

**Southern California Edison Bishop Creek Project Relicensing  
Technical Working Groups  
June 4-7, 2018, Bishop, CA**

MEETING SUMMARY

Meeting Schedule

The June Technical Working Group (TWG) Field Visit and Resource Area Meetings were held over the course of three days, June 4, 5, and 7, 2018 according to the following schedule. The meeting summaries below are organized in the same order.

- June 4, 8 am – 4 pm, Field Visit Bishop Creek Project
- June 5, 9 am – 4:30 pm
  - Cultural Technical Working Group
  - Aquatic Technical Working Group
- June 7, 9 am – 5pm
  - Terrestrial Technical Working Group
  - Botanical Technical Working Group
  - Recreation & Land Management Technical Working Group

Objectives

All the technical working groups worked toward the same broad objectives, as follows:

- Establish existing environment, including knowns and unknowns
- Share potential resource topics and identify any additional study questions from stakeholders
- Discuss Project Nexus
- Establish clear understanding of schedule and next steps

Field Visit

Al Partridge, Southern California Edison (SCE), led the field visit. Participants stopped at South Lake and Lake Sabrina as well as each of the intakes and powerhouses to learn about project infrastructure and ask questions. The full itinerary, as well as adjacent recreation resources (e.g. campgrounds, boat launches), is listed in the agenda posted on the [website](#).

**Attendees**

BryAnna Vaughan, Bishop Paiute Tribe  
Brian Adkins, Bishop Paiute Tribe  
Tristan Leong, US Forest Service (USFS)  
Victor Aguirre Orozco, USFS  
Sheila Irons, USFS  
Todd Ellsworth, USFS

Kelly Larimer, Kleinschmidt  
Finlay Anderson, Kleinschmidt  
Brandon Kulik, Kleinschmidt  
Brad Blood, Psomas  
Edith Read, E Read and Associates  
Michael Donovan, Psomas

Jacqueline Beidl, USFS	Charles Cisneros, Psomas
Diana Pietrasanta, USFS	Matthew Woodhall, SCE
Blake Englehardt, USFS	Audry Williams, SCE
Kary Schlick, USFS	Stephanie Fincher, SCE
Nora Gamino, USFS	Al Partridge, SCE
Rose Banks, California Department of Fish and Wildlife (CDFW)	Samantha Nelson, SCE
Nick Buckmaster, CDFW	Martin Ostendorf, SCE
Chase Hildeburn, State Water Resource Control Board (SWRCB)	Bryan Baze, SCE
Erin Nordin, US Fish and Wildlife Service (USFWS)	Paul Schmidt, SCE
	Mike Harty, Kearns & West
	Terra Alpaugh, Kearns & West

## TWG Meeting Summaries

For consistency, the following summaries provide a list of meeting attendees and then are organized according to the following agenda items:

- Welcome & Introductions
- Discussion of Existing Environment/Identification of Gaps/Opportunities to Fill Gaps
- Preliminary Resource Topic Identification
- Schedule, Next Steps, Action Items

Within each subsection, discussion items are summarized, key questions are listed, and action items are noted with a tag [ACTION ITEM]. All action items are then listed at the end of the summary.

USFS, CDFW, USFWS, and SCE Operations Staff provided comments on the draft version of this summary. Where they provided factual corrections, those changes were integrated directly into the text. Where they provided opinions or policy approaches, their comments were incorporated as footnotes to the relevant part of the discussion.

### I. Cultural Resource Technical Working Group

#### Attendees

Tristan Leong, USFS	Matthew Woodhall, SCE
Victor Aguirre Orozco, USFS	Audry Williams, SCE
Sheila Irons, USFS	Stephanie Fincher, SCE
Jacqueline Beidl, USFS	Martin Ostendorf, SCE
Kelly Larimer, Kleinschmidt	Mike Harty, Kearns & West
Finlay Anderson, Kleinschmidt	Terra Alpaugh, Kearns & West
Charles Cisneros, Psomas	

#### Welcome & Introductions

Mike Harty, Kearns & West, opened the meeting by walking through the objectives; he highlighted SCE's desire to leave the meeting with a well-developed list of study questions.

Finlay Anderson, Kleinschmidt, explained that in a year SCE will initiate the Integrated Licensing Process (ILP) and ask the Federal Energy Regulatory Commission (FERC) to accelerate the study plan determination process. In order to justify the request, SCE is convening these TWG meetings to share information, understand resource agencies' management objectives as they relate to the project, and identify the project nexus of potential studies. He acknowledged that one of the major challenges for the cultural group will be ensuring appropriate engagement with local Native American tribes and other parties with interest in the project's cultural resources. SCE and the Forest Service will lead the engagement effort, and Finlay asked for the group's input on how best to involve local tribes.

Matthew Woodhall, SCE, welcomed attendees and explained how the SCE relicensing team is put together: the Kleinschmidt team is leading relicensing analysis and documentation; Kearns & West is providing facilitation and process support services including stakeholder engagement and public outreach. K&W is available as a resource for TWG participants to discuss any issues or concerns, particularly those they may not feel comfortable bringing directly to SCE or Kleinschmidt. Matt urged attendees to reach out to any member of the team – SCE, Kleinschmidt, or K&W – whenever they have questions or want to provide input during this process.

TWG attendees voiced the following questions and comments:

- Question (Q): USFS noted that the FERC relicensing process has not officially started; therefore, the deliverables and how to accomplish them are not pre-defined under FERC. USFS asked for clarification on SCE's expectations for this pre-process: What are SCE's views on building agreement? Are we trying to identify a suite of possibilities or something we all agree on? Will we be submitting studies jointly or separately? How should we structure our time?
  - Response (R): SCE clarified that they are electing a hybrid ILP process: steps that typically would occur after the filing of the Pre-Application Document (PAD) under the ILP are being taken in advance of filing the PAD. SCE will still have to go through the usual post-PAD FERC approval process, but they want to ask for an accelerated determination, in order to start studies as soon as possible.<sup>1</sup> This is intended to give them an additional year for studies.
  - SCE is seeking full agreement from the agencies on the study plans. They would like USFS to make the same filing as SCE – or alternatively, to provide a letter of support to include in the FERC documentation. SCE recognizes that there may be some disagreement at the time of the PAD filing; if there is disagreement on a particular study, the group can set it aside and go through the formal ILP process to resolve it.
  - SCE believes that these early discussions outside the rigid timeline of the standard ILP process will allow the TWGs to develop more focused studies that hone in on resource issues and in turn, will yield information needed for more effective PM&Es later.
  - [ACTION ITEM] Clarify the date of PAD filing for TWG participants.

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<sup>1</sup> USFS Comment: Please clarify what is meant by "as soon as possible". Perhaps a timeframe can be added?

Response: The Study Plan determination phase can typically take a full nine months. SCE's goal is to secure a determination within 3 months. It may be that FERC will issue a determination on some studies within that time-frame, but take more time to issue determinations on other study plans.

- [FOLLOW UP] SCE intends to file the PAD by March 31, 2019
- Q (USFS): USFS staff are committed to this process, but we have many competing priorities and need to know how to apply resources. It is important to realize that 100% agreement is an ambitious goal and may not be fully achieved. How is SCE documenting milestones?
  - R (SCE): Early outreach is intended to get SCE and the agencies most of the way toward agreement on studies and to avoid the ILP dispute resolution panel, if possible. The SCE team has drafted a charter with its goals for this process, which will be circulated to the agencies within the coming weeks. In order to help agencies plan, the SCE team will try to be explicit about deliverables and timelines.
- Q (USFS): If there is 100% agreement, does USFS have to produce its own study plan?
  - R (SCE): No, SCE will provide documentation of the TWG process; the USFS filing would note where it concurs with the SCE filing and provide supplementary information or commentary where there are items of disagreement.
- Q (USFS): How will all this be memorialized?
  - R (Kearns & West): All TWG discussions, including issues of disagreement, will be recorded in the meeting summaries. Meeting summaries will be provided to participants shortly after the meeting for review and comment before they are finalized.
  - R (SCE): When they file the PAD, SCE will include the study plans, consultation record, and a summary of any areas of disagreement.

#### **Discussion of Existing Environment/Identification of Gaps/Opportunities to Fill Gaps**

Charles Cisneros, Psomas, summarized the results of the records search from the Eastern Information Center (EIC): 198 cultural resources have been recorded within a 1-mile radius of the FERC boundary; 31 are located within the FERC boundary. These include both prehistoric features and historic resources associated with early mining sites and the hydroelectric system. One hundred five cultural resources surveys have been conducted within a 1-mile radius of the FERC boundary, 19 of these are located within the FERC Boundary. SCE plans to fill in data gaps with local searches of USFS and BLM records.

Audry Williams, SCE, noted that the original Historic Properties Management Plan (HPMP) included sites that are no longer within the FERC project boundary, i.e., since the transmission lines were removed from the FERC boundary. USFS asked that SCE clarify which lines were taken out of the FERC boundary, since not all of them were removed; the group agreed they cannot define the Area of Potential Effects (APE) until the project boundary is confirmed. [ACTION ITEM] Clarify FERC boundary and what has been removed.

Audry described her understanding that any line with [transmission poles adjacent to the powerhouse](#) remained part of the license, whereas any transmission [poles closer to the Control Substation](#) was removed from the project. \ It can be confusing because various power lines run along CA-168. [ACTION ITEM] Change the project description to include the actual SCE names of the transmission lines. [ACTION ITEM] Map transmission lines with nominal voltage. USFS referenced the [Project Description](#), which discusses sections that were removed from the project and, therefore, required a USFS special use permit (SUP). However, they noted that some of those areas may not be USFS land and would not require a SUP. [ACTION ITEM] Clarify where the various land ownership boundaries are.

There was discussion among USFS representatives about the merits of a broad resource management plan to direct how to deal consistently with cultural resources in the area – both inside and outside the project boundaries. One representative noted that they are currently working on a single plan for SCE and PG&E transmission and distribution facilities; another observed that in the absence of such a plan, the FERC license becomes the *de facto* operating plan. Audry explained that FERC has no authority outside the project boundary; therefore, a maintenance plan for historic structures in the FERC license is only applicable to structures inside the boundary.<sup>2</sup> They can use the same methodology to protect structures outside the boundary, but those structures cannot be included in the same plan. A USFS representative suggested a HPMP for everything within the FERC boundary and then SUPs for anything outside that. SCE explained that their environmental group reviews any work for compliance with existing management plans. [ACTION ITEM] SCE agreed to develop a written description of their internal review process.

Audry noted that management plan discussions will be appropriate later in the license process. Management plans are not included in study plans, but rather are a product of the studies. At present, the TWGs are focusing on identifying any potential data gaps.

### **Preliminary Resource Topic Identification**

Audry noted that many surveys have been done in the project area, but they have been done piecemeal over the past 30 years. The SCE team needs to determine what has been recorded and surveyed since the last relicensing and what is outstanding. They need to talk to tribes about any traditional cultural properties in the area. SCE and USFS agreed on the need for cultural resource studies, which at a minimum will include a built environment study (including the historic district), an ethnohistoric/ethnographic survey, and a new pedestrian survey of the FERC APE.<sup>3</sup>

SCE and the USFS identified open questions and action items:

- What was surveyed and when?
- What triggers the need for a new survey? What sites need to be re-evaluated?
- Within the historic district that was nominated, have we torn down some of those elements? What is the status of that evaluation? Reevaluate eligibility.
- Initiate a separate effort with tribes to have them identify traditional cultural properties (TCPs).

USFS requested that SCE put together a strawman study proposal that TWG members can review. Audry agreed but noted that all background information may not be compiled by August. Kleinschmidt described the August deliverable as an annotated study plan, including titles, methods, scope, and objectives; records searches at the local offices of the Bureau of Land Management (BLM) and USFS could happen at that time. USFS suggested that SCE look into language from pre-approved USFS study plans for SCE and other utilities to speed drafting and approval.

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<sup>2</sup> USFS Comment: This is technically incorrect. An HPMP for the project can extend beyond the licensed boundary to include Areas of Potential Effect.

<sup>3</sup> USFS Comment: It should be noted that we have not yet been able to fully define/agree upon the project APE. Generally we agree that it includes the official FERC boundary, but may include other areas where project impacts exist.

SCE Response: Comment noted

TWG attendees offered the following questions and comments:

- Comment (C): The USFS noted that the draft PAD section lists sites by their actual trinomials. Given the sensitive nature of cultural sites, SCE might not want to list those in a public document.
  - R (SCE): SCE agreed that they could remove the trinomials in this document, but that in the EIR/EIS, they will have to include details about the eligible sites for the public record.
  - C (USFS): USFS noted that, in those cases, they provide a summary without identifying details and then provide the supporting details in the consultation and analysis record. The key is making sure there is no locational record.
  - [ACTION ITEM] When SCE has tables of cultural sites, provide both the trinomial and the Forest Service numbers to ease cross referencing.
- Q (USFS): Do we expect the project boundary to change during this process?
  - R (SCE): The license includes any elements needed to operate the project. There are a few small areas currently outside the boundary that SCE is considering including (e.g. soil deposit areas, possible trail area).<sup>4</sup>
  - C (SCE): We could put in the APE statement that the APE will expand if the FERC boundary expands.
  - C (USFS): If we know what areas may be included, we should define our APE to include them. We want to ensure we have an accurate baseline.
  - C (SCE): At present, we are not proposing a major change to O&M or the project boundary; if there are any changes, we can do second year studies.
- Q (USFS): Would surveys be done in recreational areas next to the project boundaries, given people crossing back and forth and the fact that effects may be dispersed?
  - R (SCE): The APE is defined as the area of potential effects from operations, so those areas would not be included. We could still do a survey, it would just be separate.
  - R (SCE): Routine and non-routine maintenance are separate; non-routine maintenance (which might be done in the recreation areas) would be built into the HPMP to be dealt with on a case-by-case basis.<sup>5</sup>
- Q (USFS): How will you be capturing the indirect effects of the project?
  - R (SCE): We first have to define “indirect effect” for purposes of scoping these plans.
- C (USFS): The USFS will be evaluating plans according to the guidelines in their Forest Management Plan (both the 1988 version and the new draft plan).

### Schedule, Next Steps, Action Items

The group discussed the importance of engaging tribal representatives as early as possible. Outreach actions have been taken since late 2017 and will continue, through multiple paths. Interested parties

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<sup>4</sup> USFS Comment: It is important to note that at this stage we are looking at the scope of an existing project, but things may change in terms of operation for the future and we need to account or investigate potential future alternatives for management, etc. as part of any boundary adjustment.

SCE Response: Comment noted

<sup>5</sup> USFS Comment: The Forest Service believes operations would include recreation, not simply mechanical operations. If recreation impacts are project related to said areas, they need to be included in the APE.

SCE Response: Propose discussing in more detail in August relative to discussions of Project nexus.

may include the Big Pine Paiute, Bishop Paiute, Mono Lake Kutzadika'a (non-federally recognized tribe), Bridgeport Indian Colony, Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation, Fort Independence Indian Community of Paiute Indians, and Lone Pine Paiute-Shoshone Tribe. Both SCE and USFS will send letters to these tribes inviting their participation.

Action items include:

- Kearns & West will:
  - Recirculate meeting dates and milestones.
  - Clarify the date of PAD filing for TWG participants.
  - Send out new save-the-dates
  - Circulate charter document
  - Provide a draft letter to Audry and Jackie encouraging tribal involvement
- Kleinschmidt will:
  - Come up with a process for sharing information, particularly shape files.
  - Clarify FERC boundary and what has been removed.
  - Change the project description to include the actual SCE names of the transmission lines.
  - Map transmission lines with nominal voltage.
  - Clarify where the various land ownership boundaries are.
  - Draft and circulate annotated study plans and an updated PAD section in July
  - In tables of cultural sites, provide the trinomial, primary, and the USFS numbers to ease cross referencing.
- SCE will:
  - Develop a written description of their internal review process.
- USFS will:
  - Tristan Leong, USFS, will provide existing study plans to Jackie Beidl, USFS, to review and send to SCE.
  - Jackie Beidl will provide SCE with contact information for the Mono Lake Zecteca tribe.

## II. Aquatic Resource Technical Working Group

### Attendees

BryAnna Vaughan, Bishop Paiute Tribe  
 Tristan Leong, USFS (phone)  
 Sheila Irons, USFS  
 Linda Riddle, USFS  
 Todd Ellsworth, USFS  
 Kary Schlick, USFS  
 Nora Gamino, USFS  
 Chase Hildeburn, SWRCB  
 Nick Buckmaster, CDFW  
 Erin Nordin, USFWS

Kelly Larimer, Kleinschmidt  
 Finlay Anderson, Kleinschmidt  
 Brandon Kulik, Kleinschmidt  
 Edith Read, E Read and Associates  
 Michael Donovan, Psomas  
 Matthew Woodhall, SCE  
 Audry Williams, SCE  
 Stephanie Fincher, SCE  
 Vince White, SCE  
 Martin Ostendorf, SCE

Mike Harty, Kearns & West  
Terra Alpaugh, Kearns & West

### Welcome & Introductions

Mike Harty, Kearns & West, opened the meeting by walking through the objectives; he highlighted SCE's desire to leave the meeting with a well-developed list of study questions.

Matthew Woodhall, SCE, welcomed attendees and explained how the SCE relicensing team is put together: the Kleinschmidt team is leading relicensing analysis and documentation; Kearns & West is providing facilitation and process support services and is available as a resource for TWG participants to discuss any issues or concerns, particularly those they may not feel comfortable bringing directly to SCE or Kleinschmidt. Matt urged attendees to reach out to any member of the team – SCE, Kleinschmidt, or Kearns & West – whenever they have questions or want to provide input during this process.

Finlay Anderson, Kleinschmidt, reminded attendees that SCE plans to file the Pre-Application Document (PAD) in March 2019. Ideally, the PAD will contain a set of study plans that all parties support. This, along with letters of support from the agencies, would allow the Federal Energy Regulatory Commission (FERC) to accelerate their study plan determination process. Since it is possible there will be less than 100% concurrence, the consultation record will clearly identify where there are areas of disagreement that require further negotiation.

Finlay reviewed the slides on the FERC process and the purpose of studies from the March kickoff meeting (see Appendix A). Finlay noted that the Study Plans help FERC fulfill their National Environmental Policy Act (NEPA) responsibilities. Tristan Leong, USFS, clarified that the studies done as part of relicensing are intended to inform USFS staff whether proposed operations comply with the objectives in their Forest Plan; for Water Board staff the relevant guidelines are the Basin Plan and associated water quality standards. The studies can be used to establish a baseline for NEPA or the California Environmental Quality Act (CEQA), but that is not their primary utility for the USFS. Sheila Irons, USFS, added that the study results help them formulate their 4(e) conditions. Finlay noted that the various purposes of the study are reconciled in the FERC Integrated Licensing Process (ILP) Study Plan Criteria: each requested study must be supported by relevant resource management objectives from the requesting agencies or tribe.

### Discussion of Existing Environment/Identification of Gaps/Opportunities to Fill Gaps

Brandon Kulik, Kleinschmidt, explained that the team is still in the process of pulling together data on aquatic resources and expects to collect more data from CDFW soon. The aquatic species are primarily riverine, with some reservoir-based, and consist of wild trout populations and stocked hatchery fish managed by CDFW to support a heavily-harvested fishery.<sup>6</sup> There is a rich catalog of data from the 1980s

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<sup>6</sup> CDFW Comment: Missing from this statement are both Owens sucker (*Catostomus fumeiventris*) and speckled dace (*Rhynchithys osculus* sp.), both of which are native to part of the project area, and are impacted by current and historic project features (dams preventing fish passage, and dewatering). CDFW raised these in the initial kickoff meeting, and it is my understanding CDFW revisited them during the Aquatic TWG.



relicensing process and monitoring conducted every five years thereafter to assess the impacts of instream flows on biota. Brandon asked the group to focus on gaps in this record and identify opportunities to fill them.

Brandon walked through the sections of the [draft PAD](#), giving an overview of the Bishop Creek system. He started by describing the water budget for the drainage, in which flows (releases) peak in July and August ) and decline during winter months. Lake elevations in South Lake and Lake Sabrina are drawn down every spring in anticipation of snowmelt; currently, in June, they are in the process of refilling, and the volume of those reservoirs will provide supply for the rest of the year.

Water quality standards are based on the regional Water Quality Control Board Basin Plan. The Board has objectives for each unit and specific water quality standards for the lakes and Bishop Creek at Intake Two. Michael Donovan, Psomas, characterized the water quality as exceptional, because the water has no residence time and the bedrock does not dissolve readily. He noted that on the South Fork, the water contacts metamorphic carbonate rock, which slightly elevates its concentrations of bicarbonate. He also cited a study from the National Park Service that found very low trace heavy metals. The only water quality issue is the coliform and *E.coli* measured in a Sierra Nevada Aquatic Research Laboratory (SNARL) report; SNARL did not identify the source of contamination. [ACTION ITEM] USFS offered lake data (acid deposition)<sup>7</sup> sampled in the Wilderness area feeding into Bishop Creek in the mid-2000s. CDFW recommended the team reference USGS Stream Stats for calculating gradient along shorter reaches of Bishop Creek.

Next, Brandon described the meso-habitats available to fish: high gradient riffles, runs, and pools made of well washed substrates without much silt or sand – all of which support the trout fishery. As a whole, Bishop Creek is a nutrient-poor system, however there are dissolved solids available to support macroinvertebrate shell formation.<sup>8</sup> He cited a 1985 CDFW habitat assessment with good information on specific sub-reaches. Because of the minimum instream flows instituted in the last relicensing, there is now a significant amount of willow, pine, and other riparian vegetation that provide shelter for aquatic animals. The fishery in Lake Sabrina and South Lake is stocked weekly with 1,000-2,000 catchable-sized rainbow trout (totaling 700-1000 lbs). Brandon also noted the Owens sucker, a California Species of Special Concern and Forest Service Sensitive Species; Owens sucker were observed reproducing in Lake Sabrina near the dam during the site visit. Below Bishop Creek's steepest upper sections there is natural reproduction of brown trout.

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SCE Response: Comment noted, however Owens sucker is discussed further in the document. We will look again at speckled dace and add to Project documents. The team should have a discussion about whether these species are in-fact "native" to Bishop Creek and its tributaries as opposed being in the Project area. It may be worth discussing how to determine impacts of the Project, versus fisheries management such as introduction of trout

<sup>7</sup> CDFW Comment: If this is of interest, the California Air Resources Board has sponsored studies of water quality in potentially germane sites since the 1980s.

SCE Response: Comment noted and reference provided to water quality technical lead.

<sup>8</sup> CDFW Comment: This is speculative at this point. Many macroinvertebrate shells are comprised of chitin, a non-mineral protein that forms regardless of mineral content in the water.

SCE Response: Comment noted

TWG attendees asked the following questions and commented about potential gaps in existing information:

- Q (Water Board): The report says there is no agriculture or sewage discharges on the river. Is that correct?
  - R: On the North Fork, all the residents are tied into the USFS sewage treatment plan. On the South Fork, all residences are on septic tanks.<sup>9</sup>
- Q (CDFW): Why are Owens suckers only found in Lake Sabrina when their pelagic larvae pass through that dam and could be reproducing downstream? What is their distribution through the drainage?
- C (CDFW): In 2009 and 2010, monitoring showed wild brown trout (naturalized, not native) had decreased in density and biomass since the 2004 study. There was no follow-up monitoring in 2014-2015, so it is unclear whether conditions improved.
- Q (Bishop Paiute): Is there any information on the sediment budget over the years?
  - R (SCE): What we know is narrative: the sediment accumulates over years, and periodically SCE removes or flushes it, but the system is sediment limited. Monitoring reports state that fines and sands are scarce throughout the system. In this license, SCE would like to make removals more methodical.<sup>10</sup>
  - C (CDFW): The 1980s Dienstadt report does not refer to scarce sediment, so that could be a long-term project impact. Additional observations are that (1) Sediment scarcity was noted following implementation of current license concurrent with sediment removal by SCE. (2) Bishop Creek is not naturally a sediment starved stream according to the 1985 study. There is potential to allow sediment to move through the river system, rather than mechanically removing it from the system.
  - C (USFS): I'm not sure whether there is a project nexus, but there is a significant lack of data on sediment.
  - C (CDFW): Some of the old CDFW reports from the 1980s might quantify what percent sands you would see.
  - C (SCE): In the lower reaches that were dry, we now have vegetation which could reduce erosion and trap sediment, limiting a sediment source.
  - C (Bishop Paiute): The reservation has significant sediment slugs, so that sediment is coming from somewhere, possibly hillside erosion.
  - R (SCE): We could probably determine the source of that sediment by looking at SCE and LADWP maintenance timing. If the sediment flow is sustained, however, then it is not likely maintenance-related.
- Q (USFS): There probably was not much woody debris in the channel historically. What are your thoughts on woody debris in the system?

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<sup>9</sup> USFS Comment: The USFS sewage plant services all of the campgrounds that are located on the North Fork of Bishop Creek. The community of Aspendell is tied into this system and pays the Forest Service for its proportional use and operation of the sewage treatment plant.

SCE Response: Comment noted

- R (SCE): Fine debris/detritus levels appear low; larger pieces are inconsistent but do occur. Generally, we pull it out of the intakes and haul it off. We recognize that some wood can be a good thing to have.
- R (CDFW): Ecologically, letting larger debris move down river and slowly break up is important.
- Q (USFS): Is the unknown source of the fecal coliform a data gap? Because we do not know where it is coming from or if it is *de minimis*, we cannot get Water Board approval for USFS projects that might add to the fecal coliform.
  - Q (SCE): Are these recently elevated levels?
  - R (USFS): We're not sure the elevated levels are recent, but it is only recently that they have been affecting our permitting.<sup>11</sup>
  - R (SCE): A well at Plant 4 tested high for coliform for the first time ever six months ago. Could the two be related?
  - C (SCE): Bishop Creek is not on the list of 303d impaired water bodies for either the state or EPA.
  - C (Bishop Paiute): It is very close to being listed. Lahontan is doing their triannual review for water quality standards and starting efforts to establish best management practices (BMPs); if they don't, they have to establish Total Maximum Daily Loads (TMDLs) for pollutants. Phosphates and nitrates are increasing on the reservation; the problem is attributed to the area from Plant 6 to West Bishop and likely due to ruminant animals with some human sources. It is a topic of significant local interest.
- C (CDFW): Our Sacramento office has suggested we look at the unimpaired hydrograph for the system (e.g., what it would look like if the project did not exist) to put things in perspective.<sup>12</sup>
- C (Water Board): SCE can do pulse flows to remove sediment from the intakes. Currently, you need a Water Board permit to do those flows on a case-by-case basis. You could consider putting those maintenance flows into the license rather than doing one-off permits.
  - R (SCE): Good idea -- flushing flows are never used because we did not want to bother with a permit. We have used mechanical excavation of debris instead.

### Preliminary Resource Topic Identification

Brandon Kulik gave a presentation about the potential aquatic issues identified to date -- (1) instream flows (and the possible need for varied rather than flat minimum instream flows (MIFs)), (2) potential fish entrainment at various plants, and (3) fish abundance and distribution—and the past studies that could give the group some initial insight. For more detail reference the slides in Appendix B.

Brandon described how Instream Flow Incremental Methodology (IFIM) analyses using *Physical Habitat Simulation* (PHABSIM) modeling was used to establish the current minimum instream flow requirements during the last relicensing. This method did not prescribe a generic flow for the whole river; Bishop Creek was broken into 11 reaches based on topography and location of diversions, and data were collected at 105 transects. The model produced habitat suitability curves based on flow; each species

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<sup>11</sup> USFS Comment: SCE should perform a top down review sampling of fecal coliform from lake (headwaters) to the lowest portion to determine potential sources and nexus to project.

SCE Response: For discussion at August TWGs

<sup>12</sup> CDFW Comment: Vince White (SCE) indicated this would be easily incorporated.

modeled had a different set of curves. For most species, increased flows are associated with a rapid rise in suitability; at a certain point suitability levels off and then falls as flow continues to increase and water becomes too deep and fast. For the MIF for each transect, it appears that the previous relicensing stakeholders aimed to establish a “sweet spot” where most of the species were not gaining habitat with extra water (generally 12-18 cfs). Brandon acknowledged that this “blended data” approach was potentially less effective for some species where different flows are better for different life stages.

Brandon next described the entrainment study which collected dead fish in the tailraces of Plants 3 and 5 using nets. Sampling was done during spawning season when the most fish movement was anticipated. Very low entrainment was recorded during the study, and there were issues reported with intrusion into the nets by tailwater resident fish.

Post-license trout population monitoring was conducted from 1991 to 2006 and revealed relatively stable populations over time with growth rates comparable to other high elevation Sierra trout streams. Edith Read, a member of the Kleinschmidt team and part of the monitoring team, described the types of monitoring done since the last relicensing. She summarized the takeaways from the monitoring effort: habitat features, like pools, are scarce along the creek; there are greater differences in populations season-to-season than baseline compared to other years; after instream flows began in 1995, there did not appear to be significant differences in species growth and abundance; and in 2009-10, the average population density was lower but it was not understood why. The overall conclusion was that MIFS were beneficial for trout in Bishop Creek.<sup>13</sup> [ACTION ITEM] SCE hydrographers will look at the water years and project operations preceding 2009-10 to see if there are any flow-related clues to why population density might have decreased.

TWG attendees asked the following questions and made comments about potential study topics:

- C (CDFW): One hypothesis for why the brown trout population declined during the 2009-10 period: Streams are dynamic ecosystems; without fluctuations/suitable disturbance and sediment transport, fish suffer and aquatic habitat value diminishes.
  - C (SCE): The metrics we have were at five-year intervals and the last data point is almost ten years ago; populations could have bounced back since then.
  - C (CDFW): Yes, but last year’s high flows are also likely a confounding factor.
  - C (SCE): We can also look at how the powerhouses were operating around those years; if a powerhouse had an outage during an important period for fry, you could see a loss. Similarly, if we were coming off a dry year and had a flushing flow, it could explain a population dip.
- Q (Water Board): Is there any concern or non-concern about spawning and rearing habitat availability in the creek?
  - R (CDFW): No, the Dienstadt reports suggest the Creek generates a lot of young during the year.

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<sup>13</sup> CDFW Comment: This still remains to be evaluated, especially given the decline in the 2010 sampling, and the subsequent discontinuation of the sampling program by SCE. It also should be noted that the wild brown trout are not obtaining catchable sizes in Bishop Creek.

SCE Response: Comment noted; for discussion relative to proposed study plan.

- C (USFS): USFS would like to see (1) a study that looks at unimpaired hydrology compared to current conditions; (2) an operations spreadsheet model with all the inputs and outputs, limitations of the infrastructure, and contractual water rights obligations; and (3) a comprehensive inventory of fish abundance in reservoirs, as well as other aquatic species, including amphibians (looking at factors like age class structure, condition factor, and recruitment). We would also like to see the full IFIM study from the last relicensing; this might stimulate other questions about resources for fish – sediment availability, temperature, etc. Other items to consider are the implications of a warmer future on these species, with a focus on threatened and endangered (T&E) and special status species. [ACTION ITEM] Kleinschmidt to provide access to IFIM study.
- C (USFS): We are interested in aquatic invasive species beyond quagga and zebra mussels. There was a mention of high elevation lakes not providing habitat for those species; what elevation is that dividing line at? How do we monitor for these?
  - C (USFS): It is typical to include an invasive species management plan, including monitoring, active presence, and rapid response, as part of a license. It is especially important for a project that includes heavy traffic to have robust public information and outreach.
  - C (CDFW): There are mud snails at the lower end of the project (below, and possibly above, Plant 6).
  - C (SCE): We should look in Neil's old files; there is likely to be useful data on invasive species.
- Q (CDFW): Have you made a decision on whether to operate based on pre-climate change norms, or to manage Bishop Creek to mitigate for climate change?
  - C (USFS): You may need some more modeling; looking at the potential to build some flexibility into operations, with a focus on extremes rather than planning to the average.
  - R (SCE): Some of those scenarios are already built into operations; we would support more flexibility to allow us to deal with whatever nature brings.
- Q (CDFW): Would you consider seasonal flow variability in terms of MIFs (e.g., lower flows in winter and higher flows in the growing season could increase growth rates)?
  - R (SCE): As long as those meet the riparian objectives of the Forest Plan.
  - C (USFS): The new Forest Plan emphasizes desired conditions rather than hard objectives.
- C (CDFW): The trash racks are small. I'm not worried about entrainment.
- Q (CDFW): A lot of these studies seem like they could link to larger questions. How final are the study designs?
  - R (SCE): FERC will make a study plan determination, and each year, SCE will put out a study plan proposal and have a meeting to discuss whether studies need to be altered to provide more/different information. It is intended to be an adaptive process. This early outreach process will give us the opportunity for an additional year of studies if they are needed.

Together, the group listed potential study topics/information that would be helpful in understanding the system:

- Unimpaired hydrology, including annual snowpack data

- Ops/infrastructure model
- Contractual obligations and water rights
- Fish abundance and distribution data -- both reservoirs and wild fish component – what fish are where
- Reviewing IFIM study – what does it tell us and what questions remain outstanding
- Physical characteristics of streams
- Water Year classifications of streams, including climate change impacts on water supply (e.g., how will timing of peak flows influence your operations over the term of the license?)
- Invasive species
- Sediment issue
- Woody debris
- Fecal coliform and water quality

### Schedule, Next Steps, Action Items

Finlay asked for a copy of the new draft Forest Management Plan to help the team establish a project nexus for various studies. He suggested that USFS give a presentation at the August meeting on the current plan and the new draft plan and highlight significant differences. USFS noted that they do not have a timeline for the adoption of the new plan, so it could be before or after the relicensing. They also said that the riparian guidelines do not differ significantly between the two plans; there are not separate objectives for Bishop Creek.

Finlay explained that, following this meeting, the relicensing team will put together a first draft reasonable study questions and provide TWG participants time to respond (agreement, additions, etc.). He requested any additions be tied into a resource objective. [ACTION ITEM] Kleinschmidt will provide a study design template, so that any additions the agencies propose have the same format and content.

Action items include:

- Kearns & West will:
  - Remind SCE to fix the relicensing process link on the website.
  - Send out meeting invitations.
- Kleinschmidt will:
  - Draft and circulate annotated study plan in July.
  - Provide access to IFIM study.
  - Provide a study design template, so that any additions the agencies make have the same format and content.
- SCE will:
  - Hydrographers will look at the water years and project operations preceding 2009-10 to see if there are any clues to why fish population density might have decreased.
- USFS will:
  - Provide link to/copy of new draft Forest Management Plan
  - Provide lake data sampled in the Wilderness area feeding into Bishop Creek in the mid-2000s.

### III. Terrestrial Resource Technical Working Group

#### Attendees

Tristan Leong, USFS (phone)  
Sheila Irons, USFS  
Linda Riddle, USFS  
Todd Ellsworth, USFS  
Kary Schlick, USFS  
Rose Banks, CDFW  
Erin Nordin, USFWS

Kelly Larimer, Kleinschmidt  
Finlay Anderson, Kleinschmidt  
Brad Blood, Psomas  
Edith Read, E Read and Associates  
Matthew Woodhall, SCE  
Mike Harty, Kearns & West  
Terra Alpaugh, Kearns & West

#### Welcome & Introductions

Mike Harty, Kearns & West, opened the meeting by walking through the objectives; he highlighted SCE's desire to leave the meeting with a well-developed list of study questions. Meeting participants introduced themselves and their roles in the relicensing.

#### Discussion of Existing Environment/Identification of Gaps/Opportunities to Fill Gaps

Brad Blood, Psomas, introduced himself and explained that he has worked on Bishop Creek for 14 years and done biological surveys for all the projects done during that time. This experience has given him a good understanding of what biota are around every project facility. In general, they have not observed or recorded any threatened or endangered (T&E) species around the powerhouses and other facilities, which is where they surveyed. He noted that SCE has standard areas where they do work (e.g. stream entry, lay down points) and that approach will not change.

Brad provided participants with maps using CA Natural Diversity Database (CNDDDB) data on plant and animal species ranges in the area; he noted that the species on the maps were not separated into T&E versus sensitive, i.e., species of special concern. Yellow Legged Frog and Yosemite Toad do have critical habitat in the project area. Brad described the vegetation in the project area – pine forest around South Lake and Lake Sabrina with increasingly predominant sage scrub as the Creek falls in elevation.

Brad's analysis thus far, as detailed in the draft [PAD section](#), has been based on CNDDDB data, but he is interested in other databases and records that may detail species that do not show up in the database. Already, he has heard from CDFW and SCE staff that they have seen ringtail and wolverine in the project area, neither of which show up in the database.

TWG attendees asked the following questions and made comments about potential gaps in existing information, as well as resource concerns:

- Q (USFS): Have you evaluated whether Big Horn Sheep critical habitat intersects with the project?
- C (USFS): We have a list of forest sensitive species with known locations historically. [ACTION ITEM] USFS will share that list with SCE to evaluate whether there is any potential for Sheep to occur in the project area. We will also want to incorporate species of conservation concern from the new draft Forest Plan; they are largely the same as those listed in the old plan but include

more invertebrates. Once we determine which species could occur in the project area, we can focus on what we need to assess project impacts on that more manageable list.

- [ACTION ITEM] USFS will also provide a list of management indicator species to SCE. That list would not be important unless there is new construction, but SCE can include it in the PAD.
- C (USFS): We have three initial concerns: (1) We are not sure where goshawks are nesting; their numbers appear to have fallen off but since we are not sure where their nests are, we do not know whether people and noise could be disturbing them. USFS has a volunteer doing acoustic surveys, especially around Powerhouses 2 and 3 where there is good habitat, but they have not found anything. USFS requested that anyone surveying keep an eye out for them. (2) This is an area of frequent “bad” bear behavior. We need more education and facilities like bear boxes. CDFW’s Mike Morrison is a good resource. (3) There is a resident mule deer population in the area. Near South Lake the deer need to cross the road to get water and accidents occur. We are interested in researching mortalities there and whether the development of campgrounds and residents has contributed to the mortality of deer. We would also like to monitor the egresses SCE has built over the pipe. [ACTION ITEM] Provide GPS location of the pipe egress locations to Kary Schlick, USFS, and Mike Morrison, CDFW. There appeared to be a non-functioning guzzler at the crossing; would it be possible to make that operational again, so the deer would not have to cross the road for water?
- C (USFS): SCE should reference the High Sierra Soil Survey done in the mid-1900s, which covers the upper watershed (Langley area, above South Lake and Lake Sabrina). This survey was part of an initiative to map all the soils in the Ansel Adams and John Muir Wildernesses to National Cooperative Survey Standards by 2025; it looked at soil resources in relation to water management, fire management, erosion potential, and recreation potential, including suitability for trails. The survey could be on the NRCS website, and Inyo National Forest has copies in their office. [ACTION ITEM] SCE to retrieve High Sierra Soil Survey.
- C (USFS): When USFS evaluates facilities for special use permits, they look at the potential for entrapment and habitat use of structures. On the field visit, all the SCE facilities looked really clean, but we should evaluate. [ACTION ITEM] Kleinschmidt will check with SCE operations to see if they have noticed any animals using the powerhouses.
  - C (USFS): SCE should be aware that we are seeing high levels of hanta virus earlier than usual. It usually occurs in enclosed areas. [ACTION ITEM] Brad Blood will call Joe Burns for more information on hanta virus in the area.
- Q (USFS): What are your avian standards? Previously, when SCE did transmission projects, they were not were protective of raptors.
  - R (SCE): In the last five years, SCE modified its construction standards to meet avian protection needs. Once is it part of the standard, all groups build to those specifications. We now have reporting requirements for bird nests and activities along the power lines and SCE employees are trained on nest management. That avian protection document will be incorporated into the license.
- Q (USFS): I looked up critical habitat for Sierra Yellow Legged Frog (SYLF), Yosemite Toads, and Sierra Nevada Big Horn Sheep, but I could not tell whether it intersected with the project around McGee Lake. What are the habitat requirements for SYLF?



- R (Kleinschmidt): The boundaries of critical habitat may occur just west of Sabrina and South Lake but may not actually get into the Federal Energy Regulatory Commission (FERC) boundary. [ACTION ITEM] GIS staff will map the critical habitat.
- R (Kleinschmidt): SYLF live on the sides of streams and lay eggs in the river. Historically, they have not cohabitated with fish. They have been in the basin in the past, and we have records for them; likely they lived between South Lake and Dam 2 when there was water in it, and might have gotten down as far as Plant 4 and 5. However, we have no recent occurrences.
- C (USFS): Take note of Bd (chytrid fungus) in the area. Jim Herdman, CDFW's high elevation fish biologist is the best reference. [ACTION ITEM] Kary Schlick will send SCE a report on Bd.
- C (USFWS): SCE should look at USFWS species of conservation concern and species of special concern. FWS has a 7-year work plan that includes possible listing actions that will be under consideration during that time. SCE should keep wolverine on their radar. The FWS 1998 Owens Basin Aquatic Recovery Plan includes listed species and non-listed species they are watching closely; the Owens sucker is likely the only one that would occur in this drainage.
- Q (USFWS): Have there been significant bird surveys in this area, particularly for Willow Flycatchers or Least Bell's Vireo? These could be important to look at, particularly in the context of a 40-year license.
  - R (Kleinschmidt): There are not many comprehensive bird surveys. We would like input.
  - R (USFWS): SCE might use data from some of the birding apps like eBird. There is a robust birding community in the area. Tom and Joe Heindel out of Big Pine do birding surveys and keep records of bird throughout Inyo County.

### Preliminary Resource Topic Identification

Together, the group reviewed potential study topics/information<sup>14</sup> that would be helpful in understanding the system:

- Goshawks appear to be becoming increasingly rare in this drainage<sup>15</sup>
- Bad bear behavior
- Mule deer crossings and traffic mortality – could track using Inyo County and CalTrans data; evaluate potential to reinstate use of guzzler
- Look at MIS species, FS sensitive species -- do preliminary assessment of which of these species could be in the area
- Look at USFWS 7-year work plan for species considered for listing
- Look at 1998 Owens Recovery Plan
- High Sierra Soil Survey
- Evaluate facilities in terms of entrapments/use by wildlife
- Incorporate corporate avian plan into license

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<sup>14</sup> USFS Comment: Consider collating all of this requested information into two potential studies: 1) T&E and Special of Concern/Special Status; and 2) Terrestrial wildlife and habitat survey

SCE Response: For discussion at August TWG meeting

<sup>15</sup> USFS Comment: There has been minimal monitoring of Goshawks over the years. Need thorough nest and ground surveys.

SCE Response: For discussion at August TWG meeting

- Incorporate critical habitat on maps
- Look in wolverines
- Bolster bird survey data with an emphasis on nesting birds

Finlay Anderson, Kleinschmidt, reminded the group to continue thinking about project nexus (i.e. what part of the system is there because SCE facilities are there) as they think about resource studies.

Brad Blood noted that there may be missing data for terrestrial resources, which is largely what discussions focused on today. Their surveys have identified species around the facilities, but there is a dearth of data in between. They may want to fill in those empty spaces. Once they have all the data in August, they can have a more focused discussion to evaluate what studies might be needed based on project nexus. SCE largely controls its operations to very specific areas around the powerhouses, intakes, and dams; muck drops are negotiated with USFS and in consistent locations. For resource studies, the focus will be on where natural resources overlap with those facilities. [ACTION ITEM] SCE will provide a clear description of project operations and routine O&M.

### Schedule, Next Steps, Action Items

Action items include:

- Kearns & West will:
  - Send out meeting invitations.
- Kleinschmidt will:
  - Retrieve High Sierra Soil Survey from USFS
  - Check with SCE operations to see if they have noticed any animals using the powerhouses.
  - Brad Blood will call Joe Burns for more information on hanta virus in the area.
  - Brad Blood will send his list of questions to Kary Schlick, Erin Nordin, Blake Engelhardt, Nick Buckmaster, and Rose Banks.
  - GIS staff will map the critical habitat for Big Horn Sheep, SYLF, and Yosemite Toad.
  - Draft and circulate annotated study plans and updated resource sections in July.
- SCE will:
  - Provide GPS location of the pipe egress locations to Kary Schlick, USFS, and Mike Morrison, CDFW.
  - Provide a clear description of project operations and routine O&M.
- USFS will
  - Share list of Forest Sensitive Species with known locations historically and Species of Conservation Concern in the draft Forest Plan with SCE.
  - Kary Schlick will send SCE a report on Bd
  - Provide a list of management indicator species to SCE.

## IV. Botanical Resource Technical Working Group

### Attendees

Tristan Leong, USFS (phone)

Kelly Larimer, Kleinschmidt

Sheila Irons, USFS  
Todd Ellsworth, USFS  
Blake Englehardt, USFS  
Kary Schlick, USFS  
Nick Buckmaster, CDFW

Finlay Anderson, Kleinschmidt  
Brad Blood, Psomas  
Edith Read, E Read and Associates  
Matthew Woodhall, SCE  
Mike Harty, Kearns & West  
Terra Alpaugh, Kearns & West

### **Welcome & Introductions**

Mike Harty, Kearns & West, opened the meeting by walking through the objectives; he highlighted SCE's desire to leave the meeting with a well-developed list of study questions. Meeting participants introduced themselves and their roles in the relicensing.

### **Discussion of Existing Environment/Identification of Gaps/Opportunities to Fill Gaps**

Edith Read, E Read and Associates and member of the Kleinschmidt team, described the history of riparian monitoring at Bishop Creek (see slides in Appendix C). In the late 1980s, SCE was anticipating a new license and initiated the monitoring program outlined in the license by selecting initial sites. She described their effort to include testing sites that would be insensitive to changes in flow as well as those with greater sensitivity to changes in flow. Each "site" is a reach made of four to five transects, spaced 10 meters across (with the exception of Reach 4, which is divided into two subplots). She clarified that the Instream Flow Incremental Management (IFIM) Study also had reaches but those do not correspond exactly.

Edith described the varied conditions in the reaches, from "gaining reaches" where water is added via groundwater seepage to "losing reaches" where water sinks into the glacial alluvium and, prior to instream flow releases, typically did not support riparian vegetation. She described the types of data they collected at each site, including data on geomorphology, hydrology (e.g. precipitation, stream stage, soil moisture, groundwater depth with distance for stream vs. stream stage), and vegetation. They recognized that each transect of the site might not be representative of the entire site, so they walked the entire site to do a species inventory.

The monitoring team did pre-instream flow baseline monitoring at all sites (1991-1993) and then monitored again every five years thereafter to assess the results to date in relation to the license goals for riparian conditions. In 2011 they had a meeting to assess results to date in relation to license goals, and in 2013 revised the monitoring program with an emphasis on crisply articulating their goals and making monitoring metrics more meaningful.

Next, Edith reviewed the handout, derived from the draft [PAD section](#), which summarized the plant communities present in the project. She noted that it is difficult to define communities in the area because they tend to be intermingled. The handout also provides a table with special status plants based on the California Natural Diversity Database (CNDDDB); they did not find any of these plants in the monitoring sites, but there are records of them appearing in other parts of the project. They have done botanical surveys around the facilities before any project work is done, but those only cover the project area with a small buffer as opposed to a full transect and have not been done system-wide. She added that they may want to add Forest Sensitive Species to the list on the handout.

TWG attendees asked the following questions and offered comments about potential gaps in existing information as well as resource concerns:

- C (USFS): It might be useful to add some higher elevation plant communities to your list.
- Q (CDFW): Over the last couple years, black cottonwood cover has decreased. Is that something to be worried about?
  - C (USFS): We would be interested to see if there is a trend there.
- Q (CDFW): Is there a data gap on percentage of woody riparian recruitment versus clonal growth?
  - R (Kleinschmidt): Data shows more clonal recruitment than seeding.<sup>16</sup>
- C (USFS): There will be a new list of special status species with the new Forest Plan. Your list contains everything that is known, but there are some new species that *could* occur in the project area.
  - R (Kleinschmidt): To clarify, when rare plant surveys are done, they are holistic – they do not just focus on what we think is there. We will look at draft plans and identify new species.
- C (USFS): USFS discussed their concerns with noxious weeds, including:
  - Locust and cheat grass: Locust is present below Plant 4 and in Bishop and is an extremely competitive plant that could take over riparian zone.
  - Knapweed infestation near Aspendell, in the upper end of Bishop Group Campground, and possibly around the highway.
  - Cardaria near Plant 4; it could pop up at any facility with lots of traffic.
  - Interested in robinia, which was evident near a couple of the powerhouses; not sure if it is spreading from below or somewhere else.
  - USFS has a prioritization list of species they always treat, followed by more ubiquitous, less prioritized species. SCE should develop a relicensing strategy for invasive species that has prioritization.
  - It would be great to make a map like the CNDDDB ones of plants and animals using CalWeed or USFS weed data.
- Q (CDFW): Are there any restrictions on landscaping plants that can be put in at SCE installations?
  - R (SCE): No.
  - C (CDFW): Deodar cedars appear to have moved into the ditch and may have originated at the plant housing. Control of cedars may be appropriate and should be evaluated.
- Q (USFS): We are interested in vegetation management. Where does that fit into the Technical Working Groups?
  - R (SCE): We do veg management along access trails; we could blend those activities with invasive species management.
  - R (SCE): After the fire on Birch Creek we saw cheat grass explode. Since then we have tried to be cognizant of cleaning shoes and tires so we do not cross-contaminate areas. Many of these are practices we can do better, such as scheduling

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<sup>16</sup> USFS Comment: State answer suggests flow regime likely contributor to clonal growth (i.e. no disturbance/infrequent disturbance from flow regime).

SCE Response: Comment noted.

maintenance/monitoring around the lifecycles of the plants. SCE has the bones of a vegetation and weed management program, and we can incorporate some of these elements.

- Q (Kleinschmidt): Does the USFS have maintenance standards for their concessionaires?
- R (USFS): Yes, we have standards that we refresh at each renewal; for general veg management there are things concessionaires have to check in with us about.
- Q (USFS): Do SCE O&M staff visit multiple projects in the area?
- R (SCE): Yes, most staff serve all four Mono Basin projects. However, the contractors bring their own equipment, and it is standard to clean it before visiting a new site.
- C (Kleinschmidt): We should keep in mind that what we consider noxious may change over 40 years.
- Q (USFS): SCE should describe routine O&M procedures with regards to riparian vegetation in the PAD, as well as levels of fuel in the project vicinity and fire recurrence intervals. With all the historic photos, would it be possible to characterize whether speciation/vegetation has changed?
- C (USFS): SCE should look at the National Riparian Protocol System developed by the USFS Stream Team, a generally accepted protocol for riparian monitoring. [ACTION ITEM] USFS to share National Riparian Protocol System.

### **Preliminary Resource Topic Identification**

Together, the group reviewed potential study topics/information that would be helpful in understanding the system:

- Add to noxious weed list, focusing on noxious high priority species at this juncture but including species that aren't here now but could move in during license term
- Consider restrictions on landscape plants around powerhouses
- Enhance vegetation management practices to make sure we are not transporting invasives and thereby exacerbating existing issues
- Sensitive/rare plant list – incorporate USFS species of concern/management interest
- Get more info on distribution on *Robinia* (e.g. locust trees) and cedars
- Look at data on woody riparian recruitment and possible decline in cover of black cottonwood

### **Schedule, Next Steps, Action Items**

Kleinschmidt will draft and circulate annotated study plans and updated resource sections in July. USFS clarified that they hope those sections will include descriptions of species and invasives, upland habitat types and animals using those habitats, and temporal and spatial distribution of culturally, commercially, and recreationally important species. USFS also noted that the general contents of the PAD include the current license, summary of generation and outflow records, summary of compliance, and how SCE met conditions of the existing license. Finlay asked the group how useful those elements would be to TWG participants in thinking about resource questions/responding to a proposed study list. If the groups want that information, Kleinschmidt will accelerate the drafting of those sections. He suggested people familiarize themselves with the current license. SCE will provide the group with a description of existing operations soon.

Action items included:

- Kearns & West will:
  - Send out meeting invitations.
- Kleinschmidt will:
  - Draft and circulate annotated study plans and updated resource sections in July.
- SCE will:
  - Provide a clear description of project operations and routine O&M.
- USFS will:
  - Share National Riparian Protocol System.

## V. Recreation & Land Management Technical Working Group

### Attendees

Tristan Leong, USFS (phone)  
 Sheila Irons, USFS  
 Jacqueline Beidl, USFS  
 Diana Pietrasanta, USFS  
 Blake Englehardt, USFS  
 Kary Schlick, USFS  
 Nora Gamino, USFS  
 Rose Banks, CDFW

Kelly Larimer, Kleinschmidt  
 Finlay Anderson, Kleinschmidt  
 Matthew Woodhall, SCE  
 Vince White, SCE  
 Al Partridge, SCE  
 Mike Harty, Kearns & West  
 Terra Alpaugh, Kearns & West

### Welcome & Introductions

Mike Harty, Kearns & West, opened the meeting. Kelly Larimer, Kleinschmidt, explained that the draft [PAD section](#) focuses on recreational facilities directly related to the project, i.e., at Lake Sabrina, South Lake, and Intake 2. It includes information on recreational facilities. She acknowledged that there are still lots of holes and asked for input, particularly on the aesthetics section. Nora Gamino, USFS, brought a hard copy of the Forest's alternative transportation study for SCE/Kleinschmidt's reference in terms of parking questions and partnerships with public transit.

Picking up on an earlier discussion in the Botanical Working Group, Kelly explained that the Recreation/Land Management TWG could also incorporate discussions on land use management. USFS acknowledged that they do not have a landscape architect on staff and it would be useful to have that perspective, especially for universal design compliance.

USFS asked about a discrepancy between the map on the website and the project schematic, which shows a diversion at Bluff Lake. The diversion appears to be outside the project boundary but should be included. [ACTION ITEM] Finlay believes the diversion at Bluff Lake is included within the Project Boundary but that the existing exhibits and project description may not make that clear; he acknowledged that the team needs to look at that whole area related to project boundary clean-up and potential modifications.

### Discussion of Existing Environment/Identification of Gaps/Opportunities to Fill Gaps

Kelly shared a document in which she has compiled all the potential issues and interests raised by resource agencies since the March meetings.

She began by listing facilities and upgrades of interest/areas of concern for USFS:<sup>17</sup>

- **South Lake** – parking area upgrades, specifically trailer parking; boat launch improvements; creation of a trail to water with Universal Design compliance; resolution of the future of the Green Lake Diversion (i.e. repair/replace or decommission) and possible public use as a trail.
- **Lake Sabrina** –trail access issues; parking; public safety issues with people crossing the spillway to access the trail; exclusion/barriers and/or signage for public safety and wayfinding; and improvements to parking at the boat launch itself.
  - USFS emphasized their particular interest in the realignment of the boat ramp.
  - SCE has upgrade requirements for the auxiliary spillway and needs road access. USFS voiced interest in improving access needs for SCE while also improving recreational needs – i.e., exploring opportunities to combine projects.
  - Kelly noted that everything also has to be reviewed for compliance with dam safety requirements.
- **Intake 2** – need for universal access improvements, including Universal Design parking, vault toilet, and changes to hand launching.
  - Hand launching is causing sedimentation and erosion, which is compromising access to the barrier-free fishing pier.
  - Intake 2 needs are mostly O&M measures.
  - USFS noted that the arrangement of the day use area and parking is strange; the campground is upstream so there are two roads, which is unnecessary and a poor arrangement for recreationists and maintenance needs.
- **Plant 3** – removal or formalization of stream crossing (bridge), parking, and trail access to Little Egypt climbing area.
  - SCE operations noted that climbers’ cars can clutter up SCE access to Plant 3.
  - Kelly suggested they do recreation use counts to assess demand and then discuss different options.
  - Formalizing would likely then warrant trash and vault toilet; signage, O&M of bridge, and parking on SCE property would need to be addressed
- **Big Trees waste water treatment plant** – concerns about location close to the stream, aging facilities, damage to evaporation/percolation ponds, and blow out from Birch fire

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<sup>17</sup> USFS Comment: The Forest Service would like to see a comprehensive evaluation of the botanical resources in the area. We need this information to make informed management decisions about condition, desired conditions, and potential management actions to achieve those conditions, including but not limited to vegetation management as it relates to project operation/recreation activities.

SCE Response: Comment noted for the August Terrestrial and Recreation TWG discussions relative to scope of study plans.

- **General improvements** (not site specific) – off road parking impacts close to the stream; resource impacts from recreation; trail improvements; upgrades to vault toilets and other facilities; formalization or closure of user-defined trails/access areas; bear boxes/education; signage (multiple purposes); vegetation management – project related BMPs.
  - SCE operations noted that vegetation management and fires are liability issues for SCE, so in the future they can expect more vegetation management requirements to be part of operations.

For all these locations, USFS clarified that they want assistance in understanding existing needs and conditions of the facilities and predicting future uses.<sup>18</sup>

TWG attendees voiced the following questions and comments:

- Q (USFS): Does Bishop Creek require an EAP?
  - R (SCE): Yes, Sabrina, South Lake, and Intake 2 are all high hazard dams, so they receive extra scrutiny.
- Q (USFS): There are likely to be refinements to the project boundaries, which could occur much farther along in the process. Often surveys are only done inside the project boundary, which could result in us missing things. The study plan boundary does not have to be the same as the FERC boundary. Would it be possible to do our studies of a larger area, and then parse down the relevant information for relicensing to everything within the project boundary (wherever that may fall)? In order to be practical, we could extend the area just where we are considering modifications or are likely to do projects. It would be nice to have a uniform study area for all resource areas.

### Preliminary Resource Topic Identification

Kelly described her initial recommendations for relicensing studies: a Recreation Facility Condition and Public Accessibility Study and a Recreation Use Assessment Study. The group also acknowledged the need to begin considering options for leveraging funds for facility improvements (e.g., State funding, USFS use fees and SUPS for concessionaires) and the costs of ongoing O&M for recreation facilities.<sup>19</sup>

Kelly outlined the objectives for the recreation studies:

- Provide information about the need for maintenance or enhancement of existing recreation facilities to support current and future demand for public recreation at the Project

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<sup>18</sup> USFS Comment: There needs to be more discussion about surveys looking at the broader swath of recreational opportunity or lack thereof and of people's interest and behavior as it relates to recreation around the project (not limited to project boundary), e.g. insufficient parking at facilities where constraining to project boundary doesn't look at the project impact.

SCE Response: Comment noted; please review the Use and Needs Assessment and Facility Condition Assessment study plans outlines, when available, for applicability to this comment.

<sup>19</sup> USFS Comment: This discussion was related to the Forest Service limited funding opportunities to manage recreational features that could be project related. The Forest Service is open to various partnerships, but need to define project responsibility first.



- Assess condition of recreation facilities and dispersed use areas associated with developed/project-related facilities
- Assess recreation use and needs
- Assess carrying capacity of project-related recreation sites

The methods for these studies would include facility condition assessments; estimating present capacity of recreation facilities as well as present and future demand for public recreation; describing the preferences, attitudes, and characteristics of the Project's recreation users; collecting information about current Project recreation activities and future demand for activities (Use assessment survey); and conducting a dispersed use assessment.

Kelly reminded the group that as they think about studies and potential improvement, they should always be evaluating project nexus. Project nexus can be established for USFS recreation facilities/amenities within the Project Boundary (e.g., at South Lake, Sabrina, and Intake 2) and sites that intersect with or are immediately adjacent to the project (e.g. campgrounds, trail heads, associate parking).<sup>20</sup> USFS pointed out two examples where they believe there is a nexus: (a) the Green Creek Diversion where the pipe has become part of a trail, and (b) the wastewater facility, including the percolation pond on top of the ridge, which is of crucial importance to support the recreation sites.

TWG attendees voiced the following questions and comments about the study process:

- C (USFS): Economics were not mentioned in review of the methods. The area is a driver for the local economy, so we might want an economics study. We need to understand the sustainability of the sites and the cost of ownership.
  - R (Kleinschmidt): There will be an economics section of the PAD that will be recreation-focused.
- Q (USFS): How would you survey dispersed use and its impacts?
  - R (Kleinschmidt): We could GPS social trails and estimate impacts around those areas. This could inform site reconfigurations, signage, and wayfinding as part of PM&E site-specific changes.<sup>21</sup>
- Q (USFS): We would like to assess the adequacy of signage and what information is available to the public. Is that available somewhere in the PAD or elsewhere? The HPMP will require more historical info on signs.
  - R (SCE): There is currently FERC signage but no "you-are-here" map. We have to balance sharing info with adhering to Critical Energy Infrastructure (CEII) requirements.<sup>22</sup>
    - C (USFS): It would be great to have a consistent, universal signage plan for the drainage with interpretive signs to understand SCE, recreation, and history of drainage.

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<sup>20</sup> USFS Comment: See comment above about project related nexus of recreation not limited to project boundary.  
SCE Response: Comment noted.

<sup>21</sup> USFS Comment: Also traffic counts, trail counts and locations could be performed. These could be ground truthed with actual survey/census.  
SCE Response: Comment noted.

<sup>22</sup> USFS Comment: It's a pseudo general condition that a sign plan be implemented with the project to meet both USFS and FERC standards.  
SCE Response: Comment noted.

- Q (USFS): Do you want permittee information on occupancy and wilderness permit information for the last 20-30 years?
  - R (Kleinschmidt): Yes. [ACTION ITEM] USFS will put Kleinschmidt in touch with the Wilderness Permit Office. [ACTION ITEM] CDFW will check whether they have any fishing or hunting census data.
- C (USFS) There are roads along the flow lines for O&M that people use for off-road vehicles and mountain biking. These are centered in the Buttermilk, Birch, and McGee areas, and there have been lots of issues with washouts. When there are epic rainfall events how do we deal with restoring those areas?<sup>23</sup>
- Q (USFS): Is there an inventory of project roads, segments, condition, in/out boundaries, and access in the PAD?
  - R (SCE): [ACTION ITEM] We can compile that.
  - C (USFS): [ACTION ITEM] We can provide our GIS layer with the Forest system of designated roads.
  - C (USFS): Please include areas where you dump.

### Schedule, Next Steps, Action Items

Action items include:

- CDFW will:
  - Check whether they have any fishing or hunting census data.
- Kearns & West will:
  - Send out meeting invitations.
- Kleinschmidt will:
  - Draft and circulate annotated study plans and updated resource sections in July.
  - Look at the Bluff Lake diversion area – and other areas-- related to boundary modifications. Existing discrepancies need to be reviewed and addressed; Exhibit G updated.
  - Compile an inventory of project roads, segments, condition, in/out boundary, access in the PAD.
  - Reach out to CDFW about recent Creel surveys in the Bishop Creek watershed
- SCE will:
  - Provide a clear description of project operations and routine O&M.
- USFS will:
  - Put Kleinschmidt in touch with the Wilderness Permit Office.
  - Provide SUPs for campground and recreational concessionaires
  - Provide fire suppression plan

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<sup>23</sup> USFS Comment: The use of these roads by the public is a good example of project impact related to dispersed recreational activity, and how it should be managed. Also an inventory of the roads will be important in discussing a road evaluation plan. SCE Response: Comment noted, and will be included in discussion of scope of study plans during the August TWG.

- Provide vegetation management plan(s)
- Provide USFS GIS layer with the Forest system of designated roads.

### FOR YOUR REFERENCE:

#### Draft August TWG Schedule

- Tuesday, August 14, 9am – 4:30 pm
  - 9:00 a.m. – 12:00 p.m. Cultural Technical Working Group
  - 1:00 p.m. – 5:00 p.m. Aquatic Technical Working Group
- Wednesday August 15 June 7, 9:00am – 5pm
  - 9:00 a.m. – 12:00 p.m. Terrestrial & Botanical Technical Working Group\*
  - 1:00 p.m. – 5:00 p.m. Recreation & Land Management Technical Working Group

\*Note: We have combined the Terrestrial and Botanical Technical Working Groups into a single working group due to the overlap in topics and attendees.

#### Remaining TWG Calendar

- July 13, 2018, Oversight Committee (phone)
- August 14 – 15, 2018 (in-person), TWG Meeting
- October 9 – 11, 2018 (in-person), TWG Meeting
- December 4 – 6, 2018 (in-person), TWG Meeting
- January 23, 2019, Oversight Committee (phone)