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Table 4-1. Preliminary Issues.

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

4.1 INTRODUCTION

This section describes preliminary issues and proposed Technical Study Plans, and identifies comprehensive and resource management plans relevant to the Kaweah Project (Project). The Federal Energy Regulatory Commission's (FERC of Commission) content requirements for this section are specified in Title 18 of the Code of Federal Regulations (CFR) Chapter I § 5.6(d)(4).

4.2 PRELIMINARY ISSUES

During early outreach activities, Southern California Edison Company (SCE) invited stakeholders to submit an interest statement to assist in the identification of preliminary resource issues related to the Project. Stakeholder interest statements were received from eight entities (Appendix B-3). Table 4-1 includes a summary of resource areas of concern presented by stakeholders. SCE refined these issues and described the nexus to the Project in the appropriate study plan.

4.3 PROPOSED TECHNICAL STUDY PLANS

The overall objective of the technical studies contained in the Pre-Application Document (PAD) is to develop sufficient information to evaluate potential Project impacts and to develop new license conditions that reasonably balance multiple resource interests. The first step in meeting this objective involved educating the stakeholders on the Project facilities and operations and soliciting and summarizing relevant existing resource information.

Beginning in 2015, SCE began early consultation with Federal and state resource agencies, non-governmental organizations, Native American tribes, and other stakeholders in preparation for the Kaweah relicensing. The intent of these early meetings was to identify potential stakeholders and understand their resource interests, explain the relicensing process, describe Project facilities and operations, and solicit existing resource information. Existing resource information relevant to the Project was acquired, compiled and summarized by SCE and provided to stakeholders in a series of draft Existing Resource Information Reports. These reports were intended to provide the foundation for understanding resources in the vicinity of the Project and for determination of additional information needs.

Based on resources identified and described in Section 3.0 and availability of existing information, SCE proposes 15 Technical Study Plans for the relicensing of the Project. The study plans are organized into five major resource areas – Aquatic, Cultural, Land, Recreation, and Terrestrial. Technical Study Plans for the Project are identified below.

Aquatic Resources	
AQ-1	Instream Flow Technical Study Plan
AQ-2	Fish Population Technical Study Plan
AQ-3	Macroinvertebrate Technical Study Plan
AQ-4	Water Temperature Technical Study Plan
AQ-5	Geomorphology Technical Study Plan
AQ-6	Water Quality Technical Study Plan
AQ-7	Special-status Amphibians and Aquatic Reptiles Technical Study Plan
AQ-8	Fish Passage Technical Study Plan
AQ-9	Entrainment Technical Study Plan
Cultural Resources	
CUL-1	Cultural Technical Study Plan
Land Resources	
LAND-1	Transportation Technical Study Plan
LAND-2	Visual and Noise Technical Study Plan
Recreation Resources	
REC-1	Recreation Technical Study Plan
Terrestrial Resources	
TERR-1	Botanical Technical Study Plan
TERR-2	Wildlife Technical Study Plan

SCE proposes to implement the study plans from 2017-2019, with all data collection methods and results provided to stakeholders in draft reports for review and comment. Comments provided by stakeholders will be addressed and incorporated into final reports. Specific timelines for completion of the draft and final reports are provided in each study plan, with the overall goal of providing stakeholders with timely information as studies are completed.

The following sections describe the overall content and organization of each study plan and other study plan components. The study plans were provided to stakeholders for review and comment in early 2016. Stakeholder comments were incorporated and the revised study plans are provided in Appendix C of this PAD with one exception, as described below.

4.3.1 Study Plan Request

BLM in their comments on SCE's proposed Technical Study Plans submitted a request for one additional study plan for the relicensing of the Kaweah Project. Specifically, the BLM requested that SCE conducted a study related to evaluation of rangeland resource use and opportunities in the vicinity of the Project (Appendix B-4). To clarify BLM's study

request, SCE and BLM discussed the study request in a teleconference call on May 24, 2016 and in meeting on August 18, 2016. Based on the study plan submitted by BLM and subsequent follow-up discussions, SCE believes that BLM's primary issues related to the Kaweah Project are:

- Damage to livestock fences on BLM property (grazing allotment) in the vicinity of the Kaweah No. 2 Flowline from perceived Project-induced recreation
- Use of the wildlife bridges by livestock
- Potential livestock mortality in the Kaweah No. 2 Flowline

SCE disagrees with BLM that the issues identified related to rangeland resource use and opportunities on BLM lands are related to operations and maintenance of Kaweah Project and, therefore, SCE does not propose to conduct the BLM-requested Technical Study Plan due to the lack of a Project nexus. Specifically, as identified in Map 3.10-3, the BLM lease allotment only intersects the project boundary along the Kaweah No. 2 Flowline at one location (basically at a corner of the existing BLM fence line). Per BLM, the party that obtains the grazing lease from BLM is responsible for maintaining the exclusionary fencing on the grazing allotment. BLM has not leased the allotment or maintained the fences for over 10 years leading to their current state of disrepair. SCE does not encourage or provide public access to the flowline. Access to the land adjacent to the flowline is under direct control of the existing private landowners. It is unreasonable for BLM to expect SCE to control public access on private property or maintain exclusionary fencing to reduce operational costs for a private party leasing grazing rights from the BLM.

The Kaweah No. 2 Flowline and associated wildlife bridges are Project components included in the FERC license. Use of bridges and escape ramps along the Kaweah No. 2 Flowline by wildlife and livestock will be evaluated in the TERR-2 Wildlife Resources Technical Study Plan proposed by SCE (Appendix C). Further, historic mortality of wildlife and livestock in the flowline will be summarized in the TERR-2 Wildlife Resources Technical Study Plan. Specific studies related to the BLM grazing allotment in the vicinity of the Kaweah No. 2 Flowline are not proposed given the lack of a Project nexus.

Livestock on the BLM grazing allotment do not have direct access to the Kaweah No. 2 Flowline or associated wildlife bridges if the BLM property is properly fenced. In addition, the Kaweah No. 2 Flowline in the immediate vicinity of BLM land consists of an elevated flume precluding livestock access.

The proposed BLM Technical Study Plan also requested information related to characterization of maintenance practices and responsibilities by SCE and measures to reduce or avoid impacts. The maintenance practices and responsibilities information can be found in the Project Description (Section 2.0) and a description of measure to reduce or avoid impacts will be developed as a part of implementation of SCE's REC-1 Recreation Resources Technical Study Plan.

4.3.2 Content and Organization of Technical Study Plans

The following presents the general content and organization of each individual Technical Study Plan contained in Appendix C:

- Potential Resource Issues – This section identifies the environmental or cultural resource issues that are specifically addressed in the study plan.
- Project Nexus – This section describes potential direct and indirect effects of Project operation and maintenance activities on environmental and cultural resources.
- Potential License Condition – This section identifies potential license conditions which may be necessary in the new license (based on the Project Nexus) that are directly influenced by information developed from implementation of the study plan.
- Study Objectives – This section describes the specific study objectives or goals of the study.
- Extent of Study Area – This section clearly identifies the limits of the study area based on the potential Project Nexus for each study plan.
- Study Approach – This section provides a detailed description of the study elements and methodologies proposed to meet each study objective.
- Schedule – This section presents a detailed schedule for implementation of each study, including data collection and stakeholder consultation, data analysis and report preparation, draft report distribution, stakeholder review and comment period, comment resolution, and final report distribution.

4.3.3 Other Technical Study Plan Components

The following section describes four additional technical study plan components that apply to all proposed Technical Study Plans. These components are not addressed individually within each Technical Study Plan provided in Appendix C. Additional information regarding the formal study plan development and implementation process is provided in the Relicensing Process Plan (Appendix A).

4.3.3.1 Consistency with Generally Accepted Practice in the Scientific Community

The proposed study methodologies (including data collection and analysis techniques, field schedules, and study durations) in the Technical Study Plans are consistent with generally accepted practice in the scientific community. The study plans were collaboratively developed with technical experts representing the licensee, Federal and state resource agencies, Native American tribes, non-government organizations and the public. Many of these technical experts have experience in multiple relicensing proceedings in California. The scope of each of the technical studies provided in the PAD are consistent with common approaches used for other relicensing proceedings in California and the nation and, where appropriate, reference specific protocols and survey methodologies.

4.3.3.2 Consideration of Level of Effort

As discussed above, the overall objective of the technical studies contained in the PAD is to develop sufficient information to evaluate potential Project impacts and to develop new license conditions that reasonably balance multiple resource interests. Proposed technical study approaches were evaluated first to verify that the desired information was focused on potential impacts associated with the Project (i.e., Project Nexus), second to confirm that the information collected would substantially influence decisions on new license conditions (i.e., clear linkage between information obtained and decision process), and third to substantiate that the study approaches and resulting level of efforts were consistent with generally acceptable practices in the scientific community. The Technical Study Plans included in the PAD meet these evaluation criteria.

4.3.3.3 Periodic Progress Reports

SCE has a well-defined process for the manner and extent information obtained during implementation of the Technical Study Plans will be provided to the stakeholders. Each proposed Technical Study Plan contains a detailed schedule for data collection and analysis, development and distribution of draft Technical Study Reports, and stakeholder review and comment. In general, a 90 day comment period is provided for stakeholder review of each draft Technical Study Report. An additional 60-90 day period has also been allocated in the schedule to resolve stakeholder comments on the draft Technical Study Reports and to develop and distribute the final Technical Study Reports.

In addition to the formal distribution of draft and final Technical Study Reports, SCE will also present an overview of the content and key findings of each Technical Study Report to stakeholders during regularly scheduled plenary meetings. The timing of these meetings will be emailed to stakeholders in advance and posted on SCE's relicensing website <http://on.sce.com/kaweah>.

4.3.3.4 Annual Study Plan Report and Meeting

Annually, during study implementation, SCE will file a study report with FERC and stakeholders describing overall progress in implementation of the study plans, including data collected to date, any deviations in technical approaches or schedules, and a proposed schedule for completion of the remaining study plan components. The study report will also include a description of any proposed modifications to the approved studies or new studies proposed by SCE.

Within 15 days following filing of the study report, SCE will hold a meeting with stakeholders and FERC to discuss the study results and SCE's or other participant's proposals, if any, to modify the study plans in light of the progress of the study plan and data collected. Within 15 days following the meeting, SCE will file a meeting summary, including any modification to ongoing studies or new studies proposed by SCE. The timing of these activities will be emailed to stakeholders in advance and posted on SCE's relicensing website <http://on.sce.com/kaweah>.

4.4 RELEVANT PLANS

Section 10(a)(2)(A) of the Federal Power Act (FPA), 16 U.S.C. section 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 projects existing environment, including review of Federal and state comprehensive plans filed with the Commission and listed on the Commission's website.

The following describes the comprehensive plans that are relevant to the relicensing of the Kaweah Project (Project), based on a review of the FERC's July 2016 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 as the relicensing process proceeds. 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 (July 2016) includes 11 planning documents which are relevant to the Kaweah Project. These plans, as cited in the July 2016 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 included for reference.

4.4.1.1 Federal Plans

- Department of the Army, Corps of Engineers. Sacramento District. 1996. Kaweah River Basin investigation: final feasibility report and final environmental impact statement. Sacramento, California. September 1996.
- Forest Service. 2004. Sierra Nevada National Forest land and resource management plan, amendment. Department of Agriculture, Vallejo, California. January 2004.
- Forest Service. 1988. Sequoia National Forest land and management plan. Department of Agriculture, Porterville, California. March 1988.
- National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.

4.4.1.2 State Plans

- *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 Water Resources. 1994. California water plan update. Bulletin 160-93. Sacramento, California. October 1994. Two volumes and executive summary.
 - Updated version: California Department of Water Resources. 2013. California Water Plan Update, Investing in Innovations and Infrastructure. Bulletin 160-13. Sacramento, California. October 2014.
- California State Water Resources Control Board. 1995. Water quality control plan report. Sacramento, California. Nine volumes.
- California State Water Resources Control Board. 2004. Water quality control plan for the Tulare Lake Basin. Sacramento, California. January 2004.
- State Water Resources Control Board. 1999. Water quality control plans and policies adopted as part of the State comprehensive plan. April 1999.

4.4.2 Other Relevant Documents

Eleven additional planning documents that are not included on the FERC's July 2016 List of Comprehensive Plans have also been identified as being relevant to the Project. These documents are identified below.

4.4.2.1 Federal

- Federal Energy Regulatory Commission. 1991. Environmental Assessment Federal Energy Regulatory Commission, Office of Hydropower Licensing, Division of Project Review Kaweah Project, FERC Project No. 298-000 – California. August 16, 1991.
- Federal Power Commission. 1966. Kern-Kaweah River basin, California. Planning Status Report. Water Resource Appraisals for Hydropower Relicensing. Bureau of Power, Washington D.C.
- United States Department of the Interior, Bureau of Land Management. 2014. Bakersfield Field Office Resource Management Plan. Bakersfield, California.
- United States Department of the Interior, Bureau of Land Management. 2010. Recreation Program Management, Bakersfield Office. Last updated November 22, 2010.
- United States Department of the Interior, Bureau of Land Management. 1997. Caliente Resource Management Plan. 1997.
- United States Department of the Interior, National Park Service. 2006. Final General Management Plan and Comprehensive River Management Plan, Sequoia

and Kings Canyon National Parks, Middle and South Forks of the Kings River and North Fork of the Kern River. November 2006.

4.4.2.2 State

- California Department of Fish and Wildlife. 2015. California Deer Conservation and Management Plan. Public Review Draft, March 2015.
- California Department of Forestry and Fire Protection. 2014. Tulare Unit Strategic Fire Plan.

4.4.2.3 Local

- Southern Sierra Regional Water Management Group. 2014. Southern Sierra Integrated Regional Water Management Plan. Prepared by Provost & Pritchard Consulting Group in cooperation with Sequoia Riverlands Trust, Kamansky's Ecological Consulting, and GEOS Institute. November 2014.
- Tulare County. 2009. Three Rivers Community Plan Draft. Tulare County, California.
- Tulare County. 2012. Tulare County General Plan 2030. Tulare County, California.

4.5 REFERENCES

Bureau of Land Management. 2014. Bakersfield Field Office Resource Management Plan. Bakersfield, California.

California Department of Fish and Game. 2003. Strategic plan for trout management: A plan for 2004 and beyond. Sacramento, California. November 2003.

_____. 2007. California wildlife: Conservation challenges, California's wildlife action plan. Sacramento, California. 2007.

California Department of Fish and Wildlife. 2008. California aquatic invasive species management plan. Sacramento, California. January 18, 2008.

_____. 2015. California Deer Conservation and Management Plan. Public Review Draft, March 2015.

California Department of Forestry and Fire Protection. 2014. Tulare Unit Strategic Fire Plan.

California Department of Water Resources. 1983. The California water plan: projected use and available water supplies to 2010. Bulletin 160-83. Sacramento, California. December 1983.

_____. 1994. California water plan update. Bulletin 160-93. Sacramento, California. October 1994. Two volumes and executive summary.

California State Water Resources Control Board. 1995. Water quality control plan report. Sacramento, California. Nine volumes.

- _____. 2004. Water quality control plan for the Tulare Lake Basin. Sacramento, California. January 2004.
- Department of the Army, Corps of Engineers. Sacramento District. 1996. Kaweah River Basin investigation: final feasibility report and final environmental impact statement. Sacramento, California. September 1996.
- Federal Energy Regulatory Commission (FERC). 1991. Environmental Assessment Federal Energy Regulatory Commission, Office of Hydropower Licensing, Division of Project Review Kaweah Project, FERC Project No. 298-000 – California. August 16, 1991.
- Federal Power Commission (FPC). 1966. Kern-Kaweah River basin, California. Planning Status Report. Water Resource Appraisals for Hydropower Relicensing. Bureau of Power, Washington D.C.
- Forest Service. 1988. Sequoia National Forest land and management plan. Department of Agriculture, Porterville, California. March 1988.
- _____. 2004. Sierra Nevada National Forest land and resource management plan, amendment. Department of Agriculture, Vallejo, California. January 2004.
- National Park Service. 2006. Final General Management Plan and Comprehensive River Management Plan, Sequoia and Kings Canyon National Parks, Middle and South Forks of the Kings River and North Fork of the Kern River. November 2006.
- _____. 1993. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.
- Southern Sierra Regional Water Management Group. 2014. Southern Sierra Integrated Regional Water Management Plan. Prepared by Provost & Pritchard Consulting Group in cooperation with Sequoia Riverlands Trust, Kamansky's Ecological Consulting, and GEOS Institute. November 2014.
- State Water Resources Control Board. 1999. Water quality control plans and policies adopted as part of the State comprehensive plan. April 1999.
- Tulare County. 2009. Three Rivers Community Plan Draft. Tulare County, California.
- _____. 2012. Tulare County General Plan 2030. Tulare County, California.
- United States Bureau of Land Management. 2007. Caliente Resource Management Plan. 1997.
- _____. 2010. Recreation Program Management, Bakersfield Office. Last updated November 22, 2010.
- United States Department of the Interior, National Park Service. 2006. Sequoia and Kings Canyon National Parks and Middle and South Forks of the Kings River and North Fork of the Kern River Tulare and Fresno Counties, California Final General Management Plan and Comprehensive River Management Plan/Environmental Impact Statement.

TABLES

Table 4-1. Preliminary Issues.

Stakeholder	Preliminary Resource Issues Identified or Areas of Concern
William and Anne Haxton	<ul style="list-style-type: none"> • Protection of Domestic Water Supply • Maintenance of Pre-1914 Water Rights
California Department of Fish and Wildlife	<ul style="list-style-type: none"> • Native Fish Populations and Habitats • Riparian Resources • Botanical and Wildlife Resources • Water Quality • Water Supply
Tom Sparks	<ul style="list-style-type: none"> • Power Generation • Recreation Resources
Jonathan and Holly Peltzer	<ul style="list-style-type: none"> • Protection of Domestic Water Supply • Maintenance of Pre-1914 Water Rights
Paul Doose	<ul style="list-style-type: none"> • Water Use • Riparian Resources • Botanical and Wildlife Resources
Ben Pena	<ul style="list-style-type: none"> • Protection of Domestic Water Supply • Water Use • Maintenance of Pre-1914 Water Rights
Ginger Curtis and Robert Ruehling	<ul style="list-style-type: none"> • Protection of Domestic Water Supply • Maintenance of Pre-1914 Water Rights
Sequoia and Kings Canyon National Parks	<ul style="list-style-type: none"> • Noise impacts associated with spills at the Kaweah No. 3 Forebay and helicopter use during operation and maintenance activities • Spread of non-native invasive plants • Protection of sensitive plant species • Protection of terrestrial species (around wildlife bridges) and raptors and other birds (around transmission lines) • Protection of existing and unidentified cultural resources • Use of outdated data/studies completed during previous relicensing • Erosion caused by overflows at the Kaweah No. 3 Forebay and other flowline breaches • Recreation opportunities • Management of 'volunteer' trails • Socioeconomic impacts/benefits of the Project • Evaluation of the Kaweah No. 1 facilities within SNP should remain part of the Project (Mineral King Dams) • Project effects on water temperature • Power generation and maintenance of minimum instream flows • Viability of the aging Project and resource impacts if upgrades are implemented • Costs associated with decommissioning