WR-2 HYDROLOGY STUDY PLAN

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

PREPARED FOR:

SOUTHERN CALIFORNIA EDISON®

Energy for What's Ahead®

KERNVILLE, CALIFORNIA

March 2022

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1.0 POTENTIAL RESOURCE ISSUE

- Potential effects of Kern River No. 3 (KR3) Hydroelectric Project (Project) operations on stream hydrology.

2.0 PROJECT NEXUS AND HOW THE RESULTS WILL BE USED

- Project operations influence streamflow and hydrology.
- Hydrologic gage data collected and verified in this study will be used to inform evaluations of potential Project-related effects on streamflow and hydrology.

3.0 STUDY GOALS AND OBJECTIVES

- Compile and summarize hydrologic gage data for use in other resource assessments.

4.0 STUDY AREA AND STUDY SITES

The study will compile data from:

- Southern California Edison (SCE) Company Gage 401 (U.S. Geological Survey [USGS] gage 11186000) in the North Fork Kern River (NKFR) downstream from Fairview Dam.
- SCE Gage 402 (USGS gage 11185500) in the conveyance flowline at Adit 6/7.
- U.S. Army Corps of Engineers (USACE) gage in Kernville.

5.0 EXISTING INFORMATION

SCE currently maintains two gaging stations to monitor and record flows associated with Project operation. The gages record flow in NFKR below Fairview Dam and within the KR3 conveyance flowline. These gages are operated with independent review by USGS. Depending on the period of record required, this data might be available electronically, on floppy disk, or on paper.

USACE operates a streamflow gage at Kernville. This data is subject to USACE oversight and to a different standard than the USGS gages upstream.

6.0 STUDY APPROACH

This is a desktop analysis, with the below tasks anticipated.

- Hourly gage data will be compiled from SCE, USGS, and/or USACE for the duration of the current license period (i.e*.,* water year 1997, beginning October 1, 1996, through water year 2021, ending September 30, 2021).
- Gage data will be verified through a quality assurance process at the hourly level.

- Gage data will be compiled and summarized using various statistical parameters for use in resource evaluations, including:
  - A summary of flow travel times from Fairview Diversion to the KR3 Powerhouse based on existing and available data.
  - Maximum/minimum, average/median, and variance summarized annually, seasonally, and/or monthly.
  - Flow duration curves summarized annually and/or monthly.

Because this Project operates as run-of-river, hydrologic modeling is not included in this study.

7.0 REPORTING

SCE will file an Initial Study Report (ISR) within 1 year following FERC's Study Plan Determination (estimated August 3, 2023) and an Updated Study Report (USR) no later than 2 years after FERC's Study Plan Determination. The ISR and USR will provide an update on SCE's 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. A Technical Memo will be appended to either the ISR or USR filing, as applicable. The information provided in the Technical Memo will be summarized in, and appended to, the Application for New License.

In addition, SCE may prepare interim reports during the study year to apprise Stakeholders on study implementation progress and to support consultation with Stakeholders.

8.0 SCHEDULE

Date	Activity
Summer 2022	Compile gage data from USGS/SCE for the established period of record; Review and analyze data for integrity, consistency, and data gaps
August 2023	Provide Hydrologic Gage Data and Technical Memo with ISR

ISR = Initial Study Report; SCE = Southern California Edison Company; USGS = U.S. Geological Survey

9.0 LEVEL OF EFFORT AND COST

The estimated cost (2022 dollars) for this study is $50,000, which includes data compilation and analysis, and reporting.

10.0 REFERENCES

None.

