subsequently issued its Study Plan Determination on October 24, 2017 approving all study plans.

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of TSRs to stakeholders, SCE provided a revised summary schedule showing distribution dates. A revised study implementation schedule is also included in Attachment C of the Initial Study Report.

Following the discussion of study variances, SCE described one study modification associated with the AQ 9 – Entrainment TSP. Initial entrainment sampling was conducted in Kaweah Nos. 2 and 3 flowlines on June 19-20, 2018. Sampling in Kaweah Nos. 3 Flowline resulted in overtopping and undermining of the flowline upstream of the Kaweah Nos. 3 Forebay and termination of the entrainment sampling. SCE revised the AQ 9 – Entrainment TSP and provided it to stakeholders for review on October 26, 2018. The revised AQ 9 – Entrainment TSP is also included in **Attachment C**.

SCE is not proposing any new studies at this time.

Finally, SCE reviewed key dates related to the 2018 Initial Study Report.

- October 18, 2018 SCE filed 2018 Initial Study Report with the FERC and distributed to stakeholders for review and comment.
- November 1, 2018 SCE held the 2018 Initial Study Report Meeting.
- November 15, 2018 SCE will file and distribute 2018 Initial Study Report Meeting Summary.
- December 24, 2018 Stakeholder comments on SCE's 2018 Initial Study Report Meeting Summary are due.

The 2018 Initial Study Report is available on SCE's Kaweah Project relicensing website at: http://sce.com/kaweah.

Action Items

The FERC suggested that SCE meet with the Aquatic Technical Working Group (TWG) prior to the deadline to file comments to review and discuss revisions to the AQ 9 – Entrainment TSP and also provide a venue to ask follow-up questions on other aquatic studies. SCE will conduct an Aquatic TWG WebEx meeting on November 15, 2018. Meeting details are as follows:

Date:	November 15, 2018
Time:	1:00 pm – 3:00 pm
Location:	https://cardno.zoom.us/j/110288138
Phone:	Call-in Number: (646) 876-9923 or (669) 900-6833 Meeting ID: 110 288 138

Next Steps

SCE distributed this summary to the stakeholders identified on **Attachment D and E** at the same time that it was filed with the FERC. Any stakeholder or the Commission staff may file comments on SCE's meeting summary on or before December 24, 2018, as identified in the process

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schedule contained in Appendix B of the Commission's Scoping Document 22. Comments should identify any disagreements and any modification to ongoing studies, or new studies proposed.

The 2018 Initial Study Report and other Kaweah Project relicensing documents can be obtained from the FERC's website at http://www.ferc.gov/docs-filing/elibrary.asp or SCE's Kaweah Project relicensing website at http://sce.com/kaweah.

SCE looks forward to working with the Commission and interested parties as the relicensing of the Kaweah Project proceeds. If you have any questions regarding this filing please contact David Moore, SCE Project Manager, by phone at (626) 302-9494 or via e-mail at david.moore@sce.com.

Sincerely

ayne Allen Principal Manager

Attachments:

Attachment A:

Kaweah Project Initial Study Report Meeting Discussion Summary

Attachment B:

PowerPoint Presentation and Sign-in Sheet

Attachment C:

Revised AQ 9 - Entrainment Technical Study Plan

Attachment D:

Distribution List

Attachment E:

Certificate of Service

FERC, Scoping Document 2 for the Kaweah Hydroelectric Project, Appendix B - Kaweah Project Process Plan and Schedule. FERC Accession Number 20170518-3018. May 18, 2017.

Attachment A
Kaweah Project Initial Study Report Meeting Discussion Summary

Attachment A. Kaweah Project Initial Study Report Meeting Discussion Summary.

Technical Study Plan	Discussion Topic	Specific Study Element	Stakeholder Question/Comment	Follow-up Discussion	Proposed Study Plan Modification
All	Consultant team qualifications	NA	Walt Bentley (Trout Unlimited) asked the consultant team about their qualifications for managing the relicensing process and studies for the Kaweah Project.	Ed Bianchi (Cardno Project Director) gave an overview of the consultant team's qualifications, stating that the team has worked on multiple relicensing's in California, supported SCE since 1985, and has Masters/PhD level technical leads and/or senior level staff each with 15 years of FERC relicensing experience.	None
AQ 2 – Fish Population	Variance: Timing of fry emergence sampling	The AQ 2 – TSP identified the timing for conducting qualitative fish sampling (YOY emergence) as May-June 2018 (three sampling periods). Due to a delay in acquisition of a scientific collection permit, the early May fry emergence sampling was not able to be performed.	Jim Hastreiter (FERC) encouraged SCE to conduct a follow-up meeting with stakeholders to discuss the need for additional surveys prior to the deadline to file comments on the meeting summary (December 24, 2018).	SCE will conduct an Aquatic Technical Working Group (TWG) on November 15, 2018 to discuss results of the June/July sampling and make a determination in consultation with the TWG whether a third sampling is necessary.	None
AQ 9 – Entrainment	Modification: AQ 9 – TSP revisions	Initial entrainment sampling was conducted in Kaweah Nos. 2 and 3 flowlines on June 19-20, 2018. Sampling in Kaweah No. 3 Flowline resulted in overtopping and undermining of the flowline upstream of the Kaweah No. 3 Forebay and termination of the entrainment sampling. Post study review identified potential high risk of damage to infrastructure and the environment related to entrainment sampling in the Kaweah No. 3 Flowline. Issues of concern are (1) lack of freeboard in the flow line under normal operations; (2) steep topography along the flowline; (3) remote sampling locations; and (4) lack of access to equipment to assist in installing, cleaning, and removing entrainment nets. The revised AQ 9 – TSP was distributed to stakeholders for review on October 26, 2018 and is attached to this filing as Attachment C.	Jim Hastreiter (FERC) encouraged SCE to conduct a follow-up meeting with stakeholders to discuss revisions to the AQ 9 – TSP prior to the deadline to file comments on the meeting summary (December 24, 2018). Following the meeting on November 9, 2018, Nathan Fisch (State Water Board) emailed a request to include discussion of the following items at the Aquatic TWG: (1) specifications for the Marble and Middle Fork intakes; (2) potential to use results from other aquatic studies to compare relative entrainment risk to western pond turtle and hardhead; (3) releases to be made from the Mineral King Lakes during the proposed July timeframe; and (4) size of fyke nets to be used for the revised study.	SCE will conduct an Aquatic TWG on November 15, 2018 to discuss revisions to the AQ 9 – TSP and attempt to resolve any differences prior to the deadline to file comments on the meeting summary. The agenda will include discussion of the items included in Nathan Fisch's email.	Refer to Attachment C for revised AQ 9 – TSP
REC 2 – Whitewater Boating	Whitewater boating stakeholder recommendations		Susan Jones-Rosebrough (National Park Service) asked when whitewater boating access options would be discussed.	Cardno Project Director, Ed Bianchi, explained that Cardno is in the process of developing technical study reports for the Project and those will be distributed for stakeholders for review and comment. The reports will include methods and results associated with each study. SCE in consultation with stakeholders will make recommendations in the draft and final license applications related to proposed license conditions.	None
AQ 2 – Fish Population AQ 6 – Water Temperature AQ 9 – Entrainment	NPS Letter of Compliance for work to be conducted in 2019	Fry emergence sampling Water temperature data collection Fish entrainment along Kaweah No. 3 Flowline	Ginger Bradshaw (National Park Service) requested that if SCE has additional data collection efforts within Sequoia National Park that they submit a Project Proposal Form as soon as possible in order to obtain a Letter of Compliance early.	SCE plans to submit its Project Proposal Form within the next month.	None
NA	FERC process schedule	NA	Jim Hastreiter (FERC) noted that PPT Slide #32 did not contain the correct filing deadlines and clarified the timing associated with the initial study report process. He requested that stakeholders refer to FERC Scoping Document 2 (SD2), Appendix B – Kaweah Project Process Plan Schedule filed May 18, 2017 for process deadline dates. He stated that early filings or issuances will not result in changes to the deadlines included in Appendix B of SD2.	SCE revised PPT Slide #32 and distributed to stakeholders and posted to the Kaweah Project relicensing website at: www.sce.com/kaweah.	None

Attachment B

PowerPoint Presentation and Sign-in Sheet



Kaweah Project FERC Project No. 298

Initial Study Report Meeting

November 1, 2018

Southern California F

Agenda

- Welcome and introductions
- Meeting objectives
- Relicensing process overview
- Technical study implementation
- Key contacts
- Adjourn

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Meeting Objectives

- Describe overall progress in implementing study plans including any:
 - Variances
 - Modifications to ongoing studies
 - New studies proposed by the applicant

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Relicensing Process Overview

- Pre-Application Document (PAD) Dec 14, 2016
 - Fifteen draft technical study plans (TSP) included in the PAD
 - Bureau of Land Management (BLM), National Park Service (NPS), and American Whitewater filed study requests
 - Based on study requests:
 - SCE revised one plan (REC 1 Recreation Resources)
 - Added two plans (REC 2 Whitewater Boating and LAND 3 Land Use)

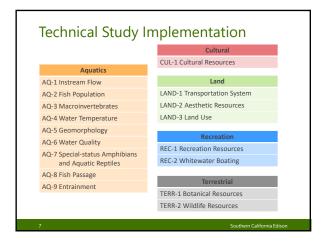
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Relicensing Process Overview

- Proposed Study Plan (PSP) May 24, 2017
 - Seventeen TSPs included in the PSP
 - BLM, NPS, and American Whitewater filed comments on the PSP
 - Comments did not result in revision to the PSP
- Revised Study Plan (RSP) Sept 19, 2017
 - Since no comments filed, PSP without revision constituted RSP
- FERC Study Plan Determination Oct 24, 2017
 - Approved all study plans included in the PSP

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Technical Study Implementation Data Collection

- SCE initiated technical studies in 2018
- Majority of data collection will be completed by Q4 2018
- · Remaining data collection includes:
 - AQ 6 Water Temperature
 - Continue data download from water temperature loggers and meteorological station
 - AQ 8 Fish Passage
 - Evaluate fish passage at potential Project-related and natural barriers

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Technical Study Implementation Data Collection

- Remaining data collection includes (cont.):
 - AQ 9 Entrainment
 - Directly estimate the potential for entrainment and mortality by sampling fish entrainment in the Project flowlines.
 - REC 1 Recreation Resources
 - Continue recreation counts and data download from trail
 cameras
 - TERR 2 Wildlife Resources
 - Monitor use of wildlife bridges and escape ramps along Kaweah No. 2 and 3 Flowlines (fall/winter)

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Technical Study Implementation Preliminary Findings

- Aquatic Resources
 - Occurrence of hardhead in the Kaweah River
 - No FYLF found during protocol-level surveys
 - Abundance of trout spawning gravel
- Cultural Resources
 - 18 historic period built environment resources documented; 6 appear eligible for listing in NRHP
 - 34 previously documented archaeological resources relocated and assessed
 - 8 new archaeological sites identified (7 historic, 1 prehistoric)

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Technical Study Implementation Preliminary Findings

- Recreation Resources (Whitewater Boating)
 - Flow studies not required
 - Dissemination of real-time flow information would enhance existing boating opportunities
- Botanical Resources
 - 1 special-status plant, Munz's iris (*Iris munzii*), found in the vicinity of Kaweah No. 1 Flowline – 29 distinct populations mapped
 - NNIPs are prolific in the Project area

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Technical Study Implementation Preliminary Findings

- Wildlife Resources
 - Wildlife observed successfully crossing wildlife bridges, including mule deer, bobcat, black bear, and coyote
 - 4 special-status bat species were found in the study area:
 Pallid Bat (Antrozous pallidus), Western Mastiff Bat (Eumops perotis californicus), Western Small-footed Myotis (Myotis ciliolabrum), and Yuma Myotis (Myotis yumanensis).
 - 2 other special-status wildlife species (other than bats) were found in the study area: Ringtail (Bassariscus astutus) and Yellow Warbler (Setophaga petechia)

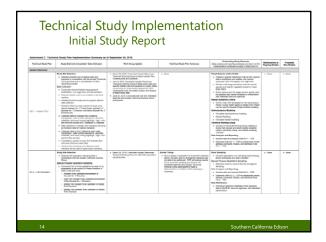
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Technical Study Implementation Initial Study Report

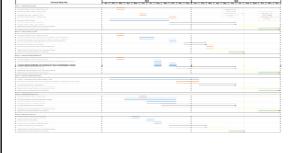
- Initial Study Report filed Oct 18, 2018
- Initial Study Report components:
 - Cover Letter
 - Attachment A Certificate of Service
 - Attachment B Distribution List
 - Attachment C TSP Implementation Summary
 - Attachment D TSP Implementation Schedule
- · Available for download here:
 - www.sce.com/kaweah
 - www.ferc.gov/docs-filing/elibrary.asp

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Technical Study Implementation Initial Study Report



Technical Study Implementation Variances

- All studies implemented as outlined in FERCapproved TSPs with a few variances
- · Variances fall into three categories:
 - Survey timing
 - Study approach refinement
 - Report distribution

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Technical Study Implementation Variance – Survey Timing

- AQ 2 Fish Populations
 - Timing identified in the AQ 2 TSP for conducting qualitative fish sampling (YOY emergence) was May-June 2018 (three sampling periods).
 - Due to delay in acquisition of scientific collection permit, the early May fry emergence sampling was not able to be performed.
 - SCE will analyze results of the June/July sampling and consult with interested agencies and the Aquatic TWG to make a determination on whether a third sampling is necessary.

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Technical Study Implementation Variance – Survey Timing

- AQ 5 Geomorphology
 - Timing identified in the AQ 5 TSP for conducting sediment survey and hydrology analysis was November 2017 to August 2018.
 - Timing to complete these surveys extended through October 2018.

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Technical Study Implementation Variance – Survey Timing

- CUL 1 Cultural Resources (Archaeology)
 - Timing identified in the CUL 1 TSP for conducting the archaeological inventory and survey was April-May 2018.
 - Archaeological inventory and survey was completed in May-June 2018.

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Technical Study Implementation Variance – Survey Timing

- LAND 2 Aesthetic Resources
 - Timing identified in the LAND 2 TSP for conducting the helicopter noise assessment was April-June 2018.
 - SCE did not utilize a helicopter for O&M activities during this period.
 - The helicopter noise assessment occurred in September 2018.

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Technical Study Implementation Variance – Survey Timing

- REC 1 Recreation Resources
 - Timing identified in the REC 1 TSP for conducting visitor counts at Edison Beach was January-December 2018.
 - Survey counts did not begin until March 2018.
 - Visitor counts will continue through March 2019 to obtain a complete year of data.

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Technical Study Implementation Variance – Survey Timing

- TERR 2 Wildlife Resources
 - Timing identified in the TERR 2 TSP for conducting special-status bat reproductive surveys was August/September 2018.
 - In consultation with resource agencies, acoustic survey timing was shifted to the last two weeks in June to coincide with the end of the typical maternal roosting period to maximize the potential for detections.

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Technical Study Implementation Variance – Study Approach Refinement

- CUL 1 Cultural Resources
 - Implementation of the CUL 1 TSP included the addition of a one-mile CHRIS record search buffer surrounding the APE to provide additional contextual information for resources in the APE.
 - Historic period built environment resources associated with the Project in Sequoia National Park were inventoried and evaluated for NRHP eligibility because these resources are contextually associated with historic period built environment resources in the Project APE.

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Technical Study Implementation Variance – Study Approach Refinement

- LAND 1 Transportation System
 - The estimated useful remaining life span of surface treatments and erosion and drainage features on Project roads and trails was not included in the assessment
 - It was determined that the useful remaining lifespan of surface treatments and erosion and drainage features was subjective and could change dramatically depending on the severity of local conditions (i.e., heavy equipment use or severe storms).

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Technical Study Implementation Variance – Study Approach Refinement

- REC 1 Recreation Resources
 - The REC 1 TSP included installation of two trail cameras along Salt Creek Road.
 - Following consultation with the BLM, it was determined that only one trail camera would be necessary.

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Technical Study Implementation Variance – Study Approach Refinement

- REC 1 Recreation Resources
 - The REC 1 TSP included estimation of recreation counts at SCE's Kaweah No. 2 River Access Area (Edison Beach) through randomly scheduled vehicle counts.
 - To augment visitor counts at Edison Beach, a trail camera was installed at the parking area to record visitor use

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Technical Study Implementation Variance – Study Approach Refinement

- TERR 1 Botanical Resources
 - The TERR 1 TSP indicated that if non-native invasive plants (NNIP) are identified on the perimeter of the study area, that the study area would be expanded to document the extent of the population.
 - In most cases this occurred with once exception tocalote (*Centaurea melitensis*) was found to be ubiquitous in portions of the Project area and vicinity.
 - TERR 1 TSR maps will clearly indicate the locations where extensive tocalote populations occurred.

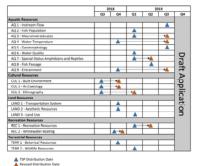
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Technical Study Implementation Variance – Report Distribution

- Report distribution delayed because additional time was needed to:
 - Complete field studies
 - Consult with agencies
 - Acquire or compile data
 - Analyze data
 - Complete modeling
- Updated schedules are included in Initial Study Report (Attachment D)

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Technical Study Implementation Variance – Report Distribution

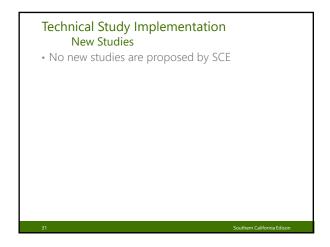


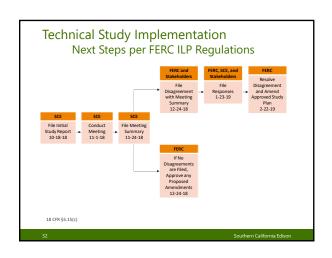
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Technical Study Implementation Modifications

- AQ 9 Entrainment study proposed modifications
 - Revised AQ 9 TSP distributed to stakeholders for review October 26, 2018
 - File comments concurrent with Initial Study Report Meeting Summary
 - Proposed Approach
 - Four representative sampling time periods
 - Three consecutive days (12 hours/day)
 - Initial and night sampling at 50% diversion capacity (safety precaution)
 - Use Kaweah No. 2 Flowline information as surrogate for Kaweah No. 3 Flowline
 - Sampling in Kaweah No. 1 Flowline contingent on repair of damage (landslide)

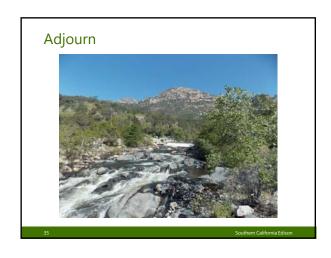
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Kaweah Project (FERC Project No. 298) Initial Study Report Meeting

Date: November 1, 2018 Location: Wyndham Visalia, Pine Room, 9000 W. Airport Dr., Visalia, CA 93277 Subject: Kaweah Project – Initial Study Report Meeting

Name	Organization	Address	Phone Number	Email Address
Nathan Fisch	SWRCB	1001 I Street Sacramato, La	916-322-6796	nathan. fisch@waterboards. ca, gov
ROBBET BIEDGEMANN	SCE		760-614-0807	LOBBET. BIEDERMANN & SCE. COM
Walt Bertles	motlylimited	2821 South Sout C	1.553-625-244	8 Bentley 460 oar Whit Not
Zak Jaroko	Tule River TRibul Courcil	670 N Ree Rd pv. 10 Cq.	781-4271	
Abimael León	California Department of Fish & Wildlife	1130 East Shaw Ave. Fresno, Cd 93710	(559) 243-4014 (x1.25)	Abimael. Leon@ wildlife. ca-gov
David Moore	SCE		626-999-6101	david. Moore ESce. com
JAMES KENHARD	SCE		559-684-3793	james. Kennarda sce.com
Ginger Bora deham	Seguoia NP		54 565-4266	ginger_bradshew anps. gov
Ed Binnehi				
Julie Smith	Cardno			





Kaweah Project (FERC Project No. 298) Initial Study Report Meeting

 Date:
 November 1, 2018
 Location:
 Wyndham Visalia, Pine Room, 9000 W. Airport Dr., Visalia, CA 93277
 Subject:
 Kaweah Project – Initial Study Report Meeting

Organization	Address	Phone Number	Email Address
FERC			
PERC			
FERC			
PERC			
BLM			
BLM			
NPS			
seguoia River Lands Trust			
	FERC FERC FERC BLM BLM	FERC FERC FERC BLM NPS	FERC FERC FERC BLM NPS

Attachment C

Revised AQ 9 – Entrainment Technical Study Plan

REVISED: OCTOBER 26, 2018

POTENTIAL RESOURCE ISSUE:

• Fish mortality or translocation associated with flow diversion, intake structures or powerhouse facilities.

PROJECT NEXUS:

 Project diversions could result in non-lethal or lethal entrainment of fish species at Project powerhouses and diversion facilities.

POTENTIAL LICENSE CONDITIONS:

- Modification of Project facilities or operations.
- Offset mitigation.

STUDY OBJECTIVES:

- Characterize Project diversions, flowlines, powerhouse turbines, and operations in relation to factors that may affect entrainment or mortality.
- Directly estimate the potential for entrainment and mortality by sampling fish entrainment in the Project flowlines.
- Develop the information necessary to assess the potential fish population/production effects of entrainment.

EXTENT OF STUDY AREA:

• The study area for characterization of the Project diversions and powerhouse turbines includes the three Project flowlines (Kaweah Nos. 1, 2, and 3) and powerhouses (Kaweah Powerhouse Nos. 1, 2, and 3).

STUDY APPROACH:

- Characterize Project diversion structures and intakes, flowlines, diversion operations, and powerhouse turbines. Provide either calculated or measured intake velocity fields at each intake structure over the range of potential inflows. Characterize the powerhouse turbine fish survival using literature-based turbine fish survival estimates.
- Directly estimate entrainment and mortality.
 - During fivefour representative time periods, when the Project diversions are operating, quantify fish entrainment in to each of the Kaweah Nos. 1 and 2 Project flowlines (Kaweah Nos. 1, 2, and 3) using standard fish sampling gear used successfully in numerous entrainment studies (e.g., NID and PG&E 2011; Vogel 2013). Identify the representative sampling periods in consultation with agency biologists/staff. The four proposed sampling periods are: (1) November/December, (2) February/March, (3) May/June, and (4) July.

Initial entrainment sampling was conducted in Kaweah Nos. 2 and 3 flowlines on June 19-20, 2018. Sampling in Kaweah No. 3 Flowline resulted in overtopping and undermining of the flowline upstream of the Kaweah No. 3 Forebay and termination of the entrainment sampling. Post study review identified potential high risk of damage to infrastructure and the environment related to entrainment sampling in the Kaweah

No. 3 flowline. Issues of concern are: (1) inadequate freeboard in the flowline at full diversion capacity when the sampling net is placed in the flowline; (2) steep topography along the flowline; (3) remote sampling locations; and (4) lack of access to equipment to assist in installing, cleaning, and removing entrainment nets.

<u>Due to the high risk associated with Kaweah No. 3 Flowline, the study proposes to use entrainment monitoring in the Kaweah No. 2 Flowline as a surrogate for entrainment in Kaweah No. 3 Flowline.</u>

In addition, due to a landslide that damaged the Kaweah No. 1 Flowline in July 2018, the Project is currently not diverting water from the East Fork Kaweah River. The timing of the entrainment study on the Kaweah No. 1 Flowline is contingent upon its repair.

For each of the four sampling periods:

- Sample entrainment for three consecutive days (12 hours/day) during each sample period according to the following schedule¹:
 - 8 am 1 pm time window, sample 4 hours.
 - 3 pm 8 pm time window, sample 4 hours.
 - − 10 pm − 3 am time window, sample 4 hours.
- During each sampling period, the first day of sampling will be conducted at 50% diversion capacity as a safety precaution. Diversion over the next two days of sampling will be increased up to 100% diversion capacity depending upon site-specific conditions (i.e., debris, canal freeboard). However, all night sampling will be conducted at 50% diversion capacity as a safety precaution.
- The feasibility of sampling each location will need to be made prior to study implementation, but initially it appears high quality sampling is possible.
 - Sample entrainment for three consecutive days during each sample period.
 - Sample using a modified Kodiak trawl or fyke net in each flowline. Measure the proportion of flow sampled by the net, if the entire flow is not sampled. In the unlikely event high quality net sampling is not feasible, sample the flow field with a combination of video/sonar.
 - Identify, enumerate, and measure the length of entrained fish and record their status (uninjured, injured, and killed).
- Evaluate the potential fish population and production effects of entrainment at the Project diversions using Project operations data, fish population data obtained from the AQ 2 Fish Population Technical Study Plan (TSP), and literature information.

SCHEDULE:

Date	Activity
November 2017 <u>July</u> August	Summarize Project diversion and turbine information, and
201 <mark>98</mark>	directly measure entrainment in Project flowlines

During each time period, 4 hours of active netting is proposed, however, a 5-hour sampling window is identified to allow for placement and cleaning of nets.

September January 2019 – July November 20198	Summarize fish population data and potential effects of entrainment on fish populations/production and prepare draft report
December August 20198	Distribute draft report to the stakeholders in the Draft License Application
December August 2019 8 October February 2019	Stakeholders review and provide comments on draft report (90 days)
March-NovemberApril 2019	Resolve comments and prepare final report
DecemberAugust 2019	Distribute final report in Final Draft License Application

REFERENCES:

- Nevada Irrigation District and Pacific Gas & Electric Company (NID and PG&E). 2011. Technical Memorandum 3-5, Fish Entrainment. Yuba-Bear FERC Project No. 2266-096 and Drum-Spaulding FERC Project No. 2310-173.
- Vogel, D. 2013. Evaluation of Fish Entrainment in 12 Unscreened Sacramento River Diversions. Prepared for the CVPIA Anadromous Fish Screen Program and the Ecosystem Restoration Program.

Attachment D

Distribution List

Organization	Name	Street Address	City, State, Zip	Email
Federal Government/Representatives				
Federal Energy Regulatory Commission	Kimberly D. Bose Secretary	888 First Street, N.E.	Washington, DC 20426	
Federal Energy Regulatory Commission	Frank Winchell	888 First Street, N.E.	Washington, DC 20426	frank.winchell@ferc.gov
Federal Energy Regulatory Commission	James Hastreiter			james.hastreiter@ferc.gov
National Marine Fisheries Service California Central Valley Office	Maria Rea Assistant Regional Administrator			maria.rea@noaa.gov
National Marine Fisheries Service California Central Valley Office	Jeff McLain Central Valley Office Division Manager			jeff.mclain@noaa.gov
Sequoia and Kings Canyon National Parks	Woody Smeck Superintendent	47050 Generals Highway	Three Rivers, CA 93271-9700	woody_smeck@nps.gov
Sequoia and Kings Canyon National Parks	Nancy Hendricks Chief of Planning and Compliance	47050 Generals Highway	Three Rivers, CA 93271-9700	nancy_hendricks@nps.gov
Sequoia and Kings Canyon National Parks	Ginger Bradshaw	47050 Generals Highway	Three Rivers, CA 93271-9700	ginger_bradshaw@nps.gov
National Park Service Hydropower Assistance Program	Stephen M. Bowes	333 Bush Street, Suite 500	San Francisco, CA 94104	stephen_bowes@nps.gov
National Park Service Hydropower Assistance Program	Susan Jones-Rosebrough	333 Bush Street, Suite 500	San Francisco, CA 94104	susan_rosebrough@nps.gov
National Parks Service Hydropower Assistance Program	Barbara Rice Program Manager	333 Bush Street, Suite 500	San Francisco, CA 94104	barbara_rice@nps.gov
U.S. Army Corps of Engineers Planning Division	Sacramento District	1325 J Street, Room 1513	Sacramento, CA 95814	spk-pao@usace.army.mil
U.S. Bureau of Indian Affairs Pacific Region	Amy Dutschke Regional Director	2800 Cottage Way	Sacramento, CA 95825	amy.dutschke@bia.gov
U.S. Bureau of Land Management Bakersfield Field Office	Christina Castellon Realty Specialist (PM)	3801 Pegasus Drive	Bakersfield, CA 93308	ccastellon@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Amy Girado Archaeologist	3801 Pegasus Drive	Bakersfield, CA 93308	agirado@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Maria Soto Realty Specialist	3801 Pegasus Drive	Bakersfield, CA 93308	msoto@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Carly Summers Natural Resource Specialist Supervisor/Planning	3801 Pegasus Drive	Bakersfield, CA 93308	csummers@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Tamara Whitley Archaeologist	3801 Pegasus Drive	Bakersfield, CA 93308	twhitley@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Brien Chartier Recreation	3801 Pegasus Drive	Bakersfield, CA 93308	bchartie@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Romina Copado GIS	3801 Pegasus Drive	Bakersfield, CA 93308	rcopado@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Alison Lipscomb Realty Specialist	3801 Pegasus Drive	Bakersfield, CA 93308	alipscomb@blm.gov

Organization	Name	Street Address	City, State, Zip	Email
J.S. Bureau of Land Management Bakersfield Field Office	Karen Doran Range Specialist	3801 Pegasus Drive	Bakersfield, CA 93308	kdoran@blm.gov
J.S. Bureau of Land Management Bakersfield Field Office	Sarah Bullock Wildlife Biologist	3801 Pegasus Drive	Bakersfield, CA 93308	sbullock@blm.gov
J.S. Bureau of Land Management Bakersfield Field Office	CJ Clara Hurley Wildlife Biologist	3801 Pegasus Drive	Bakersfield, CA 93308	cchase@blm.gov
I.S. Bureau of Reclamation South-Central California Area Office	Michael Jackson Area Manager	1243 N Street	Fresno, CA 93721-1813	mjackson@usbr.gov
.S. Fish and Wildlife Service acific Southwest Region	Daniel Welsh	2800 Cottage Way, W-2605	Sacramento, CA 95825	Daniel_Welsh@fws.gov
.S. Fish and Wildlife Service acific Southwest Region	Alison Willy	2800 Cottage Way, W-2605	Sacramento, CA 95825	alison_willy@fws.gov
.S. Fish and Wildlife Service acific Southwest Region	Richard Kuyper	2800 Cottage Way, W-2605	Sacramento, CA 95825	richard_kuyper@fws.gov
.S. Geological Survey lacer Hall, Room 2005	Denis O'Halloran FERC Coordinator	6000 J Street	Sacramento, CA 95819	dohall@usgs.gov
I.S. House of Representatives 1st Congressional District of California	David Valadao Congressman	101 North Irwin Street, Suite 110B	Hanford, CA 93230	
I.S. House of Representatives 2nd Congressional District of California	Devin Nunes Congressman	113 North Church Street, Suite 208	Visalia, CA 93291	
I.S. House of Representatives 3rd Congressional District of California	Kevin McCarthy Congressman	4100 Empire Drive, Suite 150	Bakersfield, CA 93309	
J.S. Senate	Kamala Harris Senator	501 I Street, Suite 7-800	Sacramento, CA 95814	
J.S. Senate	Dianne Feinstein Senator	One Post Street, Suite 2450	San Francisco, CA 94104	
tate Government/Representatives				
alifornia Department of Fish and Wildlife entral Region	Julie Vance	1234 E. Shaw Avenue	Fresno, CA 93710	julie.vance@wildlife.ca.gov
alifornia Department of Fish and Wildlife entral Region	Abimael León	1130 E. Shaw Avenue	Fresno, CA 93710	abimael.leon@wildlife.ca.gov
alifornia Department of Parks and Recreation Iffice of Historic Preservation	Julianne Polanco State Historic Preservation Officer	1725 23rd Street, Suite 100	Sacramento, CA 95816	julianne.polanco@parks.ca.gov
alifornia Public Utilities Commission		505 Van Ness Avenue	San Francisco, CA 94102-3214	
alifornia State Senate 6th Senate District	Jean Fuller Senator	State Capitol, Room 4048	Sacramento, CA 95814-4900	
alifornia State Senate 4th Senate District	Andy Vidak Senator	State Capitol, Room 3082	Sacramento, CA 95814-4900	
entral Valley Regional Water Quality Control Board resno Branch	Manager	1685 E Street	Fresno, CA 93706-2007	
ative American Heritage Commission		1550 Harbor Boulevard, Suite 100	West Sacramento, CA 95691	nahc@nahc.ca.gov

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Organization	Name	Street Address	City, State, Zip	Email
State Water Resources Control Board Division of Water Rights	Jeff Wetzel	1001 I Street, 14th Floor	Sacramento, CA 95814	jeff.wetzel@waterboards.ca.gov
State Water Resources Control Board Water Quality Certification Program	Nathan Fisch Environmental Scientist	P.O. Box 2000	Sacramento, CA 95812	nathan.fisch@waterboards.ca.gov
State Water Resources Control Board Water Quality Certification Program	Ann Marie Ore Environmental Program Manager	1001 I Street, 14th Floor	Sacramento, CA 95814	annmarie.ore@waterboards.ca.gov
State Water Resources Control Board Division of Water Rights	Erin Ragazzi	1001 I Street, 14th Floor	Sacramento, CA 95814	erin.ragazzi@waterboards.ca.gov
Office of Historic Preservation	Kathleen Forrest	1725 23rd Street, Suite 100	Sacramento, CA 95816	kathleen.forrest@parks.ca.gov
Local Government				
Tulare County Planning Branch	Michael Washam Assistant Director	5961 South Mooney Blvd.	Visalia, CA 93277	mwasham@co.tulare.ca.us
Tulare County	Clerk-Recorder	221 South Mooney Blvd., Room 103	Visalia, CA 93291	
Tulare County Library Main Branch	County Librarian	200 W. Oak Avenue	Visalia, CA 93291	
Tulare County Water Commission County of Tulare	Denise England Water Policy Manager	2800 W. Burrell Avenue	Visalia, CA 93291	dengland@co.tulare.ca.us
City of Tulare Planning Department	Josh McDonnell Community & Economic Development Director	411 East Kern Avenue	Tulare, CA 93274	jmcdonnell@tulare.ca.gov
City of Visalia Planning Department	Paul Bernal City Planner	315 E. Acequia Avenue	Visalia, CA 93291	paul.bernal@visalia.city
Public Agency				
Exeter Irrigation District	District Manager	150 S. E Street	Exeter, CA 93221	
Ivanhoe Irrigation District	District Manager	33777 Road 164	Visalia, CA 93292	
Kaweah Delta Water Conservation District	Mark Larsen General Manager	2975 N. Farmersville Blvd.	Farmersville, CA 93223	mlarsen@kdwcd.com
Lindmore Irrigation District	Michael Hagman District Manager	P.O. Box 908	Lindsay, CA 93247	mhagman@lindmoreid.com
Tulare Irrigation District	J. Paul Hendrix General Manager	6826 Avenue 240	Tulare, CA 93274	jph@tulareid.org
Kaweah River Power Authority	Terry Stafford	2975 N. Farmersville Blvd.	Farmersville, CA 93223	tstafford@kdwcd.com
Non-Governmental Organization				
American Whitewater	Dave Steindorf California Stewardship Director	4 Baroni Drive	Chico, CA 95928-4314	dave@americanwhitewater.org
American Whitewater	Theresa Simsiman			theresa@americanwhitewater.org
American Whitewater	Megan Hooker			megan@americanwhitewater.org

Organization	Name	Street Address	City, State, Zip	Email
California Sportfishing Protection Alliance	Christopher Shutes FERC Projects Director			cshutes@calsport.org
CalTrout – Sierra Headwaters Region	Eric Huber Director	P.O. Box 3442	Mammoth Lakes, CA 93546	ehuber@caltrout.org
CalTrout – Central California Region	Jacob Katz Director	930 Shiloh Rd., Bldg. 40-#6	Windsor, CA 95492	jkatz@caltrout.org
Friends of the River	Eric Wesselman Executive Director	1418 20th Street, Suite 100	Sacramento, CA 95811	eric@friendsoftheriver.org
Trout Unlimited	James Polfer President – Central Sierra Chapter			jpolfer@hotmail.com
Trout Unlimited	John Sikora Council Chairman	4005 Manzanita Avenue, Suite 6, Box 302	Carmichael, CA 95608	JESIKORA@SBCGLOBAL.NET
Trout Unlimited	Walt Bentley			bentley46@earthlink.net
Advisory Council on Historic Preservation	John Eddins	401 F Street, NW, Suite 308	Washington, DC 20001-2637	jeddins@achp.gov
Tulare County Historical Society	Mike Chrisman President	PO Box 295	Visalia, CA 93279	
Three Rivers Historical Museum	Thomas Marshall President	PO Box 162	Three Rivers, CA 93271	history@3rmuseum.org
Native American Tribes				
Tule River Indian Tribe	Neil Peyron Chairman	P.O. Box 589	Porterville, CA 93258	Neil.Peyron@tulerivertribe-nsn.gov
Tachi-Yokut Tribe	Ruben Barrios Sr. Chairman	P.O. Box 8	Lemoore, CA 93245	rbarrios@tachi-yokut-nsn.gov
Tule River Indian Tribe	Kerri Vera Environmental Coordinator	P.O. Box 589	Porterville, CA 93258	tuleriverenv@yahoo.com
Tule River Indian Tribe	Joseph Garfield Environmental Technician	P.O. Box 589	Porterville, CA 93258	joseph.garfield@yahoo.com
Wukchumni Tribal Council	Hector Lalo Franco Director – Cultural Resources Program	4737 West Concord Avenue	Visalia, CA 93277	hlfranco54@gmail.com
Tachi-Yokut Tribe	Greg Cuara Cultural Specialist	P.O. Box 8	Lemoore, CA 93245	gcuara@tachi-yokut-nsn.gov
Dunlap Band of Mono-Indians - Historical Preservation Society	Mandy Marine President	P.O. Box 18	Dunlap, CA 93621	mandy_marine@hotmail.com
Northern Band of Mono Yokuts	Delaine Bill Chairperson	P.O. Box 234	Dunlap, CA 93621	
Cold Springs Tribe	Carol Bill Chair	P.O. Box 209	Tollhouse, CA 93667	csrchair@netptc.net
Cold Springs Tribe	Blossom Hunter Tribal Administrator	P.O. Box 209	Tollhouse, CA 93667	csradmin1@netptc.net
Cold Springs Tribe	Eric Smith Environmental Director	P.O. Box 209	Tollhouse, CA 93667	csrepa@netptc.net

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Organization	Name	Street Address	City, State, Zip	Email
California Indian Basketweavers Association	Linda Navarro Executive Director	428 Main Street	Woodland, CA 95695	ciba@ciba.org
Mono Elder	Keith Turner	P.O. Box 306	Auberry, CA 93602	keithturner1950@yahoo.com
North Fork Mono Tribe	Ron Goode Chairman	13396 Tollhouse Road	Clovis, CA 93619	rwgoode911@hotmail.com
Kern Valley Indian Community	Julie Turner Secretary	PO Box 1010	Lake Isabella, CA 93240	administrator@kawaiisu.org
Cern Valley Indian Community	Robert Robinson Chairperson	PO Box 1010	Lake Isabella, CA 93240	bbutterbredt@gmail.com
ubatulabas of Kern Valley	Robert L. Gomez, Jr. Tribal Chairperson	PO Box 226	Lake Isabella, CA 93240	rgomez@tubatulabal.org
Vuksache Indian Tribe / Eshom Valley Band	Kenneth Woodrow Chairperson	1179 Rock Haven Ct.	Salinas, CA 93906	kwood8934@aol.com
Picayune Rancheria of Chukchansi Indians	Jennifer Ruiz Chairwoman	P.O. Box 2226	Oakhurst, CA 93644	jruiz@chukchansitribe.net
Wukchumni Tribal Council	Darlene Franco Chairwoman	4737 West Concord Avenue	Visalia, CA 93277	
Dunlap Band of Mono Indians	Dirk Charley Tribal Secretary	5509 East McKenzie Avenue	Fresno, CA 93727	dcharley2016@gmail.com
Dunlap Band of Mono Indians	Benjamin Charley, Jr. Tribal Chairman	470 Winuba Lane	Bishop, CA 93621	charley07@verizon.net
Public				
	Rene Roederer	46468 Mineral King Road	Three Rivers, CA 93271	reneeroederer@gmail.com
Bear Ranch	Daniel Armstrong	616 South Irena Avenue	Redondo Beach, CA 90277	davidarmstrong43@gmail.com
Bear Ranch	Philip Armstrong	1723 Beaver Dam Road	Vilas, NC 28692	
	Autumn Davidson	46262 Mineral King Road	Three Rivers, CA 93271	clarion@value.net
	William Haxton	P. O. Box 811	Three Rivers, CA 93271	mountainviewrealty@sbcglobal.net
	Anne Haxton	P. O. Box 811	Three Rivers, CA 93271	mountainviewrealty@sbcglobal.net
	David Dunham	44024 Sierra Drive	Three Rivers, CA 93271	2shiners@sbcglobal.net
	Mike Hauber	P. O. Box 1116	Three Rivers, CA 93271	m.d.hauber@gmail.com
	Francis Kunz	44229 Kaweah River Drive	Three Rivers, CA 93271	
	Joy Kunz	222 E. Constance Avenue	Santa Barbara, CA 93105	

Organization	Name	Street Address	City, State, Zip	Email
	D. Eleanor Newman	P.O. Box 66	Three Rivers, CA 93271	redbudacres28@aol.com
	Dana Sun	P.O. Box 276 44229-C Kaweah River Drive	Three Rivers, CA 93271	redbudacres28@aol.com
St. Anthony's Retreat	Mike Hand	43816 Sierra Drive	Three Rivers, CA 93271	mike@stanthonyretreat.org
	Betty Wood	P.O. Box 83	Three Rivers, CA 93271	brwood6@sbcglobal.net
	Ben Peña	43815 Dinley Drive	Three Rivers, CA 93271	penarb@sbcglobal.net
	Ginger Curtis	44044 Dinely Drive	Three Rivers, CA 93271	ginger.curtis@att.net
	Robert Ruehling	44044 Dinely Drive	Three Rivers, CA 93271	ruehling@att.net
	Doug Hammer	44751 Dinely Drive	Three Rivers, CA 93271	hhp682@gmail.com
	John Gibler	43459 Sierra Drive	Three Rivers, CA 93271	john.gibler@yahoo.com
	Rudy Nesmith	43429-A Sierra Drive	Three Rivers, CA 93271	rudy@viewpt.com
	Dan Dellinges	43429 Sierra Drive	Three Rivers, CA 93271	
	Coleen Bath	43429 Sierra Drive	Three Rivers, CA 93271	monosail@earthlink.net
Lake Elowin Resort	Milton Melkonian	43840 Dinely Drive	Three Rivers, CA 93271	catchall@lake-elowin.com
	Jonathan Peltzer	P.O. Box 454 44422 Sierra Drive	Three Rivers, CA 93271	peltzerj@asme.org
	Holly Peltzer	P.O. Box 454 44422 Sierra Drive	Three Rivers, CA 93271	drholly@hughes.net
	Michael Kunz	3244 East Kerckhoff	Fresno, CA 93702	mkunz@fresno.edu
	Uwe Reimer	P.O. Box 1179	Three Rivers, CA 93271	bedbug1@sbcglobal.net
	Nancy Reimer	P.O. Box 1179	Three Rivers, CA 93271	bedbug1@sbcglobal.net
	George Tomi	P.O. Box 572 43875 Dinely Drive	Three Rivers, CA 93271	ctomi3r@gmail.com
	Christy Tomi	P.O. Box 572 43875 Dinely Drive	Three Rivers, CA 93271	ctomi3r@gmail.com
Three Rivers Hideaway	Dave Hammond	43365 Sierra Drive	Three Rivers, CA 93271	info@threerivershideaway.com
	Paul Doose	625 Pier Avenue	Santa Monica, CA 90405	pauldoose@earthlink.net

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Organization	Name	Street Address	City, State, Zip	Email
	Tom Baker	46262 Mineral King Road	Three Rivers, CA 93271	clarion@value.net
	Eddie and Jerry Belanger	P.O. Box 177 43715 Dinely Drive	Three Rivers, CA 93271	jbelanger@icc-stravinski.com
	Sue Shanley	44609 Dinely Drive	Three Rivers, CA 93271	
Private				
Sequoia Riverlands Trust	Soapy Mulholland President and CEO	427 S. Garden Street	Visalia, CA 93277	soapy@sequoiariverlands.org
California Water Service, Visalia District	District Manager	216 North Valley Oaks Drive	Visalia, CA 93292	
Consolidated Peoples Ditch Company	James P Silva, Jr,	P.O. Box 366	Farmersville, CA 93223-0366	
Hurley and Laird	Russell Hurley	403 N Floral Street	Visalia, CA 93291	
Minasian, Spruance, Baber, Meith, Soares & Sexton, LLP	Jeffrey Meith Partner	1681 Bird Street	Oroville, CA 95965	
Three Rivers Village Foundation	Tom Sparks	45001 Sierra Drive	Three Rivers, CA 93271	tom.sparks@live.com
The Kaweah Commonwealth	John Elliott	P.O. Box 806	Three Rivers, CA 93271	tkcplanner@gmail.com
FERC SERVICE LIST				
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California Department of Water Resources Office of Chief Counsel	Cathy Crothers	P.O. Box 942836	Sacramento, CA 94236-0001	crothers@water.ca.gov
Southern California Edison	Martin Ostendorf Compliance Manager	P.O. Box 100	Big Creek, CA 93605	martin.ostendorf@sce.com
Southern California Edison	FERC Case Administrator	2244 Walnut Grove Ave.	Rosemead, CA 91770	ferccaseadmin@sce.com
Southern California Edison	Nicolas von Gersdorff Dam Safety Engineer	1515 Walnut Grove	Rosemead, CA 91770	nicolas.von@sce.com
Southern California Edison	Sher Beard	54170 Mountain Spruce	Big Creek, CA 93605	sher.beard@sce.com
Southern California Edison	Derrick Tito			derrick.tito@sce.com

Attachment E

Certificate of Service

Certificate of Service

2018 Initial Study Report Meeting Summary

Southern California Edison Company Kaweah Project FERC Project No. 298

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding, and the enclosed distribution list.

Dated at Rosemead, California this 15th day of November, 2018.

Wayne P. Allen

Principal Manager, Hydro Licensing and Implementation

Southern California Edison Company

1515 Walnut Grove Avenue

Rosemead, CA 91770

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