Lee Vining Hydroelectric Project

FERC No. 1388

Welcome!

Using the chat, please write your name, organization, and your favorite spring activity

Revised Technical Study Plan Stakeholder Meeting

March 28, 2022

Welcome and Land Acknowledgment

SCE would like to take a moment and recognize that the Lee Vining Project is located on the Mono Lake Kutzadikaa Tribes' traditional lands which they have stewarded for generations.

Safety Moment

Welcome and Introductions: Lee Vining Relicensing Team

SCE Team

Matthew Woodhall
Project Manager

Martin Ostendorf
Senior Manager

Audry Williams
Cultural Resources Manager

Seth Carr
Operations Manager

Lyle Laven
Production Manager

Consultant Team

Shannon Luoma
Project Manager

Finlay Anderson
Technical Advisor

Kelly Larimer
Project Director

Carissa Shoemaker
TWG Coordinator

Heather Neff
Aquatics Lead

Allison Rudalevige and **Steve Norton**
Terrestrial and Botanical Leads

Shelly Davis-King
Tribal Lead

Lynn Compas
Cultural Lead

Matt Harper and **Angela Whelpley**
Recreation and Land Use Leads

Study Plan Meeting Agenda

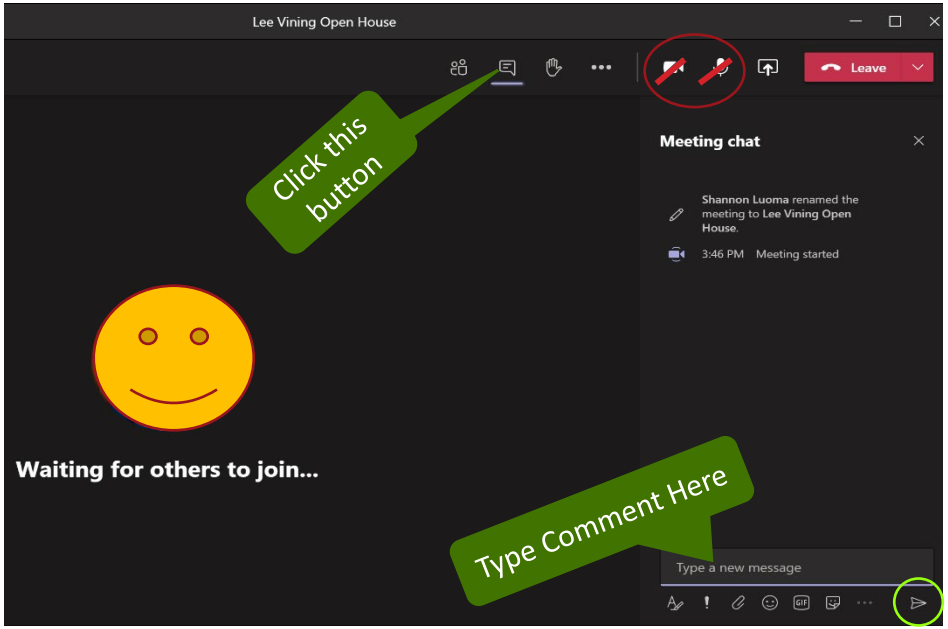
- Safety moment
- Welcome and Introductions
- Meeting objectives
- Review stakeholder comments on Study Plans
  - Aquatics
  - Terrestrial
  - Cultural and Tribal
  - Recreation and Land Use
- Schedule, next steps, action items
- Final questions

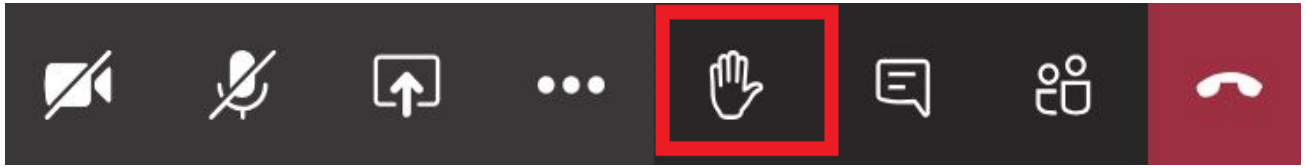
Meeting Objectives

- Review changes made as a result of comments received during FERC and Revised Study Plan comment periods
- Finalize Study Plans and shift to study implementation

Meeting Tips and Guidelines

- Please wait to be called on and then unmute your line
  - Introduce yourself (name and affiliation) prior to speaking
- Listen and respect each other
- Stay on topic
- Ask a question by typing it into the chat box during the presentation or by using the raise your hand feature





RELICENSING PROCESS OVERVIEW

Process Review

- Traditional Licensing Process (TLP)
  - Agency involvement in study plans typically ends with FERC comment period (after first stage of consultation)
  - SCE has added additional steps to maintain collaboration
    - 2021 TWG meetings
    - Complete Study Plans in PAD
    - After first stage consultation:
      - Revised Study Plans
      - Study Plan Meeting
- Dispute Resolution Process Exists
  - 18 CFR 16.8(b)(6)

Relicensing Schedule to Date (FERC)

Date	Activity
Week of Feb 22, 2021	Water Resources, Terrestrial, Botanical, Cultural, Tribal, Recreation and Land Use TWG meetings
Week of March 29, 2021	Water Resources, Terrestrial, Botanical, Cultural, Tribal, Recreation and Land Use TWG meetings
Week May 24, 2021	Water Resources, Terrestrial, Botanical, Cultural, Tribal, Recreation and Land Use TWG meetings
August 12, 2021	SCE Files PAD, NOI and Draft Study Plans
November 16, 2021	Joint Agency and Stakeholder Meeting (JAM)
January 18, 2022 **(End First State Consultation)**	FERC deadline for PAD comments, Study Plan Comments and new Study Plan Requests
Additional Consultation Outside of FERC Process	
February 18, 2022	SCE Files Revised Technical Study Plans
March 21, 2022	End of RTSP Comment Period

Upcoming Relicensing Process Schedule

Date	Activity
March 28, 2022	Study Plan Meeting with Stakeholders *(outside TLP)*
April 18, 2022	SCE Issues Final Study Plans for Implementation *(outside TLP)*
Spring – Fall 2022	Conduct Year 1 field studies
Spring – Fall 2023	Conduct Year 2 field studies, as needed
January 2023	Interim Study Report meeting *(outside TLP)*
September 2024	SCE Files Draft License Application
January 2025	SCE Files Final License Application

Revised Technical Study Plans

Fish, Aquatics, and Hydrology – Study Plans

- Stream and Reservoir Water Quality
- Reservoir Fish Populations
- Stream Fish Populations
- Aquatic Habitat Mapping and Sediment Characterization
- Aquatic Invasive Plants
- Lower Lee Vining Creek Channel Morphology
- Operations Model

Stream and Reservoir Water Quality

- Study Goal: assess whether Project waters are consistent with Basin Plan water quality objectives
- Reservoir temperature profiling and bacterial sampling will occur at all three project reservoirs
- *In situ* water quality sampling will occur at all three Project reservoirs and from 7 sites in Lee Vining Creek, and two sites in Glacier Creek, including the inflows to each Project reservoir
- Fish tissue mercury sampling will occur at Saddlebag and Tioga lakes
- Turbidity monitoring of hydro-resource optimization events will occur at one site downstream of Poole Powerhouse

Stream and Reservoir Water Quality

- Changes since PAD
  - Continuous turbidity monitoring downstream of Poole Powerhouse
  - Fecal coliform will be sampled at Project reservoirs near campgrounds, 5 times within a 30-day period
  - Sampling will occur at reservoir inflows
  - A second year of *in situ* and reservoir profiles will be performed if the water year type in 2023 differs from 2022
  - Fish tissue mercury sampling will occur in Saddlebag and Tioga lakes, but not Ellery
  - Water column mercury and methylmercury was not adopted.

Stream and Reservoir Water Quality

- Schedule

Date	Activity
2022/2023 – Spring/Fall	Conduct water quality fieldwork
2022 – Summer/Fall	Conduct fish tissue mercury fieldwork (AQ-1 Reservoir Fish Population)
2022/2023 – Winter	Analyze data and prepare draft report
2023 – January	Interim Study Report and Meeting
2023 – March	Distribute draft report to Stakeholders
2023 – April/May	Stakeholder review and provide comments on draft report
2023 – Fall	Resolve comments and prepare final report
2024 – September	Distribute final report in Draft License Application

Reservoir Fish Populations

- Study Goal: assess fish population densities, age-class distribution, and condition within Project reservoirs
  - Saddlebag Lake, Ellery Lake, Tioga Lake
- Sampling conducted with gill netting and boat electrofishing
  - Sampling once in summer or fall using variable-mesh gill nets at three locations per reservoir
  - Fish total length, fork length, weight, general condition
  - Fish age approximated from scale samples from up to 20 fish of each species

Reservoir Fish Populations

- Changes since PAD
  - Study revised to include nighttime rather than daytime boat electrofishing
- Schedule

Date	Activity
2022 – Summer–Fall	Conduct field surveys
2022/2023 – Winter	Compile study results, conduct analyses, and prepare draft report
2023 – January	Interim Study Report and Meeting
2023 – March	Distribute draft report to Stakeholders
2023 – April/May	Stakeholder review and provide comments on draft report
2023 – Fall	Resolve comments and prepare final report
2024 – September	Distribute final report in Draft License Application

Stream Fish Populations

- No changes since PAD

- Schedule

Date	Activity
2022 – Summer/Fall	Conduct field surveys
2022/2023 – Winter	Compile study results and prepare draft report
2023 – January	Interim Study Report and Meeting
2023 – March	Distribute draft report to Stakeholders
2023 – April/May	Stakeholder review and provide comments on draft report
2023 – Fall	Resolve comments and prepare final report
2024 – September	Distribute final report in Draft License Application

Aquatic Habitat Mapping and Sediment Characterization

- No changes or comments since PAD

- Schedule

Date	Activity
2023 – Summer/Fall	Conduct field surveys
2023/2024 – Winter	Compile study results and prepare draft report
2024 – September	Distribute final report in Draft License Application

Aquatic Invasive Plants

- No changes or comments since PAD

- Schedule

Date	Activity
2023 – Spring	Refine study sites
2023 – Summer/Fall	Conduct field surveys
2024 – September	Distribute final report in Draft License Application

Lower Lee Vining Creek Channel Morphology

- No changes since PAD

- Schedule

Date	Activity
2022 – Spring	Historical photograph and data review
2022 – Summer/Fall	Conduct field surveys
2022/2023 – Winter	Compile study results and prepare draft report
2023 – January	Interim Study Report and Meeting
2023 – March	Distribute draft report to Stakeholders
2023 – April/May	Stakeholder review and provide comments on draft report
2023 – Fall	Resolve comments and prepare final report
2024 – September	Distribute final report in Draft License Application

Operations Model

Goals/Objectives

- Understand how Project operations interact with Lee Vining hydrology; use to make informed decisions regarding the implementation of and results from other relicensing studies.
  - Accurately model the systems inflows, outflows, and generation nodes.
  - Align model with needs of other relicensing studies and information needs.
  - Develop procedures to configure model for alternative operational scenarios and document results.

Operations Model

- Determine effective operating limits the Poole Powerhouse to accurately represent installed and dependable capacity for licensing documents.
- Determine the frequency, magnitude, duration, and seasonality of intraday releases from the Poole Powerhouse in response to resource optimization needs.
- Describe the stage/discharge relationship at discreet locations between the Poole Powerhouse and the Los Angeles Department of Water and Power (LADWP) diversion.

Operations Model

Comments Received

- SWRCB inquired about anticipated time-steps for examining hydro-optimization releases from Poole Powerhouse
  - Anticipated to look at historical data on 1-hour time-step to align with available SCADA information
- CDFW provided suggestions on 3-25 regarding model configuration
  - Review of suggestions ongoing but appear to align with discussions from Bishop Creek PME experience.

Operations Model

- Schedule

Date	Activity
2022 – April	Revised study plan adding details and addressing CDFW comments
2022 – Summer	Data review (hydrology and SCADA)
2022 – Summer	Data collection for HEC-RAS component (downstream of Poole PH) coincident with channel geomorphology study
2022/2023 – Winter	Operations model for daily operations
2023 – January	Interim Study Report and Meeting
2023 – March	Distribute draft report to Stakeholders
2023 – April/May	Stakeholder review and provide comments on draft report
2024 – September	Distribute final report in Draft License Application

Questions?

Terrestrial, Botanical, Wetlands, and RTE Species – Study Plans

- Botanical Surveys at Project Facilities
  - RTE species surveys
  - Non-listed special status plant species
  - Invasive species surveys
  - Ground-truth existing USFS vegetation map
- Wildlife
  - General wildlife surveys
  - Yosemite toad surveys
  - Willow flycatcher habitat assessment

Botanical Survey

- Introduction
- Goals and Objectives
  - Document the presence of plant species listed by the federal and/or state ESAs or proposed for listing.
  - Document the presence of other special-status plants.
  - Ground-truth the existing USFS vegetation map, including identification of any sensitive natural communities.
  - Incorporate results of the riparian monitoring study undertaken as part of the existing license.
  - Perform a desktop characterization study of select riparian habitat area(s) to document potential changes resulting from hydro-resource optimization.
  - Document non-native, invasive plants.

Botanical Survey

- Changes since PAD
  - Botanical survey area extent will be developed as part of a desktop analysis to encompass areas that may be hydrologically influenced by proposed activities or that may be subject to proposed activities related to project O&M.
  - Added two Tioga Lake inlets and penstock dispersed use trail to botanical survey area.
  - Clarified botanical survey study methods.
  - Added a desktop characterization study to document general riparian conditions downstream of Poole Powerhouse.
  - Directly addressed relevant comments received in table at end of Study Plan.

Botanical Survey

- Schedule

Date	Activity
2022 – Spring	Select study sites Meeting with agencies and stakeholders Conduct desktop analysis
2022 – Spring/Fall	Conduct first season of field surveys
2022 – Nov/Dec	Compile study results
2023 – January	Interim Study Report and Meeting
2023 – Spring/Fall	Conduct second season of field surveys
2024 – March	Distribute draft report to Stakeholders
2024 – April/May	Stakeholder review and provide comments on draft report
2024 – September	Distribute final report in Draft License Application

Wildlife Survey

- Goals and Objectives
  - Build a species compendium of wildlife occurring within Project area.
  - Identify riparian birds during general wildlife surveys.
  - Identify YOTO breeding locations in areas subject to Project O&M.
  - Determine interactions between dispersed recreation and YOTO.
  - Develop sufficient data for informal and formal consultation needs for USFWS with respect to YOTO.
  - Assess willow flycatcher nesting habitat between the Poole Powerhouse and the reservoir at the LADWP Diversion Dam.

Wildlife Survey

- Changes since PAD
  - Added Tioga Lake inlets to YOTO survey area.
  - Increased YOTO focused surveys from 1 to 2 years.
  - Added review of mapped contours of Tioga/ Saddlebag Lakes to assess potential YOTO breeding habitat in the littoral zone.

Wildlife Survey

- Changes since PAD (cont.)
  - Added wildlife agency coordination for camera deployment locations (including INF and CDFW).
  - Stated that willow flycatcher habitat considered suitable will be explicitly identified in relevant reporting.
  - Clarified recreation-toad habitat study methods.
  - Directly addressed relevant comments received in table at end of Study Plan.

Wildlife Survey

- Schedule

Date	Activity
2022 – Spring	Select study sites Meeting with agencies and stakeholders Conduct desktop analysis
2022 – Spring/Fall	Conduct first season of field surveys
2022 – Nov/Dec	Compile study results
2023 – January	Interim Study Report and Meeting
2023 – Spring/Fall	Conduct second season of field surveys
2024 – Jan/Feb	Compile study results and prepare draft report
2024 – March	Distribute draft report to Stakeholders
2024 – April/May	Stakeholder review and provide comments on draft report
2023 – Fall	Resolve comments and prepare final report
2024 – September	Distribute final report in Draft License Application

Questions?

Cultural and Tribal – Study Plans

- Cultural Resources Study
  - Background Research
  - Pedestrian Survey
  - Archaeological Site Recordation and Evaluations
  - Built Environment Recordation and Evaluations
- Tribal Resources study
  - Background Research
  - Field Investigation with Tribal representatives
  - Interviews with Tribal representatives
  - Documentation and evaluation of Tribal resources

No comments received and no changes made to either study plan

- Implementation will begin in 2022.

Questions?

Recreation and Land Use Study Plans

- Recreation Use and Needs Assessment
- Recreation Facilities Condition Assessment
- Project Boundary, Lands, and Roads
- Visual Quality Assessment

Recreation Use and Needs Assessment

- Goals and Objectives

  Determine which INF recreation facilities or activities have a potential connection to the Project and thus would warrant inclusion in the broader studies proposed in the second study season

  For the study sites and activities identified:
  - Characterize existing recreation opportunities and visitation
  - Characterize existing visitor characteristics, needs, and preferences
  - Estimate current recreational fishing effort in Project creeks and reservoirs
  - Estimate future recreational demand and needs, including the need for additional recreation facility and access enhancements or enforcement actions
  - Assess consistency of current recreation opportunities with the Desired Conditions, Goals, Standards, and Guidelines described in the *Land Management Plan for the Inyo National Forest*

Recreation Use and Needs Assessment

- Changes since PAD
  - Added proposed user survey schedule/methodology for the 2022 study season
  - Updated proposed user survey schedule/methodology for the 2023 study season
  - Added spot count schedule and methodology

Recreation Use and Needs Assessment

- Schedule

Date	Activity
2022 – Spring/Summer	Conduct initial user surveys to determine primary reason for visit
2023 – January	Interim Study Report and Meeting
2023 – February	Consult with TWG to determine study sites and methods for 2023 field season
2023 – Spring/Summer/Winter	Conduct season two studies
2024 – March	Distribute draft report to TWG
2024 – April/May	TWG review and comments
2024 – September	Distribute final report in Draft License Application

Recreation Facilities Condition Assessment

- No changes since PAD
- Schedule

Date	Activity
2022 – Spring/Summer	Conduct initial user surveys under REC-1 to determine primary reason for visit; Conduct dispersed use assessment
2022 – Winter	Consult with TWG to determine study sites and methods for 2023 field season
2023 – Spring/Summer	Conduct facility condition assessment
2024 – Jan/Feb	Compile study results and prepare draft report
2024 – March	Distribute draft report to TWG
2024 – April/May	TWG review and comments
2024 – Summer	Resolve comments and prepare final report
2024 – September	Distribute final report in Draft License Application

Project Boundary, Lands, and Roads

- Identify whether additional Project lands may be needed for operation of the Project, including laydown and spoil areas, or whether current Project lands or facilities are no longer needed for Project operation
- Confirm existing land ownership and federal lands within the existing FERC Project Boundary are accurately represented
- Identify which roads or access trails are used for access to and maintenance of the Project, and identify existing agreements related to maintenance of those roads and access trails
- Inventory and assess the condition of those identified Project-related roads and access trails, including the potential need for improvements
- Identify for purposes of describing in the License Application all Project facilities and structures used for hydroelectric generation (e.g., buildings, roads, and spillways)

Project Boundary, Lands, and Roads

- Added new goal for the study
  - Identify for purposes of describing the License Application all Project facilities and structures used for hydroelectric generation (e.g., buildings, roads, and spillways)

Project Boundary, Lands, and Roads

- Schedule

Date	Activity
2022 – Spring/Summer	Conduct desktop analysis and interview SCE staff
2022 – Winter	Prepare initial findings
2023 – May	Compile study results and prepare draft report
2023 – June	Distribute draft report to TWG
2023 – June/July	TWG review and comments
2023 – Nov/Dec	Resolve comments and prepare final report
2024 – September	Distribute final report in Draft License Application

Visual Quality Assessment

- No changes since PAD

- Schedule

Date	Activity
2022 – Summer–Fall	Conduct field surveys/compile existing information
2023–February	Consult with TWG as needed
2023	Compile study results and prepare draft report
2024–March	Distribute draft report to TWG
2024–April/May	TWG review and comments
2024–July/Aug	Resolve comments and prepare final report
2024–September	Distribute final report in Draft License Application

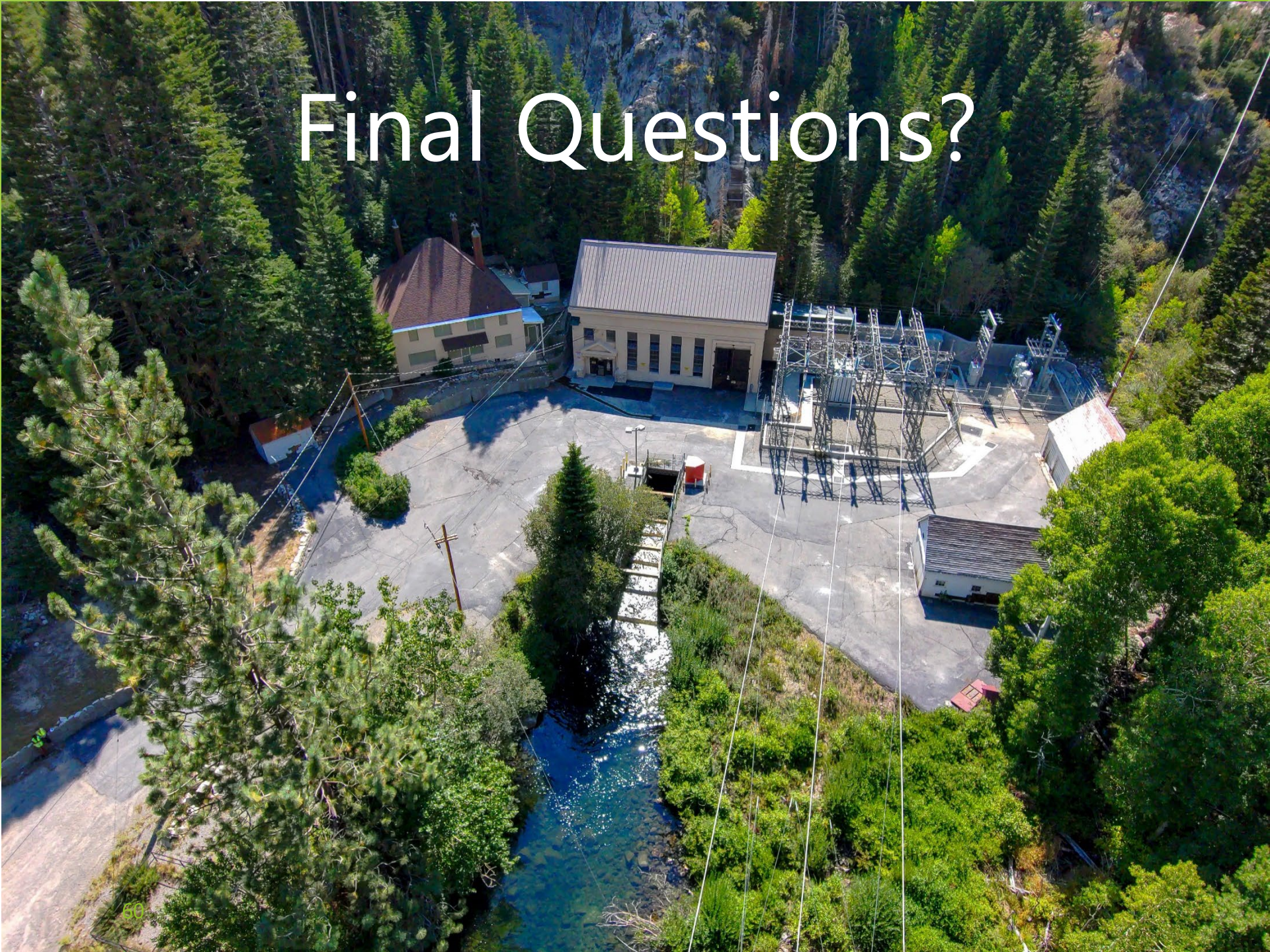
KOP = Key Observation Point; TWG = Technical Working Group

Questions?

How to Stay Involved

- Check the Project website for updates/news at www.sce.com/leevining
- You can view other SCE relicensing Projects at www.sce.com/regulatory/hydro-licensing
- Sign-up to receive Project-related emails through the Contact Registration Form/Project Questionnaire on the Project website
- Sign up for FERC's for e-subscription (docket number "P-1388") at www.ferc.gov
- Email Carissa Shoemaker with questions carissa.shoemaker@erm.com

Final Questions?



Thank you!