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# **CUL 2 – ARCHAEOLOGY INTERIM TECHNICAL MEMORANDUM**

**KERN RIVER NO. 1 HYDROELECTRIC PROJECT  
*FERC PROJECT NO. 1930***

***PREPARED FOR:***



**January 2025**

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## List of Acronyms

APE	Area of Potential Effects
CUL 2 TSP	CUL 2 – Archaeology Technical Study Plan
DPR	[California] Department of Parks and Recreation
FERC	Federal Energy Regulatory Commission
Forest Service	U.S. Forest Service
GPS	Global Positioning System
HPMP	Historic Properties Management Plan
ITM	Interim Technical Memo
KR1	Kern River No. 1
KR1HD	Kern River No. 1 Historic District
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
Project	Kern River No. 1 Hydroelectric Project (FERC Project No. 1930)
SCE	Southern California Edison
SHPO	State Historic Preservation Officer
SPD	Study Plan Determination
SQF	Sequoia National Forest
TSP	Technical Study Plan
TWG	Technical Working Group

## 1.0 INTRODUCTION

This Interim Technical Memorandum (ITM) provides the methods and findings of desktop research and field surveys associated with the CUL 2 – Archaeology Technical Study Plan (CUL 2 TSP) (SCE 2024) in support of Southern California Edison’s (SCE) Kern River No. 1 (KR1) Hydroelectric Project (Project) relicensing, Federal Energy Regulatory Commission (FERC) Project No. 1930. The CUL 2 TSP was included in SCE’s Revised Study Plan filed on February 13, 2024 (SCE 2024). In its March 14, 2024, Study Plan Determination (SPD), FERC approved the CUL 2 TSP without modifications (FERC 2024).

The FERC-approved CUL 2 TSP requires documenting known and currently undocumented archaeological resources within the Area of Potential Affects (APE), and evaluating, or as appropriate providing, updated evaluations under the criteria of the National Register of Historic Places (NRHP) for archaeological resources. Record searches and archival research was conducted to develop contextual and background information. Field investigations were conducted in July and November 2024 and are described below. Additional work to complete this study is described in Section 7.0, Outstanding Study Plan Elements. The efforts described in Section 7.0 will occur winter of 2025. Study results will be included as part of the Draft/Final License Application and/or the Updated Study Report.

Definitions of technical terms, background information, and previous inventory and consultation efforts are included in Section 3.13, Cultural Resources of the Pre-Application Document (SCE 2023) and the CUL 2 TSP (SCE 2024).

## 2.0 STUDY OBJECTIVES

The objectives of the study, as outlined in CUL 2 TSP (SCE 2024), include the following:

- Document known and currently undocumented archaeological resources within the APE.
- Evaluate or, as appropriate, provide update evaluation(s) under the criteria of the NRHP for archaeological resources in the APE to determine whether archaeological resources may be affected by operation and maintenance of the Project and/or develop a NRHP Evaluation Plan to be implemented as part of the Historic Properties Management Plan (HPMP).

### **3.0 AREA OF POTENTIAL EFFECTS AND STUDY AREA**

The CUL 2 TSP (SCE 2024) defined the APE as “the area within the FERC Project boundary, a 25-foot buffer from centerline of the access trails located outside of the FERC boundary, and a 50-foot radius around FERC ancillary facilities such as gages located outside of the FERC boundary.”

For archaeological resources, the study area includes the area within 0.5 mile of the APE (Map 3-1). The study area is used only for records searches and archival research to develop contextual and background information.

### **4.0 METHODS**

Study implementation followed the methods described in the CUL 2 TSP (SCE 2024).

#### **4.1 STUDY PLAN VARIANCES**

There are no variances from the CUL 2 TSP approved in FERC’s SPD (FERC 2024).

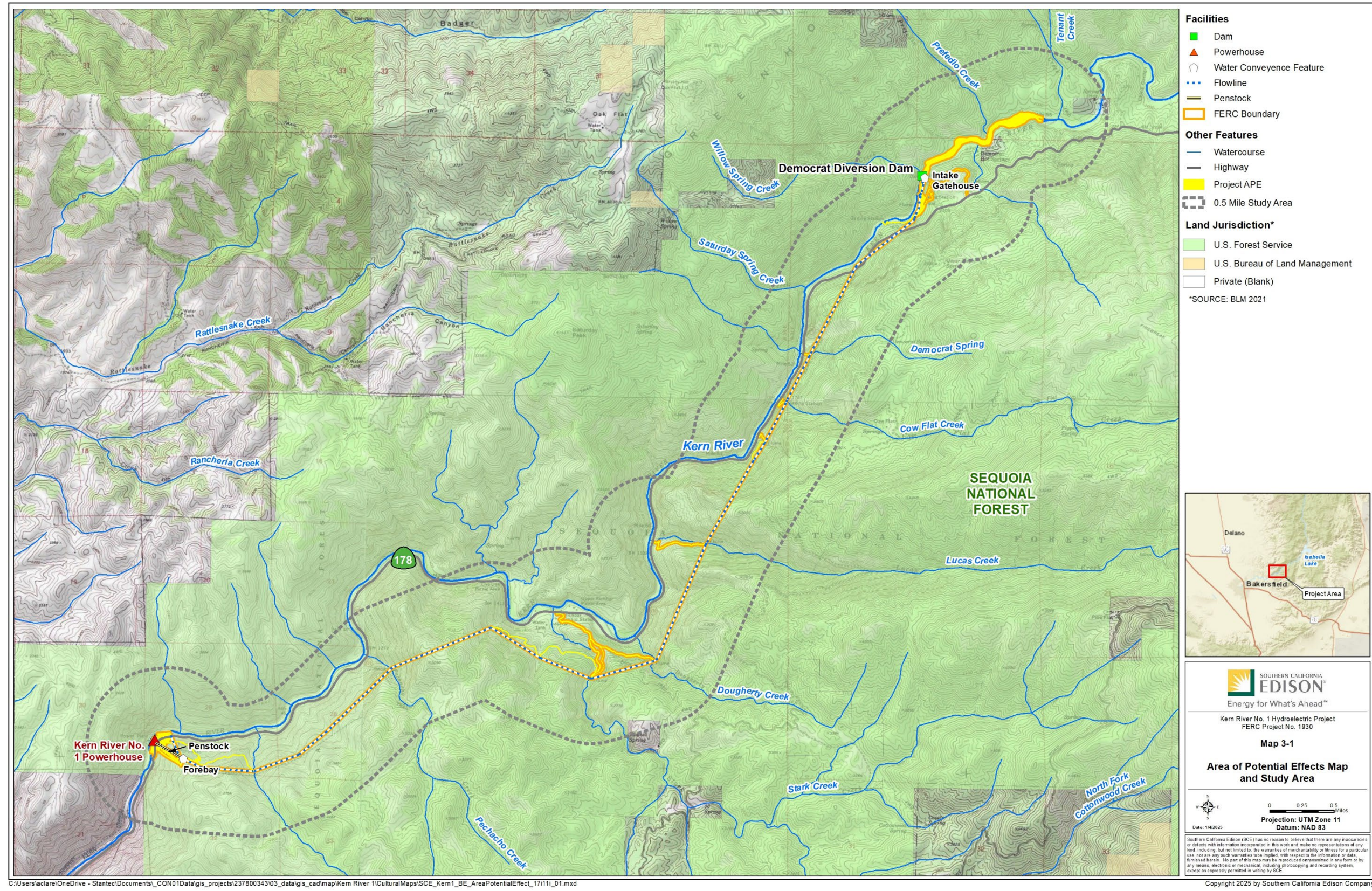
#### **4.2 REVIEW OF PREVIOUS STUDIES AND SITE RECORDS**

A review of previous investigations, survey reports, and site records was conducted to identify the methods and protocols that were used to inventory archaeological resources in the APE and whether there are previously identified archaeological resources that require updated documentation to align with current standards for adequacy.

#### **4.3 ARCHIVAL RESEARCH**

The background and archival research task included research at the repositories listed below to obtain additional information specific to the prehistory, ethnography, and history in the vicinity of the Project. This research builds upon the existing studies to support necessary NRHP evaluation of archaeological resources in the APE.

- Native American Heritage Commission
- Records from the Sequoia National Forest (SQF), Porterville
- Southern California Edison Archaeological Records
- Southern San Joaquin Valley Information Center, California State University, Bakersfield



Map 3-1. Area of Potential Effects and Study Area

## **4.4 ARCHAEOLOGICAL INVENTORY**

The archaeological inventory was performed to current professional standards, as defined in the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 190 p. 44716). Archaeological surveys on SQF lands were conducted under Organic Act permit number SQF03012018.

The surveys were conducted in July and November 2024. Ground-surface visibility in the APE was variable, ranging from 40 percent in riparian areas to nearly 100 percent visibility on exposed trails, slopes, and outcrops. In total, the current FERC Project boundary covers an area of approximately 141 acres. The archaeological crew surveyed approximately 90 acres for the Project. The remaining 51 acres were excluded for safety due to slope or impediment.

During surveys, archaeologists walked parallel transects spaced at no more than 15-meter (49.2-foot) intervals, as vegetation and terrain allowed. Representative photographs were taken throughout the APE, and Global Positioning System (GPS) data was collected to record the progress of the survey each day. Estimates of surface visibility, vegetation communities, and other physical attributes of the areas were also noted on the survey maps. Areas within the APE that could not be accessed in a safe manner (e.g., dense vegetation, slopes over 30 percent) were not included in the survey.

### **4.4.1 Recordation Methods**

All previously recorded cultural resources within or adjacent to the APE were revisited. Examination of these resources began outside of the designated site boundary, walking meandering transects spaced no more than 15 meters apart, and flagging any artifacts and features observed. If artifacts or features were observed beyond the previously mapped site boundary, crews continued their transects until they no longer observed cultural materials on the surface or if artifact densities dropped significantly. Existing site maps were used to verify archaeological features, which were then photographed and mapped via GPS along with temporally diagnostic artifacts. Sketch maps were assessed to determine whether they needed to be updated to reflect current site conditions or more modern recording methods (GPS).

In accordance with the SQF, new sites were fully documented following the recordation procedures outlined in Instructions for Recording Historical Resources (OHP, 1995) and using the appropriate California Department of Parks and Recreation (DPR) 523 series forms. The recordation of new sites included documentation, photographs, and GPS of all features, formed artifacts, and site boundaries. Additional artifacts, such as fragmentary glass or debitage, were roughly quantified and a representative sample assessed for additional information (e.g., glass color, flake type). Any site disturbances were noted and photographed as appropriate.

All artifacts identified during the field survey within previously recorded archaeological sites were left in place. No artifacts were collected during the inventory. Photographs were taken of all diagnostic lithic artifacts and a sample of temporally diagnostic historic-period artifacts identified at each site. These photographs are included in the updated California DPR 523 series forms.

## 5.0 RESULTS SUMMARY

As identified in Table 5-1, the surveys documented nine archaeological sites within the APE. Three of the sites were newly documented, while the remaining six were previously recorded. All archaeological sites are located on SQF land.

The sites within the APE consist of five precontact and four historic-period sites. The precontact sites consist of bedrock milling features, associated lithic scatters, and in one instance human remains (located outside the APE). Two of the four historic-period sites appear to be unrelated to KR1 development, maintenance, or use. The assessments of eligibility for inclusion in the NRHP are based on the results of the pedestrian survey. No subsurface investigations were completed during the 2024 inventory.

**Table 5-1. Previously Recorded Archaeological Sites within the Area of Potential Effects**

Primary No. (P-15-)	Trinomial (CA-KER-)	Forest Service No.	Age	Condition	Previous NRHP Recommendations (No SHPO Concurrence)	Current NRHP Status
<b>Within the APE</b>						
001928	1928	05-13-54-243	P	Fair	Recommended eligible as a district with other sites (White and Taylor 1984)	Unevaluated
001930	1930	05-13-54-246	P	Fair	Recommended eligible as a district with other sites (White and Taylor 1984)	Unevaluated
001936	1936H	05-13-54-240	H	Fair	Recommended probably eligible (White and Taylor 1984)	Unevaluated
001944	1944	05-13-54-254	P	Fair	Recommended eligible as a district with other sites (White and Taylor 1984)	Unevaluated
015663	8645H	05-13-54-839	H	Fair	Unevaluated	Unevaluated
020124	10997H	05-13-54-812	H	Poor	Unevaluated	Unevaluated

Key: H = Historic Period  
 NRHP = National Register of Historic Places  
 P = Precontact  
 SHPO = State Historic Preservation Officer



## 6.0 STUDY SPECIFIC CONSULTATION

The following study specific consultation has been conducted:

- SCE conducted a Cultural Technical Working Group (TWG) meeting on June 29, 2023 to provide an overview of the Project, review the existing information included in the Pre-Application Document, review the cultural and Tribal TSPs, and the study schedule.
- On July 16, 2024, SCE submitted a letter to the State Historic Preservation Officer (SHPO) requesting concurrence on the proposed APE for the Project. On August 30, 2024, SHPO sent a letter to SCE concurring on the APE.

This ITM will be distributed to the Cultural TWG for review and comment in January 2025.

## 7.0 OUTSTANDING STUDY PLAN ELEMENTS

The outstanding study plan elements include:

- Review of the ITM by the Cultural TWG and preparation of the Final Technical Memorandum.
- NRHP Evaluation
  - SCE shall utilize the results of the inventories to prepare, in collaboration with the SQF, Tribes, and other relicensing participants, an Evaluation Plan that will be executed to evaluate the eligibility of potential historic properties (in this case, archaeological sites) for the NRHP. The Evaluation Plan will include an assessment of past, present, and reasonably foreseeable Project effects on potential historic properties, and describe the methods of evaluation to be implemented. The Evaluation Plan will be submitted to the TWG, as appropriate, for review 30 days prior to submittal to the OHP.
- Historic Properties Management Plan
  - SCE anticipates FERC will enter into a programmatic agreement with the Advisory Council on Historic Preservation, OHP, and any other agencies or entities FERC elects to include. SCE anticipates that one of the programmatic agreement stipulations will be the completion and implementation of an HPMP during the new license term.
  - The HPMP will consider direct and indirect effects of continued Project operations and maintenance on NRHP-listed or eligible archaeological resources and will require avoidance and protection of specified resources, whenever possible. Processes and procedures will be developed for general and site-specific treatment measures, including minimization and mitigation measures to be taken should license implementation create unavoidable adverse effects to historic properties.

- Coordination with Other Studies
  - To the extent feasible, SCE will coordinate archaeological resources field studies with other Project-related environmental studies (e.g., built-environment resources, Tribal resources, and habitat surveys) and conduct them in a manner that does not affect other sensitive natural resources. When conducting archaeological resources or other investigations, SCE and/or their contractors should not violate other federal or state laws or regulations protecting natural resources, including but not limited to the Endangered Species Act and the Clean Water Act. SCE should consider that Tribes may utilize natural resources for subsistence or specific ceremonial uses and should avoid affecting those uses or events while conducting studies.

The anticipated schedule to complete the outstanding study plan elements are identified in Table 7-1.

**Table 7-1. Schedule for Completion of Outstanding Study Plan Elements**

Date	Activity
January 2025	Distribute ITM to TWG
February–April 2025	TWG review and provide comments on ITM
April–June 2025	Resolve comments and prepare Final Technical Memorandum
April–October 2025	Develop Draft HPMP
December 2025	Distribute Final Technical Memorandum and Draft HPMP in Draft License Application

Source: SCE 2024

Key: HPMP = Historic Properties Management Plan  
 ITM = Interim Technical Memo  
 TWG = Technical Working Group

## 8.0 REFERENCES

FERC (Federal Energy Regulatory Commission). 2024. Study Plan Determination for the Kern River No. 1 Hydroelectric Project. March 14.

SCE (Southern California Edison). 2023. Pre-Application Document for the Kern River No. 1 Hydroelectric Project (FERC Project No. 1930). May 5.

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