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Filed Electronically

January 9, 2024

Debbie-Anne A. Reese
Acting Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Subject: Kern River No. 3 Hydroelectric Project, FERC Project No. 2290-122; Initial Study Report Response to Comments

Dear Acting Secretary Reese:

Southern California Edison (SCE) is the owner and operator of the Kern River No. 3 (KR3) Hydroelectric Project (Project), Federal Energy Regulatory Commission (FERC) Project No. 2290. Pursuant to the Code of Federal Regulations, Title 18, Section 5.15(c)(5) (18 CFR § 5.15(c)(5)), SCE is filing this response to comments on the Initial Study Report (ISR), including comments on the Technical Memoranda filed with the ISR, ISR Meeting Summary, requests for modifications to approved studies, and requests for new studies.

A copy of this cover letter will be distributed to Stakeholders via email with a link to the ISR Response to Comments filing and will be posted on SCE's public relicensing website at www.sce.com/kr3.

BACKGROUND

The current license for the KR3 Project expires on November 30, 2026.¹ On September 22, 2021, SCE filed a Notice of Intent to seek a new license for the Project, together with a Preliminary Application Document, which initiated the formal relicensing proceeding using FERC's Integrated Licensing Process (ILP). On July 1, 2022, SCE filed its Revised Study Plan (RSP) that considered FERC's Scoping Documents and comments filed on the Proposed Study Plan and included 18 individual study plans. On October 12, 2022, FERC issued their Study Plan Determination (SPD) that approved SCE's RSP with staff-recommend modifications. Of the 18 studies proposed by SCE, 5 were approved as filed, 12 were approved with staff-recommend modifications, and 1 was not required. FERC also adopted 2 additional stakeholder-requested studies, with modifications, and 1 staff-recommended study, for a total of 20 study plans.

SCE filed the ISR with FERC on October 10, 2023, which as required by FERC's regulations (18 CFR § 5.15(c)(1)) described the overall progress implementing the 20 FERC-approved Study Plans, including a summary of the available study results and a description of any variances from and proposed modifications to the FERC-approved plans. On October 17, 2023, in accordance with FERC regulations (18 CFR § 5.15(c)(2)), SCE held an ISR meeting within 15 days following

¹ *Southern Cal. Edison Co.*, 77 FERC ¶ 61,313 (1996).

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the filing of the ISR with FERC staff and other Stakeholders. The meeting was held in Kernville, California, with a call-in option for remote participation. An ISR Meeting Summary was filed with FERC on October 31, 2023.

Fourteen Stakeholders filed comments in response to SCE's ISR / ISR Meeting Summary, and/or submitted proposed modifications to ongoing studies or requested new studies. In Attachment A, SCE has responded to these filings. Because the sole purpose of the ISR is for FERC staff to determine whether any new or modified studies are needed for the second study season, SCE's absence of a reply to any comment not associated with a proposed new or modified study does not mean that SCE agrees with the comment. SCE reserves the right to reply to all comments at the appropriate time in this relicensing. Also included as part of this filing in Attachment B is a public version of the *OPS-1 Water Conveyance Assessment*, Appendix A: Power Tunnel Hydraulic Model Results, which was previously filed as Critical Energy Infrastructure Information as part of the ISR filing.


NEXT STEPS

As provided in 18 CFR § 5.15(c)(6) and the Revised Process Plan and Schedule issued by FERC following their Study Plan Determination², FERC is expected to resolve any disagreements and amend the approved Study Plans, as appropriate, within 30 days of the due date of SCE's response (i.e., on or before February 9, 2024).

SCE will continue with a second study season data collection through winter 2023-2024 and into spring/summer 2024 for ongoing/outstanding study elements and per FERC's resolution of any disagreements. SCE will provide updated Technical Memoranda if the study is completed by the Draft License Application (DLA), which will be filed by SCE no later than July 3, 2024.³ However, SCE has agreed to provide additional information to Stakeholders outside of the ILP reporting schedule and provide addendums to the Technical Memoranda associated with the *REC-1 Whitewater Boating Study*, *REC-2 Recreation Facilities Use Assessment Study*, and *OPS-1 Water Conveyance Assessment* in the first quarter of 2024. Any remaining study results from the 2023 to 2024 study season will be provided in the Updated Study Report filed with FERC by October 11, 2024.

SCE looks forward to continuing to work with FERC staff and Stakeholders as the relicensing of the KR3 Project proceeds. If you have any questions regarding this filing, please contact David Moore, SCE Project Manager via email at .

Sincerely,

DocuSigned by:

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Wayne P. Allen
Principal Manager

² FERC Revised Process Plan and Schedule, FERC Accession No. 20221012-3025. Issued October 12, 2022. eLibrary | File List (ferc.gov).

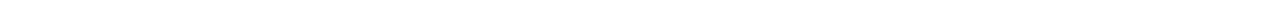
³ FERC's regulations authorize a potential applicant to elect to file a DLA instead of a Preliminary Licensing Proposal (PLP), provided that its Updated Study Report (USR) provide notification of the proposed applicant's intent to file a DLA instead of a PLP. See 18 CFR § 5.16(c). In this case, however, the USR will be filed by October 11, 2024, *after* the July 3, 2024, deadline for filing the DLA or PLP. For this reason, SCE provided notice of its intent to prepare a DLA instead of a PLP in the ISR filing (FERC Accession No. 20231010-5229).

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Enclosures:

- Attachment A: Initial Study Report: Response to Comments
- Attachment B: OPS-1 Water Conveyance Assessment, Appendix A: Power Tunnel Hydraulic Model Results (Public)
- Attachment C: Distribution List

ATTACHMENT A: INITIAL STUDY REPORT: RESPONSE TO COMMENTS



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INITIAL STUDY REPORT (ISR) RESPONSE TO COMMENTS



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



January 2024

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LIST OF ACRONYMS AND ABBREVIATIONS

AW	American Whitewater
CAISO	California Independent System Operator
CDFW	California Department of Fish and Wildlife
CEFF	California Environmental Flows Framework
CFR	Code of Federal Regulations
cfs	cubic feet per second
DLA	Draft License Application
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
ILP	Integrated Licensing Process
ISR	Initial Study Report
KR3	Kern River No. 3
KRB	Kern River Boaters
KRFF	Kern River Fly Fishers
LOI	location of interest
NEPA	National Environmental Policy Act
NFKR	North Fork Kern River
NPS	National Park Service
PAD	Pre-Application Document
PM&E	Protection, Mitigation, and Enhancement
Project	Kern River No. 3 Hydroelectric Project
QA/QC	quality assurance / quality control
RSP	Revised Study Plan
SCE	Southern California Edison
SQF	Sequoia National Forest
SPD	Study Plan Determination
Stakeholders	regulatory agencies, non-government organizations, and other interested parties
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USR	Updated Study Report

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1.0 INTRODUCTION

Southern California Edison (SCE) is the owner and operator of the Kern River No. 3 (KR3) Hydroelectric Project (Project), Federal Energy Regulatory Commission (FERC or Commission) Project No. 2290. SCE currently operates the Project under a 30-year license that was issued by FERC on December 24, 1996 (77 FERC ¶ 61,313), which was subsequently amended in 1997 (81 FERC ¶ 61,162), 2004 (107 FERC ¶ 62,136), and 2019 (166 FERC ¶ 62,049). The current license will expire on November 30, 2026, and SCE is seeking a new license for its continued operation and maintenance of the Project.

Pursuant to the Code of Federal Regulations, Title 18, Section 5.15(c)(5) (18 CFR § 5.15(c)(5)), SCE is filing this response to comments on the Technical Memoranda filed with the Initial Study Report (ISR), ISR Meeting Summary, requests for modifications to approved studies, and requests for new studies. Fifteen comments from 14 Stakeholders, (American Whitewater [AW] filed two comments) were filed with FERC as shown in Table 1.1-1. As summarized in the table, comments received from one regulatory agency, non-government organizations, and other interested parties, collectively referred to as Stakeholders, included general comments about the KR3 Project or the relicensing process; comments on the ISR Meeting/Meeting Summary; new study requests; or proposed revisions to seven of the 20 technical study plans that ranged from providing technical data or information in an alternative format or analysis to modifications of the approved study methodology or approach.

In SCE's attempt to be thorough and inclusive of all comments filed with FERC, SCE has attempted to provide a response to each comment that may be considered a request for a new or modified study, regardless of whether it complied with FERC's requirements as outlined in 18 CFR § 5.15(d) for a study plan modification or 18 CFR § 5.15(e) for a new study request. Because the sole purpose of the ISR is for FERC staff to determine whether any new or modified studies are needed for the second study season, SCE's absence of a reply to any comment not associated with a proposed new or modified study does not mean that SCE agrees with the comment. SCE reserves the right to reply to all comments at the appropriate time in this relicensing.

The document is organized as follows:

- Section 1.0: Introduction
- Section 2.0: Proposed Study Modifications
- Section 3.0: Stakeholder Proposed New Studies
- Section 4.0: Additional Stakeholder Comments
- Section 5.0: Conclusion
- Section 6.0: References

1.1. DATA COLLECTION AND TIMING OF STUDY RESULTS

SCE recognizes the challenges and timing of information pertaining to technical study results in relation to the overall Integrated Licensing Process (ILP) Process Plan and Schedule (FERC, 2022). For studies that are still ongoing or data analysis not completed by the ISR filing deadline, SCE included a description of the data collected to date and identified any study plan variances—just as FERC's regulations require. Contrary to several Stakeholder comments, FERC's regulations do not require applicants to provide data at the ISR stage related to an incomplete, ongoing study. Rather, as FERC's regulations require, SCE described "its overall progress in implementing the study plan and schedule and the data collected, including an explanation of any variance from the study plan and schedule," 18 CFR § 5.15(c)(1).

As stated during the ISR meeting and shown in the Revised Technical Study Plan Implementation Schedule filed with the ISR as Attachment C (SCE, 2023), SCE will provide an updated Technical Memoranda if the study is completed by the Draft License Application (DLA), which SCE will file with FERC no later than July 3, 2024. However, SCE has agreed to voluntarily provide additional information to Stakeholders outside of the standard ILP reporting schedule and provide addendums to the Technical Memoranda associated with the REC-1 Whitewater Boating Study, REC-2 Recreation Facilities Use Assessment Study, and OPS-1 Water Conveyance Assessment in the first quarter of 2024. See SCE Responses throughout this filing regarding specific information requests.

SCE is also proposing one study modification as part of the REC-2 Recreation Facilities Use Assessment. SCE proposes to extend the 2024 study period and conduct additional spot counts and 2-hour calibration counts through May 2024 (refer to Response to KRB-19 in Section 2.4).

Table 1.1-1. Stakeholders who Filed Comments on SCE’s ISR, ISR Meeting, or New Study Requests

	NPS	KRB	AW	KRFF	Neil Nikirk	Lester Swanson	James Spring	Anthea Raymond	Chris Brown	Samuel Sparhawk	Dean Koutzoukis	Chuck Rickards	Jose Luis Pino	Amin Nikravan
General Comment	X	X	X			X	X		X	X	X	X		X
ISR Meeting / Meeting Notes		X	X	X	X									
FERC Approved Study Plans: Request for Study Modifications														
WR-1 Water Quality		X												
WR-2 Hydrology		X	X		X									
BIO-1 Foothill Yellow-legged Frog														
BIO-2 Special-Status Salamanders														
BIO-3 General Wildlife Resources														
BIO-4 Benthic Macroinvertebrate														
BIO-5 Western Pond Turtle														
BIO-6 Stream Habitat														
BOT-1 General Botanical Resources														
REC-1 Whitewater Boating	X	X	X		X			X	X				X	
REC-2 Recreation Facilities Use Assessment	X	X	X		X									
REC-3 Existing Recreation Facilities Condition Assessment														
CUL-1 Cultural Resources														
TRI-1 Tribal Resources														
LAND-1 Road Condition Assessment														
GEO-1 Erosion and Sedimentation														
OPS-1 Water Conveyance Assessment	X		X		X									
EJ-1 Environmental Justice														
AES-1 Aesthetic Flows		X												
ANG-1 Enjoyable Angling Flows		X		X										
New Study Requests														
WR-2.4 Hydrology. Authorized Flows Tables		X												
WR-2.5 Hydrology. CEFF Below Fairview Dam		X												
WR-2.6 Hydrology. 2018 Preliminary Flows		X												
NRG-1 Voltage Stepping Costs		X												
NRG-2 CAISO Bid History		X												

AW = American Whitewater; ISR = Initial Study Report; KRB = Kern River Boaters; KRFF = Kern River Fly Fishers; NPS = National Park Service.

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2.0 PROPOSED STUDY MODIFICATIONS

As depicted in Table 1.1-1, Stakeholder proposed study modification requests were specifically directed toward seven of the 20 FERC approved study plans and include:

- WR-1 Water Quality
- WR-2 Hydrology
- REC-1 Whitewater Boating
- REC-2 Recreation Facilities Use Assessment
- OPS-1 Water Conveyance Assessment
- AES-1 Aesthetic Flows
- ANG-1 Enjoyable Angling Flows

Pursuant to Section 5.15(d) of FERC's regulations, any proposal to modify an ongoing study must be accompanied by a showing of good cause why the proposal should be approved and must include a demonstration that: (1) the approved studies were not conducted as provided for in the approved study plan; or (2) the study was conducted under anomalous environmental conditions or that environmental conditions have changed in a material way.

Comments that met or attempted to meet FERC's criteria under 18 CFR § 5.15(d) for a study modification and comments about how data were analyzed or presented in the Technical Memoranda are discussed within this section, even if they do not include a discussion of how the requested modification meets FERC's criteria justifying a study plan modification. SCE has organized the comments and responses by Study Plan, then by Stakeholder. Individual comment numbers were assigned to each relevant statement (Comment Key ID) and were numbered based on the order they were presented in their respective comment letter, thus, some Comment Key ID numbers may not be presented in sequential order in the tables below but are included in subsequent sections within this document. Due to the length of some comments filed by Stakeholders, if needed for space, SCE provided a summary of their comment, focusing primarily on the issue or concern raised, or specific study modification request. Comments in their entirety are provided in the respective letters on file with FERC for P-2290-122.

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2.1. WR-1 WATER QUALITY

One comment regarding a modification to the WR-1 study plan was filed by Kern River Boaters (KRB) in which they requested an additional sampling period for fecal coliform collection.

Comment Key ID	Commenter	Comment	SCE Response
KRB-1	Kern River Boaters	<p>KRB WR-1.1 Water Quality. Bacterial Monitoring, Modification.</p> <p>The point of this proceeding is to capture project effects. Measuring water quality parameters above and below Fairview Dam at times of de minimis diversion does nothing to capture them, as they are primarily due to the project's diversion of water. The September 2022 bacteria tests should accordingly be run again in late Summer/early Fall 2024. We ask for that: good cause exists for the reasons stated, and such a modification is merited by the anomalous conditions under which the September 2022 tests were run. (pg 5)</p>	<p>This study is being conducted as approved by FERC in its Study Plan Determination (SPD). SCE collected bacteria samples in September 2022 and August and September 2023. Additional sampling is planned for July 2024, since the July 2023 bacteria sampling was postponed due to high flows. The bacterial samples collected to date represent a range of conditions, including a dry water year (2022) and a wet water year (2023). The 2023 sampling included five samples collected within a 30-day period, as outlined in the WR-1 study plan, and preliminary analyses of 2022 to 2023 results indicate very low levels of fecal coliform. Thus, KRB has not satisfied FERC's criteria for a modified study by demonstrating that the approved study was not conducted as provided for in the approved study plan or that the study was conducted under anomalous environmental conditions, or that environmental conditions have changed in a material way.</p>

2.2. WR-2 HYDROLOGY

Comments regarding WR-2 study plan modifications were filed by KRB, AW, and Neil Nikirk. Their comments centered around three main topics which include (1) the desktop assessment of California Environmental Flows Framework (CEFF); (2) delay in completing the travel time assessment; and (3) how hydrology data were presented in the Technical Memorandum. In the table below, SCE responds to these issues.

Comment Key ID	Commenter	Comment	SCE Response
KRB-2	Kern River Boaters	<p>KRB WR-2.1 Hydrology. Management Goals, Modification</p> <p>KRB: Edison's statement on CDFW is out of date, and its statement on USFS is incomplete. Both are accordingly at variance with the study plan. CDFW recently (October 06, 2023) sent out an email touting its updated Strategic Plan for Trout Management. In its updated plan, CDFW modified its management goals to include "improving wild trout populations" by — specifically — "identifying trout fisheries impaired by dams that could benefit from revised flow regimes [and] more natural flow regimes." (CDFW Plan at 29.) We ask that the Commission direct Edison to correct the ISR with this updated management goal.</p> <p>Edison further neglects the following goal from the USFS NFKR Wild and Scenic River Comprehensive Management Plan: "maintain or enhance viable populations of native wildlife and fish species," conduct an "active program of stream habitat improvement," maintain a "riffle to pool ratio [of] approximately 1:1," and manage the area to "maintain or achieve adequate user safety and experience levels." We ask that the Commission direct Edison to amend the ISR with this omitted management goal.</p> <p>Good cause exists for these modifications: they correct variances from the study plan direction on identifying ecological management goals per the CEFF rubric (ISR WR-2 at 4), they serve the public and study plan interest in identifying management goals relevant to project hydrological effects, and they can be completed at little cost or effort to the license applicant. (pg 6-7)</p>	<p>The desktop assessment of CEFF is being conducted as approved by FERC in its SPD. SCE appreciates the identification of this additional information. The updated/expanded goals referenced by KRB will be reviewed and included in the CEFF assessment, as applicable, and reported in the Updated Study Report (USR). However, updated or expanded reference documents describing resource agency goals are not a study variance or request for a new or modified study, nor would they all apply to Section A of CEFF (e.g., public safety is considered during a subsequent section in CEFF, which corresponds to the FERC Protection, Mitigation, and Enhancement [PM&E] development phase).</p>
KRB-3	Kern River Boaters	<p>KRB WR-2.2 Hydrology. Travel Times, Modification.</p> <p>Unlike KRB's flow travel time proposal, the SPD only required Edison to monitor the stick gauge at the powerhouse from April 01-July 31 and to calculate changes from 40 to 1,400 cfs. (SPD B-6.) There were no known diversion changes within those parameters this year, as flows below Fairview went</p>	<p>Study WR-2 is being conducted as approved by FERC in its SPD. However, high flows in 2023 did delay the flow travel time element of Study WR-2, which is scheduled to be completed by October 2024 for inclusion in the USR. There is no basis for KRB's request for SCE to provide travel-time data by July 31, 2024. KRB will have sufficient time after this information is presented in the USR to develop proposed relicensing measures.</p>

Comment Key ID	Commenter	Comment	SCE Response
		<p>above 1,400 in early April and never came back down before July 31, and we did not have a whitewater rec release in 2023.</p> <p>Edison has not reported on this study, but given the facts above, this year's study season likely failed to provide usable data regarding flow travel times. The point of this study is to get reliable data on the time it takes a change in diversion to reach the bottom of the 16-mile dewatered reach. To date, it has been conducted under anomalous environmental conditions justifying modification. In order to ensure the success of this study, which for reasons discussed in the study design process is critically important to match up the timing of rec flows with the phenomenon of marginal/negative energy pricing and renewable curtailment in the CAISO grid footprint, FERC should require Edison to alter its diversion to quantify how long it takes a change of diversion of various degrees (100 cfs increments from 0-600 cfs per the SPD) at various levels of instream flow (40-1,400 cfs per the SPD) to reach the powerhouse through the dewatered reach. We ask that the Commission direct Edison to accomplish this task as soon as practical but prior to July 31, 2024, lest the opportunity to gather this critical data prior to the development of license conditions be lost. Good cause exists for this request for the reasons expressed: it is made to satisfy the goals of the approved study plan given last year's anomalously high flows. (pg 8)</p>	
KRB-4	Kern River Boaters	<p>KRB WR-2.3 Hydrology. Median Flows, Modification.</p> <p>As indicated by several participants at the October 17, 2023 ISR meeting, Edison's use of the monthly mean for figure 5.1-4 (above) misleads its intended observers — governing agents and stakeholders — about typical project effects. It does so to such an extent it constitutes a variance from the study plan. (pg 9)</p> <p>Based on the preceding analysis, we ask that the Commission modify the WR-2 study to require summaries based on median monthly flows and account for the time the project was offline. Good cause for this request is as follows: FERC studies are supposed to be based on commonly used scientific methodologies. WR-2 seeks to summarize fair representations of project hydrological effects. (RSP WR-2 at 1.) Edison has not provided those, offering instead a summary of monthly effects that are (1) based on monthly means and (2) based on long periods of time the project was offline and could have no effect. No generally accepted scientific practice would use the mean over the median to represent project effects on hydrology given the asymmetrical distribution of water years over the license term. Nor would a generally accepted scientific practice fail to account for time the project was offline in such a representation, given that the Edison has proposed no new license conditions and such large swaths of offline time for repairs and rehabilitation cannot be guaranteed going forward — to the contrary, Edison spent millions and millions of dollars during this last term ensuring the project would not have such lengthy outages in the next term. The WR-2 ISR is accordingly at variance with the approved study. It should be corrected in the manners we have shown above, but at the very least the summaries should use the median to represent the central tendency of the diversion and make a good- faith effort to account for times there was no diversion. This is entirely desktop work, and we completed our summaries with less than 20 hours of analysis for a total estimated cost of about \$3,000. We have provided the blueprints for such in our linked spreadsheet, making the task even easier for Edison. Given the importance of the WR-2 summaries in this process, the misleading nature of Edison's work to date, and the relatively small cost to the licensee, good cause for this request exists. (pg 21-22)</p>	<p>Study WR-2 is being conducted as approved by FERC in its SPD. KRB's comment is unfounded, incorrect, and ignores commonly used scientific methodologies. As such, SCE disagrees with KRB's claim of a study variance or the need to alter the statistical analyses of the hydrology data.</p> <p>Study WR-2 includes flow reporting typically used and accepted by state and federal resource agencies as commonly used scientific methodologies; the California Department of Water Resources California Data Exchange Center database, the U.S. Geological Survey (USGS) National Water Information System database, and USGS Water Data Reports all report monthly flow data as a mean (sometimes with minimums and maximums), and almost never as a median. Accordingly, Study WR-2 summarizes Kern River flows as mean, maximum, and minimum monthly and annual flows in Study WR-2 Tech Memorandum Tables 5.1-1, 5.1-2, 5.1-3, and 5.1-4. However, the same flow data is also presented as box and whisker plots, where median is shown as center bar of the box in Study WR-2 Tech Memorandum Figures 5.1-1, 5.1-3, 5.1-5, and 5.1-6. Additionally, the Stakeholders were provided with the full dataset for the flows from water years 1997–2021 from USGS Gages 11185500 and 11186000 on June 30, 2023.</p> <p>The tables and graphics included in Study WR-2 represent the complete dataset from current (baseline) conditions, which include periods when KR3 was offline. KRB does not provide any scientific basis for excluding valid data from the dataset, nor do they demonstrate how altered baseline data would better inform the assessment of Project-related effects or development of license conditions. KRB attempts to justify the request by implying the Project will avoid outages in the future. This statement defies the reality of scheduled outages for maintenance activities and the reality of unanticipated events. Although SCE maintains the Project in good working order, these types of outages are inevitable over a 30–50-year license term. Because every powerhouse can experience unanticipated outages, an accurate description of current operations (including outages) marks the best predictor of future operations that SCE has to assess the proposed Project in their License Application. KRB's suggestion that the Project will never experience an outage demonstrates a lack of understanding of the realities of operating a power plant.</p>
AW-4	American Whitewater	<p>WR-2 Hydrology Interim Technical Memorandum</p> <p>SCE's Technical Memorandum related to the Hydrology report does not include the flow travel time assessment. This important assessment is supposed to be conducted in support of the REC-1 Whitewater Boating Study and in particular any instream flow modifications that might occur. It is problematic not to have that travel time assessment made available between study seasons and it should be expedited and made available as soon as possible.</p>	<p>Refer to Response to KRB-3.</p> <p>Study WR-2 is being conducted as approved by FERC in its SPD, and the current and planned data collection will be sufficient to complete the analysis of effects and to develop license requirements. However, high flows in 2023 did delay the flow travel time element of Study WR-2, which is scheduled to be completed by October 2024 for inclusion in the USR.</p>

Comment Key ID	Commenter	Comment	SCE Response
NN-39	Neil Nikirk	<p>5.1 Hydrology</p> <p>Results are only shown for the bypass reach and the conveyance system, not the unimpaired flows above Fairview Dam. To quantify the hydrologic changes that are a result of the project, it is important that both unimpaired and impaired flows are shown, preferably on the same scale, for the same time period, and presented in a manner that allows a side-by-side comparison of the two. Note that the tables and graphs presented here differ from the hydrologic analysis provided in the REC-1 Whitewater Boating Interim Technical Memorandum.</p> <p>I formally request that FERC direct SCE to provide a more complete characterization of unimpaired flows and flows in the bypass reach for determining project effects on an appropriate time scale. SCE should direct their contractors working with the same data to coordinate and perform adequate QA/QC on their work product to avoid conflicting presentation of what is the same flow/discharge data.</p>	<p>Study WR-2 is being conducted as approved by FERC in its SPD, and the current and planned data collection will be sufficient to complete the analysis of effects and to develop license requirements. Consistent with the FERC SPD, Study WR-2 provides analysis of flow data for the reach downstream of Fairview Dam and the KR3 Project Water Conveyance. Although unimpaired flow data is not necessary to complete the evaluation of potential effects of the proposed Project compared to current (baseline) conditions, Stakeholders were also provided with the hydrology dataset from both USGS Gages 11185500 and 11186000 for water years 1997–2021 on June 30, 2023, the sum of which can be used to calculate inflow upstream of Fairview Dam.</p> <p>As noted by Neil Nikirk, the hydrology data summaries for Studies WR-2 and REC-1 are different. Study WR-2 reports daily mean statistics, whereas Study REC-1 also includes hourly statistics, where noted. Additionally, the mean flow data within Study REC-1 (see Table 5.1-9) was rounded to a higher level than in the Study WR-2 (Table 5.1-1), resulting in slightly different monthly means. These differences reflect the level of accuracy needed for the studies, and not the level of accuracy of the datasets.</p>
NN-40	Neil Nikirk	<p>5.2.1 Step 2: Obtain Natural Ranges of Functional Flow Metrics</p> <p>The NHDPlus COMID 14971709 was selected as representative of NFKR LOI 1 because it is the upstream-most stream reach within the LOI (Table 5.2-1 and Figure 5.2-1). In the CEFF context, the range (10th percentile, median, and 90th percentile) of natural functional flows for each metric at COMID 14971709 characterize the predicted (modeled) flow metrics for the study LOI. The natural functional flow metrics are compiled in Table 5.2-4.</p> <p>This appears to be an appropriate location for the LOI. It would be helpful to have the statistics reported with the actual dates, rather than the numbered day of the water year. Also, it would be helpful to graph these functional flow metrics alongside the current flow regime in the bypass reach to show how the project has changed the flow pattern and magnitude from the natural flow regime. I formally request that FERC direct SCE to provide the functional flow metrics in a more understandable format and make a comparison with the current impaired flow regime. I further request that FERC work with CDFW, USFWS, and other agencies and the stakeholders to define a minimum flow regime that supports fish and wildlife resources in the bypass reach using the best available scientific information. This minimum flow should be based on instantaneous flows and should be the first priority for water provided to the bypass reach, unencumbered by any “tunnel maintenance” flow or provision of water to the hatchery.</p>	<p>Study WR-2 is being conducted as approved by FERC in its SPD, and the current and planned data collection will be sufficient to complete the analysis of effects and to develop license requirements. Consistent with the FERC SPD, Study WR-2 provides data directly from the California Natural Flows Database in Table 5.2-4 in Study WR-2; this data reporting is consistent with both the CEFF Technical Report and approved WR-2 Study Plan. The timing of flows assessed by CEFF are related to ecosystem functions (e.g., wet-season baseflow and wet-season peak flow), which are described in Table 5.2-3 of Study WR-2. Information from the CEFF assessment and hydrology will be evaluated for potential effects in the reach downstream of Fairview Dam within SCE's License Application.</p>

2.3. REC-1 WHITEWATER BOATING

Comments regarding REC-1 study plan modifications were filed by National Park Service (NPS), KRB, AW, Neil Nikirk, Jose Luis Pino, and Anthea Raymond. Their comments centered around four main topics which include: (1) the sequencing or progression of data collected between the three levels of study; (2) request for additional or different information than what was presented in the interim Technical Memorandum; (3) request for Level 3 controlled flow study; and (4) lack of diversity with the boating community during the Level 2 limited reconnaissance site visit and recommendations for future focus groups. In the table below, SCE responds to these and other issues raised. In response to Stakeholders' requests for additional information pertaining to data collected as part of the approved study, SCE will provide an addendum to the REC-1 Technical Memoranda in the first quarter of 2024 to Stakeholders.

Comment Key ID	Commenter	Comment	SCE Response
NPS-2	National Park Service	<p>1. REC-1 Whitewater Boating Interim Technical Memorandum</p> <p>The NPS requests that the Applicant provide the results of the Level 1 structured interview questionnaire to stakeholders and integrate them with the results of the Level 2 assessment. Stakeholders should then be given the opportunity to review the results, which would allow them to identify any information gaps that need to be addressed before proceeding with the Level 3 Intensive Study.</p>	<p>In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire. This analysis, coupled with the information reported for the Level 2 Limited Reconnaissance in the ISR, will be used to determine if gaps exist in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments.</p>
NPS-3	National Park Service	<p>1. REC-1 Whitewater Boating Interim Technical Memorandum</p> <p>The methods presented in Flows and Recreation: A Guide to Studies for River Professionals (Whittaker, Shelby and Gangemi 2005) used in the REC-1 study involve a phased approach where the results of a "Level 1" assessment are used to determine whether a "Level 2" assessment is warranted, while the results of a Level 2 assessment are used to determine whether a "Level 3" assessment is warranted. The Applicant appears to deviate from this phased approach by conducting the Level 2 assessment (limited reconnaissance) prior to analyzing the data from the Level 1 assessment (structured interview questionnaires). Although the Level 1 structured interview questionnaire closed on August 15, 2023, the ISR does not summarize the data collected but states that it will be analyzed in early 2024 and reported in the updated study report in October 2024. This is inconsistent from what is described in the REC-1 study methods, specifically that "information obtained in the Level 1 investigation was used to support and guide the Level 2 Limited Reconnaissance." Instead, the Level 2 study was completed prior to the analysis of all the Level 1 data and the results reported in the ISR.</p> <p>The Level 2 limited reconnaissance study identified whitewater boating flow information gaps, which may have been addressed in the Level 1 structured interview questionnaire.</p>	<p>The methods presented in Flows and Recreation: A Guide to Studies for River Professionals (Whittaker et al., 2005) recommends a phased approach with distinct decision points between phases where there is uncertainty on the "degree of resolution" needed for a whitewater recreation study. This phased approach is recommended at hydropower projects with multiple dams, powerhouses, and bypass reaches where study efforts can be focused on river segments of greatest interest to the recreation community and greater impacts from project operations. On river segments where the potential for whitewater recreation use is unknown, partitioning study levels into distinct phases with decision points may be the best approach to avoid applying unnecessary higher levels of study effort where earlier phases determine the perceived recreation opportunity does not exist or is marginal.</p> <p>Whittaker et al. (2005) notes that "Some rivers have extensive recreation use that is clearly flow-dependent and affected by project operations; here more intensive study and detailed efforts are necessary" (page 8). The bypass reach on the North Fork Kern River (NFKR) meets this description and warrants a Level 3 intensive study. Whittaker et al. (2005) only recommends delaying implementation of successive phases where there is uncertainty if further study should be implemented. The REC-1 Revised Study Plan (RSP) includes the Level 3 intensive study approach described in Whittaker et al. (2005). Furthermore, Whittaker et al. (2005) does not place any restrictions on overlapping data collection efforts between phases.</p> <p>The Level 1 Desktop Review of Existing Information utilized multiple sources of information used to plan and implement the Level 2 Limited Reconnaissance. Survey questions used in the structured interview questionnaire were incorporated into the planning of the Level 2 Limited Reconnaissance. The results from the structured interview questionnaire were not necessary to implement the Level 2 Limited Reconnaissance. SCE stands by the statement that "[i]nformation obtained in the Level 1 investigation was used to support and guide the Level 2 Limited Reconnaissance."</p> <p>In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire. This analysis, coupled with the information reported for the Level 2 Limited Reconnaissance in the ISR, will be used to determine if gaps exist in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments. This analysis will be completed prior to the Level 3 flow comparison survey.</p>
KRB-9	Kern River Boaters	<p>KRB REC-1.1 Boating. SIQ, Modification.</p> <p>EDISON: Study Plan Variances. There are no variances for the REC-1 Study approved in the FERC SPD (FERC, 2022) issued in October 2022. (ISR REC-1 at 5.)</p>	<p>SCE provided results from the components of the Level 1 Desktop Review of Existing Information that were complete at the time of the ISR filing. This is consistent with the reporting schedule included in the REC-1 RSP and reporting requirements under the ILP. The REC-1 Whitewater Study ISR did not claim that all of the Level 1 data analysis was complete. On the contrary, the REC-1 ISR clearly identified the Level 1 data analysis that had not been completed by the filing date of the ISR, namely, the structured interview</p>

Comment Key ID	Commenter	Comment	SCE Response
		<p>KRB: The above statement is false. The Revised Study Plan stated that the ISR would “include L1 results” (RSP REC-1 at 9) and stated those results would include “estimated range of preferred flows and knowledge gaps” developed from the Structured Interview Questionnaire (“SIQ”). (RSP REC-1 at 5.)</p> <p>At this point, Edison has provided an L1 desktop review and recounted some L2 focus group data. But it has not shown its hand at all regarding how it will handle the task of survey data analysis. Specifically, how will Edison validate, aggregate, integrate, and report the survey data it obtains?</p> <p>Contrary to the study plan, Edison did not implement the phased approach engendered in Whittaker nor did it report the SIQ. It even failed to note that as a variance. Thus, Edison has put off the day it will first reveal how it intends to use its degrees of freedom in analyzing boater survey data until the tail end of this process. That is not what Whittaker envisioned.</p> <p>Edison advertised that REC-1 was based on Whittaker, but it did not implement it in a phased manner, nor did it share results in an early manner. It failed to meet its reporting requirement — and failed to admit it. It has retained every degree of analytical freedom in survey analysis and quashed stakeholder input until a date deep into these proceedings. Requiring immediate reporting and the provision of all obtained data now and in the future in usable, spreadsheet form (Excel) is least the Commission can do to try to get this REC-1 process back on track at this late date.</p> <p>Given this variance, we ask that the Commission direct Edison to (1) immediately report on the SIQ and (2) require the sharing of all gathered survey data to date and going forward (personal information save for zip code and personal identifier scrubbed, of course) with governing agents and stakeholders in order to facilitate independent analysis. (pg 47-49)</p>	<p>questionnaire. Not completing this analysis of the structured interview questionnaire is not a variance. The REC-1 Whitewater Study RSP, which FERC staff approved in its SPD, does not include a requirement to complete all of the Level 1 Desktop Review of Existing Information by the filing date of the ISR. In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire. The structured interview questionnaire will include analysis of preferred flow ranges and knowledge gaps aggregated by river segment and watercraft type.</p> <p>KRB in its comment incorrectly interprets the phased approach described in Flows and Recreation: A Guide to Studies for River Professionals (Whittaker et al., 2005). KRB incorrectly assumes there must be a hard stop in data collection between levels in a sequential approach. Nowhere in Whittaker et al. (2005) are there explicit instructions stating that levels of investigation cannot overlap. In most whitewater flow studies, the levels of study do overlap and regulatory deadlines for reporting typically do not align with data collection efforts that are timed with hydrologic cycles. Hard stops between study levels are recommended where there is uncertainty if a whitewater opportunity exists or in cases where it is determined there are minimal or no project effects (Whittaker et al., 2005). The authors recommend hard stops in these cases to avoid applying unnecessary study effort where a whitewater resource is determined not to exist. The authors do not say that one level of investigation must always be completed before proceeding to the next level of study. The existence of whitewater opportunities on the NFKR is well documented. As a result, the REC-1 Whitewater Study RSP noted that progression to Level 3 Intensive Study was required for the necessary data resolution. Please see "Progression to Study Options" on page 8 in Whittaker et al. (2005) where the authors describe the approach with the intent to increase data resolution at each level of study.</p>
KRB-11	Kern River Boaters	<p>KRB REC-1.2 Boating. Annual Boating Days, Modification.</p> <p>KRB: Contrary to Edison’s claim, its choice of 700 cfs was not based on the “whitewater release requirement” established in FERC License Article 422.</p> <p>Based on the preceding analysis, we ask that the Commission modify the WR-2 study to require summaries be based on a lower flow definition of boating days, account for project effects in dry and moderate water years, and account for the time the project was offline. Good cause for this request exists as follows: FERC studies are supposed to be based on commonly used scientific methodologies. REC-1 seeks to summarize fair representations of project recreational effects. Edison has not done so, offering a summary of annual effects based on an unsupported definition of boating days, understating moderate and dry year effects, and failing to account for significant project outages that are not foreseeable in a future license term. The REC-1 ISR is accordingly at variance with the approved study. In our opinion, it should be corrected in the manners we have identified above, but at the very least the summaries should be consistent with them and account for the issues raised. (pg 50/58)</p>	<p>The analysis requested by the commenter will be completed as part of the Level 3 Intensive Study as described in the REC-1 Whitewater Study RSP. It is premature to perform that level of hydrology analysis in the Level 1 Desktop Review of Existing Information prior to developing flow preference curves for each watercraft type in the respective river segments. The Level 3 Intensive Study will provide the flow preference curves necessary for this level of hydrology analysis. SCE will file the results of the Level 3 intensive study in the USR.</p> <p>Regarding KRB’s comment about SCE’s alleged failure to account for Project outages that it believes “are not foreseeable in a future license term,” please refer to Response to KRB-4.</p>
KRB-12	Kern River Boaters	<p>KRB REC-1.3 Boating. Monthly Boating Days, Modification.</p> <p>Edison’s use of the monthly mean for figure 5.1-9 is another analytical choice that, if unchallenged, would misleads its intended readers — governing agents and stakeholders — about typical project effects.</p> <p>Based on the preceding analysis, we ask that the Commission modify the REC-1 study to require that monthly summaries be based on a lower flow definition of boating days, be based on median monthly effects, and account for the time the project was offline, as we have done above. Good cause for this request is as follows: FERC studies are supposed to be based on commonly used scientific methodologies. REC-1 seeks to summarize fair representations of project recreational effects. Edison has not done so, offering a summary of monthly effects based on an unsupported definition of boating days, an unsupported methodology of reporting the mean, and failing to account for significant project outages. No generally accepted scientific practice would use these methods to fairly represent project effects under the current license and going forward. The REC-1 ISR summary is accordingly at variance</p>	<p>The Level 3 Intensive Study will include a detailed hydrology analysis using flow preference curves for each watercraft type in the respective river segments. The statistical median will be included in the comparative frequency analysis of the monthly number of days above and below Fairview Dam.</p> <p>The hydrology analysis conducted as part of Level 1 effort utilized whitewater flow release requirements in the current FERC license condition (License Article 422) because this is the existing condition. The Level 1 hydrology analysis clearly states that the frequency analysis will be revised when additional information on flow preferences becomes available in the Level 3 Intensive Study.</p> <p>These methods, as well as accounting for times when the Project was offline, align with scientifically accepted practices (refer to response for KRB-4 in Section 2.2 and KRB-5 in Section 3.1).</p>

Comment Key ID	Commenter	Comment	SCE Response
		with the approved study. It should be corrected in the manner we have identified above, but at the very least the summaries should account for the issues raised. (pg 59/63)	
KRB-13	Kern River Boaters	<p>KRB REC-1.4 Boating. Focus Group Composition, Modification.</p> <p>The participants in the L2 focus group did not represent a broad cross-section of the NFKR boating community.</p> <p>Edison’s failure to obtain a representative panel for its L2 focus group is at variance with the approved study plan. The study plan touted the L2 focus group as being founded on the principles of Whittaker, whose work requires that panels be representative of the boating community. This one, plainly, was not. Due to this variance, we request that REC-1 be modified so that all panels going forward are established with the opportunity for stakeholder comment and require stakeholder agreement, and that disputes be resolved by FERC or its W&SR recreation advisor, NPS. Good cause for this modification exists in that the only panel established by Edison to date was not representative of the boating community and that such representation is required to achieve the study objective, which is to fairly and reliably estimate the range of minimally acceptable and optimum flows for the watercraft of the NFKR. (pg 64-65)</p>	<p>REC-1 is being conducted as approved by FERC in its SPD. The Level 2 Limited Reconnaissance was open to all members of the boating community that volunteered to participate. Outreach to participate in the Level 2 Limited Reconnaissance is well documented in the REC-1 ISR.</p> <p>Members of the boating community were allowed to nominate themselves to participate in the Level 2 Limited Reconnaissance site visit. SCE encouraged the boating community to nominate participants representing diverse age, gender, skills, watercraft, and geographic areas. SCE did not select the participants. Thirteen boaters nominated themselves to participate in the Level 2 Limited Reconnaissance site visit. SCE invited all 13 individuals to participate as well as interested agency staff. In the end, 10 boaters attended the Level 2 Limited Reconnaissance site visit. Clearly, SCE did not establish this panel but rather the boating community did. SCE cannot force boaters to volunteer and/or participate in focus groups.</p> <p>KRB has not satisfied FERC's criteria for a modified study by demonstrating that the approved study was not conducted as provided for in the approved study plan or that the study was conducted under anomalous environmental conditions, or that environmental conditions have changed in a material way.</p>
KRB-14	Kern River Boaters	<p>KRB REC-1.5 Boating. Focus Group Omissions, Modification.</p> <p>Edison’s narrative of the L2 focus group makes several omissions.</p> <p>First, this was a one site “reconnaissance” visit: participants went to a single riverside site and were not asked to look at and evaluate the river. Many times, the consultant tried to “prime the pump” by suggesting frameworks or potential responses, and the consultant did not memorialize all the participants offered in reply.</p> <p>.. Nevertheless, the consultant spent an inordinate amount of time on these three segments at the L2 event, where he was again informed that nobody runs these three short segments in isolation. Yet even after all this information — data from the SIQ, from the desktop review, and from the L2 Reconnaissance chat — Edison continues to report in the ISR that there are eight segments in the dewatered reach. This fact reveals, perhaps unintentionally, a major Edison tactic: to proliferate issues rather than narrow and distill them during the study process. As with the non-reporting of the L1 SIQ results, the governing agents are not getting the results they should be expecting from the SPD-approved study plan.</p> <p>Edison’s L2 narrative omits one incredibly important fact: after the SIQs were completed and the site visit concluded, Edison did not adjourn the proceedings, but instead directed the participants to a conference room at the KR3 powerplant. There, Edison attempted to draw divisions by ranking segments with no reference to water levels or skill sets or the fact some preferences might be equal.... Boaters on the NF Kern are a sophisticated user base used to navigating the ever-changing hydrograph of impaired flows below Fairview Dam. Unimpairing those flows based on a calendar focused on the runoff season with no regard for inflows — whether for daily bubbles or long weekends — was roundly supported. Edison’s failure to report this critical point obscures the fundamental takeaway from this study group.</p> <p>We ask that the Commission direct Edison to append these omitted details to the ISR and USR reports. Good cause for this request exists in that the REC-1 study plan promised a fair reporting of the L2 study, and Edison’s omissions on these points frustrate that promise. The level of cost and effort in satisfying this request is de minimis. (pg 66-67)</p>	<p>REC-1 is being conducted as approved by FERC in its SPD.</p> <p>SCE reserved transportation for the Level 2 Limited Reconnaissance participants to tour the river segments in the bypass reach. Yet, KRB elected not to ride in the van with the other participants to tour the river segments, choosing instead to meet the group at the top of the reach. The participants provided input on all the river segments responding to an established set of questions repeated for all the river segments. Participant verbal responses were transcribed in real-time on poster paper for participants to review and clarify for documentation purposes. Participant responses are documented in the narrative and tables in Section 5.2.2 of the REC-1 Whitewater ISR.</p> <p>The facilitator asked each participant prior to transitioning to a new river segment if they wanted to tour that segment prior to responding to the questions. The facilitator checked with each individual participant emphasizing that the field effort would meet the needs of any single person before launching into the questions. Every participant elected to complete question review for all the river segments at a single location. On the return trip downriver, Level 2 study participants that chose to ride with the group did tour the river segments, sharing information for the respective river segments on river access locations, key rapids, cobble bars that impede downstream navigation at lower flows, physical markers in the channel used to estimate flow and whitewater use patterns. The Level 2 Limited Reconnaissance site visit conforms to the study methods in the REC-1 RSP and is not a variance or modification.</p> <p>KRB’s assertion that SCE reconvened the Level 2 participants in an attempt to divide the group is false. SCE hosted the Level 2 Limited Reconnaissance to gather information from the participants objectively to increase the data resolution firsthand from individuals that use the resource. SCE queried the boaters to list their favorite river segments to see if there was a way to aggregate the eight river segments in the bypass along some common interests. KRB vehemently objected to this question, although this line of inquiry was relevant to the meetings objectives, so SCE respected KRB’s dissent and stopped all questioning on this topic. The meeting was adjourned shortly after.</p> <p>KRB has not satisfied FERC's criteria for a modified study by demonstrating that the approved study was not conducted as provided for in the approved study plan or that the study was conducted under anomalous environmental conditions, or that environmental conditions have changed in a material way.</p>
KRB-15	Kern River Boaters	<p>KRB REC-1.6 Boating. Level 3 Mischaracterizations, Modification.</p> <p>Edison is not conducting its FCS “as described in Whittaker,” either. Instead of administering the FCS to a persistent panel, as Whittaker describes, Edison proposes to present it to the general public: “to local, regional and national whitewater boating groups and accessible on the KR3 relicensing website.”</p>	<p>REC-1 is being conducted as approved by FERC in its SPD.</p> <p>Whittaker et al. (2005) clearly lists the single flow survey and flow comparison survey as Level 3 Intensive Study approaches (pages 22 and 24 respectively). Neither the single flow nor flow comparison approaches are referenced in any part of the Level 1 Desktop Options listed in Whittaker et al. (2005).</p>

Comment Key ID	Commenter	Comment	SCE Response
		<p>(ISR REC-1 at 9.) Neither Edison’s SFS nor its FCS employ a representative panel familiar with the range of flows at issue, as required by Whittaker for a Level 3 study. As such, Edison’s method of “addressing the [purported] limitations” of a Level 3 controlled flow study is by retreating to a variety of Level 1 survey methodologies but continuing to call them “Level 3.” A bunch of Level 1 surveys cannot make up for a Level 3 controlled flow study.</p> <p>We ask that the Commission modify the REC-1 study by directing Edison to strike its use of the term “Level 3” in characterizing the SFS or FCS. Neither of those studies satisfies the Whittaker requirement of a persistent, representative panel of knowledgeable boaters. Good cause for this exists because people will otherwise have the wrong perception of the reliability and resolution of Edison’s work product. This request involves de minimis cost and effort. (pg 68-69)</p>	<p>The single flow survey and flow comparison survey approaches encourage using boaters with direct experience to participate in the survey. Neither approach recommends limiting group size to a single panel of experts. On the contrary, these approaches are recommended where it is difficult to maintain a consistent panel to evaluate a range of flows. This approach is recommended where there is an inability to control flows. Furthermore, these approaches encourage broad outreach to ensure a larger heterogenous sample size representative of the whitewater users. SCE stands by their efforts to include members of local, regional, and national whitewater boating groups to participate in the Level 3 Intensive Study single flow survey and flow comparison survey. Members of these organizations frequent the river segments in the bypass reach across a range of flow conditions. These organizations can inform and encourage these members to participate in the data collection effort.</p>
KRB-16	Kern River Boaters	<p>KRB REC-1.7 Boating. Controlled Flow Study, Modification</p> <p>We request that the Commission direct Edison to conduct a controlled flow study as contemplated in the SPD. It should include direction on panel composition per our earlier study modification request. It may in the Commission’s discretion be limited to the issue of minimum acceptable flows. Good cause for this request exists in that it is wholly consistent with the SPD and that Edison’s objections to conducting the study do not withstand scrutiny, nor do they satisfy the requirement of a meaningful, detailed explanation of why such a study “cannot be conducted.” This incredible river and boating community deserve a controlled flow study update to the 1994 study that Edison has touted time and time again. (pg 76)</p>	<p>REC-1 is being conducted as approved by FERC in its SPD.</p> <p>The REC-1 Whitewater Study proposes using flow enhancements to target information gaps in boater knowledge of flow preferences. SCE objects to labeling this approach as a controlled flow study because it fails to meet the criteria described in Whittaker et al. (2005). Controlled flow studies are best suited for short bypass reaches where flows can be controlled to provide a range of flows in a 2- to 3-day period for a team of boaters to evaluate each flow in succession under similar conditions to eliminate other variables (Whittaker et al., 2005). The Project is not able to meet these requirements for a controlled flow study. Fairview Dam is incapable of controlling the full range of flows or setting a date for a consistent team of boaters to evaluate each of the flows using a single flow survey form and then complete a final flow comparison survey form. Fairview Dam can only enhance a narrow range of flows and, at best, provide a 2- to 3-day advance notice. As a result, this should not be described as a controlled flow study. Incorrectly calling this a controlled flow study when it fails to meet the definition will add further confusion for future hydroelectric license proceedings. Adhering to definitions in the literature will help improve standardized approaches and consistency with data collection standards.</p> <p>The Level 3 Intensive Study approach in the approved REC-1 Study Plan does not utilize a set panel of boaters as KRB requests FERC to establish. The single flow survey and flow comparison survey approaches included in the REC-1 Study Plan are open to all members of the boating community. The survey tools collect information on geographic location, age, gender, skill level, and watercraft type. The Level 3 Intensive Study report will summarize the composition of the respondents for the respective survey tools. Four hundred and twenty-three responses have been received for the REC-1 Level 3 Intensive Study single flow survey representing a broad cross-section of the boating community.</p>
KRB-17	Kern River Boaters	<p>KRB REC-1.8 Boating. SFS Reopening, Modification.</p> <p>Edison stated that “the Single Flow study will remain open until end of year.” (ISR REC-1 at 51.) Now, Edison says the SFS may be “reopened” (and reclosed) this coming year at undefined times and undefined flow levels, purportedly to gather additional data for a study that will have already closed on December 31, 2023.</p> <p>We ask that the Commission reject Edison’s attempt to reopen the SFS study. Good cause exists for this request: Edison’s proposal is at variance with the approved study plan and common scientific practice. Edison has failed to follow the rules for reopening, either as a modification or new study. Edison has also failed to provide a factual basis for its proposal — either through the SIQ or the SFS — and the record on hand strongly shows there is no legitimate basis to be had. For these reasons, Edison’s proposal to modify the approved study plan and reopen the SFS should be denied. (pg 77-78)</p>	<p>In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire. This analysis, coupled with the information reported for the Level 2 Limited Reconnaissance in the ISR, will be used to determine if gaps exist in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments. If boater knowledge gaps are identified then SCE will utilize flow enhancements, as described in the REC-1 Whitewater Study, to target flows where boaters lack direct experience to determine flow preferences. The single flow survey tool is necessary for boaters to rate the individual flows they boat that are designed to target knowledge gaps. Without the single flow survey, SCE would have no way to document boater’s evaluations of the targeted flows.</p> <p>Using the Level 3 single flow survey in 2024 is consistent with the FERC approved study plan and not a study modification as KRB suggests. The single flow survey is not a separate study unto itself as KRB asserts, but rather part of the Level 3 Intensive Study continuing into 2024 as specified in the REC-1 Whitewater Study RSP. Furthermore, there are no restrictions in the REC-1 Whitewater Study RSP limiting the opening and closing of the single flow survey. The purpose of the single flow survey tool is to collect boater evaluations of flow conditions in the river segments. It is odd that KRB opposes SCE collecting these flow evaluations from the boating community. Using the single flow survey tool for this purpose is consistent with the FERC SPD for the REC-1 Whitewater Study.</p>

Comment Key ID	Commenter	Comment	SCE Response
			<p>Interestingly, KRB opposes SCE collecting additional flow evaluations from the boating community using the single flow survey but in a previous comment advocates for a controlled flow study. Controlled flow studies utilize a single flow survey to document participant responses to individual flows following each release and a flow comparison survey at the end of the study to document participant evaluations across a range of flows (Whittaker et al., 2005). The inconsistency in KRB's requests clearly demonstrates their lack of command and knowledge of the different levels of study and associated approaches described in the publication, Flows and Recreation: A Guide to Studies for River Professionals (Whittaker et al., 2005). Acquiescing to KRB's uninformed request for a controlled flow study that fails to meet the definition will add further confusion for future hydroelectric license proceedings. Adhering to definitions in the literature will help improve standardized approaches and consistency with data collection standards.</p>
AW-5	American Whitewater	<p>REC-1 Whitewater Boating Interim Technical Memorandum</p> <p>The Level 1 Structured Interview Data Analysis is not presented in the Initial Study Report. As described in the Revised Study Plan, this information was theoretically supposed to inform the other levels of study and assist in decision-making. The Revised Study Plan's specific language on Study Approach describes a "sequential framework" where "The three levels of study increase data resolution as investigations progress from one level to the next and share interim results earlier in the relicensing process across resource disciplines." While we appreciate SCE's decision to gather some amount of Level 3 study information in the first study year in order to capture a highly variable water year with greater than average number of whitewater recreation opportunities at various water levels, the Level 1 and Level 2 study results are key to understanding what type of Level 3 study information must still be gathered and which instream flows were not adequately captured in the first study year.</p>	<p>In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire. This analysis, coupled with the information reported for the Level 2 Limited Reconnaissance in the ISR, will be used to determine if gaps exist in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments. When feasible, SCE will attempt to enhance flows where potential gaps may exist in user experiences of flow conditions. Flow enhancement may include diverting a portion of flow over Fairview Dam to target specific flow ranges where knowledge gaps were identified. Due to the unpredictable nature of the snowmelt hydrograph and lack of storage behind Fairview Dam, enhanced flows will be opportunistic, not scheduled in advance, and subject to available inflows and tunnel flow needs.</p> <p>As stated in the FERC approved REC-1 Study Plan, SCE will make a good-faith effort to inform the boating community in advance when hydrologic conditions for opportunistic flow enhancements are likely possible. If flows are likely to allow for such enhancement, SCE will reach out to KRB, AW, Los Angeles Kayak Club, Dreamflows, and outfitters holding permits with Sequoia National Forest (SQF). This is not a guarantee of a particular flow, just an indication that there may be the possibility of flow enhancement within the diverted reach outside the ordinary whitewater release schedule based on forecasted inflows upstream of Fairview Dam. This good-faith effort will attempt to give boaters advance notice to plan trips to the river using forecasting technology available to SCE at the time of study to encourage additional boater use at the targeted flows and participation in the single flow survey. Ideally, boaters will be notified 2 to 3 days in advance to plan a trip. However, inflows to the Project are subject to run-off patterns, which are difficult to forecast in advance.</p>
AW-7	American Whitewater	<p>REC-1 Whitewater Boating Interim Technical Memorandum</p> <p>SCE should make the Single Flow Survey information gathered from the 2023 Water Year and the Level 1 Structured Interview results available for stakeholders to review in support of their justification against conducting a controlled flow study. 401 or more responses to the Single Flow Survey suggest a wealth of information may be available and publication of that information with enough time to modify or adjust the REC-1 study information gathering is crucial.</p>	<p>In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire. This analysis, coupled with the information reported for the Level 2 Limited Reconnaissance in the ISR, will be used to determine if gaps exist in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments. When feasible, SCE will attempt to enhance flows where potential gaps may exist in user experiences of flow conditions. Flow enhancement may include diverting a portion of flow over Fairview Dam to target specific flow ranges where knowledge gaps were identified. Due to the unpredictable nature of the snowmelt hydrograph and lack of storage behind Fairview Dam, enhanced flows will be opportunistic, not scheduled in advance, and subject to available inflows and tunnel flow needs.</p>
NN-3	Neil Nikirk	<p>4.0 Methods</p> <p>The REC-1 Study follows the methods in Flows and Recreation: A Guide to Studies for River Professionals (Whittaker et al., 2005). The 2005 publication outlines a sequential framework to investigate flow dependent recreation opportunities using various investigative tools across three progressive levels of study.</p> <p>Far from following a sequential framework, the studies were conducted concurrently which does not allow one level to inform the succeeding levels. This and other deviations from the framework in</p>	<p>The methods presented in Flows and Recreation: A Guide to Studies for River Professionals (Whittaker et al., 2005) recommend a phased approach with distinct decision points between phases where there is uncertainty on the "degree of resolution" needed for a whitewater recreation study. This phased approach is recommended at hydropower projects with multiple dams, powerhouses, and bypass reaches where study efforts can be focused on river segments of greatest interest to the recreation community and greater impacts from project operations. On river segments where the potential for whitewater recreation use is unknown, partitioning study levels into distinct phases with decision points may be the best approach to</p>

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		<p>Whittaker et al. (2005) have been pointed out repeatedly in comments and submissions to FERC throughout the study design process.</p>	<p>avoid applying unnecessary higher levels of study effort where earlier phases determine the perceived recreation opportunity does not exist or is marginal.</p> <p>Whittaker et al. (2005) notes that "Some rivers have extensive recreation use that is clearly flow-dependent and affected by project operations; here more intensive study and detailed efforts are necessary." (page 8). The bypass reach on the NFKR meets this description and warrants Level 3 Intensive Study. SCE proposed doing Level 3 Intensive Study in the REC-1 RSP. Whittaker et al. (2005) only recommends delaying implementation of successive phases where there is uncertainty if further study should be implemented. The REC-1 RSP includes the Level 3 Intensive Study approach described in Whittaker et al. (2005). Furthermore, Whittaker et al. (2005) does not place any restrictions on overlapping data collection efforts between phases. In fact, study phases typically do overlap for whitewater flow studies implemented on rivers where the presence of whitewater opportunities are not under debate.</p>
NN-4	Neil Nikirk	<p>4.1 Level 1: Desktop Review of Existing Information; Literature review:</p> <p>The literature review and analysis presented in the ISR continues to focus on the 1994 Whitewater Flow Study (SCE, 1994), an outdated study and analysis. With the continued progression and innovation in the types of watercraft and techniques for running whitewater, the 1994 study does not reflect the current desired flows in the NF Kern bypass reach. Skilled kayakers, rafters, catarafters, inflatable kayakers, SUPs, and river boarders can and do enjoy recreating on many sections of the NF Kern at levels far below the approximately 700 cfs for kayaks and 1,000 cfs for rafting that were considered the minimum enjoyable flows at that time. This has been made clear by many members of the boating community throughout this relicensing process, including links to websites, videos, and other information supporting the enjoyable boating opportunities as low as 200 cfs. These submissions and materials have not been identified as being part of the literature review conducted for REC-1.</p> <p>I formally request FERC to direct SCE and their contractors to acknowledge and include these submittals in the methods and results of the REC-1 Whitewater Boating study.</p>	<p>Please refer to the references section of the ISR for a list of references used for the REC-1 Whitewater Study. The report utilizes very little of the 1994 study described by the commenter. The hydrology analysis conducted as part of Level 1 utilized flows in the current FERC license condition (License Article 422) because this is the existing condition. The Level 1 hydrology analysis clearly states that the frequency analysis will be revised when additional information on flow preferences becomes available in the Level 3 Intensive Study.</p> <p>The Level 1 Literature Review focuses on published literature, rather than anecdotal information that may be posted on the internet to summarize recreation opportunities, use, and physical characteristics. Individual opinions regarding what may be considered minimal enjoyable flows will be captured as part of this study either from the structured interview questions or during subsequent levels of study (i.e., during Level 2 and Level 3).</p>
NN-5	Neil Nikirk	<p>4.1 Level 1: Desktop Review of Existing Information; Structured interview questionnaire:</p> <p>I found the structured interview questionnaire to be lengthy and time consuming, taking much longer than the 20-30 minutes suggested by the questionnaire itself. It also asked for names and contact info which many are reluctant to provide over a non-secure electronic format. This could have contributed to the minimal number of questionnaires received. Another reason for the minimal number of responses could be that the survey closed early (August) in the season that extended well into October this year. Further, no results from this Level 1 investigation are presented in the ISR even though a minimal number of responses were obtained and SCE has had this data since August.</p> <p>I formally request FERC to direct SCE to make the results obtained from the structured interview questionnaire available to the stakeholders by December 31, 2023 so that they can be used by stakeholders to provide input into the Level 3 Intensive Study planned for 2024.</p>	<p>SCE complied with FERC's recommendations in the SPD regarding Level 1 interviews in order to reach the greatest number of interested stakeholders, with 51 respondents participating in the structured interview questionnaire. The average time for the 51 respondents to complete the structured interview survey was 25 minutes, so the estimate in the structured interview outreach was accurate. The survey was open for just over 3 months, from May 5, 2023, through August 15, 2023. Most whitewater flow studies associated with FERC regulatory proceedings conduct 6 to 10 structured interviews in the Level 1 Desktop phase. The number of structured interview questionnaires completed as part of the REC-1 Whitewater Study far exceeds the norm.</p> <p>In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire. This analysis, coupled with the information reported for the Level 2 Limited Reconnaissance in the ISR, will be used to determine if gaps exist in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments.</p>
NN-8	Neil Nikirk	<p>4.3 Level 3 Intensive Study:</p> <p>These survey tools are but one approach to gathering flow preference information directly from boaters. At many times during these proceedings, an on-water controlled flow study has been proposed and study plans put forward. SCE and its contractors continue to assert that an on-water flow study cannot be conducted, in spite of the fact that the 1994 Whitewater Flow Study continues to be touted as a shining example of an on-water controlled flow study conducted by the SCE contractor. I will address this further in my comments on the results of the Level 3 study to date.</p> <p>The most serious flaw in this approach is thinking that flow preference curves that include minimum acceptable and optimal flows must be developed to determine project impacts. In a run-of-river system as is typical on the NF Kern, only minimum acceptable flows need to be established and they need to</p>	<p>SCE has not stated an on-water flow study cannot be conducted. On the contrary, the REC-1 Whitewater Study proposes using flow enhancements to target information gaps in boater knowledge of flow preferences. SCE does object to labeling their proposal to provide enhanced flows below Fairview Dam as a controlled flow study. Controlled flow studies are best suited for short bypass reaches where flows can be controlled to provide a range of flows in a 2- to 3-day period for a team of boaters to evaluate each flow in succession under similar conditions to eliminate other variables (Whittaker et al., 2005). The Project is not able to meet these requirements for a controlled flow study. Fairview Dam is incapable of controlling the full range of flows or setting a date for a consistent team of boaters to evaluate each of the flows. Fairview Dam can only enhance a narrow range of flows and, at best, provide 2- to 3-day advance notice. As a result, this should not be described as a controlled flow study. Incorrectly calling this a controlled flow study when it fails to meet the definition will add further confusion for future hydroelectric license proceedings. Adhering to</p>

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		<p>be established with a high level of accuracy and precision to determine the potential and realized boating opportunities. Optimal flow preferences are relatively unimportant as there is no storage available to provide optimal flows on a predictable schedule. Flow preferences between minimum acceptable and optimal (or beyond) are not particularly useful for determining project impacts. Once one acknowledges the importance of establishing precisely the minimum acceptable flows, it is clear that this can best be accomplished by an on-water controlled flow study.</p> <p>I formally request that FERC re-examine the information provided by SCE regarding their inability to conduct an on-water controlled flow study and the study plan provided by KRB and direct SCE to conduct an on-water controlled flow study in 2024.</p>	<p>definitions in the literature will help improve standardized approaches and consistency with data collection standards.</p> <p>SCE disagrees with the commenter's assertion that optimal flow preference is not needed in the REC-1 Whitewater Study. There is a broad range of whitewater boaters on the NFKR using a range of watercraft types and with varying levels of skill. Optimum flows for some watercraft types and skill levels may be within the range of flows diverted by the Project and should be documented. Furthermore, knowledge of flow preferences is necessary to complete frequency analysis of whitewater opportunities in each river segment.</p>
NN-9	Neil Nikirk	<p>4.3 Level 3 Intensive Study; Whitewater Single Flow Survey:</p> <p>The single flow survey is a Level 3 process in the Whittaker et al. framework, yet it was published before the Level 1 survey was published and the Level 2 focus group had taken place. There is no way that information collected in Levels 1 and 2 were used to develop the online single flow survey (Level 3).</p> <p>I formally request that FERC direct SCE and its contractor to explain how and what information collected in Level 2 was used to develop the online single flow survey that was published on April 1, 2023 as the Level 2 Limited Reconnaissance Survey was conducted on August 25, 2023. This should at least be noted as a variance from the study plan in the ISR.</p>	<p>SCE stands by the statement in the REC-1 Technical Memorandum that "[i]nformation obtained in the Level 1 investigation was used to support and guide the Level 2 Limited Reconnaissance." The Level 1 Desktop Review of Existing Information started shortly after FERC issued the SPD. Level 1 utilized multiple sources of information used to plan and implement the Level 2 Limited Reconnaissance. Survey questions used in the structured interview questionnaire were incorporated into the planning of the Level 2 Limited Reconnaissance. The results from the structured interview questionnaire were not necessary to implement the Level 2 Limited Reconnaissance. Both the Level 1 and Level 2 data collection and planning helped inform development of the survey questions in Level 3 single flow survey. The results of the Level 2 limited reconnaissance site visit were not necessary for developing the single flow survey questions. The Level 2 Limited Reconnaissance results will be used for the Level 3 Intensive Study flow comparison survey as well as determining flow information gaps for respective river segments.</p>
NN-10	Neil Nikirk	<p>4.3 Level 3 Intensive Study; Whitewater flow comparison survey:</p> <p>This whitewater flow comparison study sounds very similar to the structured interview questionnaire, which begs the question as to why the structured interview questionnaire was closed in August instead of continuing throughout the whitewater recreation season (i.e., all year). It is also questionable as to how the information gathered through this "new" flow comparison survey will be analyzed prior to submittal of the Draft Application in 2024 as SCE has not been able to provide even a summary of the 51 responses gathered in the Level 1 structured interview questionnaire in the ISR.</p> <p>I formally request that FERC direct SCE to provide this (and other missing) information in an addendum to the ISR by December 31, 2023 so that stakeholders have the opportunity to comment on both the structured interview results and the development of the flow comparison study prior to publication in 2024.</p>	<p>The structured interview questionnaire is part of the Level 1 Desktop Review. Respondents were asked to estimate the range of preferred flows for each segment for respective watercraft, document knowledge gaps for estimating the range of preferred flows, evaluate flow information, and indicate whitewater use patterns for commercial and non-commercial boaters.</p> <p>The flow comparison survey asks respondents to rate a range of flows using an acceptability scale. The scale is used to develop flow preference curves similar to those presented in Whittaker et al. (2005). Results from the structured interview questionnaire and single flow survey will be used to help inform the range of flows and increments for the survey questions. In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire.</p>
NN-11	Neil Nikirk	<p>4.3 Level 3 Intensive Study; Whitewater flow comparison survey:</p> <p>The issue in this proceeding is how to capture and understand the project's effect on recreation in the dewatered reach — i.e., it seeks to capture real project effects. "Comparison with other whitewater opportunities in the Kern River basin" does not begin to answer that question. Further, the survey as described fails to vet the degree to which boater recall is based in fact — namely, whether the recounting of boater experience with other opportunities is reliable given that they are untethered to actual boating trips.</p> <p>For these reasons, I formally request that the comparison element be stricken from the proposed flow comparison survey.</p>	<p>The flow comparison survey focuses on a range of flows for river segments in the bypass reach. The survey is not limited to a comparison with other opportunities in the Kern River Basin. Responses comparing whitewater opportunities in the bypass reach to other nearby options provides important information on recreation use patterns within and outside the Project.</p>
NN-12	Neil Nikirk	<p>4.3 Level 3 Intensive Study; Whitewater Focus Group:</p> <p>This appears to be a repeat of the Level 2 focus group in terms of the types of information to be gathered. If a focus group is to be convened, it should be in conjunction with an on-water flow comparison study where participants directly experience a range of flows designed to determine the minimum acceptable flows in each river segment for each type of watercraft used.</p>	<p>The Level 3 Intensive Study focus group concentrates on flow comparisons. This is not a repeat of the Level 2 Limited Reconnaissance focus group.</p> <p>In the first quarter of 2024, SCE will analyze the structured interview questionnaire and single flow survey data, in combination with results from the Level 2 Limited Reconnaissance, to determine if there are gaps in the boating community's knowledge or experience to evaluate specific flows. SCE will attempt to enhance</p>

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		<p>I formally request FERC to direct SCE to make every effort to provide for an on-water flow comparison during the Level 3 investigation to more accurately determine the minimum acceptable flows in each river segment for each type of watercraft use</p>	<p>flows where potential gaps exist in boater knowledge and experience for specific flow ranges. Flow enhancement may include diverting a portion of flow over Fairview Dam to target specific flow ranges where knowledge gaps were identified in Levels 1 and 2 of the study as well as the single flow survey. Enhanced flows will be opportunistic, not scheduled in advance, and subject to available inflows and tunnel flow needs. The single flow survey may be reopened for additional data collection if quantitative data does not exist for developing flow preference curves.</p>
NN-13	Neil Nikirk	<p>4.3 Level 3 Intensive Study; Whitewater Focus Group:</p> <p>As noted above for the Level 2 investigation, the focus group participants should be representative of the wide variety of demographics, watercraft, experience, and skill levels found in the whitewater community.</p> <p>I formally request FERC to direct SCE and its contractor to ensure that the Level 3 focus group is much more representative and larger than the focus group convened for the Level 2 investigation. This can be accomplished by getting information on the nomination process out earlier and more widely distributed. Everyone that participated in the Level 2 focus group should be invited to participate in the Level 3 investigation. Instead of relying solely on self-nomination as in the Level 2 process, the whitewater community should be allowed to nominate anyone to be a participant to ensure more diversity. Nominees can then be queried as to their willingness to participate and nominate others as participants or alternates. The nominees should also have input as to the flows they would like to experience during the on-water flow comparison to define the minimum acceptable flows in each river segment for each type of watercraft used.</p>	<p>The REC-1 Whitewater Study recommends that the focus group composition be representative of the wide variety of demographics, watercraft, experience, and skill levels. Similar to the Level 2 Limited Reconnaissance, SCE will invite members of the boating community to participate in the Level 3 Intensive Study focus group. All licensing participants will be informed of the opportunity to participate in the Level 3 Intensive Study focus group. SCE will include local and regional whitewater groups in the outreach effort. The whitewater groups will be responsible for pushing the information to their membership since SCE does not have individual member contact information or authority to post information to their respective websites. Outreach efforts will be documented. SCE cannot force individual boaters or whitewater organizations to participate.</p>
NN-14	Neil Nikirk	<p>4.3 Level 3 Intensive Study; Hydrology Analysis:</p> <p>It is important to note that flow preference curves are largely worthless in quantifying the annual number of days of whitewater boating. Any day that flows are above the minimum acceptable flow is a boating opportunity and it is the loss of this opportunity under impaired flows (i.e. project operations) that defines the impact of the project on whitewater boating. Flow preference curves may be useful in determining optimal flows, but are then only useful in qualitatively describing project impacts on the quality of whitewater boating during the available boating opportunities defined by minimum acceptable flows. SCE does not have the ability to provide optimal flows as there is no available storage with which to do so. They (SCE) do have the ability to provide additional boating opportunities by diverting less or not diverting at all.</p> <p>I formally request that FERC and SCE analyze project impacts on whitewater boating through an examination of the annual number of days that flows are above the minimum acceptable flows under unimpaired and impaired conditions.</p>	<p>The Level 3 Intensive Study hydrology analysis will quantify the annual number of days when instream flows above and below Fairview Dam are equal to or greater than the minimum acceptable flow as well as optimum flow conditions. Minimum acceptable and optimum flows will likely be different for respective types of watercraft in each river segment. The commenter's assumption that optimum flows for all watercraft and skill levels will be greater than the Project diversion capacity may not be true. One of the REC-1 Whitewater Study objectives is to develop flow preference curves for all watercraft types using the river segments in the NFKR below Fairview Dam. This information will help assess the Project effects on these whitewater recreation opportunities.</p>
NN-15	Neil Nikirk	<p>4.3 Level 3 Intensive Study;</p> <p>Public safety concerns associated with whitewater boating flows will be documented using available information such as the Kernville Chamber of Commerce, SQF, California Department of Boating and Waterways, AW accident database and other FERC proceedings where whitewater releases occur. Potential measures to mitigate public safety concerns will also be described.</p> <p>Any public safety concerns associated with whitewater boating flows on the NF Kern are unique to the NF Kern, such that many of the sources of information listed do not apply. In addition, there is no evidence that releases for whitewater boating on the NF Kern create a public safety concern. To the contrary, releases for whitewater boating would occur only when flows in the NF Kern are low and most public safety issues would arise as a result of high natural flows. Attempting to document public safety concerns associated with whitewater boating flows in a system where whitewater boating flows provided by SCE are nearly non-existent (on average, 8 days per year over the current license</p>	<p>Public safety concerns associated with whitewater releases have been an issue at other FERC regulated hydropower projects sometimes leading to vocal opposition to whitewater releases. Identifying public safety concerns in the study, if they exist, allows an opportunity to address the concern with the correct information. The REC-1 Whitewater Boating Study Plan includes a list of entities that may have information specific to whitewater accidents on the NFKR. This information would only be necessary to address opposition to whitewater flows based on public safety concerns. If no opposition is identified based on safety concerns, then the additional analysis will not be necessary.</p>

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		<p>period) is doomed to failure. How can one document concerns with an action that doesn't take place but at most, a few days of the year and not at all in many years?</p> <p>I formally request that FERC direct SCE to provide documentation of the public safety concerns associated with whitewater releases into the NF Kern. FERC can then analyze these potential project impacts during the NEPA analysis once the final application has been received and potential whitewater release conditions have been more formally identified.</p>	
NN-16	Neil Nikirk	<p>4.3 Level 3 Intensive Study:</p> <p>Potential recreation-use conflicts associated with whitewater boating flows will be identified where possible.</p> <p>There is no evidence of a conflict among user groups when it comes to flows. To the contrary, anglers and boaters are in agreement that natural flows are preferred. Further, as SCE has noted, "Scheduled whitewater releases . . . are compatible with other recreational uses of the river as has been demonstrated in countless other relicense proceedings across the country. Angling use and whitewater recreation are compatible uses despite vociferous arguments to the contrary. No study in any relicense proceeding has demonstrated that flow fluctuations from whitewater releases decrease the catch rate on the same day of the release." No results pertaining to this objective are presented in the ISR.</p> <p>I formally request that FERC direct SCE to provide documentation of the recreation use conflicts associated with whitewater releases into the NF Kern. FERC can then analyze these potential project impacts during the NEPA analysis once the final application has been received and potential whitewater release conditions have been more formally identified.</p>	<p>SCE did not claim recreation-use conflicts exist on the NFKR. The REC-1 Whitewater Study simply states that these conflicts would be identified and objectively reported if they exist. Identifying recreation-use conflicts where they exist using objective information allows FERC to conduct its National Environmental Policy Act (NEPA) analysis transparently.</p>
NN-17	Neil Nikirk	<p>5.1.1. Literature Review</p> <p>Table 5.1-1. Whitewater Runs in the Fairview Dam Bypass Reach and Directly Downstream of KR3 Powerhouse</p> <p>The level of difficulty indicated in this table is at times inaccurate and doesn't reflect the fact that difficulty varies with the flow level. Having boated nearly all of these sections at a variety of flows, I request the following changes: 1) Fairview should be classified as Class II-III as many Class II boaters use this section to work on their skills, particularly at lower flows. 2) Gold Ledge should be classified as Class III-IV as I feel it is Class III at the lower flows and is less difficult than either Chamise or Thunder. 3) Cable/Camp 3 should be classified as Class III-IV as it also is, in my opinion, Class III at the lower flows, particularly if one puts in at or below Camp 3 at various access points.</p> <p>I formally request that FERC direct SCE to more accurately reflect the difficulty levels in each reach including how that difficulty changes with flows.</p>	<p>The whitewater difficulty ratings listed in the Level 1 Desktop Review of Existing Information were reported in the existing literature for these river segments (whitewater guidebooks and online sources). The whitewater difficulty ratings are based on the International Scale of Whitewater Difficulty (AW, 2005). Boaters' individual opinions on the whitewater difficulty for the respective river segments across a range of flows will be reported in the REC-1 Technical Memorandum Addendum using responses in the structured interview questionnaire and single flow survey.</p>
NN-18	Neil Nikirk	<p>Brush Creek, another iconic California creek popular with whitewater boaters, enters the NFKR upstream of Fairview Dam in the Limestone run. Brush Creek is a 1.4-mile Class V run (AW, 2023e).</p> <p>Brush Creek generally does not require Class V boating skills to navigate safely. It is a relatively safe creek characterized by moderate-height waterfall drops into secure pools. It can become dangerous and require a higher skill level when water levels are high. I note this because many of the kayakers that regularly boat other sections of the bypass reach that are rated Class III-IV also enjoy boating Brush Creek, but may not boat the Class V Thunder Run or other Class V sections of the bypass reach. I would like to point once again to the information provided by many members of the boating community throughout this relicensing process, including links to websites, videos, and other information supporting the enjoyable boating opportunities as low as 200 cfs. These submissions and materials have not been identified as being part of the literature review conducted for REC-1.</p>	<p>Thank you for the comment. AW river information pages rate Brush Creek as IV(V). Future references to Brush Creek in the REC-1 Technical Memorandum will use this difficulty rating listed in the online sources.</p>

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		I formally request FERC to direct SCE and their contractors to acknowledge and include these submittals in the methods and results of the REC-1 Whitewater Boating study.	
NN-26	Neil Nikirk	<p>5.1.2 Hydrology:</p> <p>A summary of the hydrology data in the bypass reach was completed for impaired conditions from 1997 to 2022 and from 1997 to 2021 for unimpaired conditions.</p> <p>Table 5.1-5 indicates that flow records are available at both gaging locations “to present” yet the analysis period for unimpaired and impaired conditions is different. In terms of presentation, the graphs should show a side-by-side comparison of unimpaired flows (above Fairview Dam) and flows in the bypass reach on the same scale and represent the same time period. I would hope that the presentation can be improved in later documents. In addition, there must be some problems in the data or analysis as annual maximum (upper whisker) is shown as being higher in the bypass reach than above Fairview Dam in many years; sometimes substantially higher. The graphs and table presented here in REC-1 hydrology do not match the tables and graphs in the WR-2 Hydrology Interim Technical Memorandum.</p> <p>I formally request that FERC direct SCE to provide a more complete characterization of unimpaired flows and flows in the bypass reach for determining project effects on an appropriate time scale. I also request that SCE be directed to perform adequate QA/QC on the data such that any analysis of the flow data in the future will be more reliable and not conflict with other compilations of the same flow/discharge data.</p>	<p>Consistent with FERC’s SPD, Study WR-2 provides analysis of flow data for the reach downstream of Fairview Dam and the KR3 Project Water Conveyance. The hydrology dataset provided in the interim Technical Memorandum for WR-2 and REC-1 were draft; and subsequent analysis may be conducted utilizing additional water year (2022 and 2023) data currently undergoing final quality assurance / quality control (QA/QC). As part of the approved WR-2 Study Plan, SCE will provide hydrology data for water years 2022 and 2023 in the first quarter of 2024.</p> <p>Stakeholders were provided with the hydrology dataset from both USGS Gages 11185500 and 11186000 for water years 1997–2021 on June 30, 2023, the sum of which can be used to calculate inflow upstream of Fairview Dam.</p> <p>As noted in NN-39 (Section 2.2), WR-2 Technical Memorandum reports daily mean statistics, whereas REC-1 also includes hourly statistics, where noted. Additionally, the mean flow data within REC-1 (see Table 5.1-9) were rounded to a higher level than in WR-2 (Table 5.1-1), resulting in slightly different monthly means. These differences reflect the level of accuracy relevant for the topic of study, and not the level of accuracy of the datasets.</p>
NN-27	Neil Nikirk	<p>5.1.2.3 Frequency of Whitewater Boating Opportunities:</p> <p>The annual frequency of whitewater boating opportunities was analyzed for inflows to Fairview Dam and in the bypass reach for flows greater than 700 cfs between 8 a.m. and 8 p.m. (Figure 5.1-8). The frequency analysis selected 700 cfs for the Level 1 hydrology analysis based on the whitewater release requirement established in FERC License Article 422. The discharge volume for the frequency analysis will be revised as additional information becomes available on boater flow preferences in the Level 3 Intensive Study.</p> <p>Presenting information on the frequency of whitewater boating opportunities based on an outdated standard is inappropriate at this stage. The whole point of the REC-1 study is to identify the boating opportunities that exist under unimpaired and impaired conditions to assess the project impacts on recreational boating under current conditions. Using the results from the 1994 study and conditions in the prior license implies that the status quo will be accepted and that is a premature decision.</p> <p>I formally request that FERC direct SCE to remove this section from the analysis in the ISR and delay any discussion of the frequency of whitewater boating opportunities until such time that the discharge volume that defines a boating opportunity has been formally identified. This will likely be after the conclusion of the Level 3 investigation.</p>	<p>The Level 1 Desktop Review of Existing Information hydrology analysis relied on existing information for whitewater flows in the FERC record. The Level 1 analysis clearly states the hydrology analysis will be revised based on updated flow preferences collected in Level 3 Intensive Study.</p>
NN-28	Neil Nikirk	<p>5.1.3 Structured Interview Questionnaire:</p> <p>SCE developed a Structured Interview Questionnaire available to all members of the whitewater boating community per the requirements of the FERC SPD. The structured interview questionnaire queried boaters about the individual whitewater segments from Fairview Dam to Riverside Park to document information on recreation use patterns, estimated boating flow ranges for each segment for respective watercraft, potential knowledge gaps about boating flows in the bypass reach, and flow information needs. A copy of the Structured Interview Questionnaire is provided in Appendix C.</p> <p>As pointed out earlier, there are many reasons why only a minimal number of questionnaires were received. One reason for the minimal number of responses could be that the survey closed early (August) in the season that extended well into October this year. Further, no results from this Level 1</p>	<p>In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire.</p> <p>SCE complied with FERC's SPD regarding Level 1 interviews in order to reach the greatest number of interested Stakeholders; 51 respondents participated in the structured interview questionnaire. Most whitewater flow studies associated with FERC regulatory proceedings conduct 6 to 10 structured interviews in the Level 1 Desktop phase. The number of structured interview questionnaires completed as part of the REC-1 Whitewater Study far exceeds the norm.</p> <p>The structured interview questionnaire was open for just over 3 months, from May 5, 2023, through August 15, 2023. The structured interview questionnaire was not dependent on current conditions in this water year</p>

Comment Key ID	Commenter	Comment	SCE Response
		<p>investigation are presented in the ISR even though a minimal number of responses were obtained and SCE has had this data since August.</p> <p>I formally request FERC to direct SCE to make the results obtained from the structured interview questionnaire available to the stakeholders by December 31, 2023 so that they can be used by stakeholders to provide input into the Level 3 Intensive Study planned for 2024.</p>	<p>but rather collective knowledge based on past experiences. Furthermore, the large number of structured interview responses demonstrates it did not close early.</p>
NN-29	Neil Nikirk	<p>5.2 Limited Reconnaissance:</p> <p>The Level 2 limited reconnaissance site visit summarizes the composition of the study participants and information that the participants provided for the individual river segments in the Fairview Dam Bypass Reach as well as the segment downstream of the KR3 Powerhouse</p> <p>The ISR does a reasonable job of presenting the information on the composition of the study participants and the information provided during the focus group. It does not, however provide any recommendations for how this information will be used to inform and guide the Level 3 Intensive Study planned for 2024 or how this information may be used to establish flow preferences that define a whitewater boating opportunity.</p> <p>I formally request the FERC direct SCE and its contractor to provide recommendations on preferred whitewater boating flows to be examined more closely and refined in the Level 3 investigation and how the information gathered during the Level 2 Reconnaissance will be used in the future. This should be made available to the stakeholders by December 31, 2023 so that it can be used by stakeholders to provide input into the Level 3 Intensive Study planned for 2024.</p>	<p>The Level 2 Limited Reconnaissance results includes a narrative listing the participants' minimum acceptable and optimum flows for respective watercraft types as well as knowledge gaps where they exist for determining minimum acceptable flows. The participant responses are also provided in tabular form for each river segment. This information, coupled with analysis of the structured interview questionnaire and Level 3 single flow survey, will be used to develop flow ranges and increments for river segment specific questions in the flow comparison survey. The flow preference curves for watercraft types and river segments are a product of the Level 3 Intensive Study.</p>
NN-30	Neil Nikirk	<p>5.2 Limited Reconnaissance:</p> <p>The 10 Level 2 Limited Reconnaissance site visit participants represented a broad cross section of the whitewater boating community on the NFKR.</p> <p>Not surprisingly, it did not. The 10 participants that made it through the self-nomination process and were able to attend the focus group were predominantly older males with extensive (20+ years) whitewater experience that self-identified as experts (no novices) from the local area that boat often (31+ days annually). Although 3 people in the group must have identified as using catarafts (Figure 5.2-7), I was the only one voicing an opinion on acceptable flows and data gaps for catarafts. I will point out that Figure 5.2-8: Whitewater Segments Boated by Level 2 Participants is incorrect in that several segments show more than 10 participants with experience boating there. This is clearly in error as there were only 10 participants in the focus group. As noted previously, this group was not representative of the diversity found within the recreational and commercial whitewater boating community.</p> <p>I formally request FERC to direct SCE and its contractor to ensure that the Level 3 focus group is much more representative and larger than the focus group convened for the Level 2 investigation.</p>	<p>The analysis in Figure 5.2-8 is based on the 13 individuals that signed up for the Level 2 Limited Reconnaissance. As noted previously, the Level 2 Limited Reconnaissance was open for any member of the boating community to sign up. The opportunity to participate was provided to all entities on the KR3 relicensing mail list, with additional outreach to whitewater groups and commercial outfitters. The sign-up process took an average of 6 minutes to complete. SCE accepted all participants. SCE cannot force boaters to participate.</p>
NN-31	Neil Nikirk	<p>5.3 Level 3 Intensive Study:</p> <p>SCE launched the Level 3 Intensive Study single flow whitewater boating survey (single flow survey) on April 1, 2023. Information obtained in the Level 1 Desktop Review of Existing Information and planning for the Level 2 Limited Reconnaissance investigation was used to support and guide planning and implementation for the Level 3 single flow survey. The broad range of flows forecasted for WY 2023 presented an opportunity to collect boater flow evaluations encompassing high challenge flows through the spring and summer months to low flow conditions at or below minimum acceptable in the late summer and fall.</p> <p>It is again interesting that the Level 3 Intensive Study single-flow whitewater boating survey was initiated before any of the Level 1 or Level 2 investigations were truly underway.</p>	<p>The Level 1 Desktop Review of Existing Information was initiated shortly after FERC's SPD (October 2022) and was ongoing through completion of the ISR. The Level 2 Limited Reconnaissance planning and focus group questions were developed in the winter of 2023. Implementation was delayed due to the extended high run-off. Information obtained in the Level 1 Desktop Review was used to help delineate the river segments used in the Level 3 single flow survey. None of the information in Level 2 Limited Reconnaissance was needed to develop questions and roll out the single flow survey. Implementing the single flow survey on April 1, 2023, allowed boaters to rate a broad range of flows for each of the river segments.</p>

Comment Key ID	Commenter	Comment	SCE Response
		<p>I formally request that FERC direct SCE and its contractor to explain how and what information collected in Level 2 was used to develop the online single flow survey that was published on April 1, 2023 as the Level 2 Limited Reconnaissance Survey was conducted on August 25, 2023.</p>	
<p>NN-32</p>	<p>Neil Nikirk</p>	<p>5.3 Level 3 Intensive Study:</p> <p>As of September 20, 2023, 401 boaters have participated in the single flow survey providing information on their boating trips on the NFKR. Single flow survey responses were distributed across the months of April, May, June, July, August and September (Figure 5.3-1) evaluating flows ranging from 250 cfs in September to 8,500 cfs in May.</p> <p>Similar to the Level 1 investigation, no preliminary results from the online single flow survey are presented in the ISR other than a summary of when the responses were collected. Although it is reported that 401 boaters have participated in the single flow survey, which sounds like a reasonable number for analysis, the actual number of boaters is much less as this is the number of survey responses received to date. I personally filled out at least 30 surveys during the April to September time period that reflected at least that many boating trips as I would often do two or more laps each day and boat several sections on each trip. I formally request that FERC direct SCE and its contractor to accurately reflect the number of boaters that participate in the single flow survey as well as the number of responses. This information is readily available from the survey data as the questionnaire asked for names of individuals participating.</p> <p>In addition, I formally request FERC to direct SCE to make the results obtained from the structured interview questionnaire during April to September available to the stakeholders by December 31, 2023 so that they can be used by stakeholders to provide input into the Level 3 Intensive Study planned for 2024. The data provided should be in both "raw" form – with unique identifiers for each survey participant (not survey) and summarized by date, reach, boater experience, etc.</p>	<p>The single flow survey is part of the Level 3 Intensive Study. At the time of the ISR deadline, the single flow survey was still open for participant responses through December 31, 2023. Conducting detailed analysis on an incomplete dataset was not appropriate by the ISR deadline. In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey. The analysis will include the total number of responses as well as the total number of respondents that took the survey more than one time.</p>
<p>NN-33</p>	<p>Neil Nikirk</p>	<p>5.3.1 Need For Controlled Flow Study:</p> <p>In previous documentation during development of the study plans, SCE has cited its 1994, on-water boating study. Now SCE claims such a controlled flow study is "not possible." The existence of the 1994 study proves the only thing preventing an updated on-water controlled flow study is lack of will. This is shown by SCE's willingness to enhance flows where potential gaps exist in boater knowledge and experience for specific flow ranges. Flow enhancement may include diverting a portion of flow over Fairview Dam to target specific flow ranges where knowledge gaps were identified in Levels 1 and 2 of the study as well as the single flow survey.</p> <p>SCE, in the ISR, presents a list of issues and limitations associated with conducting a controlled flow study. SCE fails to explain how it conducted an on-water study in 1994 at multiple flow levels given these "severe" limitations. The answer is that the limitations are not as severe as SCE would have everyone believe, as shown by the existence of the 1994 study and the large number of days on average at which various targeted flows could be tested, given the limited hydrologic analysis presented in the ISR. These limitations can each, in turn, be shown not to be as severe as suggested by SCE.</p> <p>1. Insufficient storage to provide flows across a boatable flow range As noted previously, it is not necessary for boaters participating in a controlled flow study on a run-of-river facility to evaluate the full range of flows. It is only necessary to evaluate flows at the lower end of the hydrograph to identify the minimum acceptable flows for each type of watercraft in each segment. In this case, the range can likely be limited to flows between 200 and 700/1000 cfs.</p> <p>2. Number of boatable flow releases needed for investigation. Whittaker et al. (2005) states: "Three to four flows are commonly assessed in these [on-water] studies," and he makes clear that on-water studies "work best when they are focused on discrete flow ranges where more precision is needed." The flow study could easily be timed to when anticipated natural flows are around 1000 cfs and diversion can be varied to provide the target flows for comparison.</p>	<p>The REC-1 Technical Memorandum does not rule out the need to provide on-water boating study as part of the Level 3 Intensive Study in 2024 using enhanced flows. SCE does object to labeling the on-water boating using enhanced flows below Fairview Dam as a controlled flow study. Controlled flow studies are best suited for short bypass reaches where flows can be controlled to provide a range of flows in a 2- to 3-day period for the same team of boaters to evaluate each flow in succession under similar conditions to eliminate other variables (Whittaker et al., 2005). The Project is not able to meet these requirements for a controlled flow study. Fairview Dam is incapable of controlling the full range of flows or setting a date for a consistent team of boaters to evaluate each of the flows. Fairview Dam can only enhance a narrow range of flows and, at best, provide 2- to 3-day advance notice. As a result, this should not be described as a controlled flow study. Incorrectly calling this a controlled flow study when it fails to meet the definition will add further confusion for future hydroelectric license proceedings. Adhering to definitions in the literature will help improve standardized approaches and consistency with data collection standards.</p> <p>The REC-1 Whitewater Study does reference the 1994 whitewater study because it is part of the existing information used specifically in the FERC record for the current license condition. The REC-1 Whitewater Study does not refer to the 1994 whitewater study as a controlled flow study because it does not meet the definition of a controlled flow study. SCE was not controlling the flow to target specific flows for the boaters in 1994. By luck, the dates set for the 1994 study coincided with an ascending limb of the hydrograph allowing boaters to evaluate a range of flows provided by natural run-off and not by the diversion "controlling" the flow. The 1994 whitewater study does not use the term "controlled flow study." Incorrectly labeling the 1994 study with an approach not implemented in that study adds further confusion to this and other whitewater recreation studies focused on investigating flow preferences.</p> <p>The REC-1 Whitewater Study includes an on-water component to fill data gaps based on results from the Level 1 structured interview questionnaire, the Level 2 Limited Reconnaissance, and the Level 3 single flow survey. In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical</p>

Comment Key ID	Commenter	Comment	SCE Response
		<p>3.Inability to ensure a consistent panel of participants across controlled releases. Edison’s use of the “consistent panel” argument is wholly disingenuous in that Edison has removed the requirement of a consistent panel from its other Level 3 studies. Edison characterizes both its Single Flow Survey and Comparative Flow Survey as “Level 3” even they are public surveys and neither requires a consistent panel. The boaters who know the NF Kern best and bear the lion’s share of project effects — those locally and those from Southern California — show up weekend after weekend during the runoff season. Edison easily has the ability to form a broad panel from that group, and the boating community can identify a few volunteers to represent Northern California and beyond.</p> <p>4.Length of the bypass reach. This is not even a valid issue. Any water “released” during a controlled flow study naturally flows through each of the sections identified in the Level 1 literature review, allowing evaluation of boating opportunities by all types of craft in whatever section the boaters feel comfortable evaluating on that day.</p> <p>5.Complexity of whitewater opportunities in bypass reach and variety of watercraft being evaluated. Again, this is not a valid issue. Any number of watercraft types can participate in a controlled flow study within whichever section of the bypass reach they wish to evaluate. Some boaters may choose to evaluate only the sections above Salmon Falls while others may choose to evaluate only those sections within their ability level or link sections together and evaluate them in total. The release will travel the entire extent of the bypass reach.</p> <p>For these reasons, I formally request that FERC re-examine the reasons SCE put forth in excluding the controlled flow study requests submitted by KRB and direct SCE to conduct a controlled flow study similar to or following the KRB SR-8: WHITEWATER FLOWS UPDATED STUDY PROPOSAL in their Comments, Study Requests, and Information Requests in Response to Scoping Documents Two and The Applicant’s Proposed Study Plan for Kern River No. 3 Hydro Project under P-2290 (Accession #: 20220603-5148).</p>	<p>Memorandum with analysis and recommendations for the Level 3 implementation including on-water components.</p> <p>Whittaker et al. (2005) describes several approaches for conducting Level 3 Intensive Studies that do not include the controlled flow approach to obtain the same level of data resolution. Each study approach is named with a title and carefully described with study objective, approach, products, and potential study issues. Failing to adhere to the names of the respective study approaches will add further confusion for future hydroelectric license proceedings. The REC-1 Whitewater Study includes a Level 3 Intensive Study using approaches described in Whittaker et al. (2005) best adapted to the conditions at the Project.</p> <p>Contrary to the commenter’s statement, the controlled flow study approach <i>does</i> require a consistent panel of participants to adhere to the description provided by Whittaker et al. (2005). In contrast, the Level 3 Intensive Study approach applied in the REC-1 Whitewater Study does <i>not</i> require a consistent panel of participants. And in fact, this difference explains, in part, why SCE selected this this approach.</p> <p>The REC-1 Technical Memorandum includes a component for an on-water boating study as part of the Level 3 Intensive Study in 2024 using enhanced flows. SCE objects to calling the on-water boating component using enhanced flows below Fairview Dam as a controlled flow study because it does not meet the requirements listed in Whittaker et al. (2005). The on-water component of the Level 3 Intensive Study proposed by SCE will enhance flows. Fairview Dam will be used when inflow conditions are suitable to add or subtract flow from the NFKR bypass reach to specifically target flow ranges where knowledge gaps exist. The flow enhancements may occur on short notice, may not occur in regular increments and may not be capable of hitting specific flow targets. All boaters are encouraged to participate but are not required to paddle every flow enhancement provided. This approach does not meet the description of a controlled flow study as described in Whittaker et al. (2005) and should not be referenced as such. Adhering to definitions in the literature will help improve standardized approaches and consistency with data collection standards.</p>
JP-1	Jose Luis Pino	<p>The ISR document and the ISR meeting presentation referred to the mean flow and not the median flow. Given the nature of the North Fork Kern flows, the study should focus only on the median flows as the mean flows are greatly skewed by high water years. The median flow will deemphasize the huge water years which are uncommon but do happen.</p>	<p>The REC-1 Technical Memorandum includes statistical analysis of the annual and monthly hydrology (Section 5.1.2). The statistical analysis includes the mean, median, interquartile range (25–75 percent), and minimum and maximum. This statistical analysis of the hydrology data was approved in the FERC SPD. Please refer to figures 5.1-4 through 5.1-7 as well as tables 5.1-6 through 5.1-9 of the ISR document.</p> <p>In addition, please refer to Response to KRB-4.</p>
JP-2	Jose Luis Pino	<p>I request that the focus group and on water study is conducted again next year. The focus group was made up of 10 paddlers, with 8 paddles living near Kernville. It is important that we have geographical diversity as part of a focus group as our needs are different from non-local boaters. Boaters for LA and San Diego paddle on the Kern regularly and their needs should be properly understood. The key difference is that we need to plan ahead and have predictable flows known days in advance so we can plan our weekends. The Kern is the only whitewater river in SoCal and non-locals should be represented better.</p>	<p>Thank you for the comment. The Level 3 Intensive Study will include a focus group in 2024. SCE agrees with your recommendation that the focus group composition include boaters from different geographic areas that visit the NFKR. In fact, the study plan methods for the Level 3 Intensive Study recommends including participants traveling to the NFKR from outside the immediate area. We encourage you to participate in the Level 3 Intensive Study focus group as well as your fellow boaters traveling from outside the immediate area.</p>
JP-3	Jose Luis Pino	<p>The focus group also had a serious lack of skill diversity to better understand the importance of the different runs on the Kern. All of the boaters on the focus group have paddled Chamise gorge (class IV+) and most have paddled the forks and Thunder runs (class V). Two of the people on the focus group were former Olympians. Intermediate paddlers need better representation in the focus group so their needs for key runs are understood. One of the key sections for intermediate boaters is the Cables run which is in the dewatered section - this section critical to build up their skill set and for non-local boaters to ‘dust off the cobwebs.’</p>	<p>Members of the boating community were allowed to nominate themselves to participate in the Level 2 Limited Reconnaissance site visit. SCE encouraged the boating community to nominate participants representing diverse age, gender, skills, watercraft, and geographic areas. SCE did not select the participants. Thirteen boaters nominated themselves to participate in the Level 2 Limited Reconnaissance site visit. SCE invited all 13 individuals to participate as well as interested agency staff. In the end, 10 boaters participated in the Level 2 Limited Reconnaissance site visit.</p>
JP-4	Jose Luis Pino	<p>At the ISR meeting, the speaker indicated that the studies would be redone next year. Please make sure that both the focus group study and an on-water study are redone.</p>	<p>The REC-1 Whitewater Study is a 2-year study. The Level 3 Intensive Study will continue in 2024 including a focus group and flow comparison surveys based on on-water experience as described in the approved study plan.</p>

Comment Key ID	Commenter	Comment	SCE Response
AR-4	Anthea Raymond	<p>Finally, we ask that you give careful thought to recent requests for a more inclusive approach to qualitative input to the Phase 3 study. That may require multiple focus group events like the one this past August to keep conversation focused. We would discourage group sizes of more than 10-12. We would also suggest that the group include more boaters from around the state, especially those from Northern California. Geography gives them more consistent opportunities to paddle multiple rivers at multiple flows and might facilitate some of the implicit comparative data you are seeking.</p>	<p>The Level 3 Intensive Study will include a flow comparison focus group session. SCE agrees with your recommendation that focus groups include a diverse group of boaters across skill levels, watercraft types, and geographic location. The participants should have direct experience boating river segments in the bypass reach on the NFKR. SCE encourages you to participate in the Level 3 Intensive Study focus group as well as fellow boaters traveling from outside the immediate area.</p>

2.4. REC-2 RECREATION FACILITIES USE ASSESSMENT

Comments regarding REC-2 study plan modifications were filed by NPS, KRB, AW, and Neil Nikirk. Their comments centered around five main topics, which include (1) use of cameras to collect recreation use information and correlated consultation; (2) revised methodology that includes 2-hour calibration counts and additional spot counts proposed by SCE following SQF’s direction to remove trail cameras; (3) interest in capturing whitewater boating use numbers; (4) request to extend the survey and spot counts; and (5) public engagement associated with the survey questionnaire. In the table below, SCE responds to these and other issues raised in Stakeholders’ requests for modified studies. In response to Stakeholders’ request for additional information pertaining to data collected as part of the approved study, SCE will provide an addendum to the REC-2 Technical Memoranda in the first quarter of 2024 to Stakeholders. SCE is also proposing one study modification to extend the 2024 study period to include additional spot counts and 2-hour calibration counts through May 2024 (refer to Response to KRB-19 below).

Comment Key ID	Commenter	Comment	SCE Response
NPS-4	National Park Service	<p>2. REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum</p> <p>The NPS requests that the Applicant provide the results of the 2-hour calibration and spot counts for stakeholders to review and determine if the study plan variance is acceptable and appropriate or if a study modification is needed.</p> <p>FERC issued a Study Plan Determination (SPD) for the Project on October 12, 2022, and recommended the Applicant <i>install trail cameras that would provide information on visitors accessing the river</i>. FERC asserted that the trail cameras would provide more comprehensive information on recreation activity in the Project study area compared to relying solely on spot counts...</p> <p>Although initially attempting to modify FERC’s request and installing trail cameras at only five recreation sites, the Applicant proceeded to set up cameras at all 25 recreation sites after stakeholder input. Before the Applicant was able to install all the cameras, they received a notice from Sequoia National Forest to remove all trail cameras from their permitted recreation facilities (i.e., campgrounds), to which the Applicant complied. After which, the Applicant “<i>reviewed the study approach, and revised the recreation use data collection to include a two-hour calibration count and an additional spot count,</i>” doing so without consulting stakeholders.</p>	<p>As noted in NPS-1 (refer to Section 4.1), SCE has agreed to share the survey information with NPS and all Stakeholders in the first quarter of 2024 in an appended REC-2 Technical Memorandum.</p> <p>FERC stated in the SPD that SCE’s proposed approach to collect data from 15 days of on-site surveys and 27 days of spot counts may not be comprehensive enough and recommended the use of trail cameras to collect more comprehensive information on recreation activities. As summarized in the REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum (provided in the ISR) and as required by the SPD, SCE initiated consultation with the SQF, NPS, and KRB in March 2023 regarding the proposed camera locations. SCE initially installed cameras at five locations in April 2023 and, through subsequent stakeholder consultation and feedback during April and May, proceeded with installing cameras at all 25 recreation sites. However, in late May 2023, SCE received communication from the SQF requesting all cameras be removed from U.S. Forest Service (USFS) developed campgrounds. Therefore, SCE elected to remove all cameras and on June 1, 2023, notified FERC staff of the request to remove the cameras, and that an alternative methodology would be implemented to collect recreation information in lieu of camera installation to meet FERC’s objectives stated in their SPD.</p> <p>As SCE stated during the ISR meeting, consultation with the SQF and the timing of the camera installation (May) and subsequent removal (late May into June) occurred at the beginning of the recreation season. In response to SQF’s request to remove the cameras, SCE pursued alternative methods (i.e., spot counts and calibration counts) to capture recreation use patterns at the start of the peak recreation season that did not delay recreation use data collection. These methods have been used in other hydropower relicensing proceedings also tasked with collecting information on recreation use and activities (e.g., P-2572, P-2458, or P-2422).</p> <p>To bolster the collection of recreation data, SCE increased the number of calibration counts and spot counts. The recreation study field data collection activities include:</p> <ul style="list-style-type: none"> • 33 visitor questionnaire intercept survey days and spot counts (per the SPD); over the course of 1 full year (April 1, 2023–March 30, 2024) on weekdays, weekends, and holidays. • 23, 2-hour calibration days to capture use and use patterns (June 2023–March 2024) on weekdays, weekends, and holidays. • An additional 28 spot count days, which increases the total number of spot counts to 61 days over the course of the year-long study on weekdays, weekends, and holidays. (Spot counts are conducted concurrently with either the visitor intercept survey days or calibration days; see REC-2 interim Technical Memorandum for additional information.) <p>Since the start of data collection on April 1, 2023, through December 31, 2023, SCE has intercepted over 1,500 recreationalists and over 1,200 completed the visitor use surveys in which SCE obtained information about their recreation experience.</p> <p>The results of these surveys will be shared with all Stakeholders the first quarter of 2024 in an appended REC-2 Technical Memorandum. The information collected to date, and anticipated for the remaining duration of the study, will provide the necessary data to accomplish the REC-2 study objectives that include: (1) evaluate recreation use at recreation sites within the FERC Project Boundary and along the Fairview Dam</p>

Comment Key ID	Commenter	Comment	SCE Response
			<p>Bypass Reach, including both an assessment of the amount of recreation use that each site is receiving (including percent of capacity) and the recreation activities that occur at the site; (2) collect visitor feedback regarding their perception and experience at recreation facilities within the study area including but not limited to facility condition, level of crowdedness, angling opportunities, and the scenic landscape; (3) estimate future recreational demand and needs, including the need for additional recreation facilities and access enhancements; and (4) assess consistency of current recreation opportunities with the laws, regulations, policies, and guidelines described in the Sequoia National Forest Land and Resource Management Plan.</p> <p>This year-long field effort is double what was originally proposed. Per the approved study plan, SCE also included other ways the public can provide information about their visit through the online survey where they could provide recreation user activity information. Flyers with a QR-code about the online survey are posted throughout the survey area and windshield postcards are also distributed. A link to the survey is also posted on SCE's Project website.</p>
NPS-5	National Park Service	<p>2. REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum The NPS defers to the USFS on their decision to discontinue the use of trail cameras at the Project study area's recreation facilities. Our concerns lie with the reliability of the revised methodology to adequately capture river-related recreation activities in the Project study area. FERC identified in the SPD that spot count observations <i>"may not be comprehensive enough to ensure staff has adequate information to analyze environmental effects and inform license conditions,"</i> and recommended the use of trail cameras to provide information on visitors accessing the river. The Applicant chose to use 2-hour calibration and spot count in lieu of the cameras without consulting with stakeholders. Considering that FERC directed the Applicant to consult with stakeholders when determining camera locations, it would seem reasonable that stakeholders would be consulted when determining an alternative to trail cameras. According to the Applicant, Sequoia National Forest directed them to remove all cameras from their permitted recreation facilities (i.e., hosted campgrounds). It is not clear if cameras would have been allowed within the Project study area outside of developed and/or dispersed campgrounds, such as cameras facing towards the river to capture on-river recreation use.</p>	<p>Refer to Response to NPS-4 regarding survey data and the level of effort and volume of data collected to date as part of the REC-2 field study.</p> <p>The intent of the use of cameras was to "record quantitative data and types of recreation use," and "install trail cameras in the locations that would provide information on visitors accessing the river." SCE is proceeding with data collection methods by collecting information about visitor activities, including those accessing the river, either through visual observations of activities (spot counts and calibration counts) or via survey questionnaire responses. As described above in SCE's response to NPS-4, this year-long field effort is double from what was originally proposed.</p> <p>To augment REC-2 data about in-water based recreation activities, SCE has also solicited the boating community to provide information regarding their boating use as part of the REC-1 Whitewater Boating Study through various online surveys. Boaters had the opportunity to complete a structured interview questionnaire (51 completed) that asked how many trips per year are taken to the NFKR and a single flow survey (423 completed) between April through December that boaters could fill out following each on-water visit to the Project area. Through both of these studies, SCE has demonstrated and documented through a considerable level of effort and cost and in accordance with the FERC approved studies, recreation use, including on-water boating use in the Project area. The results of the questionnaire and survey will be provided to Stakeholders in an appended REC-1 Technical Memorandum to document and provide information on boating use.</p>
NPS-6	National Park Service	<p>2. REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum REC-2 Interim Technical Memorandum does not provide any results or data summary from the 2-hour calibration and spot counts that were conducted from June 19 to September 30, 2023, for stakeholder review and assessment, especially in tallying the number and types of on-river recreationists. This makes proposing study modifications difficult since the results from the chosen method are unknown. The Applicant states that the results from the Rec-1 field studies will be summarized in the Updated Study Report in October 2024. By that time, it would be too late to determine if the study should be modified to gather more reliable data on river recreation use in the Project study area. Although the 2-hour calibration and spot counts are scheduled to continue through March 2024, the NPS requests that the Applicant provide stakeholders a preliminary summary of data already collected by January 31, 2024, and allow a month for review and discussion of the potential need for study modification.</p>	<p>Refer to Response to NPS-4 and NPS-5.</p> <p>SCE recognizes the challenges of the ILP schedule and the timing of study results, particularly when data collection occurs over a full calendar year and the issuance of the SPD occurs late in a calendar year. For studies that are still ongoing or data analysis not completed by the ISR filing deadline, SCE included a description of the data collected to date and identified any study plan variances—just as FERC's regulations require. Contrary to several NPS comments, FERC's regulations do not require applicants to provide data at the ISR stage related to an incomplete, ongoing study. Rather, as FERC's regulations require, SCE described "its overall progress in implementing the study plan and schedule and the data collected, including an explanation of any variance from the study plan and schedule." 18 CFR § 5.15(c)(1).</p> <p>SCE will provide Stakeholders with an addendum to the REC-2 Technical Memorandum in the first quarter of 2024 that will include a summary of data collected.</p>
NPS-7	National Park Service	<p>2. REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum The trail camera data was needed to estimate the number and types of river recreationists (e.g., kayakers, rafters, canoeists) within the Project study area. Data is available and reported in Rec-1 for commercial whitewater boating use since commercial outfitters who operate within the 16-mile Fairview Dam bypass reach report annual numbers of passengers to Sequoia National Forest. However, this visitor use data does not specify the number of passengers by river segment. Rec-1</p>	<p>Refer to Response NPS-4 and NPS-5 regarding study goals and objectives to collect recreation use data.</p> <p>SCE is proceeding in accordance with FERC's approved Study Plan and as described in the study plan variance as part of the ISR following the removal of cameras with a methodology that is consistent with</p>

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		<p>separates the bypass reach into eight whitewater segments ranging in whitewater difficulty from Class II to Class VI and identifies preliminary flow preferences for each segment. Knowing commercial whitewater boating use by whitewater segment is necessary to understand the relationship between such use and flow levels. The only commercial boating data available by river segment is for the Powerhouse/Lickety Split segment downstream of the bypass reach, which is the ninth whitewater segment in the Project study area. Similar data is needed for the eight upstream river segments that are within the bypass reach.</p>	<p>generally accepted practices to accomplish FERC’s objectives to record the number and types of all recreation use, including, but not limited to water-based recreation.</p> <p>Lastly, the REC-1 Technical Memorandum reported the commercial boating use numbers provided by local outfitters. Commercial outfitters do not report which river segments are used to the SQF and there is no way of analyzing the data at this level of resolution nor was it a study objective.</p>
NPS-8	National Park Service	<p>2. REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum</p> <p>There is no existing source of information that provides an accurate account of non-commercial boater use in the Project study area. Non-commercial boating activities are directly impacted by Project operation and maintenance. It is uncertain if the 2-hour calibration and spot counts adequately captures non-commercial boating use within the Project study area, especially since the Applicant does not provide any preliminary results in the ISR. If Sequoia National Forest’s direction to remove trail cameras only pertains to those within campgrounds, setting up trail cameras outside of campground areas and directly facing the river with the intent to capture on-river recreation may be an option to collect more reliable data of non-commercial boater use within the Project study area.</p>	<p>Refer to SCE’s Response to NPS-4, NPS-5, and NPS-7 regarding the purpose and data collected as part of the REC-2 study.</p> <p>Non-commercial boating use information is being collected through various approaches that include randomized on-site observations (spot and calibration counts), visitor feedback from the questionnaires (in person or online), and boater participation with the online surveys as described in the REC-1 Whitewater Boating Study.</p> <p>In combination with the information collected as part of these, and other relevant studies or existing information, there will be sufficient information to make an informed decision and evaluate potential Project effects. The recreation use data collected (both off and on-water) will be shared with Stakeholders in an appended technical memorandum for the REC-1 and REC-2 studies in the first quarter of 2024.</p>
KRB-18	Kern River Boaters	<p>KRB REC-2.1 Use. Trail Cameras, Modification</p> <p>KRB: Trail cameras have several virtues in comparison to spot counts. First, trail cameras are machines recording human activity, not human beings trained and paid by the license applicant to document such activity. Cameras are impervious to the biases — conscious or unconscious — that threaten the accuracy of data collection.</p> <p>Second, trail cameras are continuous loggers. They monitor activity around the clock, and a well-placed network of them, as proposed in the SPD, would have painted a fair and thorough picture of visitor use above and below Fairview Dam. The spot counts as implemented, by contrast, gather but a splinter of available data: a single point in the day just a few days a month. Cameras are impervious to anomalous use patterns that might arise on the bases of atypical flows, weather, road contingencies, and the like, and thus provide a more comprehensive picture of recreational use.</p> <p>It also fails to explain why Edison neither (1) attempted to argue in favor of the public interest to the Forest, correcting its mistaken understanding of the two-party law nor (2) reconfigured the camera network so that only parking lots and trail and river access points — no tent sites or restrooms; no place where there could be any expectation of privacy — were filmed.</p> <p>When flows above Fairview Dam are boatable but those below are not, there is almost no activity to be seen at any of the boat launches below the dam. All boating interest is squeezed into the short section above the dam, along with similarly intensified use by anglers, hikers, and campers, causing such congestion that many potential recreators — not just boaters — are unable to find feasible parking for their desired activity. Providing additional flows below the dam at these times is in the public interest to both facilitate boating that incredible stretch and alleviate project-caused overcrowding of the natural resources for all users above. Knowing when and where the cars are and matching that data to flows above and below Fairview Dam would go a long way towards capturing projects effects on recreation in an unbiased and broad-based manner. For these reasons, we ask that the Commission reject Edison’s variance and carry out the REC-2 trail camera mandate in the public interest as described above. (pg 79-80)</p>	<p>KRB’s request is untenable. As the landowner, the USFS has the right to request removal of cameras on their lands. Throughout May 2023, SCE consulted with the USFS-SQF regarding the placement and location of the cameras to identify suitable locations for installation, with a focus on parking areas. However, the recreation site layout and landscape (i.e., wide open spaces or main driveways and parking areas adjacent to many camp sites) does not lend itself to focus only on parking areas.</p> <p>Refer to Responses to NPS comments above (NPS-4 through NPS-8) regarding survey data and the level of effort and volume of data collected to date as part of the REC-2 field study. The results of these surveys will be shared with all Stakeholders the first quarter of 2024 in an appended REC-2 Technical Memorandum. The information collected to date, and anticipated for the remaining duration of the study, will provide the necessary data to accomplish the REC-2 study objectives.</p>
KRB-19	Kern River Boaters	<p>KRB REC-2.2 Use. Atypical Year, Modification</p> <p>We ask that the REC-2 survey and spot count studies be extended through September 2024, one year past the setting in of fish flows, or at least through May 2024, to capture the congestion above Fairview Dam that obtains when there are boatable flows above Fairview Dam but not below. Good</p>	<p>SCE acknowledges that recreation sites above Fairview Dam were not surveyed in April and May 2023 due to the road closure following the large storm event that occurred in March 2023. SCE proposes to modify the REC-2 2024 study period and extend the spot counts and 2-hour calibration counts at the non-fee day</p>

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		<p>cause for this request exists given the extraordinary hydrological circumstances of 2023 and REC-2's commitment to studying the effects of the project that are typically borne by the natural and social environments. (pg. 82)</p>	<p>use/dispersed camping recreation sites in the study area (1 weekday/weekend day in April and May 2024 and 1 day of the 3-day Memorial Day weekend).</p> <p>However, another season of recreational use data collection (through September 2024 as requested by KRB) is unlikely to result in findings that are substantially different than the previous 12 months (i.e., the current 12-month study period).</p>
KRB-20	Kern River Boaters	<p>KRB REC-2.3 Use. Survey Participants, Modification</p> <p>SCE updated the REC-2 visitor questionnaire to include questions designed to query visitors on their angling flow preferences and use in the bypass reach. (ISR ANG-1 at 7.) KRB: This modification request, founded on the same variance, applies to REC-2, AES-1 & ANG-1.</p> <p>The exclusion of the general public from the REC-2 online survey is at variance with the approved study plan. The revised study plan does not state that the online survey would be limited to contemporaneous visitors. If it did, it would have been corrected, because that is inconsistent with the goals of the study plan, the L1 structured interview methodology required by Whittaker, and the SPD itself.</p> <p>Edison's implementation of the L1 aesthetics and angling surveys directly contradicts these purposes. The self-selected pool of contemporaneous visitors does not provide for a representative look into angling or aesthetics. It specifically excludes people "from other areas of California . . . familiar" with the area. You had to visit during the study period to participate.</p> <p>We ask that this variance be corrected by immediately proceeding to a Level 2 investigation (reconnaissance visit) into angling and aesthetics, to be reported by May 01, 2024 so as to allow comment, adjudication, and, if needed, Level 3 investigations. Good cause for the request exists in that Edison was wholly at fault for this critical variance from the goals of the study plan, standard Whittaker methodologies, and the direction of the SPD. The online survey was supposed to form the basis of a Level 1 investigation into the need for further L2/L3 studies. It is now too late to conduct a corrected one-year online survey, report on it (including a L2/L3 decision), invite stakeholder comment, rule on the report and comments, and still have time to implement meaningful L2/L3 studies with stakeholder input prior to the FLA. For these reasons, the Commission should grant our request. (pg 83-84)</p>	<p>This study is being conducted as approved by FERC in its SPD regarding survey deployment and interactions with the public.</p> <p>KRB's comment misconstrues the specific purpose and design of this study. The REC-2 visitor questionnaire was expressly and intentionally designed to capture input from actual, current visitors to the Project area. This is consistent with other FERC recreation-related visitor surveys (and other site/area-specific recreation surveys) that aim to engage those people who actually visit the recreation sites and who are most familiar with the Project area and its recreational opportunities. The REC-2 methodologies (consistent with best practices for survey research) help ensure that the results of the visitor survey are representative of actual public recreation in the Project area. These methods would also help yield representative results for angling and aesthetic preferences of visitors to the Project area.</p> <p>The methodologies described in the REC-2 Study Plan, as well as the specific approaches for aesthetics and angling (AES-1 and ANG-1), are consistent with the phased approach recommended in Flows and Recreation: A Guide to Studies for River Professionals (Whittaker et al., 2005). In particular, the survey questions about aesthetics and angling preferences aim to collect information about "local knowledge" of these resources to help inform the Level 1 study results. Only if there are still data gaps after completing the Level 1 study would a Level 2 or 3 study be initiated. Since the REC-2 study, including its aesthetics and angling components, is still being implemented consistent with the approved study plan, it is premature to initiate a Level 2 or 3 study at this time. These additional levels of study would only be warranted if a greater level of precision is needed to complete the NEPA analysis and to develop appropriate license requirements (again, per the guidance provided in Flows and Recreation: A Guide to Studies for River Professionals).</p> <p>Also, note that the phased methods outlined in Flows and Recreation: A Guide to Studies for River Professionals (Whittaker et al., 2005) are specific to boating, angling, and other flow-dependent recreational activities. These methods generally do not address aesthetics or visual resources in river settings, but as acknowledged in Flows and Recreation, some study components (e.g., controlled flow studies) may be modified for aesthetic purposes. The more recent Flows and Aesthetics: A Guide to Concepts and Methods (Whittaker and Shelby, 2017) provides more relevant study guidance specific to describing and evaluating aesthetic flows in river settings. The approved aesthetics study plan incorporates appropriate elements of the methods recommended in Flows and Aesthetics and specifically follows the recommended progressive approach (starting with Level 1 and progressing to Levels 2 and/or 3 as needed based on identified data gaps and needs) to describing and evaluating aesthetic conditions in river settings.</p> <p>For these reasons, there is no variance to the study and the comment does not satisfy FERC's criteria for a study modification.</p>
KRB-21	Kern River Boaters	<p>KRB REC-2.3 Use. Survey Participants, Modification</p> <p>KRB AES-1.1 Aesthetics. L1 Survey Participants, Modification</p> <p>KRB ANG-1.1 Angling. L1 Survey Participants, Modification</p> <p>This modification request, founded on the same variance, applies to REC-2, AES-1 & ANG-1. Edison's REC-2 online survey is fundamentally flawed, and that flaw infects that study as well as the AES-1 & ANG-1 L1 study processes.</p> <p>The exclusion of the general public from the REC-2 online survey is at variance with the approved study plan. The revised study plan does not state that the online survey would be limited to</p>	<p>Refer to Response to KRB-20, where SCE explains that these studies are being conducted as approved by FERC in its SPD.</p> <p>In addition, there is no variance to the ANG-1 and AES-1 Level 1 studies in question as SCE modified the REC-2 questionnaire and deployed the survey questionnaire in accordance with FERC's recommendation in the SPD. Specifically, the use of an online survey provides an opportunity for the general public who may not be present in the Project area during the intercept surveys to participate in the survey process. Online surveys are an effective (and common) data collection method to augment the reach of traditional on-site intercept surveys by making the survey available to a broader population. Contrary to the claim that the general public is excluded from the online survey, there is nothing in approved REC-2 Study Plan nor in the online survey itself that precludes the general public from participation. That said, while a well-designed and</p>

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		<p>contemporaneous visitors. If it did, it would have been corrected, because that is inconsistent with the goals of the study plan, the L1 structured interview methodology required by Whittaker, and the SPD itself.</p> <p>A goal of REC-2 is to obtain information on angling and aesthetics and provide a basis on which to estimate future recreational needs. (ISR REC-2 at 1.) That information is also to be used for the Level 1 investigation into angling and aesthetics. In that regard, Whittaker requires that the license applicant “ensure the interviewees represent a sufficient diversity of user types” and cautions against various issues of “self-selection.” (Whittaker (2005) at 12.) Further, the SPD states that the survey would “reach a greater number of respondents, who live locally but also who live in other areas of California, that are familiar with the . . . character and flows of the bypassed reach.” (SPD at B-31.) It states the survey would be used to “analyze potential project effects on angling and the preferences of anglers within the bypassed reach.” (SPD at B-31.)</p> <p>Edison’s implementation of the L1 aesthetics and angling surveys directly contradicts these purposes. The self-selected pool of contemporaneous visitors does not provide for a representative look into angling or aesthetics. It specifically excludes people “from other areas of California . . . familiar” with the area. You had to visit during the study period to participate.</p> <p>We ask that this variance be corrected by immediately proceeding to a Level 2 investigation (reconnaissance visit) into angling and aesthetics, to be reported by May 01, 2024 so as to allow comment, adjudication, and, if needed, Level 3 investigations. Good cause for the request exists in that Edison was wholly at fault for this critical variance from the goals of the study plan, standard Whittaker methodologies, and the direction of the SPD. The online survey was supposed to form the basis of a Level 1 investigation into the need for further L2/L3 studies. It is now too late to conduct a corrected one-year online survey, report on it (including a L2/L3 decision), invite stakeholder comment, rule on the report and comments, and still have time to implement meaningful L2/L3 studies with stakeholder input prior to the FLA. For these reasons, the Commission should grant our request.</p>	<p>implemented survey process will encourage broad, representative participation, ultimately, SCE cannot force Project visitors or the general public to participate in the survey process. Furthermore, members of the general public likely have little to no incentive to participate in a recreational survey about a specific area they may or may not have experienced so it is unrealistic to expect the “general public” to be adequately captured in the REC-2 survey.</p> <p>Regarding studies AES-1 and ANG-1, SCE considered previous Stakeholder comments and FERC’s direction on these comments in modifying the REC-2 survey to collect pertinent information about aesthetics and angling, including:</p> <ul style="list-style-type: none"> • Aesthetic Flows Study: “...staff believe the survey questionnaire is an appropriate and likely more effective method of collecting data on visitors’ preferences and satisfaction regarding aesthetics in the bypassed reach. Specifically, because of our recommendations to make the questionnaire widely available, there is an increased potential to reach a greater number of respondents, who live locally but also who live in other areas of California, that are familiar with the visual character and flows of the bypassed reach.” and “...we recommend SCE modify the questionnaire to include additional questions related to aesthetics, detailed below, to provide more robust results on project effects on aesthetics and visitors’ perceptions and satisfaction with aesthetics within the bypassed reach.” (FERC, 2022, B-31). • Enjoyable Angling Flows Study: “...we recommend SCE modify its survey questionnaire to include the additional angling-specific questions detailed below, to collect data on project effects on angling and angler preferences within the bypassed reach.” (FERC, 2022, B-31). <p>Additionally, KRB is incorrect in their statement regarding the study goals for the angling and aesthetic studies. They cite one of the goals of REC-2, not the goals of the Aesthetic Flows Study (AES-1) or the Enjoyable Angling Flows Study (ANG-1). FERC recommended modifying the REC-2 questionnaire to include additional aesthetic and angling-related questions as it would add little to no additional cost and the modifications would provide more robust results that could inform the development of license conditions, rather than recommending that SCE conduct separate data collection efforts. The REC-2 survey also captures a broader (potentially more representative) population of Project visitors and their input on aesthetics and angling compared to the structured interview methodology (Whittaker et al., 2005, page 12) and its potential for “self-selection” cited by the commenter.</p> <p>In regard to reaching people from other areas of California, as noted above, the REC-2 online survey is intended to capture the broader population of actual Project area visitors including those who may not have been present during the on-site intercept surveys. Whittaker and Shelby (2017) suggest that the Level 1 assessment include desktop analysis and interviews of people familiar with the visual character and flows of the river. Collecting data from people who have not visited the area (i.e., the general public) is in direct contradiction to the guidance. SCE believes that people from other areas of California have visited the Project area and included a question about participants’ “home Zip code” in the on-site and online questionnaire. Geographic information about the respondents (based on zip codes) will be summarized upon completion of the REC-2 study.</p> <p>Also, FERC revised KRB’s initial study request stating that “KRB’s requested study does not conform to the phased approach ... where the outcomes from preceding levels of study determine whether to proceed to the next level of study” (FERC, 2022, B-51). The Level 1 data collection effort is still ongoing, and following FERC’s direction, as well as the best practices and guidance established in both Flows and Recreation (Whittaker et al., 2005) and Flows and Aesthetics (Whittaker and Shelby, 2017), it is premature to determine if there is a need to progress to a Level 2 (or Level 3) study at this time.</p> <p>Finally, KRB’s comment fails to satisfy FERC’s criteria for a study modification.</p> <p>For all these reasons, FERC should not adopt KRB’s proposed study plan modification.</p>
KRB-22	Kern River Boaters	<p>KRB REC-2.4 Use. Survey Locations, Modification</p> <p>KRB AES-1.2 Aesthetics. L1 Survey Location, Modification</p>	<p>There is no variance to the REC-2 Survey Locations or to the ANG-1 and AES-1 Level 1 studies cited by the commenter. SCE is using both the online and in-person survey methods to obtain visitor feedback regarding recreation sites and locations in the Project area. The on-site survey methods include routes that visit the</p>

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		<p>KRB ANG-1.2 Angling. L1 Survey Location, Modification</p> <p>This modification request, founded on the same variance, applies to REC-2, AES-1 & ANG-1.</p> <p>Edison's online survey is at variance with the Study Plan Determination's requirement to include recreation above Fairview Dam. Edison fails to concede this variance.</p> <p>As indicated in the ISR (ISR REC-2 at 1), the SPD required Edison to expand its REC-2 online survey to include the stretch above Fairview Dam through Johnsondale Bridge.</p> <p>We ask that this variance be corrected by immediately proceeding to a Level 2 investigation (reconnaissance visit) into angling and aesthetics, to be reported by May 01, 2024 so as to allow comment, adjudication, and, if needed, a Level 3 investigation. Good cause for the request exists in that Edison was wholly at fault for this critical variance from the goals of the study plan and the direction of the SPD. The online survey was supposed to form the basis of a Level 1 investigation into the need for further L2/L3 studies into angling and aesthetics. It is now too late to conduct a corrected one-year online survey, report on it (including a L2/L3 decision), take stakeholder comment, rule on the report and comments, and still have time to implement meaningful L2/L3 studies with stakeholder input prior to the FLA. For these reasons, the Commission should grant our request. (pg 86-87)</p>	<p>recreation sites above Fairview Dam. Furthermore, the first question of the survey lists all 25 sites within the FERC Project Boundary, including the sites upstream of Fairview Dam (Johnsondale Bridge River Access, Brush Creek Campground, Limestone Campground, and Willow Point Take-Out), as required by FERC's direction in the SPD. This first question in the survey also includes an "other" option, if needed, and space for the respondent to indicate this "other" location.</p> <p>Since there is no variance with the FERC approved study plan, there is no basis for KRB's request to immediately progress to a Level 2 study for aesthetics and angling. As noted previously, FERC revised KRB's initial study request stating that "KRB's requested study does not conform to the phased approach ... where the outcomes from preceding levels of study determine whether to proceed to the next level of study" (FERC, 2022, B-51). The Level 1 data collection effort is still ongoing, and following FERC's direction, as well as the best practices and guidance established in both Flows and Recreation (Whittaker et al., 2005) and Flows and Aesthetics (Whittaker and Shelby, 2017), it is premature to determine if there is a need to progress to a Level 2 (or Level 3) study at this time. For these reasons, FERC should not adopt this proposed study plan modification.</p> <p>As noted above, SCE will provide Stakeholders with an addendum to the REC-2 Technical Memorandum in the first quarter of 2024 that will include a summary of data collected. However, as the study is still ongoing through March 2024, it will be premature to determine if there is a need to progress to a Level 2 (or Level 3).</p>
AW-9	American Whitewater	<p>REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum</p> <p>The REC-2 Study Technical Memorandum was decidedly light on actual information gathered during the course of the first Study Season. Major changes were made to the study's methodology, without stakeholder input or discussion, at the behest of the Sequoia National Forest. Citing privacy concerns related to cameras in or around campgrounds or places where National Forest users might have a reasonable expectation of privacy, Forest Service staff directed SCE to remove cameras at both campgrounds and day use areas that were supposed to quantify recreation use. There are no other studies in the KR3 relicensing process that are designed to quantify recreation users of all use types. As SCE indicated in their ISR, there is no useful metric of noncommercial river users through the USFS and the actual use counts in the region for all user types are of key importance to this relicensing proceeding. For that reason we believe it is intensely problematic for a major study change to have occurred absent stakeholder input. The USFS, SCE, and SCE's contractor should all have considered including the very vocal and engaged stakeholder constituency when discussing a significant study change during the first study season.</p>	<p>Refer to Response to NPS-1 regarding timing and content of study results as part of the ISR.</p> <p>Refer to Responses to NPS comments above (NPS-4 through NPS-8) regarding survey data and the level of effort and volume of data collected to date as part of the REC-2 field study. The results of these surveys will be shared with all Stakeholders the first quarter of 2024 in an appended REC-2 Technical Memorandum. The information collected to date, and anticipated for the remaining duration of the study, will provide the necessary data to accomplish the REC-2 study objectives.</p>
AW-10	American Whitewater	<p>REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum</p> <p>SCE's replacement methodology of 2-hour calibration counts and spot counts was not developed with stakeholder input. The Technical Memorandum does not contain a report on the information gathered during the first study period. Both of these make it challenging to assess whether the REC-2 study is accomplishing its goals and accurately quantifying recreation use within the project area. We request a revised Initial Study Report that actually summarizes the types of data collected during the first study season in order to determine whether the study modification undertaken by SCE and the USFS is adequate.</p>	<p>Refer to Responses to NPS-4 and NPS-6 above regarding the level of effort and volume of data collected to date as part of the REC-2 field study. SCE will provide Stakeholders with an addendum to the REC-2 Technical Memorandum in the first quarter of 2024 that will include a summary of data collected.</p>
AW-11	American Whitewater	<p>REC-2 Recreation Facilities Use Assessment Interim Technical Memorandum</p> <p>Of particular importance to American Whitewater is ensuring that the REC-2 study accurately captures whitewater recreation use on the Wild & Scenic North Fork Kern River. Because whitewater users tend not to spend very much time at campsites, picnic areas, or other road accessible locations, the moment in time that they are putting in to or taking out of the river are critical to capture. While FERC's decision to include cameras in the Study Plan Determination resolved this issue, we are unaware of a clear solution in the current data collection methodology. We are not aware of any study staff traveling down the river itself during the course of data collection, where most whitewater recreationists are most likely to be found during the course of a given day. Cameras pointed at the</p>	<p>Refer to Responses to NPS-4, NPS-5, NPS-7, and NPS-8 regarding the purpose and data collected as part of the REC-2 study.</p> <p>Non-commercial boating use information is being collected through various approaches that include randomized on-site observations (spot and calibration counts), visitor feedback from the questionnaires (in person or online), and boater participation with the online surveys as described in the REC-1 Whitewater Boating Study.</p> <p>In combination with the information collected as part of these, and other relevant studies or existing information, there will be sufficient information to make an informed decision and evaluate potential Project</p>

Comment Key ID	Commenter	Comment	SCE Response
		water, or drones flown over the water, different surveyor schedules or locations, or other solutions might need to be considered in order to make sure that noncommercial boating is accurately quantified.	effects. The recreation use data collected (both off and on-water) will be shared with stakeholders in an appended technical memorandum for the REC-1 and REC-2 studies in the first quarter of 2024.
NN-19	Neil Nikirk	<p>5.1.1.1 Non-Commercial Whitewater Use</p> <p>Daily manifest forms were not available in the Iron Rangers at river access sites during the May and August site visits or the Kernville District Ranger office. The SQF does not record the daily manifests or tabulate the number of non-commercial boaters using the NFKR. As a result, annual noncommercial whitewater use numbers are not available for the NFKR.</p> <p>There is no formal (legal) requirement for non-commercial whitewater boaters on the NF Kern to obtain a use permit or to complete a daily river use manifest for each trip. In fact, it is rare for non-commercial boaters to have a permit in their possession or to fill out a manifest. Rarely are there manifests near the “Iron Rangers” and as noted the “The SQF does not record the daily manifests or tabulate the number of non-commercial boaters using the NFKR.” As such, there is little information on annual non-commercial boater use on any section of the NF Kern and the REC-2 study is unlikely to provide any good information to address this deficiency.</p> <p>I formally request FERC to re-examine the study plan for REC-2 and direct SCE to complete an additional study or modify the existing REC-2 study plan to more accurately determine non-commercial boating use.</p>	<p>Refer to Responses to NPS-4, NPS-5, NPS-7, and NPS-8 regarding the purpose and data collected as part of the REC-2 study.</p> <p>Non-commercial boating use information is being collected through various approaches that include randomized on-site observations (spot and calibration counts), visitor feedback from the questionnaires (in person or online), and boater participation with the online surveys as described in the REC-1 Whitewater Boating Study.</p> <p>In combination with the information collected as part of these, and other relevant studies or existing information, there will be sufficient information to make an informed decision and evaluate potential Project effects. The recreation use data collected (both off and on-water) will be shared with stakeholders in an appended technical memorandum for the REC-1 and REC-2 studies in the first quarter of 2024.</p>
NN-34	Neil Nikirk	<p>2.0 Study Goals and Objectives</p> <p>My biggest concern with the REC-2 Study is that the methodology selected will not accurately assess the level of non-commercial whitewater boating use within the bypass reach and above. During the public meeting on the ISR, I inquired of SCE and their contractor whether the survey was designed to pick up ALL types of recreational use and the answer was an unequivocal “Yes.” I then asked if they felt the study methodology was adequate to quantify whitewater boating use along with other recreational uses within the study area. Again, the answer was unequivocal “Yes.” I guess the stakeholders and I will have to wait until the results are presented in an addendum to the ISR or the Updated Study Report (USR) scheduled for filing in October 2024 before we can see whether this is true.</p> <p>I formally request that FERC direct SCE to provide the data collected during the REC-2 Study in direct comparison to the information submitted during the REC-1 single flow questionnaire on the same dates as at least some use was likely self reported on the single-flow surveys. This will allow at least a cursory examination of whether the level of non-commercial whitewater boating use estimated by the REC-2 Study is reasonable.</p>	<p>Refer to Responses to NPS-5, NPS-7, and NPS-8.</p> <p>The results of these studies will be comprehensively analyzed together, and with other available information, including that from the Pre-Application Document (PAD) to describe recreation use in the Project area.</p>
NN-35	Neil Nikirk	<p>5.0 Data Summary</p> <p>Other than the summary of survey dates and numbers of counts, no results of any kind are presented in the ISR. Therefore, the efficacy of the surveys in gathering the types of information desired cannot be evaluated. Nor can the stakeholders evaluate the estimated levels of recreational use to see if it seems realistic in terms of what they have observed throughout the season. I, for one, have been boating over 35 days during the April to September time period and often boated multiple laps and/or multiple sections within the bypass reach. I would estimate that I have had over 50 opportunities to have participated in the visitor surveys or be counted during the spot counts or calibration counts. In all that time, I have actually seen the surveyors only twice and have not been asked to participate in the survey even once, although one of the times they could easily have approached my group and gained our participation. Given this experience and exposure, I’m concerned that the methodology is not robust enough to adequately capture and estimate whitewater boating use. I fail to see how conducting a circuit and counts one weekday, one weekend day, and one holiday weekend day per month will adequately capture whitewater boating use where boaters are at the site between a few</p>	<p>Refer to Responses to NPS-4 and NPS-6 above regarding the level of effort and volume of data collected to date as part of the REC-2 field study. SCE will provide Stakeholders with an addendum to the REC-2 Technical Memorandum in the first quarter of 2024 that will include a summary of data collected.</p>

Comment Key ID	Commenter	Comment	SCE Response
		<p>minutes and maybe half an hour at various times throughout the day. I have conducted recreational use surveys as part of my former job and we utilized multiple teams to cover the survey area, and conducted surveys on several weekdays, and multiple weekends each month. Even then, the variance and standard error around the use estimates were quite broad, especially for user groups that were hard to intercept.</p> <p>I formally request FERC to direct SCE to make the results obtained from the visitor surveys, spot counts, and calibration counts during April to September available to the stakeholders by December 31, 2023 so that they can be used by stakeholders to provide input into whether continuation of these survey methodologies into 2024 is reasonable or whether the methodology requires adjustment.</p>	

2.5. OPS-1 WATER CONVEYANCE ASSESSMENT

Comments regarding OPS-1 Study Plan modifications were filed by NPS, AW, and Neil Nikirk. The comments primarily focused on the availability and review of the Phase 1 Tunnel Assessment. SCE's responses to these and other issues appears below. In response to Stakeholders' request for information pertaining to OPS-1 Phase 1 study results presented with the ISR, SCE has included a public version of Appendix A: Power Tunnel Hydraulic Model Results as part of this filing (Attachment B of this filing). SCE will provide an addendum to the OPS-1 Technical Memoranda in the first quarter of 2024 regarding the Phase 2 hydraulic assessment.

Comment Key ID	Commenter	Comment	SCE Response
NPS-9	National Park Service	3. OPS-1 Water Conveyance Assessment Interim Technical Memorandum The NPS requests that the Applicant refile a redacted version of the OPS-1 Water Conveyance Assessment with CEII removed for stakeholder review.	A public version of Appendix A: Power Tunnel Hydraulic Model Results associated with the OPS-1 Interim Technical Memorandum is attached to this filing.
NPS-10	National Park Service	3. OPS-1 Water Conveyance Assessment Interim Technical Memorandum One of the focuses of stakeholder request for the water conveyance assessment was to evaluate the effects of increasing and decreasing project flow diversions on the conveyance system infrastructure for the purposes of providing whitewater boating flows in the bypassed reach. Stakeholders need a better understanding of possible operational constraints of the conveyance system that would limit whitewater flow releases so they can incorporate such constraints in their recommendations. While OPS-1 was designed to evaluate a full range of operational flows (no flow to full tunnel flows) with the goal of determining what flows are necessary for maintaining tunnel integrity, the study results were filed as Critical Energy Infrastructure Information (CEII), making them unavailable for stakeholder review. In the SPD, FERC directed the Applicant to file maps and drawings showing project location information and details of project structures as CEII. However, this does not preclude the Applicant from preparing a redacted version of the water conveyance assessment results that includes information on the effects of increasing and decreasing project flow diversions on the conveyance system infrastructure.	Refer to Response to NPS-9. Additionally, as noted in the ISR filing, the results of the Phase 2 initial hydraulic assessment for various flows up to 600 cubic feet per second (cfs) was in development at the time of the ISR and was noted as a variance to the OPS-1 Study Plan. During the ISR meeting and in the ISR meeting notes, SCE committed to completing the Phase 2 analysis in the first quarter of 2024. SCE will share the results of the Phase 2 analysis with FERC and Stakeholders upon completion.
AW-1	American Whitewater	OPS-1 Water Conveyance Assessment Study/Requested Action: The recommendations made by the Commission regarding this study suggest a shared concern between the public and regulatory bodies for the OPS-1 Technical Memorandum to be accessible to all. Information accessibility is crucial to allow sufficient time for interested parties to examine and provide feedback on its findings, and to assess if further investigation is required during the period of the study's conduct. We request that the Commission review the OPS-1 Interim Technical Memorandum and all its attachments to determine whether they contain information which should not be filed as CEII. If the CEII-filed Appendix A contains information that is suitable for disclosure, we request the commission either make that information available in a CEII-redacted form or direct SCE to refile a redacted form of that document to the FERC E-library. Given that the OPS-1 study gathers key information for the KR3 relicensing and deserves public review, and that information is critical for the public's ability to engage in and comment on the ISR, we request that the Commission extends the deadline for ISR comments.(12/5/23)	Refer to Response to NPS-9.
AW-12	American Whitewater	OPS-1 Water Conveyance Assessment Interim Technical Memorandum The results of the OPS-1 Water Conveyance Assessment Technical Memorandum are a critical component of the Kern River #3 relicensing. American Whitewater previously filed a request for FERC to disclose non-confidential components of that study on December 5th, with Accession #20231205-5023. We requested a redacted version of the OPS-1 results Appendix be made available and that the ISR comment deadline be extended in order to capture comments and stakeholder input on that study.	Refer to Response to NPS-9.

Comment Key ID	Commenter	Comment	SCE Response
NN-36	Neil Nikirk	<p>1.0 Introduction</p> <p>This is not the first time that I and others (multiple) have commented on the fact that the OPS-1 Study is being conducted in-house by SCE with support from their hand-picked consultants. FERC could have specified an independent engineering firm or firms with expertise in hydropower, hydraulic analysis, and tunnels/underground structures to conduct the study. It is not unusual at all for agencies to require at least an independent review of the data and reports submitted by an applicant. Given the facts that (1) the tunnel maintenance flow serves SCE's primary interest in the project by significantly limiting the amount of hydrological mitigation it can provide for recreation and (2) Edison has announced its desired conclusion of this study — namely, to validate the existing regime, and nothing else — it is unreasonable to expect Edison's own engineers to conduct this study without bias. The public simply cannot be confident in a result here unless an independent engineering firm conducts it; Edison's self-interest in the outcome is too great, and a clear conflict of interest exists. The Commission has conceded that in situations where a generator's interest in a certain engineering result is too great to ignore, an independent engineering evaluation is called for.</p> <p>Therefore, I formally request that FERC conduct an independent review of the OPS-1 Study Plan and results when they are presented in the Updated Study Report of Draft Application. I ask that this review be conducted by an independent engineering firm selected in conjunction with the stakeholders.</p>	<p>SCE is conducting the OPS-1 Study with credible independent consultants knowledgeable about tunnel operations in accordance with the FERC approved study plan. The analysis will be provided to FERC as part of the OPS-1 Technical Memorandum for FERC staff to review.</p>
NN-38	Neil Nikirk	<p>4.2.1 Hydraulic Assessment</p> <p>The results were used to inform potential conveyance lining abrasion and lining stability assessments along the tunnel segments of the conveyance flowline.</p> <p>This suggests that these assessments have been completed, but they are not even mentioned in the ISR. Therefore, it is unclear if the following task from the Revised Study Plan (RSP) will be accomplished during the OPS-1 Water Conveyance Assessment: A preliminary structural integrity assessment, including uplift and unbalanced hydraulic pressure loading of lined/unlined tunnel sections during flow increases and decreases as well as changes in conveyance flowline conditions at transition points (i.e., tunnel-flume junctions).</p> <p>I formally request FERC to direct SCE to provide a status update of these assessments and if possible, make the results available to the stakeholders by December 31, 2023 so that they can be used by stakeholders to determine if all of the tasks identified in the RSP will be completed in a timely manner and provide the level of assessment needed to identify guidelines for future operational conditions to maintain water conveyance system integrity.</p>	<p>Refer to Response to NPS-1 (Section 4.1) and NPS-10, above.</p>

2.6. AES-1 AESTHETIC FLOWS

Comments regarding AES-1 study plan modifications were filed by KRB with comments centering around two main topics: (1) public engagement associated with the survey questionnaire and (2) the request for additional or different information than what was presented in the interim Technical Memorandum. In the table below, many comments were addressed as part of the REC-2 Comment-Response Table (see Section 2.4) but are noted here for reference.

Comment Key ID	Commenter	Comment	SCE Response
KRB-20	Kern River Boaters	KRB REC-2.3 Use. Survey Participants, Modification SCE updated the REC-2 visitor questionnaire to include questions designed to query visitors on their angling flow preferences and use in the bypass reach. (ISR ANG-1 at 7.) KRB: This modification request, founded on the same variance, applies to REC-2, AES-1 & ANG-1.	Refer to Response to KRB-20 above as part of the REC-2 Study, Section 2.4.
KRB-21	Kern River Boaters	KRB AES-1.1 Aesthetics. L1 Survey Participants, Modification	Refer to Response to KRB-21 above as part of the REC-2 Study, Section 2.4.
KRB-22	Kern River Boaters	KRB AES-1.2 Aesthetics. L1 Survey Location, Modification	Refer to Response to KRB-22 above as part of the REC-2 Study, Section 2.4.
KRB-23	Kern River Boaters	KRB AES-1.3 Aesthetics. L1 Desktop Review, Modification Edison's L1 desktop review on aesthetics unreasonably omits readily available data on area aesthetics to the extent it is an inadequate as a basis on which to determine whether further L2 & L3 studies are required. That is in variance with the study plan. Edison's L1 desktop review fails to account for these facts along with other stakeholder judgments in the FERC record to date, opting instead to confine its review to judgments consistent with the status quo. We ask that the Commission direct Edison to include these facts and those similar from the FERC comment process in its AES-1 L1 desktop review. Good cause exists as the omission of this information is at variance with the study goal of producing a comprehensive review capable of informing a decision on whether further L2 & L3 studies are merited. (pg 88/91)	The interim Aesthetics Technical Memorandum was presented as draft and the Level 1 aesthetics study is still in the data collection phase at this time. The final Aesthetics Technical Memorandum for Level 1 study will present all relevant information per the approved study plan. SCE is conducting the study as outlined in the FERC SPD in which they recommend the use of a phased approach consistent with the guidance outlined in <i>Flows and Recreation: A Guide to Studies for River Professionals</i> (Whittaker et al., 2005) and <i>Flows and Aesthetics: A Guide to Concepts and Methods</i> (Whittaker and Shelby, 2017). Progression to a Level 2 or Level 3 study until such time that a Level 1 study is complete and any potential data gaps are identified in which to tailor subsequent focused study efforts is premature. A Level 2 or Level 3 study would only be required if substantial data gaps still exist pending the results of the Level 1 study, unlike with the REC-1 Whitewater Study, where Level 2 and Level 3 were included as components of the FERC approved study. As indicated previously (see Response to KRB-20), the phased methods outlined in <i>Flows and Recreation: A Guide to Studies for River Professionals</i> (Whittaker et al., 2005) are specific to boating, angling, and other flow-dependent recreational activities. These methods generally do not address aesthetics or visual resources in river settings, but as acknowledged in <i>Flows and Recreation</i> , some study components (e.g., controlled flow studies) may be modified for aesthetic purposes. Specifically, the <i>Flows and Recreation</i> guide indicates that aesthetic "methods and analysis strategies have not been standardized in this field," but that "recreation user evaluations may be important in some situations." The more recent <i>Flows and Aesthetics: A Guide to Concepts and Methods</i> (Whittaker and Shelby, 2017) also acknowledges the variability in aesthetic resource study methods, and it too advocates for a phased approach to aesthetic studies. Given this guidance and per the approved study plan, the REC-2 visitor survey includes aesthetic preference questions and will be used as one source of information in the Level 1 study to capture current aesthetic conditions and preferences in the Project area. The complete Level 1 aesthetics results will then be used to determine if additional levels of study and precision are needed both for licensing and NEPA purposes (again, per the approved study plan). For these reasons, there is no basis for adopting KRB's proposed study plan modification.

2.7. ANG-1 ENJOYABLE ANGLING FLOWS

Comments regarding ANG-1 study plan modifications were filed by KRB and Kern River Fly Fishers (KRFF). Their comments centered around two main topics, which include (1) public engagement associated with the survey questionnaire and (2) the request for additional or different information than what was presented in the interim Technical Memorandum. In the table below, many comments were addressed as part of the REC-2 Comment-Response Table (see Section 2.4) but are noted here for reference.

Comment Key ID	Commenter	Comment	SCE Response
KRB-20	Kern River Boaters	KRB REC-2.3 Use. Survey Participants, Modification SCE updated the REC-2 visitor questionnaire to include questions designed to query visitors on their angling flow preferences and use in the bypass reach. (ISR ANG-1 at 7.) KRB: This modification request, founded on the same variance, applies to REC-2, AES-1 & ANG-1.	Refer to Response to KRB-20 above as part of the REC-2 Study, Section 2.4.
KRB-21	Kern River Boaters	KRB ANG-1.1 Angling. L1 Survey Participants, Modification	Refer to Response to KRB-21 above as part of the REC-2 Study, Section 2.4.
KRB-22	Kern River Boaters	KRB ANG-1.2 Angling. L1 Survey Location, Modification	Refer to Response to KRB-22 above as part of the REC-2 Study, Section 2.4.
KRB-24	Kern River Boaters	KRB ANG-1.3 Angling. L1 Desktop Review, Modification As with its desktop review on aesthetics, Edison has selectively chosen to only include information on angling that supports the status quo. That is at variance with the study plan, which requires an L1 desktop review capable of informing the question of whether more intensive studies are needed. Edison's review omits significant evidence that anglers find the dewatered reach unenjoyable to fish. Edison has ignored it. That evidence includes (1) multiple direct comments on the point, (2) the results of the only fish monitoring study that took place in a moderate- or low-water year (2016), (3) the unnatural depths to which the project repeatedly dewateres the river below Fairview Dam, and (4) the unprompted comments of the most analytical angler in the reach, Rich Arner. Edison's L1 desktop review fails to account for these easily obtainable sources of information, opting instead to confine its review to judgments consistent with the status quo. We ask that the Commission direct Edison to include these facts and those similar from the FERC comment process in its ANG-1 L1 desktop review. Good cause exists as the omission of this information is at variance with the study goal of producing a comprehensive review capable of informing the question whether further L2 & L3 studies are merited. (pg 92/99)	We are proceeding in accordance with FERC's SPD, and the Level 1 angling study is still actively collecting relevant data through the REC-2 visitor survey, as well as other desktop methods consistent with best practices. As noted by FERC in its SPD, the REC-2 visitor survey was modified to include "data on project effects on angling and angler preferences within the bypass reach." Assessing this data and other sources of information will be instrumental in determining if the Level 1 study results are detailed and precise enough for licensing and NEPA purposes. If there are potential data gaps after the Level 1 angling study, SCE will follow the logical and recommended progression to a Level 2 and/or 3 angling study. Per FERC's direction in the SPD, SCE is conducting a Level 1 assessment of angling and angling preferences at the Project. FERC specifically stated this study objective: "Data collected on anglers' perceptions of comfortable flows for angling would ensure staff has adequate information to analyze potential project effects on angling, and the preferences of anglers within the bypassed reach, and would inform the development of license conditions." For these reasons, there is no variance to the study and the comment does not satisfy FERC's criteria for a study modification.
KRFF-3	Kern River Fly Fishers	Our request is that the Angler Study be moved to a Level 3 Study and that Edison be required to do the study. A small amount of KR-3 electrical generation is more important to Edison than the recreational and fishing experiences.	As identified in Response to KRFF-1 (refer to Section 4.4) and consistent with FERC's direction in the SPD, SCE is conducting a Level 1 assessment of angling and angling preferences at the Project at this time. The design of the angling study (ANG-1) calls for a phased approach to data collection that follows the best practices identified in Flows and Recreation: A Guide to Studies for River Professionals (Whittaker et al., 2005). Since the Level 1 study is still in progress, it is premature to initiate either a Level 2 or Level 3 angling study until such time that a Level 1 study is complete and any potential data gaps are identified. A Level 2 or Level 3 study would only be required if substantial data gaps still exist pending the results of the Level 1 study, unlike with the REC-1 Whitewater Study, where Level 2 and Level 3 were included as components of the FERC approved study.

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3.0 STAKEHOLDER PROPOSED NEW STUDIES

As specified in 18 CFR § 5.15(e), any new study request at the ISR stage of the ILP must be accompanied by a showing of good cause why the proposal should be approved, and must include, as appropriate to the facts of the case, a statement explaining: (1) any material changes in the law or regulations applicable to the information request; (2) why the goals and objectives of any approved study could not be met with the approved study methodology; (3) why the request was not made earlier; (4) significant changes in the project proposal or that significant new information material to the study objectives has become available; and (5) why the new study request satisfies the study criteria in 18 CFR § 5.9(b).

SCE has evaluated all new study requests submitted by Stakeholders, including those that may not have fully complied with FERC's criteria identified above. Based on this review, none of the proposed new studies are warranted, and FERC should not adopt any of these proposed studies when issuing its determination on requests for study modifications and new studies, pursuant to 18 CFR § 5.15(c)(6) of its regulations. Specifically, the proposed new studies do not satisfy FERC's criteria as outlined in 18 CFR § 5.9(b) or 5.15(e) as they:

- constitute basic research;
- are beyond the scope necessary for relicensing;
- are not consistent with generally accepted practice in the scientific community;
- do not demonstrate why existing studies/information are not sufficient to meet the stated information needs;
- do not demonstrate that there has been a material change in the law or regulations applicable to the information request;
- would not lead to the development of future license conditions; and/or
- are not needed to complete an assessment of potential effects of the proposed Project.

SCE's rationale regarding each proposed new study request is provided below.

3.1. KRB-5 WR-2.4 HYDROLOGY - AUTHORIZED FLOWS TABLES

KRB stated the goal of this proposed new study is to characterize and summarize Project hydrological effects unconfounded by times the Project was offline for repairs and rehabilitation. Their objective is to create a dataset of daily and hourly flows for the KR3 diversion and the bypass reach below Fairview Dam; however, they request that SCE omit periods where the Project is not diverting to its full potential under the present FERC license. This "cherry-picking" of data within the period of record is highly inappropriate and should not be adopted by FERC, as doing so would exaggerate the description of

hydraulic conditions under current operations and therefore artificially inflate the appearance of potential effects of the proposed Project.

Given the dubious nature of its proposed new study, KRB is unable to satisfy FERC's criteria for a new study set forth in 18 CFR § 5.15(e) (i.e., that there has been a material change in the law or regulations applicable to the information request; why the goals and objectives of any approved study could not be met with the approved study methodology; why the request was not made earlier; significant changes in the project proposal or that significant new information material to the study objectives has become available). Moreover, data collected and summarized under Study WR-2, along with other existing operational information will be sufficient to complete the analysis of effects and to develop license requirements.

The requested study is not needed for SCE to complete an assessment of potential effects of the proposed Project compared to current (baseline) conditions, and also not relevant for FERC to complete its environmental analysis. Project outages for maintenance and repair are routine and required for continued operation of any hydropower project and are not unique to the Project. The timing, duration, and frequency of outages are not always known, and are thus necessary to include in the summary of current operating conditions. Additional information on Project operation and resource utilization will be provided to FERC as part of the License Application, in accordance with the reporting requirements for Exhibit B (18 CFR § 4.51(c)).

Also, KRB is incorrect in stating the ISR and WR-2 Technical Memorandum was the first time SCE noted "zero flow days." In fact, SCE provided the average annual and monthly megawatt hours of generation from 1997 to 2020 in its PAD (SCE, 2021). In Table 4.6-2, there are several months where negative generation is shown, and a footnote to the table states that "negative generation reflects powerhouse light and power use when the Project is not generating." Thus, KRB's rationale for not making this new study request sooner—i.e., that SCE had not provided "zero flow days" prior to the ISR and WR-2 Technical Memorandum—is plainly wrong and cannot be a valid reason for KRB's failure to not submit its proposed new study request earlier in the relicensing process.

KRB also alleges a Project nexus of "tables of authorized flows generated by this study would be used to analyze the natural, social, and generational effects of Edison's status quo relicensing proposal going forward and establish a hydrological baseline of the current license against which proposed license conditions could be measured." Although KRB seems focused on attempting to have FERC force SCE present data in a manner that fits KRB's narrative, a request for the applicant to present hydrology data in a certain way does not appear to be a study request at all, as the request fails to provide a rationale on how effects of the proposed Project could be measured by the requested study.

Omitting data that accurately describes current conditions, as requested by KRB in its new study proposal, would yield inaccurate and skewed metrics for describing baseline conditions, which are needed to assess potential effects of the proposed Project. Thus, this study would not result in data that will inform the License Application or the development of future license requirements.

For these reasons, SCE respectfully requests that FERC reject this study request.

3.2. KRB-6 WR-2.5 HYDROLOGY - CEFF BELOW FAIRVIEW DAM

KRB stated the goal of this study request is to characterize and summarize Project hydrological effects on the dewatered reach below Fairview Dam using the already collected and existent gauge data. The objective is to determine, compile, and summarize CEFF natural functional flow ranges based on available gauge data for the license term below Fairview Dam.

KRB has not satisfied FERC's criteria for a new study set forth in 18 CFR § 5.15(e) (i.e., that there has been a material change in the law or regulations applicable to the information request; why the goals and objectives of any approved study could not be met with the approved study methodology; why the request was not made earlier; significant changes in the project proposal or that significant new information material to the study objectives has become available). Rather, the data collected and summarized in Study WR-2 Technical Memorandum Section 5.1 (including the statistical summary of the data from both USGS gages 11185500 and 11186000 as well as the functional flow metrics from the California Natural Flows Database in Study WR-2 Table 5.2-4, along with other existing operational information) will be sufficient to provide data needed to assess potential effects of the proposed project and to inform license conditions.

The requested study is not needed for SCE to complete an assessment of potential effects of the proposed Project compared to current (baseline) conditions, and also not relevant for FERC to complete its environmental analysis. KRB is incorrect when stating that the Study WR-2 analysis was completed for the reach above Fairview Dam; Study WR-2 selected the reach immediately downstream of Fairview Dam as the location of interest (LOI) for CEFF analysis as discussed in Study WR-2 Section 5.2.1 and shown in Study WR-2, Figure 5.2-1.

Further, KRB states that "the point of this exercise is to determine functional flow ranges for this river system and compare those ranges to flows impaired by project operations"; however, CEFF Section A analysis does not include this type of comparison. The ecological flow criteria determined in CEFF Section A, Step 2 and included in Study WR-2 Section 5 approximate flow conditions in the absence of all human activity. The data are intended to provide information on the timing, magnitude, and ranges of natural flows; they are not streamflow release recommendations. This data, as provided in the WR-2 Technical Memorandum, can be used to assess Project-related hydrologic effects downstream of Fairview Dam in the License Application and during the development of license conditions.

For these reasons, SCE respectfully requests that FERC reject this study request.

3.3. KRB-7 WR-2.6 HYDROLOGY - 2018 PRELIMINARY FLOWS

KRB stated the goal of this study is to determine whether SCE complied with its recreation flow obligations on May 20, May 26, and June 7 in 2018. KRB's stated objective of this

study is to provide hourly preliminary flow data for the days prior to the days listed: May 19, May 25, and June 6, 2018.

KRB has not satisfied FERC's criteria for a new study set forth in 18 CFR § 5.15(e) (i.e., that there has been a material change in the law or regulations applicable to the information request; why the goals and objectives of any approved study could not be met with the approved study methodology; why the request was not made earlier; significant changes in the Project proposal or that significant new information material to the study objectives has become available).

KRB's proposal is nothing more than a transparent attempt to raise a license compliance issue under the guise of a proposed new study request. As such, this proposal has no place in the context of the Project's relicensing effort. If KRB is concerned about SCE's compliance with releases required under Article 422, it is free to raise this issue with FERC's Division of Hydropower Administration and Compliance.

Moreover, KRB is plainly wrong in asserting that its identification of 3 dates over 5 years ago in which the *final* hydrology data for those dates were within the range of flows under Article 422 that would require a whitewater boating release "constitute[s] reasonable grounds for investigation as it is *prima facie* evidence of a violation." As SCE has repeatedly explained to KRB, flow releases under Article 422 are governed by *preliminary* hydrology data, not *final* data. So, KRB's reliance on *final* hydrology data is completely misplaced—as the QA/QC process that occurs between preliminary data and final data may result in changes to the dataset.

For many years, SCE has achieved a strong compliance record under Article 422, successfully monitoring and, if needed, providing whitewater boating flow releases in accordance with the license requirements. KRB's attempt to taint SCE's compliance record by selecting only 3 days over the entire license term, and then to allege "*prima facie* evidence of a violation" based on the *final* dataset that does not even apply to Article 422 is highly inappropriate and should not be entertained by FERC. The plain fact of the matter is that KRB has produced no evidence of a license violation.

Moreover, KRB wrongly faults SCE for not fulfilling its request for preliminary flow data. If KRB desires to monitor SCE's compliance with Article 422, all preliminary data are publicly available in real-time—again demonstrating KRB's unfair and inaccurate accusations against SCE.

Although KRB's new study request is highly inappropriate and should be rejected by FERC, as a means of further demonstrating SCE's strong record of compliance and dispensing KRB's unfounded concerns, the preliminary gage data for the 3 previous day's 24-hour average inflow questioned by KRB are as follows:

- May 19, 2018: 984 cfs
- May 25, 2018: 982 cfs
- June 6, 2018: 992 cfs

For all 3 days in question, the preliminary gage data for the previous day's 24-hour average inflow is below the 1,000 cfs threshold; therefore, there was no requirement under Article 422 for SCE to provide whitewater boating releases.

3.4. KRB-25 NRG-1 - VOLTAGE STEPPING COSTS

KRB stated the goal of this study is to quantify the cost associated with the importation of energy into the KR3 service area. The objectives of the study are to quantify the additional costs (including components beyond voltage-stepping, if any) incurred by energy importation at several magnitudes (5 to 35 megawatts, in increments of 5) for several durations (4 hours, 7 hours, 72 hours, and 96 hours) under several replacement energy price conditions (high, moderate, low, and negative).

FERC should not accept this proposed new study submitted by KRB because it fails to satisfy the regulatory criteria that apply to a new study proposal under the ILP regulations. Section 5.15(e) of FERC's regulations requires that requests for new information or studies must include a statement explaining: (1) any material change in law or regulations applicable to the information request; (2) why the goals and objectives of the approved study could not be met with the approved study methodology; (3) why the request was not made earlier; (4) significant changes in the proposal or that significant new information material to the study objectives has become available; and (5) why the new study request satisfies the criteria in 18 CFR § 5.9(b) of FERC's regulations.

KRB's request purported to explain how it satisfies the criteria in 18 CFR § 5.9(b) of FERC's regulations but otherwise failed to satisfy FERC's criteria for a new study. Instead, KRB alleges that it requested the study at this late stage in the ILP process because "KR3's ability to prevent 'significant' costs to consumers due to voltage stepping was not revealed in the PAD, which was supposed to have summarized all relevant information about the project." However, KRB does not identify any material change in law or regulations applicable to the information request, why the goals and objectives of this study could not be met with the approved study methodology, that the proposal has changed significantly or that significant new information has become available, as required by 18 CFR § 5.15(e).

Moreover, while KRB criticizes SCE for not including the information it seeks in the PAD, SCE prepared and filed its PAD in accordance with FERC's regulations, which require a description of the existing environment and resource impacts, but do not require license applicants to submit information on costs due to voltage stepping.

Finally, KRB attempts to justify its proposed new study in terms of market conditions associated with the electric grid, stating: "Knowing the amount of cost incurred by voltage stepping various amounts of energy – and knowing the conditions under which such stepping would be required – are essential to a fair and informed balance of developmental and non-developmental values." KRB also attempts to justify its study on the basis that "governing agents might consider license conditions that require KR3 to generate less during certain times of the day or year to mitigate its effects on the natural and social environments."

In advancing these speculative claims, however, KRB fails to satisfy study criterion 5, which mandates that any study approved by FERC must include a “nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied” and that the results of the study “would inform the development of license requirements.” 18 CFP § 5.9(b). As an initial matter, KRB is simply wrong in speculating that voltage stepping costs would inform license conditions for the KR3 Project. KBR fails to provide a single instance in which FERC has imposed license conditions that require curtailment or reduction of project generation based on market conditions—such as the voltage stepping costs for which it seeks a study in this case. In fact, FERC does not regulate market curtailment issues through Part I of the Federal Power Act (FPA). While KRB is correct that FERC can regulate project operations based on “effects on the natural and social environments,” those license conditions are informed by the suite of 20 studies that FERC staff already approved in its SPD. A market study on voltage stepping is not needed to inform FERC’s decision on Project operational conditions relative to effects on natural and social resources.

Contrary to KRB’s request, moreover, FERC has consistently rejected studies related to Project economics, market conditions, and replacement power. As FERC staff explained in Scoping Document 2 in this proceeding: “Commission policy is to evaluate the economics of hydropower projects, as articulated in *Mead Corp.*, comparing the current cost to produce project power to an estimate of the cost to provide the same amount of energy and capacity for the region using the most likely alternative source of power (cost of alternative power).”¹ FERC’s *Mead Corp.* analysis is based on FERC’s recognition that:

[A]lthough economic considerations are a significant element of the public interest balancing for both new and existing projects, they are by no means the determinative consideration, and a finding of negative economic benefits would not preclude issuance of a license. Where our consideration and balancing of all public interest factors leads us to conclude that licensing a project is in the public interest, we would offer a license to the applicant, even if there appear to be negative economic benefits. The applicant must ultimately decide whether to accept the license and any financial risk that entails.²

Thus, FERC routinely rejects studies—like the voltage stepping cost study requested by KRB—that focus on project economics and market conditions. As FERC explained in another relicensing proceeding:

[T]he Commission does not have to show financial feasibility based on the stand alone production capability of the project. The purpose of the Commission’s economic analysis [in *Mead Corp.*] is to provide a general estimate of the potential power benefits and cost of the project including

¹ Scoping Document 2, Project No. 2290-122, at 8 (issued March 4, 2022) (citing *Mead Corp.*, 72 FERC ¶ 61,027 (1995)).

² Study Plan Determination for the River Falls Hydroelectric Project at B-15, Project No. 10489-019 (issued July 11, 2019).

construction and maintenance cost, the cost of environmental measures, and reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.³

For these reasons, FERC should reject KRB's request for SCE to complete a new study on voltage stepping costs. The information sought by KRB with this study request fails to meet study criterion 5, as KRB has failed to demonstrate how this type of information has been used in other proceedings to inform the development of license requirements. In addition, FERC has routinely rejected similar study requests in other relicensing proceedings, holding instead that its analysis under *Mead Corp.* meets its statutory obligations under the FPA. Finally, KRB has failed to meet the other requirements for justifying a new study at this juncture of the ILP, as required under 18 CFR § 5.15(e).

3.5. KRB-26 NRG-2 - CAISO BID HISTORY

In their comments on the ISR, KRB requested that FERC require SCE to undertake a study to quantify the market value of energy generated by the Project by reviewing the Project's bid history with the California Independent System Operator (CAISO) and the market rates of those bids from 2021 to 2023. KRB stated the goal of this study is to quantify the CAISO market valuation of the energy generated by KR3 over the last 3 years. The objective is to obtain Edison's CAISO bid history—specifically the market rates of those bids—over that timeframe.

In proposing this requested new study, KRB argues that the Project contributes to the curtailment of wind and solar generating resources and that its “production of electricity only adds to that threat [of over-generation] and causes more modern generators like wind and solar to be sidelined to ensure that supply and demand balance out.” According to KRB, a CAISO bid history study is critical to understand “how the market has valued Edison's energy production.” KRB further argues that such a study could help identify “where the need for power is de minimis or even negative,” and where “there may be an opportunity to enhance flows at little to no cost...”

As an initial matter, earlier in this ILP, KRB repeatedly urged FERC to require SCE to conduct this same study,⁴ but FERC staff did not require this requested study as part of its SPD. As FERC stated in Scoping Document 2, “Commission policy is to evaluate the economics of hydropower projects, as articulated in *Mead Corp.*, comparing the current cost to produce project power to an estimate of the cost to provide the same amount of

³ Study Plan Determination for the Massena Grasse River Hydroelectric Project at 24, Project No. 12607-001 (issued Oct. 19, 2007).

⁴ See Kern River Boaters' Comments on Pre-Application Document and Scoping Document 1, Project No. 2290-122, at 130 (filed January 20, 2022); Kern River Boaters' Comments on Scoping Document 2 and Proposed Study Plan, Project No. 2290-122, at 134 (filed June 3, 2022); Kern River Boaters' Comments on Revised Study Plan, Project No. 2290-122, at 28 (filed July 20, 2022).

energy and capacity for the region using the most likely alternative source of power (cost of alternative power).”⁵

Accordingly, FERC should once again deny KRB’s request for SCE to study this issue. Not only did KRB fail to explain how circumstances have changed since it initially submitted this study request (which they have not), its request for this new study fails to satisfy the regulatory criteria that apply to a new study proposal under the ILP regulations. Section 5.15(e) of the FERC’s regulations require that requests for new information or studies include a statement explaining: (1) any material change in law or regulations applicable to the information request; (2) why the goals and objectives of the approved study could not be met with the approved study methodology; (3) why the request was not made earlier; (4) significant changes in the proposal or that significant new information material to the study objectives has become available; and (5) why the new study request satisfies the criteria in 18 CFR § 5.9(b) of FERC’s regulations.

KRB’s study request fails to address any of these issues. While KRB includes perfunctory information with each of the 18 CFR § 5.9(b) study criteria, its explanations are insufficient to warrant a new study. For example, KRB states that “[k]nowing the historical market value of energy generated by KR3 over the course of three years is essential to a fair and informed balancing of development and non-developmental values,” yet it fails to cite to any instance in which FERC has ever required another license applicant to prepare such a market valuation study. And its rationale that “governing agents may consider license conditions that require KR3 to generate less during certain times of the day or mitigate its effects on the natural and social environments” is equally unavailing. FERC does not regulate market curtailment issues under FPA Part I, and any issues related to “the natural and social environments” referenced by KRB will be fully informed through the 20 other studies that FERC required in its SPD, and which are underway. The requested market valuation study will not provide any further information helpful to FERC when assessing Project effects and considering potential license conditions.

Moreover, in other hydropower licensing proceedings, FERC has consistently rejected proposed studies related to project economics, market conditions, and replacement power—and instead has related on the economic analysis prepared in accordance with *Mead Corp.* In utilizing this approach—which is standard in all FERC licensings—FERC has recognized that:

[A]lthough economic considerations are a significant element of the public interest balancing for both new and existing projects, they are by no means the determinative consideration, and a finding of negative economic benefits would not preclude issuance of a license. Where our consideration and balancing of all public interest factors leads us to conclude that licensing a project is in the public interest, we would offer a license to the applicant, even if there appear to be negative economic benefits. The

⁵ Scoping Document 2, Project No. 2290-122, at 8 (issued March 4, 2022) (citing *Mead Corp.*, 72 FERC ¶ 61,027 (1995)).

applicant must ultimately decide whether to accept the license and any financial risk that entails.⁶

As FERC explained in another relicensing proceeding:

[T]he Commission does not have to show financial feasibility based on the stand alone production capability of the project. The purpose of the Commission's economic analysis [in *Mead Corp.*] is to provide a general estimate of the potential power benefits and cost of the project including construction and maintenance cost, the cost of environmental measures, and reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.⁷

Finally, KRB's attempt to argue that due to the potential for curtailment, the Project "is not useful to society from February through May and September through November" only serves to demonstrate KRB's significant bias against this Project and an astounding oversimplification of policies, market rules, and grid operator rules governing the complex issue of curtailment. Contrary to KRB's biased claims, FERC has repeatedly determined that the public interest favors development of economically beneficial and environmentally acceptable hydroelectric projects to reduce consumption of fossil-fueled sources of generation.⁸ Moreover, FERC has determined that the public interest is well served by the important ancillary services provided by hydropower facilities such as the Project provides to stabilize and secure the electric grid—far beyond power and energy—which is an issue completely overlooked by KRB in its study request. As FERC has explained:

[T]he Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system, including their ability to help maintain the stability of a power system, such as by quickly adjusting power output to respond to rapid changes in system load; and to respond rapidly to a major utility system or regional blackout by providing a source of power to help restart fossil-fuel based generating stations and put them back online.⁹

Because KRB has failed to satisfy FERC's criteria for requesting a new study under 18 CFR § 5.15(e), FERC should deny its request for market valuation study.

⁶ Study Plan Determination for the River Falls Hydroelectric Project at B-15, Project No. 10489-019 (issued July 11, 2019).

⁷ Study Plan Determination for the Massena Grasse River Hydroelectric Project at 24, Project No. 12607-001 (issued Oct. 19, 2007).

⁸ See, e.g., *Boise Cascade Corp.*, 36 FERC ¶ 61,135 (1986).

⁹ *Pub. Util. Dist. No. 1 of Okanogan County*, 160 FERC ¶ 61,094, at P 25 (2017) (citing *Pub. Util. Dist. No. 1 of Okanogan County*, 144 FERC ¶ 62,018, at P 148 (2013)).

4.0 ADDITIONAL STAKEHOLDER COMMENTS

Detailed responses to additional individual Stakeholder comments about the Project in general, the ISR filing or ISR Meeting Notes, and discussion about potential Project effects or potential PM&E measures are addressed below and organized by individual Stakeholder.

4.1. NATIONAL PARK SERVICE

Comment Key ID	Study Plan	Comment	SCE Response
NPS-1	N/A	<p>A. NPS COMMENTS ON THE INTERIM TECHNICAL MEMORANDUMS</p> <p>The NPS closely reviewed three interim technical memoranda in the ISR (REC-1 Whitewater Boating, REC-2 Recreation Facilities Use Assessment, and OPS-1 Water Conveyance Assessment) and found they were limited in reporting the results of the field studies. Although these studies are ongoing, all the data that was collected up to September 2023 should have been summarized and included in the ISR for review. Data summaries are essential for the NPS and other stakeholders to assess the adequacy of the data for determining project impacts and formulating effective mitigation and enhancement measures. They are also crucial for determining if the ongoing studies need modification to improve the validity of the data collected.</p> <p>Pursuant to 18 CFR 5.15(c)(1), the ISR should describe the overall progress, schedule, and data collected. The Applicant states that they accomplished these tasks, as described below:</p> <p>This ISR describes SCE's progress in implementing its relicensing studies and includes supporting documentation that summarizes SCE's overall progress to date and the results of the field studies (through September 2023) conducted pursuant to FERC's Study Plan Determination (SPD).</p>	<p>For studies that are still ongoing or data analysis was not complete by the ISR filing deadline, SCE included in the ISR a description of the data collected to date and identified any study plan variances—just as FERC's regulations require. Contrary to NPS's comments, FERC's regulations do not require applicants to provide data at the ISR stage related to an incomplete, ongoing study. Rather, as FERC's regulations require, SCE described "its overall progress in implementing the study plan and schedule and the data collected, including an explanation of any variance from the study plan and schedule." 18 CFR § 5.15(c)(1).</p> <p>Regardless, SCE has agreed to share study results with NPS and all Stakeholders, once it becomes available. As stated during the ISR meeting and shown in the Revised Technical Study Plan Implementation Schedule filed with the ISR (Attachment C), SCE will provide updated Technical Memoranda when the study is completed. SCE is committed to sharing supplemental information with Stakeholders outside of the ILP reporting schedule and provide an addendum to the Technical Memoranda associated with the REC-1 Whitewater Boating Study, REC-2 Facility Condition Assessment Study, and OPS-1 Water Conveyance Condition Assessment in the first quarter of 2024. See SCE Responses throughout this filing regarding specific information requests.</p>
NPS-11	N/A	<p>B. Conclusion</p> <p>In summary, the NPS finds that the absence of robust data summaries in the REC-1 Whitewater Boating, REC-2 Recreation Facilities Use Assessment, and OPS-1 Water Conveyance Assessment interim technical memorandums has hampered our and other stakeholders' ability to fully discuss and analyze them. This may also be the case for other interim technical memorandums that the NPS has not reviewed in detail. As mentioned at the start of this letter, before the Draft License Application is filed, the Applicant needs to provide progress reports on all studies where data has been collected but not summarized in the ISR, and FERC needs to provide additional time for stakeholders to review and comment on the reports.</p>	<p>Refer to Response to NPS-1.</p>

4.2. KERN RIVER BOATERS

Comment Key ID	Study Plan	Comment	SCE Response
KRB-8	BIO-5 Western Pond Turtle	<p>KRB BIO-5.1 Western Pond Turtle. Sudden Inundation, Comment.</p> <p>Given this sighting (and others) of this creature near Cannell Creek, we ask Edison and the governing agencies to answer this question: Aren't the turtles in this drainage at risk of decimation — or elimination if the population is small enough — from the sudden operation of the KR3 emergency spillway, which can inundate that creek with 600 cfs of water in an instant and cannot be stopped for several hours given the water travel time between Fairview Dam and the spillway? (pg 46)</p>	<p>Comment noted.</p> <p>Potential Project effects to the western pond turtle will be analyzed in the License Application, based on information produced from the FERC-approved study plan.</p>
KRB-10	WR-2 Hydrology	<p>KRB REC-1.1 Boating. SIQ, Modification.</p> <p>[footnote 33] We ask that the Commission direct Edison to post this information as a matter of course (in the manner of the WR-2 hydrology dataset) when reports are issued. Edison has not responded to KRB's request simply for a timeframe for providing the data underlying the ISR WR-1 report, even though Edison stated such data was available on request. (See SCE RSP WR-1 at 6 ["A Technical Memo will be appended to either the ISR . . . Associated data files . . . will be included as appendices to the Technical Memo, as well as in electronic format upon request"].) (pg 49)</p>	<p>SCE provided the requested data via email to KRB on December 29, 2023.</p>
KRB-27	N/A	<p>KRB ISR Meeting Summary, Comment</p> <p>At the end of the meeting, the facilitator suggested Edison provide the rules for new and modified study requests in the meeting summary. Edison consultant Jillian Roach agreed.</p> <p>The above exchange is not reflected in the meeting summary.</p> <p>In fact, Edison did not provide the rules in the ISR summary; rather, it merely provided a citation to them, noting that they required good cause. (SCE ISR Meeting Summary Cover Letter.)</p>	<p>SCE's transmittal letter to FERC that accompanied its filing of the ISR Meeting Summary clearly states that comments requesting proposed modifications to ongoing studies or new studies must be in accordance with 18 CFR § 5.15(d) and (e), which is readily available online. SCE's instruction was not misleading, as KRB avers. Regardless, as SCE has stated throughout this response to ISR comments, it has analyzed and</p>

Comment Key ID	Study Plan	Comment	SCE Response
		Of course, more is required for study requests at this stage — especially new studies — than good cause. (18 CFR § 5.15, subd. (d) & (e).) Edison did not provide the rules as promised, it merely cited them, and did so in a potentially misleading manner, as if good cause were all that was required. As such, some stakeholder requests may not comply with the letter of the rules. Considering this, we ask the Commission to examine the substance of stakeholder requests liberally.	responded to all requests for study modifications and new studies submitted by Stakeholders—even in instances in which the commenter did not fully satisfy all required elements under FERC’s regulations.

4.3. AMERICAN WHITEWATER

Comment Key ID	Study Plan	Comment	SCE Response
AW-2	N/A	Initial Study Meeting American Whitewater participated in SCE’s Initial Study Meeting in Kernville on October 17th, reviewed SCE’s presentations, and made material comments. Some of those comments were not captured in SCE’s Initial Study Meeting summary and should be committed to the docket for clarity and future review. We inquired whether the OPS-1 Study Results would be made available for stakeholder review. SCE Staff indicated they might be able to make a redacted version available but would need to discuss internally. They were unable to provide a rationale for filing the entirety of the OPS-1 Technical Memorandum as CEII. We inquired whether the Level 3 study results or Level 1 study results would be analyzed in time for information gaps to be identified during the period of the REC-1 study. SCE contractors indicated that a conversation would need to be organized between whitewater recreation stakeholders, SCE, and contractors in order to discuss what flows should be targeted. It was not clear when that meeting would occur, who would be convening it, or why it needed to be separate from the present meeting being undertaken. SCE shared that the Sequoia National Forest had requested for cameras to be removed. We inquired why the REC-2 study had changed so dramatically without stakeholder consultation. While stakeholders were consulted about the locations of trail cameras to help support use counts, the changes to the study were not discussed or made generally public until the filing of the ISR. SCE staff indicated that they deferred to the US Forest Service as the land manager for the decision to remove cameras and were not able to further clarify the legal basis for the study change, or the decision not to find an interim solution.	Comment noted. SCE appreciates your additional information about comments made at the ISR Meeting. Refer to Response to NPS-9 and Attachment B of this filing for a public version of Appendix A: Power Tunnel Hydraulic Model Results. Refer to Response to NPS-2 regarding an addendum to the REC-1 Technical Memorandum in the first quarter of 2024. Refer to Response to NPS-4 regarding consultation with the USFS and FERC involving camera installation and removal and the REC-2 field study level of effort.
AW-3	N/A	Initial Study Report American Whitewater carefully reviewed SCE’s Initial Study Report (ISR) and each of its attached Interim Technical Memoranda. Several studies important to whitewater recreationists and users of the Wild & Scenic North Fork Kern River are presented without underlying data gathered, or only conducted partially and presented in part, or filed confidentially. The absence of readily accessible information makes it challenging for stakeholders to adequately and thoroughly review the ISR as filed. The CFR describes the Initial Study Report as a document “describing ... overall progress in implementing the study plan and schedule and the data collected.” 1 Filing a study report which does not describe the data collected, or withholds information behind CEII filing status, misses the mark of both the intent and the guiding regulations. Although several studies are ongoing, available data should have been summarized through September or early October for each of the studies being reported on in the ISR. Several studies contain stepwise or gating actions that rely upon information gathered earlier in the study and the provision and transparency of that information is critical to the timely conclusion of the studies required in this relicensing. Although SCE’s ISR cover letter indicates that the “ISR describes SCE’s progress in implementing its relicensing studies and includes supporting documentation that summarizes SCE’s overall progress to date and the results of the field studies (through September 2023) conducted pursuant to FERC’s Study Plan Determination (SPD)”,	Refer to Response to NPS-1.

Comment Key ID	Study Plan	Comment	SCE Response
		our review did not find the results of the field studies or complete supporting documentation adequate to describe study progress to date.	
AW-6	REC-1 Whitewater Boating	<p>REC-1 Whitewater Boating Interim Technical Memorandum</p> <p>Although the Level 2 study results presented in the Technical Memo offer a robust description of the information that was gathered, they also show flow information gaps for some participants at various levels, generally below the 700cfs threshold. While the 2023 Water Year offered a large variety of flow opportunities, the project's operations and current whitewater recreation license condition both restrict flows in the bypass reach below about 700cfs</p>	<p>In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire.</p> <p>This analysis, coupled with the information reported for the Level 2 Limited Reconnaissance in the ISR, will be used to determine if gaps exist in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments. When feasible, SCE will attempt to enhance flows where potential gaps may exist in user experiences of flow conditions. Flow enhancement may include diverting a portion of flow over Fairview Dam to target specific flow ranges where knowledge gaps were identified. Due to the unpredictable nature of the snowmelt hydrograph and lack of storage behind Fairview Dam, enhanced flows will be opportunistic, not scheduled in advance, and subject to available inflows and tunnel flow needs.</p> <p>SCE will make a good-faith effort to inform the boating community in advance when hydrologic conditions for opportunistic flow enhancements are likely possible. If flows are likely to allow for such enhancement, SCE will reach out to KRB, AW, Los Angeles Kayak Club, Dreamflows, and outfitters holding permits with the SQF. This is not a guarantee of a particular flow, just an indication that there may be the possibility of flow enhancement within the diverted reach outside the ordinary whitewater release schedule based on forecasted inflows upstream of Fairview Dam. This good-faith effort will attempt to give boaters advance notice to plan trips to the river using forecasting technology available to SCE at the time of study to encourage additional boater use at the targeted flows and participation in the single flow survey. Ideally, boaters will be notified 2 to 3 days in advance to plan a trip. However, inflows to the Project are subject to run-off patterns, which are difficult to forecast in advance.</p>

4.4. KERN RIVER FLY FISHERS

Comment Key ID	Study Plan	Comment	SCE Response
KRFF-1	ANG-1 Enjoyable Angling Flows	KRFF asserts that Southern California Edison has paid little attention to the Angling aspects of the Kern. KRFF asserts that KR-3 has severely damaged the fishery. The California Fish and Game code (5937) requires that enough water flow over dams to keep the downstream fish populations in good condition. We assert that this is not happening. The fishery below KR-3 is deteriorating because of the lack of adequate water flows.	<p>Comment noted.</p> <p>Per FERC's direction in the SPD, SCE is conducting a Level 1 assessment of angling and angling preferences at the Project. With regard to KRFF's assertions related to the fishery, SCE currently provides minimum instream flows as required by their existing license and consistent with California Department of Fish and Wildlife (CDFW) and California State Water Resources Control Board principles and guidelines for minimum instream flows.</p>
KRFF-2	ANG-1 Enjoyable Angling Flows	At the October public hearing in Kernville, California little to no information was provided to the public about the proposed Angling Study. It appeared that an interim Angling report had not been completed. In fact, Edison did not have either a staff member or a consultant prepared to discuss the study. We now know that the written submissions of KRFF members were never considered in the Angling Desk Top Study.	<p>Per FERC's direction in the SPD, SCE is conducting a Level 1 assessment of angling and angling preferences at the Project. In the ANG-1 interim Technical Memorandum, SCE identified the following study goals and objectives associated with the Level 1 assessment: (1) document types of angling use and patterns of use in the Fairview Dam Bypass Reach under current flow conditions and (2) collect information on anglers' perceptions of comfortable flows in the Fairview Dam Bypass Reach for spin fishing, bait fishing, and fly fishing.</p> <p>FERC specifically stated this study objective: "Data collected on anglers' perceptions of comfortable flows for angling would ensure staff has adequate information to analyze potential project effects on angling and the preferences of anglers within the bypassed reach, and would inform the development of license conditions."</p> <p>SCE initiated the ANG-1 Study per FERC's SPD, which consisted of a Level 1 Desktop Review. The ISR included an interim Technical Memorandum that summarized desktop information consistent with a Level 1 angling study (per the guidance in Flows and Recreation: A Guide to Studies for River Professionals</p>

Comment Key ID	Study Plan	Comment	SCE Response
			[Whittaker et al., 2005]). As part of the interim report, SCE summarized the structured interviews conducted with anglers familiar with fishing opportunities in the Project area between June and August 2023. Also noted in the ISR, the revised REC-2 visitor questionnaire was updated to include questions about angling preferences. SCE is administering the visitor questionnaire through March 2024 and will include the summarized results from the angling questions in the final study report along with any additional and relevant information related to hydrology or stream characteristics. Based on this information, SCE will include a discussion and analysis of whether proceeding to Level 2 Angling Study is warranted upon completion of Level 1 data collection and analysis.
KRFF-4	N/A	KRFF ask that FERC hold another public hearing on KR-3 relicensing, with FERC staff attending in person. The meeting was conducted in violation of the American with Disabilities Act. No provision was made for those who have a severe hearing loss. This objection was raised at the meeting by this writer. However, the lawyer for Edison overruled it and the meeting continued. FERC declined to intervene in the situation and declined to stop the meeting.	SCE complied with FERC's regulations regarding the ISR meeting (18 CFR § 5.15(c)(2)).

4.5. NEIL NIKIRK

Comment Key ID	Study Plan	Comment	SCE Response
NN-1	N/A	Southern California Edison (SCE) released the Initial Study Report re progress made in implementing 20 FERC-approved Technical Study Plans associated with relicensing for the Kern River No. 3 Hydroelectric Project under P-2290 (Accession # 20231010-5229 on October 10, 2023 with a public meeting on October 17, 2023. First of all, the ISR is over 1,000 pages long and one week is not nearly enough time for adequate outreach to inform all stakeholders of the meeting, nor adequate time for stakeholders to review such a lengthy document. Having attended the public meeting in Kernville on the ISR, it was clear that the number of stakeholders that could attend, either in person, or via the online forum was limited. A Tuesday afternoon is just not convenient for most people to attend. It was good to see the whitewater boating community represented, with no less than 10 attendees out of the total attendance of maybe 20 persons other than SCE personnel or their contractors. This shows the level of interest in this proceeding within the whitewater boating community and just how important the North Fork Kern River is to the boating community and other recreational users.	The October 17, 2023, ISR meeting date was posted on the Project website in August 2023, prior to the ISR filing, to alert Stakeholders about the upcoming meeting. As required in the ISR filing, SCE formally notified Stakeholders and held the ISR meeting within 15 days per FERC regulations (18 CFR § 5.15(c)(2)). Additionally, no concerns about the meeting date were raised prior to the day of the meeting, and because regulatory agencies' staff attend these meetings, they are typically scheduled to occur during normal working business hours.
NN-2	REC-1 Whitewater Boating	3.01 Study Area and Study Sites SCE has chosen to characterize the bypass reach in this way, even though the literature does not support this breakdown of reaches, nor does the local boating community. Two of these reaches are seldom run, and generally only by expert kayakers – Sidewinder/Bomb's Away and Salmon Falls. They are of little interest to the wider boating community. The Powerhouse/"Lickity Split" reach is below the Project and is not dewatered by Project operations. However, it does serve as a reminder of just how important having water in the river channel at predictable times is to the recreational users as over 38,000 commercial passengers were reported in this section in 2017 (Section 5.1.1.3). The remaining five sections, while somewhat distinct, are often run in conjunction with each other, such that determining the overall minimum acceptable and optimal flow range for the bypass reach may be problematic when viewed as distinct sections.	The whitewater boating opportunities on the Kern River are described in numerous whitewater guidebooks (Holbek and Stanley, 1988; Cassidy and Calhoun, 1990; Penny, 1991) as well as online sources such as AW River Information pages, the Upper Kern River Rafting Guide (Kern River Outfitters, 2023), and commercial whitewater outfitter websites. Some of these guidebooks and online sources provide detailed narrative descriptions of the river segments and individual rapids. The delineation into the river segments for the REC-1 Whitewater Boating Study was based in part on these sources, the whitewater difficulty, river access, whitewater boating community use patterns, and commonly used place names. An objective of the study is to identify the range of flows that would provide whitewater boating opportunities in each whitewater segment for a variety of watercraft including, kayaks, rafts, packrafts, stand-up paddleboards, and body boards. Collecting flow preference information for the individual river segments provides the data resolution necessary to meet this study objective allowing analysis of all the whitewater opportunities and use patterns for a range of watercraft types, whitewater skill levels, and difficulty rather than just those patterns described by the commenter.
NN-6	REC-1 Whitewater Boating	4.2 Level 2 Limited Reconnaissance:	Members of the boating community were allowed to nominate themselves to participate in the Level 2 Limited Reconnaissance site visit. SCE encouraged the boating community to nominate participants representing diverse age, gender, skills, watercraft, and geographic areas. SCE did not select the

Comment Key ID	Study Plan	Comment	SCE Response
		I was a participant in the Level 2 investigation and found that the other participants did not fully represent the wider boating community in terms of age, gender, experience, skill level, and types of craft. More on this when I discuss the results presented in the ISR.	participants. Thirteen boaters nominated themselves to participate in the Level 2 Limited Reconnaissance site visit. SCE invited all 13 individuals to participate as well as interested agency staff. In the end, 10 boaters attended the Level 2 Limited Reconnaissance site visit. Of course, SCE cannot force anyone to participate in a site visit.
NN-7	REC-1 Whitewater Boating	<p>4.2 Level 2 Limited Reconnaissance:</p> <p>There was no direct observation of any boating segment. The focus group setting took place at one location and participants did not directly observe the river at any point. Given the type of group, setting, and desired outcome, this was an agreed upon approach within the group at the time. However, this should be noted as a variance from the study methodology.</p>	<p>SCE reserved transportation for the Level 2 Limited Reconnaissance participants to tour the river segments in the bypass reach. The commenter elected not to ride in the van with the other participants to tour the river segments choosing instead to meet the group at the top of the reach. The participants provided input on all the river segments responding to an established set of questions repeated for all the river segments. Participant verbal responses were transcribed in real-time on poster paper for participants to review and clarify for documentation purposes. Participant responses are documented in the narrative and tables in Section 5.2.2 of the REC-1 Whitewater ISR.</p> <p>The facilitator asked each participant prior to transitioning to a new river segment if they wanted to tour that segment prior to responding to the questions. The facilitator checked with each individual participant emphasizing that the field effort would meet the needs of any single person before launching into the questions. Every participant elected to complete question review for all the river segments at a single location. On the return trip downriver, Level 2 study participants that chose to ride with the group did tour the river segments sharing information for the respective river segments on river access locations, key rapids, cobble bars that impede downstream navigation at lower flows, physical markers in the channel used to estimate flow and whitewater use patterns. The Level 2 Limited Reconnaissance site visit conforms to the study methods in the REC-1 RSP and is not a variance.</p>
NN-20	REC-1 Whitewater Boating	<p>5.1.1.2 Commercial Whitewater Use:</p> <p>The results presented in Section 5.1.1.2. Commercial Whitewater Use underscore the importance of having a good estimate of non-commercial boating use as whitewater use (both commercial and non-commercial) is highly variable depending on the water year type. Looking solely at commercial whitewater use may underestimate the amount of interest in whitewater boating as non-commercial users can generally boat at much lower levels that the commercial operators find viable. I formally request FERC to take this into consideration when analyzing potential project impacts on non-commercial whitewater boating opportunities in the NF Kern.</p>	<p>Non-commercial boating use information is being collected through various approaches as noted in responses NPS-8, AW-11, and NN-19.</p> <p>Non-commercial boating use information is being collected through various approaches that include randomized on-site observations (spot and calibration counts), visitor feedback from the questionnaires (in person or online), and boater participation with the online surveys as described in the REC-1 Whitewater Boating Study.</p> <p>Potential Project effects will be reviewed with Stakeholders, including regulatory resource agencies tasked with the protection of environmental resources and an alternative flow regime may be recommended. The REC-1 Whitewater Study is designed to collect information and investigate flow preferences for different types of watercraft. Information from the REC-1 Whitewater Study will be used to develop a new license condition.</p>
NN-21	REC-1 Whitewater Boating	<p>5.1.1.3 SCE Commercial Use Numbers:</p> <p>Because the launch at the KR-3 powerhouse is below the dewatered section and receives virtually unimpaired flows, these numbers reflect the high level of interest and use by commercial customers when there is actually water in the river on a predictable basis. This same increase in the level of interest within the wetter water year types can be inferred for the dewatered reach and for non-commercial use. Having water in the dewatered reach at levels high enough to support whitewater boating is vitally important as evidenced by the number of boaters that visit the NF Kern during years when water is present. I formally request FERC to take this into consideration when analyzing potential project impacts on non-commercial whitewater boating opportunities in the dewatered reach of the NF Kern.</p>	<p>This comment does not specifically request additional studies or modifications to the approved studies, but rather provides direction to FERC on how to evaluate Project effects to non-commercial boaters. Non-commercial boating use information is being collected through various approaches (as noted in responses NPS-8, AW-11, and NN-19) that include randomized on-site observations (spot and calibration counts), visitor feedback from the questionnaires (in person or online), and boater participation with the online surveys as described in the REC-1 Whitewater Boating Study.</p> <p>Potential Project effects will be reviewed with Stakeholders, including regulatory resource agencies tasked with the protection of environmental resources and an alternative flow regime may be recommended. The REC-1 Whitewater Study is designed to collect information and investigate flow preferences for different types of watercraft. Information from the REC-1 Whitewater Study will be used to develop a new license condition.</p>
NN-22	REC-1 Whitewater Boating	<p>5.1.1.4 1994 Study Results:</p> <p>The boating community (and apparently SCE) is not happy with the current whitewater flow schedule derived from the 1994 study. The 1994 Whitewater Flow Study remains an outdated study and analysis. With the continued progression and innovation in the types of watercraft and techniques for</p>	<p>The Level 1 Desktop Review of Existing Information utilized multiple sources of existing information including past information such as the 1994 study. Information obtained in the Level 3 Intensive Study will be used to develop flow preference curves for a range of watercraft types.</p>

Comment Key ID	Study Plan	Comment	SCE Response
		<p>running whitewater, the 1994 study does not reflect the current desired flows in the NF Kern bypass reach. Skilled kayakers, rafters, catarafters, inflatable kayakers, SUPs, and river boarders can and do enjoy recreating on many sections of the NF Kern at levels far below the approximately 700 cfs for kayaks and 1,000 cfs for rafting that were considered the minimum enjoyable flows at that time. I am not suggesting that the 1994 study's determination that kayakers can enjoy flows at 550 cfs and above and rafters enjoy flows at 700 cfs and above is incorrect. I contend that as times have changed, boaters enjoy paddling at even lower flows, and the project's negative effects on recreation have increased commensurately.</p> <p>I formally request FERC to direct SCE and their contractors to acknowledge that times and equipment have changed and to disregard the results of 1994 study when analyzing the data collected the REC-1 Whitewater Boating study and making recommendations as to the minimum acceptable boating flows.</p>	
NN-23	REC-1 Whitewater Boating	<p>5.1.1.4 1994 Study Results:</p> <p>I would like to point once again to the information provided by many members of the boating community throughout this relicensing process, including links to websites, videos, and other information supporting the enjoyable boating opportunities as low as 200 cfs. These materials seem to have been ignored during the literature review and directly contradict the results of the 1994 study as to what constitutes the minimum enjoyable flows for whitewater boating in the NF Kern.</p> <p>I formally request FERC to direct SCE and their contractors to acknowledge and include these submittals in the methods and results of the REC-1 Whitewater Boating study.</p>	<p>The REC-1 Whitewater Study ISR clearly states that there are disagreements in the flow preferences identified in the 1994 study. A key goal of the REC-1 Whitewater Study is to identify the flow preferences for each watercraft type in the respective river segments.</p>
NN-24	REC-1 Whitewater Boating	<p>5.1.1.6 Minimum Instream Flows:</p> <p>License Article 406 requires SCE to maintain continuous minimum flows or natural flows, whichever is less, as measured by SCE gage 401 below Fairview Dam. Minimum instream flow requirements are specified by month(s) (Table 5.1-4).</p> <p>This statement is false. In response to KRB's complaint that SCE failed to meet its continuous minimum flow responsibility on December 06 & 07, 2020, the Commission held there to be no violation because SCE "provide[d] data that confirm[ed] that [SCE was] able to meet the daily average minimum instream flow requirement.</p> <p>I formally request that FERC require that any minimum instream flows identified for consideration or specified as conditions in any future license for KR-3 be based on a continuous (instantaneous) minimum flow for compliance.</p>	<p>The statement regarding the current requirements for License Article 406 is correct as FERC confirmed in their 2019 filing (167 FERC ¶ 61,243, 62,286) that "there was no explicit license requirement that the licensee use an instantaneous methodology, and therefore the licensee cannot be found to have violated its license in this regard..."</p> <p>As to the commenter's suggestion that future instream flow requirements be based on a continuous/instantaneous standard, any potential changes to license requirements under the new license are premature at this stage of the ILP.</p>
NN-25	REC-1 Whitewater Boating	<p>5.1.2 Hydrology:</p> <p>Project operations alter flows in the Fairview Dam Bypass Reach between Fairview Dam and the KR3 Powerhouse tailrace, and the timing of flows in the river segment between the KR3 Powerhouse and Riverside Park in Kernville. Flow diversions have the potential to alter the frequency, timing, and quality of whitewater boating opportunities.</p> <p>While I wholeheartedly agree that flow diversions have the potential to alter the frequency, timing, and quality of whitewater boating opportunities, the analysis of hydrologic conditions presented in the ISR do not provide the appropriate level of information to determine project effects on whitewater boating opportunities. While providing data and statistical analysis of flows at the annual and monthly time scales is important and frames the existing conditions with respect to water availability, it does little to help determine project effects which occur at the daily and even hourly time scale.</p>	<p>Please see Response to NN-39 in Section 2.2.</p>
NN-37	OPS-1 Water Conveyance Assessment	<p>It is also interesting to note that a site visit was not conducted and that all analyses were based on available information on the geology, tunnel design and construction, and hydraulic flow data. It would seem obvious that for someone to assess the condition of the exiting conveyance system and</p>	<p>The FERC-approved OPS-1 Study Plan required this analysis to be a desktop analysis, utilizing existing drawings and other available documents.</p>

Comment Key ID	Study Plan	Comment	SCE Response
		determine whether current or future operations have or will damage the integrity of the tunnels and lining would require a visual inspection.	

4.6. OTHER INTERESTED STAKEHOLDERS

Comment Key ID	Commenter	Study Plan	Comment	SCE Response
JS-1	James Spring	N/A	I oppose the renewed licensing of KR3. The value of a 100-year-old hydro-electric station weighed against the needs of the environment and the responsible usage by citizens seems disproportionate. Power-generating technology has grown exponentially. KR3 is a relic that threatens the Kern River and the watershed. For KR3 to de-water the Kern at SCE's proposed rates is absurd. Allowing the river to revert back to its natural flows will help restore habitats and bolster imperiled flora and fauna. As has been determined in numerous cases across the globe, the highest and best usage of rivers like the Kern is to allow them to flow wild and free. I support the position and aims of the Kern River Boaters in arguing that this river needs more water, and KR3 deserves a lot less of it.	This comment does not specifically request additional studies or modifications to the approved studies, but rather provides a general statement that opposes the relicensing and supports a statement that the river requires more water (implying the need for change in Project operations). While this commenter may not support relicensing, SCE has indicated its unequivocal intent to seek a new license for the Project, and in its Scoping Document 2, FERC rejected attempts by certain Stakeholders to study decommissioning as an alternative to relicensing.
AR-1	Anthea Raymond	REC-1 Whitewater Boating	In December 2019, the Los Angeles Kayak Club helped identify and lead boaters for the Class 2-3 section of the Pyramid Dam/Piru Creek Boat-based Flow Study. It was not easy to bring together a representative group. So we agree with your assessment that there cannot be a systematic Flow Study requiring multiple releases along multiple reaches with a variety of craft over a concentrated period. However, we do believe that opportunistic releases around missing data points are essential, acknowledging the limitations. These would likely include a small sample size and a timeline that could extend weeks or even months.	In the first quarter of 2024, SCE will provide an addendum to the REC-1 Whitewater Technical Memorandum that includes analysis of the single flow survey and structured interview questionnaire. This analysis, coupled with the information reported for the Level 2 Limited Reconnaissance in the ISR, will be used to determine if gaps exist in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments. When feasible, SCE will attempt to enhance flows where potential gaps may exist in user experiences of flow conditions. Flow enhancement may include diverting a portion of flow over Fairview Dam to target specific flow ranges where knowledge gaps were identified. Due to the unpredictable nature of the snowmelt hydrograph and lack of storage behind Fairview Dam, enhanced flows will be opportunistic, not scheduled in advance, and subject to available inflows and tunnel flow needs. SCE will make a good-faith effort to inform the boating community in advance when hydrologic conditions for opportunistic flow enhancements are likely possible. If flows are likely to allow for such enhancement, SCE will reach out to KRB, AW, Los Angeles Kayak Club, Dreamflows, and outfitters holding permits with the SQF. This is not a guarantee of a particular flow, just an indication that there may be the possibility of flow enhancement within the diverted reach outside the ordinary whitewater release schedule based on forecasted inflows upstream of Fairview Dam. This good-faith effort will attempt to give boaters advance notice to plan trips to the river using forecasting technology available to SCE at the time of study to encourage additional boater use at the targeted flows and participation in the single flow survey. Ideally, boaters will be notified 2 to 3 days in advance to plan a trip. However, inflows to the Project are subject to run-off patterns, which are difficult to forecast in advance.
AR-2	Anthea Raymond	REC-1 Whitewater Boating	As some-time trainers of "Intermediate" kayakers, we support getting a clearer picture of what is possible between 300-700 cfs, especially on the Fairview, Cables, River Kern, and Chamise sections. Toward that we would also encourage you to revisit this statement in the Whitewater Boating Technical Memorandum: "Kayakers desiring higher difficulty listed higher optimum flows. Kayakers aiming for less whitewater difficulty identified a lower starting point for optimum flows."	Thank you for the comment referencing participant preferences for the Fairview segment during the Level 2 Limited Reconnaissance site visit. Boater responses in the Level 3 Intensive Study flow comparison survey will allow us to revisit flow preferences aggregating data by watercraft type and skill level.

Comment Key ID	Commenter	Study Plan	Comment	SCE Response
AR-3	Anthea Raymond	REC-1 Whitewater Boating	Certain ranges -- some of which would be explored here -- may actually require greater skill at lower levels to be safe and executable. But that is why the study needs these targeted releases. And we may learn that parts of our formally designated "sections" may be suitable for Intermediates at lower flows while an entire run may not. (The Cables run in particular comes to mind.)	See response in AR-1 regarding enhanced flow opportunities targeting gaps in boater experiences for specific flow ranges impeding their ability to assess minimum acceptable and optimum flows in the respective river segments.
CB-1	Chris Brown	N/A	<p>1. The current whitewater release regime is confusing, unpredictable, and poorly timed. This is a result of the last KR3 relicensing agreement which was realized by agencies and groups that did not fully appreciate the ever-growing needs of the public who utilize this rare reach of river for recreational purposes. Those of us who work and live on the Kern River and more importantly, the recreating public desperate for whitewater recreational opportunities, have had to live with this ill-conceived agreement for the past 30 years and will have to live with the results and terms of the current relicensing process for decades to come. Under the current whitewater flow mitigation, there are several big problems that need to be rectified. The guaranteed whitewater flows currently in effect are far too low to raft all sections of the diverted stretch at the 700cfs threshold. It also eliminates the very good Kayaking and "low water" craft (splashyaks, shredders, paddle board, etc.) flows of 200-700cfs. And, perhaps the most infuriating and ill-conceived aspect: when the whitewater release is required, the downstream and more commonly used stretches (Cables and below; downstream from the Thunderbird River Access) do not receive the water until after noon. This takes away about half of the boating day even when whitewater flows are required. At minimum, we need to adjust the timing of the current release schedule and revisit what flows are actually useful for those seeking to recreate on the river.</p> <p>1. Since the last relicensing in the mid 90's, the power grid and methods of power generation have changed greatly. With the modern advances in solar power generation, we now have an enormous amount of solar power that renders KR3's power generation virtually inconsequential as long as the sun is shining in the Mohave Desert. Whitewater recreational use on the Kern only occurs in daylight hours, so there is a very good argument that power generation at KR3 should be suspended entirely during daylight hours.</p> <p>2. The very small capacity of KR3 to add to generate electricity has almost no effect on the power market. This was proven when the nearly identical Borel power plant on the Lower Kern River was decommissioned a few years ago. Borel, which also operated on approximately 600cfs of water, was taken offline in the early 2010's and was later decommissioned with no noticeable effect on local or regional prices or power availability. Since Borel drew water from Lake Isabella reservoir and diverted the downstream flow for only approximately 6 miles there was a better argument for its continued operation vis-a-vis KR3 which draws from the natural flow North Fork of the Kern and dewateres over 15 miles of such a valuable whitewater recreational resource. If the logic of taking Borel powerplant offline holds then it should for KR3's daytime use, as well. The roughly 15 miles of river dewatered by KR3 eliminates a stretch of world class whitewater at flows from 200cfs and above. It is the closest whitewater river to the huge population centers in Southern California, Las Vegas, and parts of Arizona. It is an irreplaceable recreational resource available to millions of people, and one of the true riparian gems flowing from the wilderness of the Southern Sierra Nevada.</p>	This comment does not request additional studies or modifications to the approved studies, but rather focuses on the existing license condition rather than the REC-1 Whitewater Study Technical Memorandum. Any discussion regarding changes to current Project operations or the need for PM&E measures is premature at this phase of the relicensing process. The REC-1 Whitewater Study is designed to investigate flow preferences for different types of watercraft. Information from the REC-1 Whitewater Study will be used to develop a new license condition.
CB-2	Chris Brown	REC-1 Whitewater Boating	<p>I also agree with Kern River Boaters assessment of the waterflow focus group. That ...</p> <p>"Edison's L2 narrative omits one incredibly important fact: after the SIQs were completed and the site visit concluded, Edison did not adjourn the proceedings, but instead directed the participants to a conference room at the KR3 powerplant. There, Edison attempted to draw divisions by ranking segments with no reference to water levels or skill sets or the fact some preferences might be equal. The boaters did not bite. Rather, they expressed solidarity about what boaters — themselves and others — want from this process. Each boater agreed that the current rec flow regime was unsatisfactory in scope and design — a non-starter. Rather than the present regime, which is based on exceedingly narrow inflow windows, each participant agreed the regime should simply be a fixed calendar of days focused on the runoff season during which the project would go offline — whether daily with bubble releases or for long weekends if the tunnel could not supply bubbles — regardless of inflow. Boaters on the NF Kern are a sophisticated user base used to navigating the ever-changing hydrograph of impaired flows below Fairview Dam.</p>	<p>This comment is an inaccurate characterization of the meeting. At the Level 2 Limited Reconnaissance site visit participants had distinctly different flow preferences across most of the river segments generally based on the participants watercraft type and skill level.</p> <p>The latter portion of this comment describes criticisms of the current license condition for whitewater releases and recommendations for a new license condition. The REC-1 Whitewater Study goals and objectives are limited to collecting the information that will be used in the License Application to develop PM&E measures. The REC-1 Whitewater Study does not include development of the PM&E measures described in this comment. Rather, results from the REC-1 Whitewater Study are used to inform the development of a future license condition.</p>

Comment Key ID	Commenter	Study Plan	Comment	SCE Response
			Unimpairing those flows based on a calendar focused on the runoff season with no regard for inflows — whether for daily bubbles or long weekends — found no objection in this group. Edison’s failure to report this critical point obscures the fundamental takeaway from this study group.”	
SS-1	Samuel Sparhawk	N/A	<p>I support Kern River boaters and the arguments that organization puts forward.</p> <p>As a whitewater boater I am extremely dismayed at the effect the 600 cfs diversion has on boating opportunities.</p> <p>I am worried that the surveys conducted this summer do not reflect the negative effect the diversion has on boating in low and moderate years, and I support KRB's study requests.</p> <p>Although I love boating in the Kern river, I care even more about the ecological health of the Kern River ecosystem. I question whether the pros (a relatively small amount of energy production that could be supplied from other sources) outweigh the cons (dewatering a long stretch of a major river.)</p>	As part of the License Application, SCE will evaluate potential Project effects from current operations and any changes that may occur under the new license. Potential Project effects will be reviewed with Stakeholders, including regulatory resource agencies tasked with the protection of environmental resources, and an alternative flow regime may be recommended. Additionally, FERC will consider regulatory agency recommendations and the need to balance power in their review of the License Application and issuance of a new operating license.
DK-1	Dean Koutzoukis	N/A	I fully support KRB's response to the Edison KR3 ISR. The KRB response raises many valid points that have to be addressed if the licensing process is to be fair, balanced, and thorough.	This comment does not specifically request additional studies or modifications to the approved studies, but rather provides a general statement that implies the need for change in Project operations. Any discussion regarding changes to current Project operations or the need for PM&E measures is premature at this phase of the relicensing process. The REC-1 Whitewater Study is designed to investigate flow preferences for different types of watercraft.
CR-1	Chuck Richards	REC-1 Whitewater Boating	<p>This is my second go around with the Kern River #3 relicensing procedure. 29 years ago (the previous application) I was a principal in 1994's 5-day flow study (on the water), May 11 through 15, with my run-on designation of a non-Commercial Representative and Field Evaluation Coordinator.</p> <p>What a mouthful . . . in short, I was then a long-time Kern Outfitter and for that study, I organized all rafts at the various, and remarkably increasing water levels/river sections, And, I placed the Edison camera crews to capture familiar low-water bottlenecks, which were certain to occur below adequate flows. Amazingly, and in spite of Edison's stance, then, against altering their water diversion (during the 5 days), some higher power intervened to deliver almost perfect, and increasing, levels (each day) as natural flows. For instance, on day one, the 300 cfs in-the-river flow, confirmed water too low for rafting every river section although kayaks and canoes found brief sections in which to scrape by. But the following day (day 2, with approx 700 cfs) opened up a few raft runs. Not all, but some sections not oodles of water but enough to wiggle through here and there. Day 3, with the natural flow rising to approx 1,100 cfs, most of the river sections allowed all boats (rafts, etc) a minimum passage the exceptions (which did not allow raft passage) were the above-mentioned bottlenecks at which Edison had their film crew on hand to record the problems. And days 4 and 5 continued to find the river rising to about 1,400. This was not yet an optimum level for rafts but, with a skilled crew and savvy guide, every section of the Upper Kern was then runnable, although barely in several sections. Bill Taggart (from Colorado) was in charge of Edison's entire river study. But Bill had a penchant for creating confusion and bewildering, lengthy, jargon and descriptions. His final report (close to some 100 pages) was enough to cause eyeballs to revolve around in one's skull. No one, not even Eric Ostly (the Forest Service rep) could make sense of it nor force himself to read through it, for his 4-E recommendations. Anticipating Bills written results, I summarized, in a page and a half (in June of 1994) our simplified flow findings and mailed it to Steve Nachtman (Stone & Webster consultants) Steve had become my main FERC contact. After some 3 decades I cannot locate my retained paper copy (no computers then). Online today, in the FERC files using my name as a search tool, my letter indeed is listed. But when I attempt to pull it up to include with this note, it opens not to my 1994 letter but to an unrelated document. If you folks can locate it, in there somewhere, I am certain it will be useful as a flow guide, and . . . please send me a copy.</p> <p>Meanwhile, back to this year of 2023:</p> <p>As mentioned above, I was a pioneer of whitewater recreation on the Kern (since 1975). I am deeply familiar with the incredible (and geographically unique in parched southern California) paddling opportunities that the diverted bypassed sections offer, when there is sufficient flow. The Sequoia Forest Master Plan even directs this portion of the river to be developed for and to emphasize Recreation (not</p>	Thank you for your comment. As part of the License Application, SCE will evaluate potential Project effects from current operations and any changes that may occur under the new license. Potential Project effects will be reviewed with Stakeholders, including regulatory resource agencies tasked with the protection of environmental resources and an alternative flow regime may be recommended. The REC-1 Whitewater Study is designed to collect information and investigate flow preferences for different types of watercraft. Information from the REC-1 Whitewater Study will be used to develop a new license condition.

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			<p>industrial diversion/power generation). (The Forest had overlooked its own written directives.) I have participated in this year's comments and on-the-ground river gatherings/meetings. And I am hopeful that the present cumbersome and Edison-favored diversion thresholds be scrapped and an extended and simplified, dependable paddling flows be established, as voiced by Kern River Boaters. But whatever the outcome is, Kern experience has shown that even when FERC establishes the new benchmarks and 4-E conditions, Edison delays a few months and then crawfishes out of them, with Sequoia Forest in agreement. Do what? Sure. For instance, the present KR3 operating authority required Edison to construct a portage around the low-head dam (Limestone diversion dam). But Edison later explained that they just could not do that and . . . how would the Forest like some nice new picnic tables and expanded campgrounds instead? Sequoia Forest took the bait and the anticipated portage (to increase the length of runs on the N.F. Kern) was conveniently tossed before anyone on the outside knew it had happened.</p>	
AN-1	Amin Nikravan	N/A	<p>I am writing to support Kern River Boaters' comments and requests in response to the KR3 ISR. I have been living in the Los Angeles area for over 6 years and every weekend, during the whitewater season, I drive 7 hours roundtrip to enjoy the sport with KRB.</p>	<p>This comment does not specifically request additional studies or modifications to the approved studies. As part of the License Application, SCE will evaluate potential Project effects from current operations and any changes that may occur under the new license. Potential Project effects will be reviewed with Stakeholders, including regulatory resource agencies tasked with the protection of environmental resources and an alternative flow regime may be recommended. The REC-1 Whitewater Study is designed to collect information and investigate flow preferences for different types of watercraft.</p>
LS-1	Lester Swanson	N/A	<p>My belief is that the minimum flow should be determined by science to a level that is NOT a death sentence to the fishery. De-watering 16 miles of river at a critical time should be a crime in any part of the world. When science determines what that level should be, then water should no longer be diverted at Fairview Dam for generating purposes period. Nature should take priority over S.C.E. profits. Do not permit So. Cal. Edison to kill 16 miles of this river every summer for the next 75 years!</p>	<p>As part of the License Application, SCE will evaluate potential Project effects from current operations and any changes that may occur under the new license. Potential Project effects will be reviewed with Stakeholders, including regulatory resource agencies tasked with the protection of environmental resources and an alternative flow regime may be recommended. Additionally, FERC will consider regulatory agency recommendations and the need to balance power in their review of the License Application and issuance of a new operating license.</p>

5.0 CONCLUSION

For the reasons described above, FERC should not accept any of the proposed new or modified studies advanced by Stakeholders in their comments, with the following exceptions:

- Extension of time to collect 2 additional months of spot count and 2-hour calibration data as part of the REC-2 Study (refer to KRB-19, Section 2.4).
- Revise the study plan reporting schedule for REC-1, REC-2, and OPS-1 studies to provide Stakeholders with amended Technical Memorandum in the first quarter of 2024.
- Provide Stakeholders with a public version of the OPS-1 Appendix A: Power Tunnel Hydraulic Model Results (which SCE has included as Attachment B of this filing).

6.0 REFERENCES

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**ATTACHMENT B: OPS-1 WATER CONVEYANCE ASSESSMENT, APPENDIX A: POWER TUNNEL
HYDRAULIC MODEL RESULTS (PUBLIC)**

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MEMORANDUM



To: Jillian Roach (ERM)
From: Cheyenne Kinn, EIT; Carl Mannheim, PE
Cc: Carlos Jaramillo, PE (MarshWagner)
Date: October 5, 2023 (REV 1)
Re: Kern River No. 3 – Study OPS-1: Water Conveyance Assessment
Power Tunnel Hydraulic Model Results (REDACTED – PUBLIC
VERSION)

INTRODUCTION

The Kern River No. 3 Hydroelectric Project (KR3) power conveyance tunnel segments may be affected by rapid flow cycling (i.e., decreases or increases in flow rates and corresponding decreases or increases in water levels in the conveyance). Current operating conditions include flows ranging from as little as 2-3 cubic feet per second (cfs) up to the maximum capacity of approximately 600 cfs. As part of Southern California Edison's (SCE) relicensing efforts for KR3, Federal Energy Regulatory Commission (FERC) has accepted a water conveyance assessment study (Study OPS 1: Water Conveyance Assessment) to evaluate the effects on conveyance tunnel lining stability for different flow rates by conducting an engineering review and evaluation of current water conveyance conditions (i.e., hydrostatic pressure, flow depth, and velocity) under varying flow conditions (up to 600 cfs), and to identify guidelines for future operation conditions using current project information and industry best practices to maintain water conveyance system (lining) integrity.

The purpose of this memorandum is to support the evaluation of lining stability in the tunnel segments by MarshWagner by providing a steady-state characterization of the flow conditions in the tunnel segments for a range of flows up to 600 cfs.

All elevations are reported in the KR3 Plant Datum.

BACKGROUND

The power conveyance comprises approximately 13 miles of water tunnels, open and covered aboveground flumes, a steel inverted siphon, flume overflow sections, and a forebay from which two penstocks connect to the powerhouse. The project FERC Exhibits F and G provided profile elevations (referenced to the Kern River No. 3 Plant datum), as well as tunnel and siphon geometry. The overall conveyance includes a combination of arched (D-shaped) tunnels, covered flumes, aboveground open flumes, an inverted siphon, and a concrete pressure pipe.

Figure 1 shows a plan and profile of the conveyance, based on known elevations at the tunnel entrance and at the siphon entrance but with assumed intermediate elevations. Per the referenced FERC exhibits, stationing is in the downstream direction starting at 0+00 at the diversion structure.

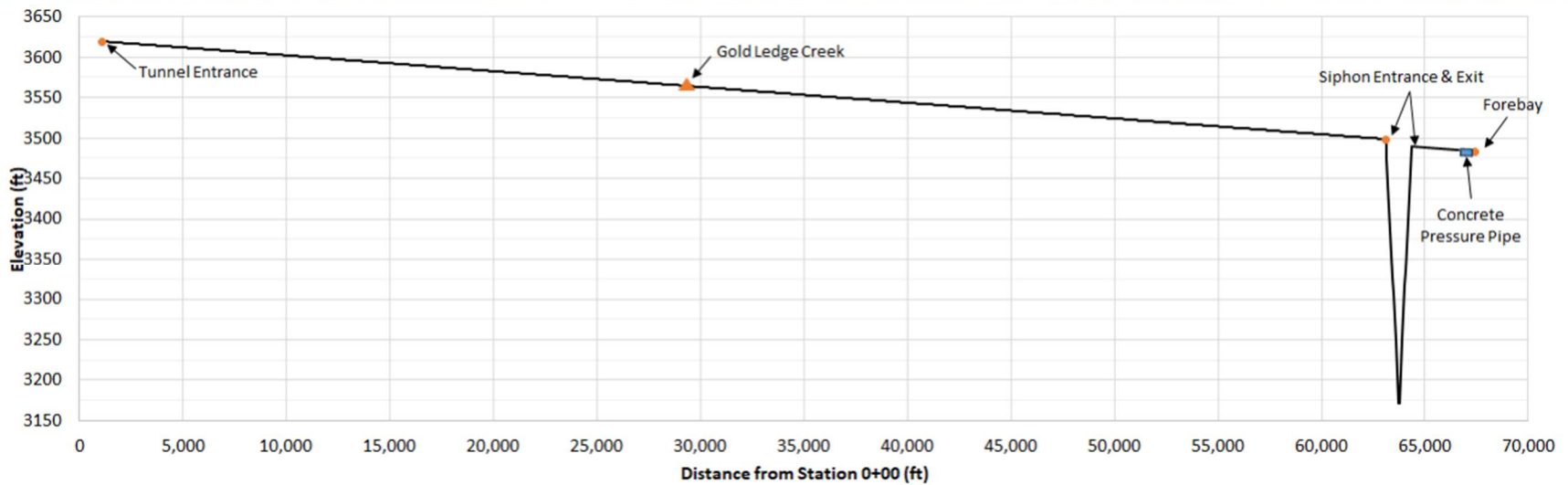
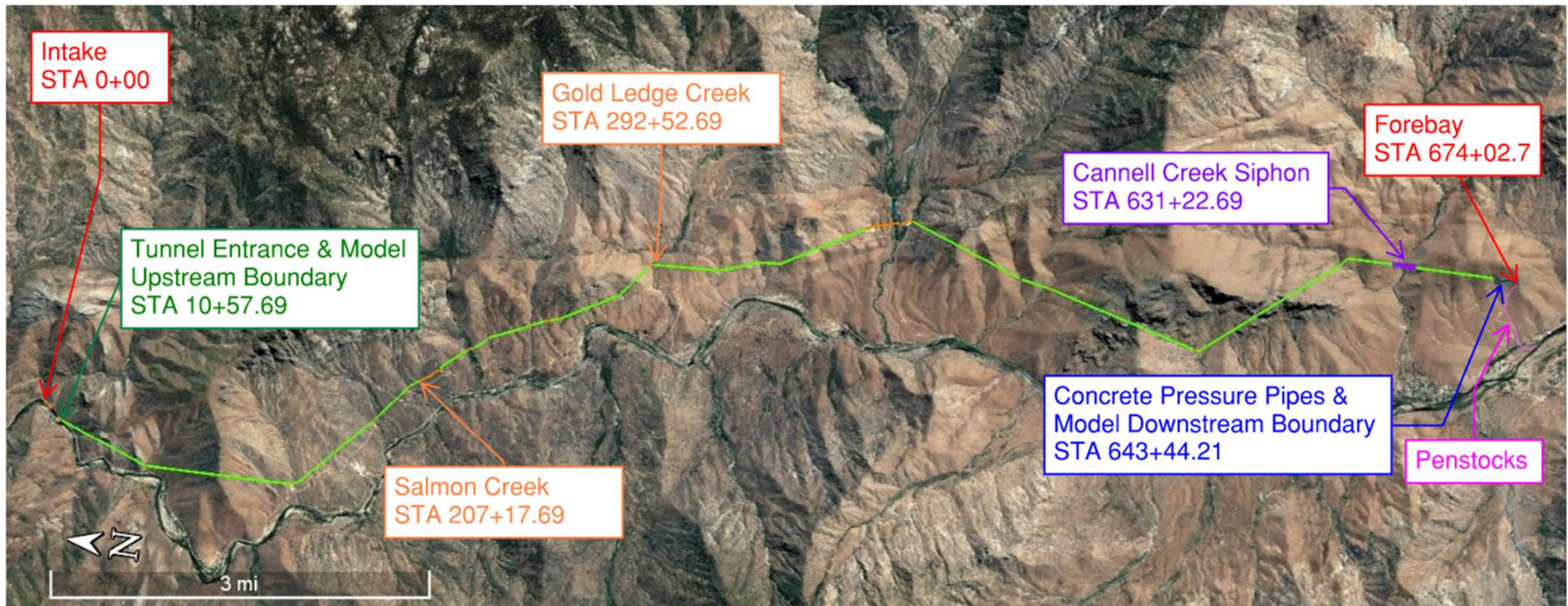


Figure 1. Plan and Profile of the KR3 Power Conveyance

HYDRAULIC MODEL

A 1D quasi-steady-state HEC-RAS hydraulic model was created to model flow conditions in the KR3 power conveyance tunnel (USACE 2022). Although pressurized flow in the tunnel was not expected, the HEC-RAS model was set up with a Preissmann slot to accommodate pressurized flow conditions using open channel flow equations.

Flows modeled include constant flows of 100 cfs, 200 cfs, 300 cfs, 400 cfs, 500 cfs, and 600 cfs. The upstream boundary of the model is the tunnel entrance, just downstream from the sediment settling basin, and the downstream boundary is where the tunnel transitions to the concrete pressure pipe. The upstream boundary condition was set as a constant flow (e.g., 600 cfs), and the downstream boundary was modeled as a set water surface elevation of 3,505 feet, which represents the normal pond elevation of the forebay downstream of the concrete pressure pipe. Figure 2 shows the elevation profile used for the tunnel, and Table 1 provides the elevations used to linearly interpolate the cross-section elevations.

All stationing refers to the approximate FERC Exhibit stationing, unless otherwise specified.

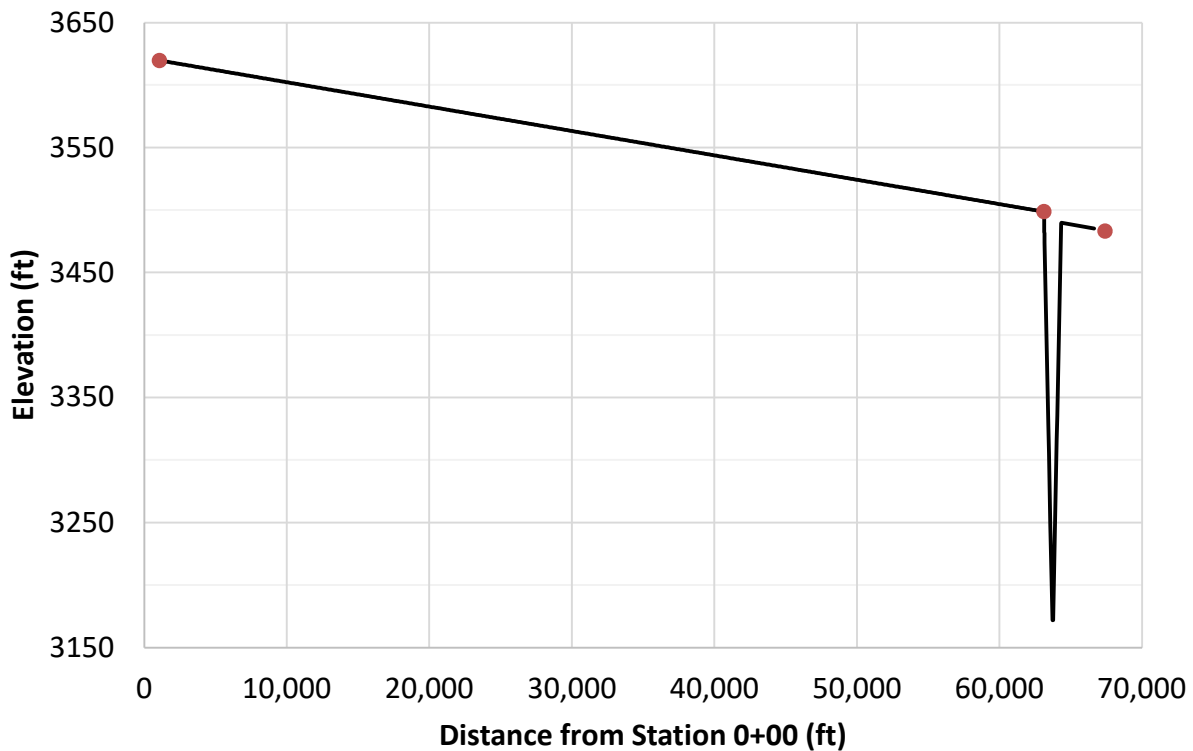


Figure 2. Elevation Profile Used for the 1D HEC-RAS Model of KR3 Project.

Table 1. Elevations Used for Linear Interpolation of Cross-section Elevations

Location	Approximate FERC Exhibit F/G Station	Elevation (ft)
Tunnel Entrance	10+57.7	3,619.6
Siphon Entrance	631+22.7	3,498.6
Forebay	674+02.7	3,483.1

The siphon was modeled with cross-sections ranging from a diameter of 8 feet at the narrowest up to 9.5 feet at the widest, with transitions between these sizes determined from Exhibit F drawings. Figure 3 shows a typical siphon section.

The locations and lengths of different cross-section types (open flume, lined/unlined tunnel, covered flumes, siphon) were determined using Exhibits F and G for the KR3 Project. The approximate shape of the arched tunnel sections was also based on these Exhibits. The tunnel segments are 8.5 feet wide by 8 feet high north of Station 533+63 and 9.5 feet wide by 8 feet high south of Station 533+63, with arched tops. Figure 4 shows a typical arched tunnel section. For modeling simplicity, the tunnel cross-sections were approximated as rectangles, with the height of the tunnel being the highest point of the arch. This approximation slightly increases the model tunnel capacity at very high flows but does not affect the results with lower flows.

The approximately 1,000 feet of aboveground flumes were modeled as 8.5 feet wide and 8.25 feet high. See Figures 5 and 6 below for typical covered and open flume sections, respectively.

FIGURE REDACTED
CONTAINS CRITICAL ENERGY INFRASTRUCTURE INFORMATION (CEII)

Figure 3. Typical Siphon Section (SCE 1990).

FIGURE REDACTED
CONTAINS CRITICAL ENERGY INFRASTRUCTURE
INFORMATION (CEII)

Figure 4. Typical Arched Tunnel Section (SCE 1990).

FIGURE REDACTED
CONTAINS CRITICAL ENERGY INFRASTRUCTURE
INFORMATION (CEII)

FIGURE REDACTED
CONTAINS CRITICAL ENERGY INFRASTRUCTURE
INFORMATION (CEII)

Figure 5. Typical Covered Flume Section (SCE 1990).

Figure 6. Typical Open Flume Section (SCE 1990).

A single Manning’s n roughness coefficient of 0.012 was assigned to the concrete-lined tunnels, flumes, covered flumes, and the riveted steel pipe siphon. This is a slightly lower than typical value used for concrete but within a normal range. See Model Validation below.

MODEL VALIDATION

ERM provided observations (Appendix A) of flume water levels at two locations along the conveyance (SCE 2023a): 1) at Gold Ledge; and 2) at Corral Creek. The flow at the time of these observations was obtained from SCE’s online hourly flow log and ranged from 550 cfs to 585 cfs. Manning’s roughness coefficient (n) was adjusted in the HEC-RAS model, and a final value of 0.012 was selected, resulting in a very close match of model results to those observed conditions. This Manning’s n value is in the lower range of what is typical for the materials described in the tunnels as well as the corrugated metal pipe siphon. Table 2 below presents the model validation results, which confirms a very good match of model results the with observed flow conditions.

Table 2. HEC-RAS Model Validation Results

Location	Flow (cfs) ^a	Observed Approximate Depth (ft) ^b	Modeled Depth (ft)	Difference (ft)
Gold Ledge	585	6.75	6.76	0.01
Corral Creek 17	550	6.25	6.35	0.10
Corral Creek 18	550	6.25	6.35	0.10

cfs = cubic feet per second, ft = feet

^a Obtained from preliminary hourly data (SCE 2023a)

^b Estimated depth based on observation of distance of water surface below top of flume walls (SCE 2023b)

RESULTS

Figures 7a through 7d present the final water surface elevations, flow depths, velocities, and invert elevations through the length of the tunnel.

Upstream of the siphon, flow depths and velocities in the tunnel range from 1.7 ft and 1.6 fps for 100 cfs to 8.3 ft and 10.3 fps for 600 cfs. The model results indicate that the conveyance is pressurized for varying distances upstream of the siphon for all flows. The model indicates that the conveyance is fully pressurized downstream of the siphon for all flows due to the elevation of the forebay water surface elevation. Consistent with observations of historic power flows, no overtopping of the flume is indicated by the model for any of the modeled flows up to and including 600 cfs.

In Figure 7b, the velocity for a flow of 600 cfs is less consistent than the other flow velocities. The variation is likely a computational artifact of the quasi steady-state HEC-RAS model, since it varies less than 0.25 feet per second throughout the region of the tunnel depicted in Figure 7b.

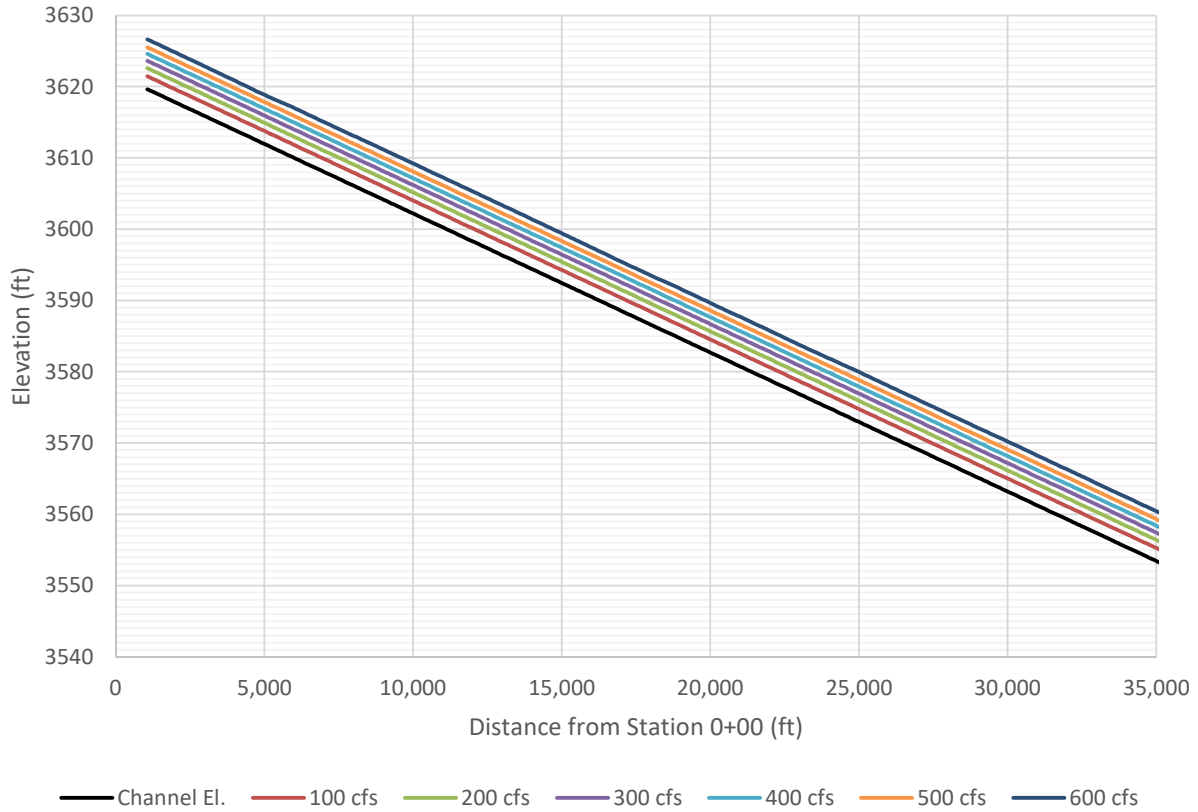


Figure 7a. Estimated Water Surface Elevation Results in Tunnel STA 000+00 to 350+00.

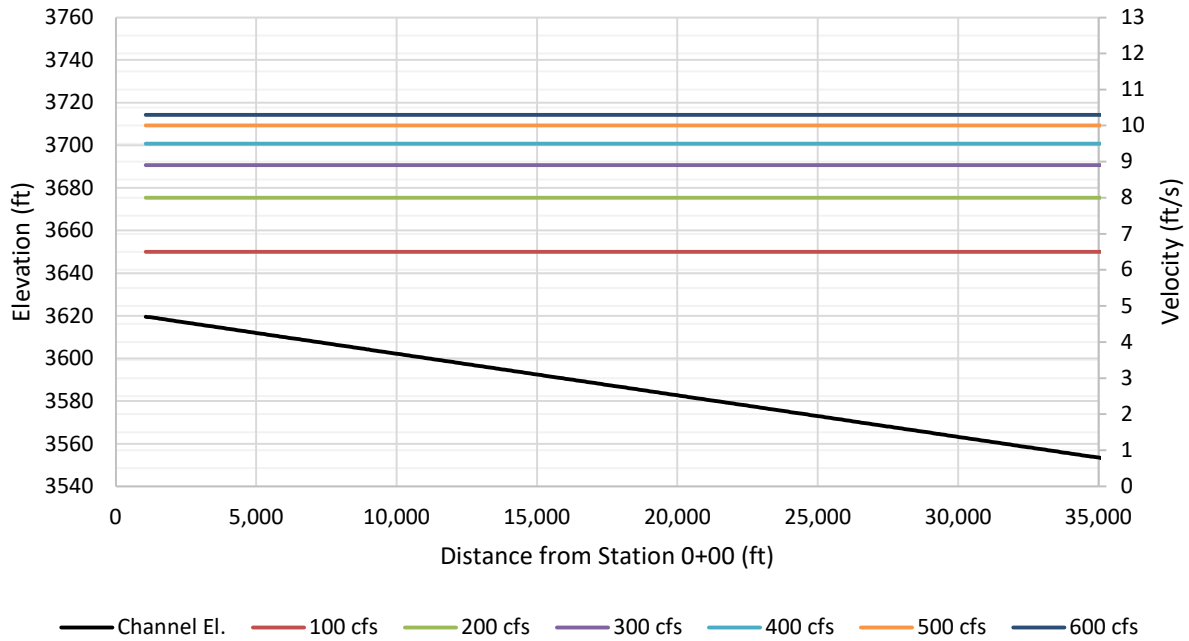


Figure 7b. Estimated Velocity Results in Tunnel STA 000+00 to 350+00.

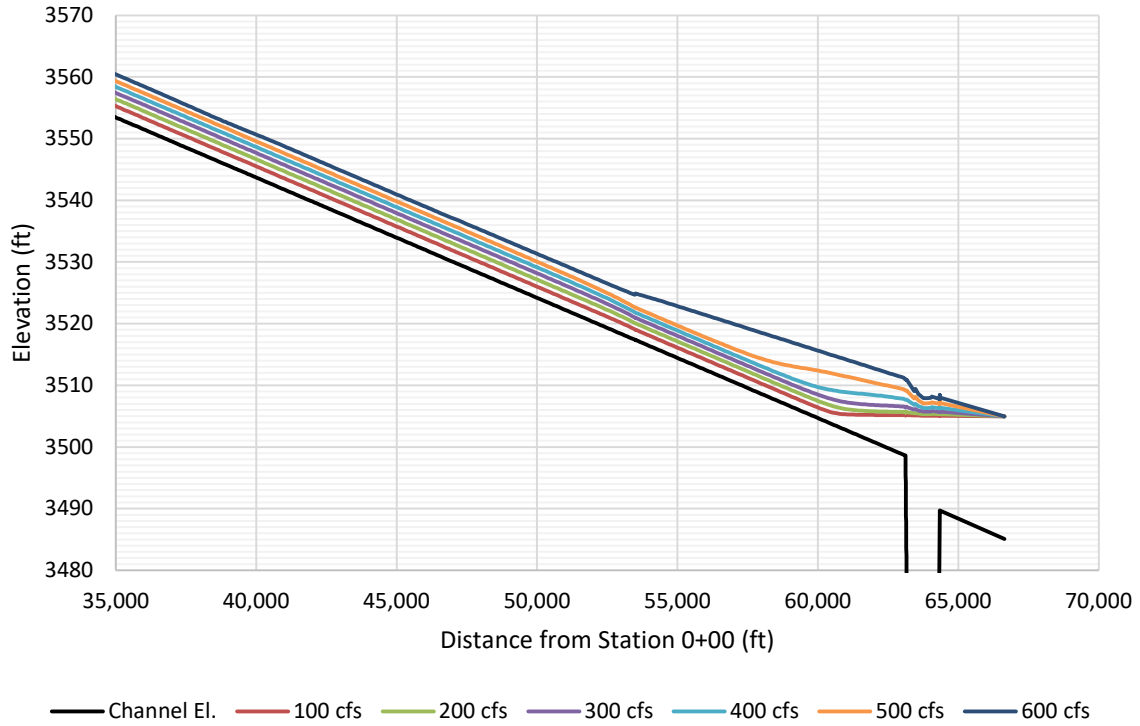


Figure 7c. Estimated Water Surface Elevation Results in Tunnel STA 350+00 to 666+44.21.

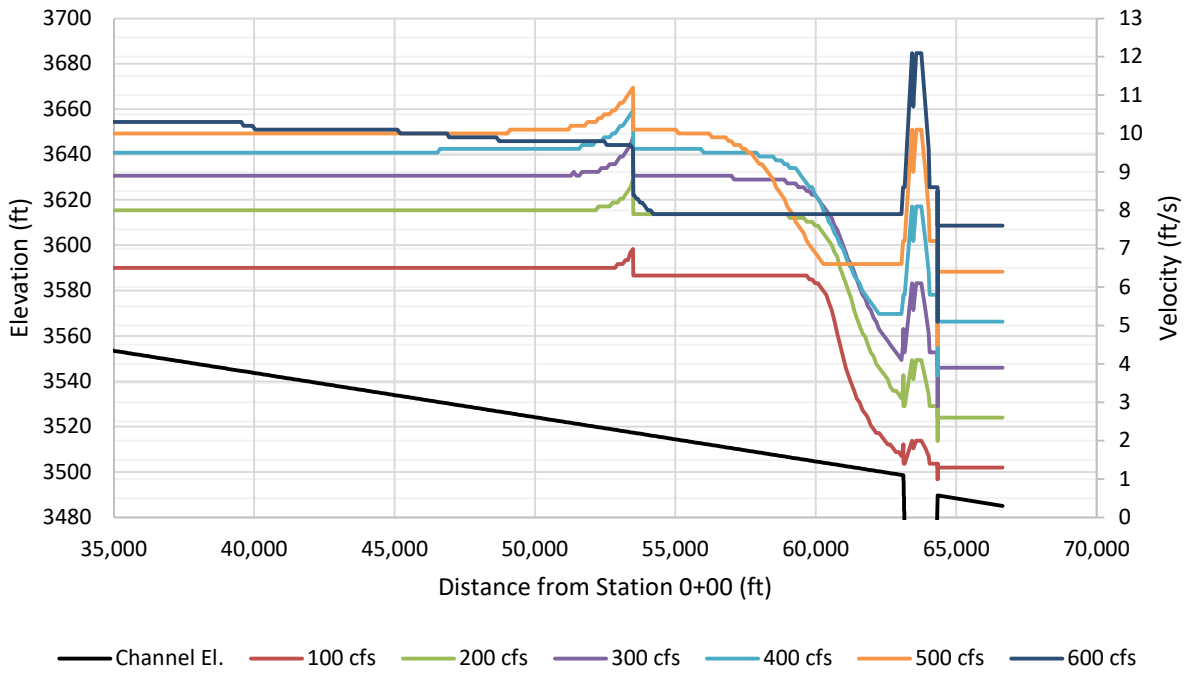


Figure 7d. Estimated Velocity Results in Tunnel STA 350+00 to 666+44.21.

In Figure 7d, the velocity for a flow of 600 cfs does not follow the same general pattern seen with the other flows, especially lacking a spike in velocity around Station 533+63. At this station, the width of the tunnel expands from 8.5 feet to 9.5 feet, causing an increased velocity for flows from 100 cfs to 500 cfs. At 600 cfs, the spike does not occur because the tunnel is pressurized through Station 533+63 and diminishing the effect of expansion on the velocity.

Additionally, in Figure 7d, all model runs have a spike in velocity, with the highest velocity occurring at the lowest elevation of the siphon. These increases and decreases in velocity are caused by the changing diameters through the siphon. The highest velocity in the siphon corresponds to the smallest diameter in the siphon.

SUMMARY OF RESULTS

The KR3 conveyance tunnel was modeled using HEC-RAS for flows ranging from 100 cfs to 600 cfs. It used validation data provided by ERM to confirm water surface elevations at select locations in the tunnel. The final model results closely represent the observed water surface elevations with final Manning's n values that are on the lower end of the range of what would be considered typical values for the tunnel lining and siphon piping materials.

The results indicate that flow depths and velocities in the concrete-lined tunnel segments range from 1.7 ft and 6.3 feet per second (fps) for 100 cfs to 8.0 ft and 10.1 fps for 600 cfs, per Figures 8 and 9 and Table 3 below.

The results of this analysis will be used to support further research on the stability of the tunnel concrete lining under varying flow conditions.

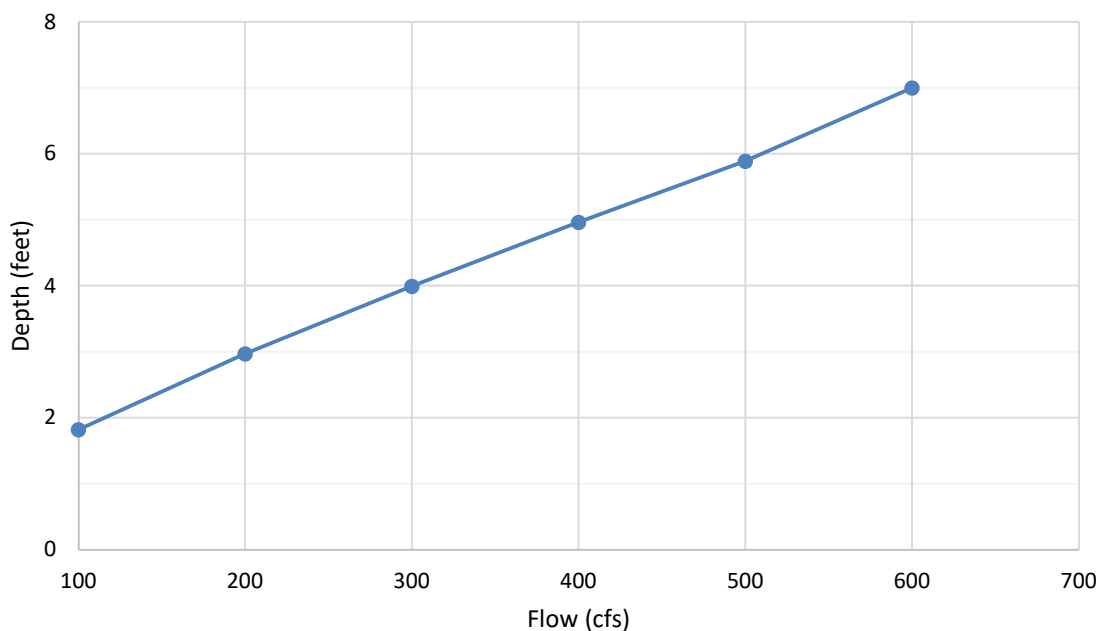


FIGURE 8. Typical Depth to Flow Relationship in Concrete-lined Tunnel Sections.

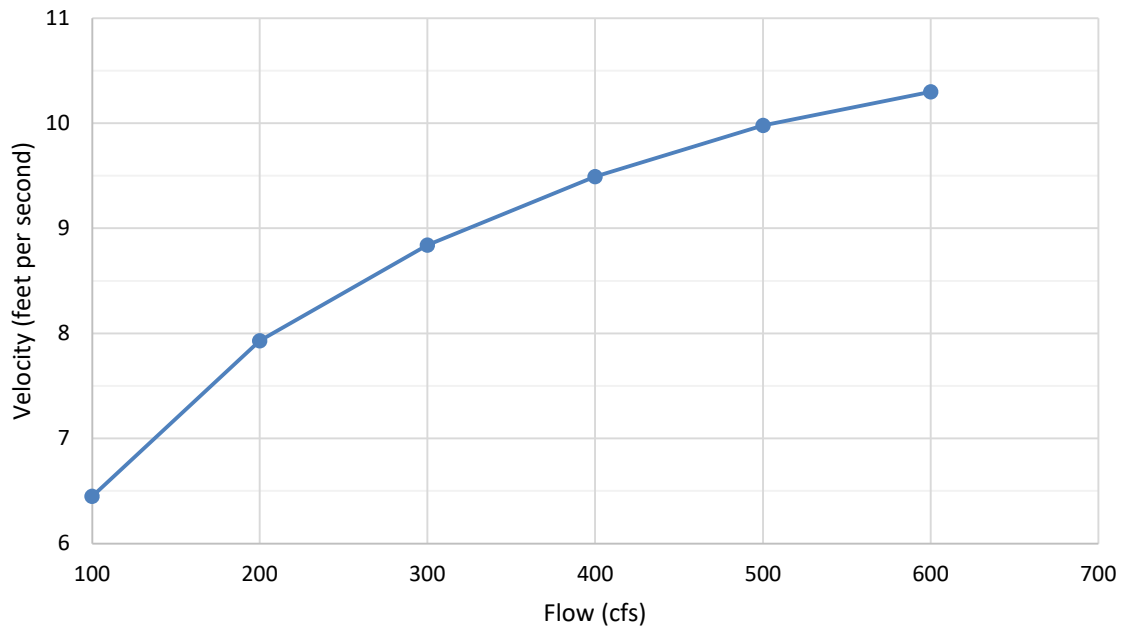


FIGURE 9. Typical Velocity to Flow Relationship in Concrete-lined Tunnel Sections.

Table 3. Typical Depth and Velocity in Concrete-lined Tunnel Sections

Flow (cfs)	STA 313+76.39 (Width = 8.5 ft)	
	Depth (ft)	Velocity (fps)
100	1.8	6.5
200	3.0	7.9
300	4.0	8.8
400	5.0	9.5
500	5.9	10.0
600	7.0	10.3

cfs = cubic feet per second, ft = feet, fps = feet per second

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Appendix A

Tunnel/Flume Flow Depth Field Observations



Tunnel at 14 Goldledge .jpg



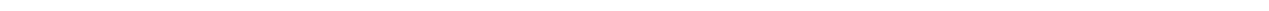
Tunnel at 17Corral Creek North (002).jpg



Tunnel at 18 Corral Creek Access (002).jpg

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ATTACHMENT C: DISTRIBUTION LIST



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FERC Project No. 2290 Official Service List (retrieved January 5, 2024)

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<p>Tule River Indian Tribe William Garfield – Chairman P.O. Box 589 Porterville, CA 93258 William.garfield@tulerivertribe-nsn.gov</p>	<p>Santa Rosa Rancheria Tachi Yokut Tribe Paige Berggren, Cultural Specialist Monitor I PBerggren@tachi-yokut-nsn.gov</p>
<p>Tachi Yokut Tribe Shana Powers spowers@tachi-yokut-nsn.gov</p>	

Local Government/Public Agency

<p>Kern County, CA Admin and Courts Building 1415 Truxtun Bakersfield, CA 93301-5215</p>	<p>North Kern Water Storage District Charles H. William, Engineer P.O. Box 81435 Bakersfield CA 93380</p>
<p>Kernville Chamber of Commerce Bryan Batdorf 119 Spruce Ave (box 1558) Kernville, CA 93238 bryanbatdorf@hotmail.com</p>	<p>Tulare County, CA Board of Supervisors 2800 W. Burrel Ave Visalia, CA 93291</p>
<p>Kernville Chamber of Commerce Lenny Borthick, President 119 Spruce Ave (box 1558) Kernville, CA 93238</p>	<p>Water Association of Kern County-Kern River Watermaster Dana Munn, Kern River Master P.O. Box 1168 Wasco, CA 93280-8068</p>
<p>Kernville Chamber of Commerce Rick Dancing, Coordinator 119 Spruce Ave (box 1558) Kernville, CA 93238</p>	<p>California Electricity Oversight Board v. Sellers of Long-Term Contracts to the California Department of Water Resources, Legal Department 455 Golden Gate Ave, Ste 11000 San Francisco, CA 94102-7004</p>

Other Local Organizations, Businesses, and Public Interest

<p>California Sport Fishing Protection Alliance Bill Jennings 3536 Rainier Ave Stockton, CA 95204 bjennings@calsport.org</p>	<p>Kernville Chamber of Commerce Lanny Borthick, President P.O. Box 397 Kernville, CA 93238</p>
<p>Energy Systems Engineering Karl Hemmila 10861 E Calle Desierto Tucson, AZ 85748 KHemmila@ESEngs.com</p>	<p>Kern River Outfitters Matt Volpert 6602 Wofford Blvd Wofford Heights, CA 93285 Matt@kernrafting.com</p>
<p>American Whitewater Jeffrey Venturino, Regional Coordinator jeffventurino@americanwhitewater.org</p>	<p>Kennedy/Jenks Consultants Rudolf E. Ohlemutz 32001 32nd Ave S suite 300, Federal Way, WA 98001</p>
<p>HDR Inc. Eric Girardin 2379 Gateway Oaks Dr Sacramento, CA 95818 eric.girardin@hdrinc.com</p>	<p>Kern Valley River Council Katharine "Kat" Edmonson P.O. Box 497, Kernville, CA katharine4@gmail.com</p>
<p>Kayaket Thomas Livingstone P.O. Box 189 Silverton, CO 81433 tlphoto@frontier.net</p>	<p>LA County Beach Commission Anthea Raymond 2600 Jeffries Ave Los Angeles, CA 90065 anthea.raymond@gmail.com lariverbeach@gmail.com</p>
<p>Keepers of the Kern Rex Hinkey, President P.O. Box 655 Kernville, CA 93238 keepersofthekern@gmail.com</p>	<p>Mountain and River Adventures Rhonda Stallone 15775 Sierra Way Kernville, CA 93238 rhondas@mntnriver.com</p>
<p>Kern Community Foundation Louis Medina 3300 Truxtun Ave, Suite 220 Bakersfield, CA 93301 louis@kernfoundation.org</p>	<p>Sierra South Mountain Sports Evan Moore P.O. Box 1909 Kernville, CA 93238 evan@sierrasouth.com</p>
<p>Kern River Boaters Elizabeth "Liz" Duxbury, President 1311 Avenida de la Estrella San Clemente, CA 92672 lizbrackbill@gmail.com</p>	<p>Sierra South Mountain Sports Steven Merrow 11300 Kernville Road Kernville, CA 93238 stevemerrow@gmail.com</p>
<p>Kern River Brewing Company Eric Giddens 13415 Sierra Way Kernville, CA 93238 eric@kernriverbrewing.com</p>	<p>Sierra South Mountain Sports Tom Moore P.O. Box 1909; 11300 Kernville Road Kernville, CA 93238 tom@sierrasouth.com</p>
<p>Spallina & Krase Robert Krase 132 E Morton Ave Porterville, CA 93257-2424</p>	<p>Whitewater Voyages Chris Brown 11252 Kernville Road Kernville, CA 93238 chris@whitewatervoyages.com</p>

<p>Kent Varvel 1401 Bridgeport Lane Bakersfield, CA 93309</p>	<p>Kern River Boaters Box 1938 Kernville, CA 93238 760-376-1905 kernriverboaters@gmail.com</p>
<p>Kern River Conservancy Kristin Pittack, Vice President P.O. Box 1411 Kernville, CA 93238 kristin@kernriverconservancy.org</p>	<p>Kern River Outfitters / California Recreation Foundation Chuck Richards 15729 Sierra Way Kernville, CA 93238 office@kernrafting.com; chuck@chuckrichards.com; fallingwaters@chuckrichards.com</p>
<p>Kern Community Foundation Kristen Beall Watson kristen@kernfoundation.org</p>	<p>Kern River Fly Fishers Council Timothy McNeely 2206 Cedar Bakersfield, CA 93301 tim@lifestoneco.com</p>
<p>Gary Ananian, President and Founder Kern River Conservancy P.O. Box 1042 Kernville, CA 93238 gary@kernriverconservancy.org</p>	<p>Trout Unlimited 1777 N. Kent Street, Suite 100 Arlington, VA 22209</p>
<p>Kern River Fly Fishers James Aherns P.O. Box 686 Bakersfield, CA 93302</p>	<p>Kern River Boaters Jose L. Pino, Vice President P.O. Box 1938 Kernville, CA kernriverboaters@gmail.com</p>
<p>Kern River Conservancy Victoria Ramirez, Vice President P.O. Box 1411 Kernville, CA 93238 victoria@kernriverconservancy.org</p>	

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