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LIST OF ACRONYMS

Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
FERC	Federal Energy Regulatory Commission
Forest Service	United States Forest Service
KRFF Club	Kern River Fly Fishers Club
KRFF Council	Kern River Fly Fishers Council
KV Indian Community	Kern Valley Indian Community
NGO	Non-governmental Organization
PAD	Pre-Application Document
Project	Kern River No. 1 Hydroelectric Project
SCE	Southern California Edison Company
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SWRCB	State Water Resources Control Board
USFWS	United States Fish and Wildlife Service

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4.0 PRELIMINARY ISSUES, DRAFT TECHNICAL STUDY PLANS, AND RELEVANT PLANS

4.1 INTRODUCTION

This section identifies preliminary issues, Draft Technical Study Plans, and comprehensive and resource management plans relevant to Southern California Edison Company's (SCE) Kern River No. 1 Hydroelectric Project (Project). The Federal Energy Regulatory Commission's (FERC) content requirements for this section are specified in Title 18 of the Code of Federal Regulations (CFR) Chapter I § 5.6(d)(4). Additional information regarding the formal study plan development and implementation process is provided in the Relicensing Process Plan and Schedule (Appendix A).

4.2 PRELIMINARY ISSUES

The Pre-Application Document (PAD) identifies for FERC and other entities existing, relevant, and reasonably available information pertaining to the Project to help identify issues and information needs; develop study requests and study plans; and provide the basis for analyzing potential Project impacts.

On July 21, 2022, SCE distributed a Project Information Questionnaire to more than 150 stakeholders, including Federal and state resource agencies, local governments, Native American Tribes, non-governmental organizations (NGOs), and other interested parties. The questionnaire requested assistance identifying existing, relevant, and reasonably available information to describe the environment in the vicinity of the Project; invited stakeholders to identify Project-related issues, concerns, or interests; and requested identification of data gaps or additional information needs for consideration during development of the relicensing studies. SCE asked that stakeholders return completed questionnaires by August 21, 2022.

SCE received responses from 11 stakeholders (refer to Appendix B in Volume 1, Book 2) including American Whitewater; California Department of Fish and Wildlife; Caltrans; Kern River Fly Fishers Council; Kern River Fly Fishers Club; Kern Valley Indian Community; National Park Service; State Water Resources Control Board; Tejon Indian Tribe; United States Fish and Wildlife Service (USFWS); and United States Forest Service (Forest Service). Table 4-1 identifies the general resource areas in which each questionnaire responder had Project-related concerns or interests. Table 4-2 provides a summary of specific resource issues, concerns, or interests identified by stakeholders in response to the questionnaire. Table 5-1 provides this information, as well as specific data requests identified by the stakeholders.

4.3 DRAFT TECHNICAL STUDY PLANS

Based on resources identified; availability of existing information; discussion with SCE personnel familiar with operation and maintenance of the Project; and responses to the Project Information Questionnaire (refer to Appendix B in Volume 1, Book 2), SCE developed the following 13 Draft Technical Study Plans for consideration in the relicensing proceeding. The overall objective of the Draft Technical Study Plans is to

address data gaps in existing information such that sufficient information is available to evaluate potential Project impacts in the License Application.

The Draft Technical Study Plans are organized into five major resource areas – Aquatic, Cultural and Tribal, Land, Recreation, and Terrestrial—as identified below. Refer to Appendix C (in Volume 1, Book 2) for Draft Technical Study Plans for the Project.

Aquatic Resources
AQ 1 – Hydrology AQ 2 – Water Quality/Water Temperature AQ 3 – Fish Population
Cultural and Tribal Resources
CUL 1 – Built Environment CUL 2 – Archaeology TRI 1 – Tribal
Land Resources
LAND 1 – Road and Trail Condition Assessment LAND 2 – Erosion and Sedimentation
Recreation Resources
REC 1 – Recreation Facility Condition Assessment REC 2 – Recreation Facility Use Assessment REC 3 – Whitewater Boating
Terrestrial Resources
TERR 1 – Botanical TERR 2 – Wildlife

4.4 RELEVANT QUALIFYING FEDERAL AND STATE COMPREHENSIVE PLANS

Section 10(a)(2)(A) of the Federal Power Act, § 803 (a)(2)(A), requires FERC to consider the extent to which a project is consistent with Federal and state comprehensive plans for improving, developing, and conserving the waterways associated with a project. In addition, 18 CFR § 5.6(b)(2) requires that a potential applicant exercise due diligence in determining what information exists that is relevant to describing a project’s existing environment, including review of Federal and state comprehensive plans filed with FERC and listed on its website.

The following describes the comprehensive plans that are relevant to the relicensing of the Project, based on a review of the FERC’s August 2022 List of Comprehensive Plans and a review of other relevant planning documents. The effects of the Project activities will be evaluated with respect to each of these comprehensive plans during preparation of the License Application. The purpose of the evaluation will be to ensure that operation and maintenance of the Project are consistent with the goals and objectives outlined in these comprehensive plans.

4.4.1 Documents Identified on FERC's List of Comprehensive Plans

The FERC's List of Comprehensive Plans (FERC 2022) includes 13 planning documents which are relevant to the Project. These plans, as cited in the August 2022 list, are identified below. In some cases, updated versions of these documents are available and these are noted below with an asterisk (*) and the updated document is noted for reference.

4.4.1.1 Federal Plans

- U.S. Forest Service. 1988*. Sequoia National Forest Land and Management Plan. Department of Agriculture, Porterville, California. March 1988.
 - Updated Version: U.S. Forest Service. 2022. Land Management Plan for the Sequoia National Forest, Pre-objection Version. Fresno, Kern, and Tulare Counties, California. Pacific Southwester Region. June. *Final anticipated end of February 2023.*
- U.S. Forest Service. 2004. Sierra Nevada Forest Plan Amendment, Final Supplemental Environmental Impact Statement Record of Decision. Pacific Southwest Region. Department of Agriculture, Vallejo, California. January 2004.
- National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.
- U.S. Fish and Wildlife Service. n.d. Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service. Washington, D.C.
- U.S. Fish and Wildlife Service. 1990*. Central Valley Habitat Joint Venture Implementation Plan: A Component of the North American Waterfowl Management Plan. February 1990.
 - Updated Version: Central Valley Joint Venture. 2020. Central Valley Joint Venture Implementation Plan. Sacramento, CA: U.S. Fish and Wildlife Service. Available from: www.centralvalleyjointventure.org
- U.S. Fish and Wildlife Service. Canadian Wildlife Service. 1986*. North American Waterfowl Management Plan. Department of the Interior. Environment Canada. May 1986.
 - Updated Version: U.S. Fish and Wildlife Service. Canadian Wildlife Service. SEMARNAP Mexico. 1998. Expanding the Vision, 1998 Update, North American Waterfowl Management Plan. Department of the Interior. Environment Canada. SEMARNAP Mexico.

4.4.1.2 State Plans

- California Department of Fish and Game. U.S. Fish and Wildlife Service. 2010. Final Hatchery and Stocking Program Environmental Impact Report/Environmental Impact Statement. Sacramento, California. January 2010.
- California Department of Fish and Game. 2007*. California Wildlife: Conservation Challenges, California's Wildlife Action Plan. Sacramento, California. 2007.
 - Updated Version: California Department of Fish and Wildlife. 2015. California State Wildlife Action Plan. Sacramento, California. 2015.
- California Department of Fish and Game. 2003. Strategic Plan for Trout Management: A Plan for 2004 and Beyond. Sacramento, California. November 2003.
- California Department of Fish and Wildlife. 2008. California Aquatic Invasive Species Management Plan. Sacramento, California. January 18, 2008.
- California Department of Parks and Recreation. 1998*. Public Opinions and Attitudes on Outdoor Recreation in California. Sacramento, California. March 1998.
 - Updated Version: California Department of Parks and Recreation. 2014. Survey on Public Opinions and Attitudes on Outdoor Recreation in California. January.
- California Department of Parks and Recreation. 1994*. California Outdoor Recreation Plan. Sacramento, California. April 1994.
 - Updated Version: California Department of Parks and Recreation. 2021. California's 2021–2025 Statewide Comprehensive Outdoor Recreation Plan (SCORP).
- California State Water Resources Control Board. 2018. Water Quality Control Plan for the Lake Tulare Basin. Sacramento, California. May 2018.

4.4.2 Other Relevant Management and Planning Documents

Six additional management / planning documents that are not included on the FERC's August 2022 List of Comprehensive Plans were also identified as being relevant to the Project. These documents are identified below.

4.4.2.1 Federal

- U.S. Forest Service. 2009. Sequoia National Forest Motorized Travel Management, Final Environmental Impact Statement, Record of Decision. Pacific Southwest Region, Sequoia National Forest. December 2009.

- U.S. Fish and Wildlife Service. 1996. Recovery Plan for the California Condor, Third Revision. April 1996.
- U.S. Fish and Wildlife Service. 1998. Recovery Plan for Upland Species of the San Joaquin Valley, California. Region 1, Portland, OR.
- U.S. Fish and Wildlife Service. 2002. Southwestern Willow Flycatcher Recovery Plan. Albuquerque, New Mexico.

4.4.2.2 Local

- Kern County. 2009. Kern County General Plan. Kern County Planning Department, Bakersfield CA. 2009.

4.5 REFERENCES

FERC (Federal Energy Regulatory Commission). 2022. List of Comprehensive Plans. August.

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TABLES

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Table 4-1. Summary of Resource Area Concerns or Interests Identified in Response to the Project Information Questionnaire

Resource Area	American Whitewater	CDFW	Questionnaire Respondent								
			Caltrans	KRFF Club	KRFF Council	KV Indian Community	National Park Service	SWRCB	Tejon Indian Tribe	USFWS	U.S. Forest Service
Aesthetics											
Botanical and Wildlife		X						X		X	X
Cultural						X		X	X		X
Fish and Aquatics		X		X	X			X			X
Geology and Soils					X			X			X
Geomorphology											X
Land Use											X
Power Generation					X			X			
Rare, Threatened, and Endangered Species		X						X		X	X
Recreation	X				X		X	X			X
Riparian and Wetland					X			X			X
Socioeconomics											X
Tribal						X			X		X
Water Quality					X			X			X
Water Use / Water Supply					X			X			X
Other		X	X		X						X

Acronyms:

Caltrans = California Department of Transportation
 CDFW = California Department of Fish and Wildlife
 KRFF Club = Kern River Fly Fishers Club
 KRFF Council = Kern River Fly Fishers Council
 KV Indian Community = Kern Valley Indian Community
 SWRCB = State Water Resources Control Board
 USFWS = U.S. Fish and Wildlife Service

Table 4-2. Preliminary Issues Identified in Project Information Questionnaire by Resource Area

Resource Area	Summary of Resource Issues / Areas of Concern
<p>Aquatic Resources</p> <ul style="list-style-type: none"> • Fish and Aquatics • Geomorphology • Rare, Threatened, and Endangered Species • Water Quality • Water Use/Water Supply 	<ul style="list-style-type: none"> • Project operations and/or maintenance activities may affect: <ul style="list-style-type: none"> – Native fish species – Native aquatic mussels – Rare, Threatened, and Endangered aquatic species – The streambed and watershed. • Impact of the dam on maintaining a sustainable fishery. • Project operations may have a negative effect on fish and aquatic resources and these effects may be exacerbated by climate change. • Project operations and/or maintenance could result in the spread or introduction of non-native invasive aquatic organisms (e.g., bullfrog, corbicula, crayfish). • Project operations may affect water quality (temperature, dissolved oxygen, and turbidity) which in turn may affect the abundance and diversity of aquatic resources. • Minimum instream flow must be sufficient to keep water temperatures low, maintain diverse mosaic of substrata, support fish, and provide appropriate seasonal variation in discharge. • Effects of water quality and quantity on sport fisheries, non-game fishes, aquatic invertebrates, and threatened and endangered resources. • Low flow conditions could exacerbate the growth of harmful algae or bacteria such as fecal coliform. • Water use and Project diversion create low water conditions that change the amount and quality of habitat for aquatic resources and create conditions in which harmful organisms flourish. • Maintenance of minimum instream flows to move sediment during pre- and post-fire conditions. • Erosion associated with Project facilities (e.g., erosion from the forebay spill channel). • Sandbox flushing operations at Democrat Dam have/could affect water quality.

Resource Area	Summary of Resource Issues / Areas of Concern
<p>Cultural Resources</p> <ul style="list-style-type: none"> • Cultural • Tribal 	<ul style="list-style-type: none"> • Project operations and/or maintenance could affect cultural resources of importance to tribal members. • Project operations and/or maintenance could affect cultural and tribal resources. • Designation of the Area of Potential Effect needs to encompass the actual geographic area where effects may occur, not simply the footprint of SCE facilities.
<p>Land Resources</p> <ul style="list-style-type: none"> • Aesthetics • Geology and Soils • Land Use • Socioeconomics • Power Generation 	<ul style="list-style-type: none"> • Clarification on why the dam is needed. • Environmental, recreational, and economic impacts from the flow on the lower Kern River to nearby towns (City of Bakersfield, Town of Lake Isabella, and Town of Kernville) and businesses. • Condition of Project roads; erosion issues; and road use, improvements, and long-term maintenance.
<p>Recreation</p>	<ul style="list-style-type: none"> • Safe river access • Reliable and predictable recreational flows below Democrat Dam. • Modern analysis of whitewater segments for all whitewater craft types and at various levels. • Project operations (i.e., flows) could affect the fish, wildlife, insects, and plants in the area that would in turn affect the fishing, boating, and angling, picnicking, and day use at recreation facilities. • Project operations and/or maintenance may affect recreation resources. • Effects of water quality and quantity on sport fisheries. • Water use and Project diversion create low water conditions that affect recreational opportunities.

Resource Area	Summary of Resource Issues / Areas of Concern
<p>Terrestrial</p> <ul style="list-style-type: none"> • Botanical and Wildlife • Rare, Threatened, and Endangered Species • Riparian and Wetland 	<ul style="list-style-type: none"> • Project operations and/or maintenance may affect Rare, Threatened, and Endangered botanical and wildlife species • Project operation and/or maintenance could affect botanical resources • Botanical resources (plants and riparian) along the river may be affected by flow manipulation (e.g., timing and magnitude) • Project operations could affect California sycamore (<i>Platanus racemosa</i>) that occurs along the river corridor and tributary canyons • Project operations and/or maintenance could result in the spread or introduction of non-native invasive species • Protocols for the prevention of the introduction and/or spread of non-native invasive species (boat washes, machine rinse stations, manual removal, etc.) • Pesticide use and application • Maintain flows (seasonal variation and discharge) sufficient to maintain natural riparian vegetation • Project operations and/or maintenance could result in disturbance of wildlife species • Wildlife entrapment at Project facilities (flumes) • Minimum instream flows must be sufficient to keep water temperatures low, maintain diverse mosaic of substrata, and support wildlife • Water use and Project diversion create low water conditions that change the amount and quality of habitat for wildlife and create conditions in which harmful organisms flourish