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FEDERAL ENERGY REGULATORY COMMISSION
Washington, DC 20426
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OFFICE OF ENERGY PROJECTS

Project No. 1389-059–California
Rush Creek Hydroelectric Project
Southern California Edison Company

VIA FERC Service

Mr. Matthew Woodhall
Principle Manager
Southern California Edison Company
1515 Walnut Grove Avenue
Rosemead, California 91770

Reference: Determination on Requests for Study Modifications

Mr. Woodhall:

Pursuant to 18 C.F.R. § 5.15 of the Commission's regulations, this letter contains the determination on requests for modifications to the approved study plan[1] in the relicensing process for Southern California Edison Company's (SCE) Rush Creek Hydroelectric Project (Rush Creek Project or project). The project is located on Rush Creek in Mono County, California and occupies federal land managed by the U.S. Forest Service (Forest Service). The determination is based on the study criteria set forth in sections 5.9(b) and 5.15(d) and (e) of the Commission's regulations, applicable law, Commission policy and practice, and staff's review of the record of information.

Background

The study plan determination for the project was issued on October 26, 2022. SCE filed an initial study report (ISR) on October 27, 2023, summarizing the status of the 17 studies being conducted in support of the Rush Creek Project's relicensing process. On November 9, 2023, SCE held a virtual meeting to present the ISR results. On November 21, 2023, SCE filed a summary of the ISR meeting. Neither the ISR nor the ISR meeting summary included proposed study modifications or new studies.

[1] The approved study plan consists of SCE's Revised Study Plan (filed July 7, 2022) as modified by the Commission's study plan determination.

Comments

Comments on the ISR and meeting summary, including requests for study modifications, were filed by the following relicensing participants: Kendrick Taylor on December 18, 2023; the California Department of Fish and Wildlife, Bob Marks, and Joyce Kaufman separately on December 20, 2023; American Rivers, the California Sportfishing Protection Alliance, and the June Lake Regional Planning Advisory Committee jointly on December 21, 2023; and the U.S. Forest Service on January 3, 2024. SCE filed reply comments on January 25, 2024. Some of the comments do not specifically request modifications to the approved study plan, and therefore, are not addressed herein.[2] This determination only addresses specific requests for modifications to approved studies or specific requests for new studies.

Study Plan Determination

Pursuant to section 5.15(d) of the Commission's regulations, any proposal to modify a required study must be accompanied by a showing of good cause and must include a demonstration that the approved study was not conducted as provided for in the approved study plan, or the study was conducted under anomalous environmental conditions or that environmental conditions have changed in a material way.

As indicated in Appendix A, the requested modifications to studies *AQ-3: Water Temperature, AQ-4: Water Quality*, *AQ-6: Fish Population and Barriers*, and *AQ-7: Special-status Amphibians* are approved with staff's recommended modifications. The specific modifications to the studies and the bases for modifying them are explained in Appendix B. Commission staff considered all study plan criteria in accordance with sections 5.9(b) and 5.15(d) and (e) of the Commission's regulations. However, only the specific study criteria relevant to the determination are referenced in Appendix B.

Please note that nothing in this study plan determination is intended, in any way, to limit any agency's proper exercise of its independent statutory authority to require additional studies.

[2] For example, this determination does not address requests for protection, mitigation, and enhancement measures.

Project No. 1389-059

If you have any questions, please contact Quinn Emmering, the Commission's relicensing coordinator for the project at (202) 502-6382 or Quinn.Emmering@ferc.gov.

Sincerely,

JOHN WOOD

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for
Terry L. Turpin
Director
Office of Energy Projects

Enclosures: Appendix A – Summary of Determinations on Requested Modifications to the Approved Study Plan

Appendix B – Staff's Recommendations on Requested Modifications to the Approved Study Plan

APPENDIX A: SUMMARY OF DETERMINATION ON REQUESTED MODIFICATIONS TO THE APPROVED STUDY PLAN

Rush Creek Hydroelectric Project No. 1389

Study	Recommending Entities [a]	Approved	Approved with Modifications	Not Required
Studies AQ-1: Instream Flow, AQ-2: Hydrology, AQ-5: Geomorphology, and TERR-1: Botanical	Bob Marks			X
Study AQ-3: Water Temperature	California DFW, Water Board		X	
Study AQ-4: Water Quality	Water Board		X	
Study AQ-6: Fish Population and Barriers	California DFW		X	
Study AQ-7: Special-status Amphibians	California DFW, Water Board, American Rivers et al.		X	
Study LAND-1 Aesthetics	Bob Marks			X
Study LAND-2: Noise	Joyce Kauffman, Kendrick Taylor			X

[a] In this table, (1) California DFW refers to California Department of Fish and Wildlife; Water Board refers to California State Water Resources Control Board; and (3) American Rivers et al. includes American Rivers, California Sportfishing Protection Alliance, and June Lake Regional Planning Advisory, jointly.

APPENDIX B: STAFF'S RECOMMENDATION ON REQUESTED MODIFICATIONS TO THE APPROVED STUDY PLAN

Rush Creek Hydroelectric Project No. 1389

General

Requested Study Modification

Mr. Bob Marks requests that the approved study plan be modified for several studies (AQ-1: Instream Flow Study, AQ-2: Hydrology Study, AQ-5: Geomorphology Study, and TERR-1: Botanical Study) to include an analysis of the effects of the potential full or partial removal of Agnew Dam[4] (project dam) on Agnew Lake (project reservoir) and Rush Creek.

Reply Comments

In its reply comments, Southern California Edison (SCE) states that the studies in the approved study plan are sufficient to fully understand environmental conditions and develop protection, mitigation, and enhancement measures, as may be appropriate, to protect environmental resources associated with Agnew Lake and the stream reach below the Agnew Dam. SCE states that the results of these studies will provide information on current environmental conditions and be used to identify potential environmental effects of full and partial dam removal upstream and downstream of Agnew Dam. SCE further notes that the approved studies will evaluate instream habitat below Agnew Lake under a range of flows, including historical flows, current flows, proposed project flows, and unimpaired flows (AQ-1); characterize hydrology including, historical flows, current flows, proposed project flows, and unimpaired flows (AQ-2); characterize erosion, stream bank stability, and sediment deposition in Rush Creek, including below Agnew Lake (AQ-5); characterize sediment deposition and test for contaminated sediments in the project reservoirs (Waugh, Gem, and Agnew Lakes); and collect information on botanical resources including riparian resources in Rush Creek below Agnew Dam (TERR-1). Therefore, SCE does not propose to modify the approved study plan for these studies.

[4] Decommissioning and removal of Agnew Dam is under consideration by SCE and will be described as part of its proposed project alternative in its license application due November 30, 2024.

Discussion and Staff Recommendation

The approved study plan includes a Decommissioning Study,[5] with provisions for: (1) assessing the feasibility of full project decommissioning, including options to remove all project facilities or leave some or all in place; (2) describing possible flow and water level changes that may occur under each option; (3) describing the types and quantities of any accumulated sediment that would be released from behind each project dam, including the presence of any known contaminants; and (4) describing each decommissioning option, including potential physical and environmental benefits and adverse effects for each option. Mr. Marks' request is consistent with the information required by the Decommissioning Study. Therefore, the requested modifications to studies AQ-1, AQ-2, AQ-5, and TERR-1 are not necessary.

Study AQ-3: Water Temperature

Background

The objectives of the Water Temperature Study are to characterize water temperature and meteorological conditions in eight segments of Rush Creek (project-affected reaches) and in Reversed Creek (enters Rush Creek just upstream of Silver Lake), characterize water temperature profiles in the Gem Lake (project reservoir), Agnew Lake (project reservoir), and Silver Lake (non-project reservoir located downstream of the project), and assess the potential effects of climate change on water temperatures over the term of any new license issued for the project. The study components include: (1) collecting monthly water temperature profiles in the specified reservoirs from June through October 2023; (2) deploying water temperature probes to collect data in the specified reaches from May 15 to October 15, 2023 at the high elevation sites (>7,300 feet) and from May 15 to December 1, 2023 at the lower elevation sites (≤ 7,300 feet); and (3) obtaining data (e.g., relative humidity, wind speed, solar radiation, air temperature) from meteorological stations located at Gem Pass, June Mountain Summit, and near Rush Creek Powerhouse. The approved study plan specified a single study season.

In accordance with the approved study plan,[6] SCE collected water temperature data in the project-affected reaches and Reversed Creek, as well as the water temperature profiles in Gem Lake, Agnew Lake, and Silver Lake. However, due to the presence of

[5] The Study Plan Determination was issued October 26, 2022, and can be accessed on the Commission's website at: https://elibrary.ferc.gov/eLibrary/filedownload?fileid=5DF96DF5-7E56-CC2B-8AC6-841469200000.

[6] The approved study plan consists of SCE's Revised Study Plan (filed July 7, 2022) as modified by the Commission's study plan determination.

snow and resulting limited access, a water temperature profile of Gem Lake could not be collected in June, and water temperature probes could not be installed in two of the reaches near Agnew Lake and Gem Lake until June 9 and a reach near Waugh Lake[7] until July 18. As of the initial study report (ISR), SCE had not obtained the meteorological data or prepared a technical study report analyzing the results of the collected data.

Requested Study Modification

The California Department of Fish and Wildlife (California DFW) and the California State Water Resources Control Board (Water Board) request that the approved study plan be modified to include an additional year of water temperature data collection due to anomalous environmental conditions during the 2023 study season [section 5.15(d)(2)]. They state that 2023 was an anomalously wet water year throughout the Sierra Nevada, including at the Rush Creek Project, with the annual maximum snow depth in the project area being tied for the highest on record since 1973 and the second highest mean water flow since 1939.

Reply Comments

In its reply comments, SCE disagrees with the need for an additional study season and states that the study was not conducted under anomalous environmental conditions, as the hydrology during the 2023 study season was representative of recent wet years (2011, 2017) recorded in the project area. SCE adds that after the snowmelt runoff occurred (August–December) in 2023, flow conditions in the project area were similar to those in previous years. SCE states that it also collected water temperature data at seven lower elevation sites from May 15 to December 1, 2022, which was a dry water year. Although this data collection effort was initiated prior to the issuance of the Commission's study plan determination and not required by the approved study plan, SCE notes that it was consistent with the locations and methods required in the approved study plan. Therefore, SCE states that due to already having collected two years of temperature data, in both a wet and dry year, coupled with the absence of known water temperature issues at the project, modifying the approved study plan to require an additional study season is not warranted.

[7] Waugh Lake is the furthest upstream project reservoir and is impounded by Rush Meadows Dam. Since 2012 it has been drawn down to meet seismic restrictions at the dam and alleviate safety concerns, resulting in a reduction of storage capacity from 5,277 acre-feet to 1,555 acre-feet.

Discussion and Staff Recommendation

Water temperature is often directly related to stream flows, where the warming effects from high air temperatures are increased at lower flows and diminished at higher flows. Water availability at the project is largely controlled by winter accumulation of snow in the upper elevations of the Sierra Nevada and subsequent runoff (high flows) in the May-July period. The lowest base stream flows typically occur from September through February. Years in which the Sierra Nevada accumulates deep mountain snowpack results in an extended high flow season, with cooler water temperatures occurring longer into the summer period.

While the 2023 study season was conducted during a relatively wet water year in which the snowpack was historically high, the approved study plan did not specify the water year type in which the study needed to be conducted. In addition, SCE voluntarily conducted the study in 2022 as well, which was a relatively dry water year; therefore, results are available for the full spectrum of water year types (dry to wet). For these reasons, we do not recommend that SCE conduct an additional year of study at this time; however, SCE should include the 2022 and 2023 water temperature results in the Updated Study Report due on October 26, 2024.

Study AQ-4: Water Quality

Background

The objectives of the Water Quality Study are to collect seasonal water quality data (physical, chemical, and bacterial) in project-affected stream segments and project reservoirs and compare conditions to the water quality standards specified in the Lahontan Regional Water Quality Control Board's Water Quality Control Plan for the Lahontan Region (Basin Plan).[8] The study components include: (1) collecting in-situ water quality measurements (dissolved oxygen (DO), pH, specific conductance, salinity, alkalinity, turbidity) once during the spring runoff (June, access permitting) and once during the late summer/early fall base-flow period (September) in eight segments of Rush Creek (project-affected reaches) and in Reversed Creek; (2) collecting water quality grab samples, at the same time as the in-situ measurements, in the eight segments of Rush Creek (project-affected reaches), Reversed Creek, Waugh Lake, Gem Lake, Agnew Lake, and Silver Lake; (3) collecting water quality profile data at Gem, Agnew, and Silver Lakes from June through October; and (4) collecting surface water bacteria samples for total and fecal coliform in Gem and Agnew Lakes in July (five evenly spaced collection efforts in each reservoir). While the approved study plan only specified a single study

[8] The Basin Plan sets forth water quality standards for waterbodies in the region, including Rush Creek, Waugh Lake, Gem Lake, and Agnew Lake.

season, it included the potential need for a second study season if the results of the first study season indicate any exceedances of the water quality criteria specified in the Basin Plan.

SCE conducted the study in accordance with the study plan, with the exception of: (1) alkalinity data not being collected during the in-situ measurements or reservoir profiles, but instead determined via lab analysis of collections made during the spring runoff and base-flow periods; and (2) water quality profile data not being collected at Gem Lake during the month of June due to the presence of snow and resulting limited access. As of the ISR, SCE was completing its laboratory analyses of the samples collected and had not yet prepared a technical study report analyzing the results of the collected data.

Requested Study Modification

The Water Board requests that the approved study plan be modified to include an additional year of water quality data collection due to anomalous environmental conditions during the 2023 study season [section 5.15(d)(2)]. They state that 2023 was an anomalously wet water year throughout the Sierra Nevada, including at the Rush Creek Project, with the annual maximum snow depth in the project area being tied for the highest on record since 1973 and the second highest mean water flow since 1939. The Water Board notes that accumulated winter snow (snowpack) and resultant snowmelt are the primary controls on several aspects of lake chemistry, including phytoplankton biomass and some nutrient concentrations. The Water Board notes that data collected during an exceptionally high snow year may not accurately depict potential project effects or adequately inform the need for potential protection, mitigation, and enhancement measures. In addition, the Water Board notes that several criteria in the Basin Plan define an exceedance as relative to "natural" or "normal" conditions (e.g., turbidity, pH), which cannot be determined from data collected during anomalous conditions. Further, the Water Board states that if snowpack in spring 2024 is again above-average, it recommends that the second year of collection be delayed until a below-average year occurs.

Reply Comments

In its reply comments, SCE disagrees with the need for an additional study season and states that the study was not conducted under anomalous environmental conditions, as the hydrology during the 2023 study season was representative of recent wet years (2011, 2017) recorded in the project area. SCE adds that after the snowmelt runoff occurred (August–December) in 2023, flow conditions in the project area were similar to those in previous years. SCE states that the water quality samples collected in both higher spring and lower fall flow conditions in 2023 did not reveal any water quality

issues and notes that historical data show water quality throughout the project area as being "high-mountain pristine." Therefore, SCE states that modifying the approved study plan to require an additional study season is not warranted.

Discussion and Staff Recommendation

Water quality can be significantly influenced by stream flows, with higher flows resulting in increased DO levels, due to increased water surface agitation and aeration, and higher sedimentation rates, turbidity, and the dilution and dispersion of pollutants. Water availability at the project is largely controlled by winter accumulation of snow in the upper elevations of the Sierra Nevada and subsequent runoff (high flows) in the May-July period. The lowest base stream flows typically occur from September through February. Years in which the Sierra Nevada accumulates deep mountain snowpack results in an extended high flow season into the summer period.

While the 2023 study season was conducted during a wet water year in which the snowpack was historically high, the approved study plan did not specify the water year type in which the study needed to be conducted. However, it is important to understand what the water quality in the project area is during lower flow conditions when potential project effects on it could be more significant, which is a goal of the study.

The Water Board's previously stated water quality concerns at the project were related specifically to the potential presence of fecal coliform and increases in the methylation of mercury in the bottom of project reservoirs when prolonged stratification occurs and DO is reduced, creating anoxic conditions, neither of which would be sufficiently reflected in data collected during an extremely wet water year. Although SCE notes that 2023 flows in the project area were similar to previous years from August through December, the higher flows in the spring and a majority of the summer would not have allowed for the collection of data that would adequately assess the potential for water quality issues at the project. Therefore, we recommend that the approved study plan be modified to require another year of sampling during a normal or dry water year. SCE should consult with the Water Board at the beginning of April 2024 to confirm the 2024 water year prior to implementing the additional study season. If it is determined, in consultation with the Water Board, that 2024 is projected to be a substantially above normal water year such that the goals of the study can't be met, SCE may postpone the study until the 2025 study season. SCE should provide documentation of its consultation with the Water Board, including all recommendations from the Water Board, in the Updated Study Report due on October 26, 2024.

Study AQ-6: Fish Population and Barriers

Background

The objectives of the Fish Population and Barriers Study are to: (1) document fish species composition, distribution, and relative abundance in project-affected stream reaches and project reservoirs; (2) characterize fish growth, condition factor, and population age structure in project-affected stream reaches and project reservoirs; (3) document fish barriers in project-affected stream reaches; and (4) identify project facilities and operations (e.g., dam, reservoir operations, instream flow releases) that may affect fish migration. The study components include: (1) conducting fish sampling in project-affected stream reaches during the late summer/early fall base-flow period using a combination of electrofishing (shallow water) and/or snorkeling (deep water); (2) conducting fish sampling in Gem Lake and Agnew Lake during the late summer/early fall base-flow period using gillnets; (3) identifying the location, nature (i.e., natural or artificial) and classification (falls, chute, cascade) of any potential fish migration barriers in project-affected stream reaches and project reservoirs; and (4) estimating the potential for fish to pass the barriers identified in item 3 during the base-flow period. The approved study plan specified a single study season.

SCE conducted the study in accordance with the study plan. As of the ISR, SCE had not yet completed the study component estimating the potential for fish passage at project-related fish barriers or prepared a technical study report analyzing the results of the collected data.

Requested Study Modification

California DFW requests that the approved study plan be modified to include an additional year of fish sampling due to anomalous environmental conditions during the 2023 study season [section 5.15(d)(2)]. They state that 2023 was an extremely wet water year, and that the data collected by SCE will likely result in an incomplete understanding of the fish populations and not account for interannual variability. California DFW notes that the base-flow in 2023 during which sampling occurred was significantly higher than what occurs in dry years and that protection, mitigation, and enhancement measures for the project should not be based solely on one year of data collected during extremely wet conditions.

Reply Comments

In its reply comments, SCE disagrees with the need for an additional year of fish sampling and states that the study was not conducted under anomalous environmental conditions, as the hydrology during the 2023 study season was representative of recent

wet years (2011, 2017) recorded in the project area. SCE adds that after the snowmelt runoff occurred (August–December) in 2023, flow conditions in the project area were similar to those in previous years. In addition, SCE notes that the adult fish populations sampled in 2023 were a product of flow conditions in previous years and representative of adult fish populations in the project area. In addition, SCE points out that there are historical data available for the project reservoirs and the stream segments between Waugh Lake and Gem Lake.

With regard to young-of-the-year[9] (YOY) data collection, SCE acknowledges that the fish sampling that occurred in 2023 was representative of wet year reproduction/recruitment, and they recognize that wet years have the potential to influence YOY fish. Therefore, SCE agrees that an additional year of data collection at the four stream-sampling reaches downstream of Agnew Dam, where only one year of data exists showing YOY recruitment, could provide useful information about YOY abundance in a normal or dry year. Therefore, if 2024 is a normal or dry water year, SCE proposes to collect another year of fish population data at the following stream reaches in Rush Creek: below Agnew Dam (river mile (RM) 18.55), above Silver Lake (RM 17.05 and 17.55), and below Silver Lake (RM 15.2).

Discussion and Staff Recommendation

A river's hydrologic regime can play a significant role in shaping fish population dynamics, including individual growth, condition factor, and survival, as well as the population's age structure. Although Rush Creek is part of the Mono Lake Basin historical fishless area,[10] numerous fish species have been either intentionally or accidentally introduced into the watershed, including rainbow trout, golden trout, Lahontan cutthroat trout, brown trout, brook trout, and threespine stickleback. While the 2023 study season was conducted during a wet water year in which the snowpack was historically high, the approved study plan did not specify the water year type in which the study needed to be conducted.

The high flows experienced in 2023 are not expected to have had a significant effect on the adult populations sampled during the first study season since their presence, growth, and health are largely a result of flows experienced in previous years. Therefore, we do not recommend additional sampling of adult fish.

The high flows in 2023 could have affected the data collected on YOY in lower Rush Creek, where they are typically found, due to decreased recruitment from bed

[9] Young-of-the-year refers to juvenile fish that were born within the previous year.

[10] Fishes that once inhabited the streams flowing in highly alkaline Mono Lake presumably were wiped out by volcanism during the past million years.

scouring associated with the higher flow and the weak swimming capabilities of YOY fish. Understanding the level of YOY recruitment is important in evaluating the health of fish populations and the significance of potential effects the project may have on them. Therefore, we recommend that the approved study plan be modified to require another year of sampling for YOY in lower Rush Creek during a normal or dry water year at the locations specified by SCE. SCE should consult with the Water Board at the beginning of April 2024 to confirm the 2024 water year prior to implementing the additional study season. If it is determined, in consultation with the Water Board, that 2024 is projected to be an above normal water year such that the goals of the study can't be met, SCE may postpone the additional study season for YOY fish until the 2025 study season. SCE should provide documentation of its consultation with the Water Board, including all recommendations from the Water Board, in the Updated Study Report due on October 26, 2024.

Study AQ-7: Special-status Amphibians

Background

The objectives of the Special-status Amphibians Study are to identify and map potential habitat, including the presence of primary constituent elements (PCE),[11] for the federally listed endangered Sierra Nevada yellow-legged frog (SNYLF, *Rana sierrae*) and the federally listed threatened Yosemite toad (YT, *Anaxyrus canorus*) and conduct surveys to determine presence of SNYLF and YT. The study area includes areas within and/or adjacent to project-affected stream segments, project reservoirs, and the potential project enhancement area. The study components include: (1) preparing preliminary maps of potential SNYLF and YT breeding, overwintering, and dispersal habitat based on existing data; (2) conducting field surveys to document the presence of PCEs within potential habitat; (3) developing geographic information system maps of habitat overlaid with project facilities, and areas where proposed project activities would occur; (4) conducting two protocol-level surveys during the period shortly after snowmelt and ending late summer to determine presence of SNYLF and YT; and (5) evaluating habitat-instream flow relationships, if occupied breeding habitat is identified in the selected stream segments evaluated as part of the Study AQ-1: Instream Flow.

As of the ISR, SCE has completed all the study components described above in accordance with the approved study plan, but a technical study report analyzing the

[11] Primary constituent elements are the physical and biological features, including habitat characteristics, of designated or proposed critical habitat essential to the conservation of a species. Older critical habitat rules published in the Federal Register by FWS used the term primary constituent elements, which has been replaced by the term – *physical and biological features.*

results of the collected data has not yet been filed. Also, because no occupied breeding habitat was identified for SNYLF or YT, the evaluation of habitat-instream flow relationships was not necessary.

Requested Study Modification

In their joint letter, American Rivers, the California Sportfishing Protection Alliance, and the June Lake Regional Planning Advisory Committee (American Rivers et al.) note that the ISR meeting summary states that the presence of fish in project-affected reaches of Rush Creek precludes the need to evaluate these reaches as habitat for SNLYF. American Rivers et al. request that the approved study plan include "some evaluation" of stream reaches where fish occur for SNYLF presence.

The Water Board and California DFW request that the approved study plan be modified to conduct one additional year of field surveys in a drier water year to accurately determine the presence of special-status aquatic species (including SNYLF and YT) within project-affected waters. Both the Water Board and California DFW state that snowpack and streamflow were anomalously high in 2023. Therefore, they contend that survey data may not be representative of typical conditions in the project area due to anomalous streamflow conditions [section 5.15(d)(2)].

Reply Comments

In its reply comments, SCE states that it generally concurs with American Rivers et al. that evaluating stream reaches inhabited by fish for SNYLF presence is appropriate. SCE states that it conducted habitat mapping and field surveys, including mapping the presence of PCEs for SNYLF, consistent with the approved study plan. SCE states that it does not propose to modify the approved study plan because more data is not needed, and American Rivers et al. does not provide adequate justification for its request, nor do they address the Commission's criteria for modifying an approved study.

In response to the Water Board and California DFW, as discussed in the other aquatic studies above, SCE asserts that the hydrology in 2023 was not anomalous, rather it was representative of wet year hydrology in the project area with reaches returning to lower flows in August of that year. Additionally, SCE states that it conducted protocol-level surveys consistent with FWS' guidance described in the *Programmatic Biological Opinion on Nine Forest Programs on Nine National Forests in the Sierra Nevada of California for the Endangered Sierra Nevada Yellow-legged Frog, Endangered Northern Distinct Population Segment of the Mountain Yellow-legged Frog and Threatened Yosemite Toad* (Programmatic BO; FWS 2014). The Programmatic BO stipulates that at least one survey for the SNYLF and YT should be conducted in the spring/summer following a winter that resulted in 80% or greater average snowpack to maximize

detection probability. SCE also notes, per the BO, that SNYLF and YT are more likely to be actively breeding in a wet year and thus more likely to be encountered (FWS 2014); therefore, the two surveys conducted in 2023 were likely to detect SNYLF and YT.

SCE agrees to conduct a third survey for SNYLF in 2024 to allow SCE to complete the required number of protocol-level surveys defined in the Programmatic BO for determining SNYLF occupancy of potential suitable habitat at the project (i.e., *unutilized potential habitat*). SCE states that although a second year of surveys would not in its view be sufficient to determine occupancy for YT, SCE states that it would conduct surveys for YT in 2024 at the same time, as recommended by the Water Board and California DFW. In summary, SCE agrees to conduct a second year of surveys for SNYLF and YT consistent with the methodology described in the approved study plan, in order to determine SNYLF occupancy of potential suitable habitat. Additionally, in conjunction with the surveys, SCE agrees to also verify habitat mapping and make modifications, if appropriate.

Discussion and Staff Recommendation

The level of information provided in American Rivers et al.'s request is not sufficient to understand the extent of what "some evaluation" would include. SCE evaluated project-affected stream segments and other areas by identifying and mapping potential suitable habitat and conducting field surveys to verify potential suitable habitat and presence of SNYLF consistent with approved study plan [section 5.15(d)(1)]. Additionally, field surveys also documented PCEs, one of which is aquatic habitat for breeding and rearing that is free of introduced predators, primarily trout and bullfrogs, as SNYLF populations are unable to persist in stream segments with these predators (FWS 2016). Staff expect that the study will document and map any stream segments in the study area with introduced predators, including trout, with the results described in the USR. Therefore, we do not recommend the requested modification by American Rivers et al.

While surveys for SNYLF and YT were conducted during a historically wet year, FWS' Programmatic BO states that such conditions increase breeding activity for both species, which would have increased the likelihood of detection during surveys. Further, we note that SCE conducted the study as provided in the approved study plan, which requires one year of surveys and does not specify the water year type needed to conduct the surveys [section 5.15(d)(1)]. Regardless, SCE agrees to conduct an additional year of surveys in 2024 for both SNYLF and YT as well as verify habitat mapping, as needed. As defined in the Programmatic BO, the third survey would meet FWS' requirements for determining if potential suitable habitat identified in the project area is occupied by SNYLF. Although the additional year of surveys would not fulfill the required three consecutive years of surveys for YT, it would further determine if potential suitable

habitat for YT is occupied. Results of the additional surveys would inform Endangered Species Act consultation between Commission staff and the FWS on these federally listed species as well as staff's environmental analysis, including the evaluation of potential protection, mitigation, and enhancement measures. Therefore, we recommend the requested modification to conduct surveys for SNYLF and YT and verify habitat mapping in 2024, consistent with the methods described in the approved study plan.

Study LAND-1: Aesthetics

Background

The objectives of the Aesthetics Study are to: (1) characterize the current scenic integrity of project facilities on Forest Service land compared to surrounding landscape conditions and the scenic integrity objectives established by the Inyo National Forest; (2) characterize the current visual conditions of project facilities on private land compared to visual resource management goals and policies established by Mono County; and (3) document the character of Horsetail Falls under different flow conditions. The study components include: (1) establishing Key Observation Points (KOP) from which current project facilities are visible by the public; (2) documenting the current scenic integrity of the project facilities located on Forest Service land and their associated viewsheds; (3) documenting the current visual condition of project facilities located on private land; (4) documenting the visual character of Horsetail Falls under different flow conditions; and (5) preparing visual renderings under the proposed project alternatives.

Requested Study Modification

Bob Marks requests that the approved study plan be modified to include an additional KOP at a location from which a wide-view historical landscape photo of Agnew Lake, which he included in his request, was taken. He states that the additional KOP and use of the photo as reference material for the study would aide in producing a visual rendering of the pre-project condition of Agnew Lake, the lake basin, and the Rush Creek outlet of Agnew Lake.

Reply Comments

In its reply comments, SCE states that a KOP from a location relative to the point from which the Agnew Lake photograph was taken was established during the study's 2023 field season. Therefore, SCE does not propose to modify the study.

Discussion and Staff Recommendation

Due to the nature of the wide-view photo that Mr. Marks provides, any KOP established from a location in relative proximity to the requested KOP location, such as the one already established by SCE, would be sufficient to produce a visual rendering of the condition that would occur in the absence of Agnew Lake and its surroundings under a proposal to partially or fully remove the dam forming Agnew Lake. Therefore, the intent of Mr. Marks' modification request has already been sufficiently addressed in the study and modifications to the approved study plan are not needed.

Study LAND-2: Noise

Background

The objectives of the Noise Study are to identify noise effects of continued project operation and maintenance, and demolition and restoration activities associated with the proposed partial or full removal of project dams. The study components include: (1) documenting existing ambient and project-generated noise at sensitive noise receptor areas; (2) assessing noise generated by helicopters, trucks, and construction equipment that would be used during proposed partial or full removal of project dams, on sensitive noise receptor areas; and (3) comparing existing ambient and potential project-generated noise to applicable state and local noise regulations and ordinances. Part of the assessment of noise effects from helicopter use includes identifying points of interest (POI)[12] along the flight path and collecting ambient noise level data at the POI to be used as a parameter for the helicopter noise modeling software.

SCE's Initial Study Report indicates that on June 22, 2023, a Noise Technical Working Group meeting, composed of SCE personnel and stakeholders, was convened to discuss study activities including the timing for noise monitoring to collect ambient noise level data and the POI from which to conduct the monitoring. Stakeholders requested to postpone noise monitoring during the approved monitoring periods of June 2023 and August 2023 because of an atypical ambient noise environment caused by high runoff in the area during this time. As a result, SCE postponed the noise monitoring and plans to conduct it until June and August 2024.

[12] The approved study plan defines points of interest (also known as sensitive noise receptor areas) as residences, businesses, recreation areas, and wildlife areas most at risk to noise impacts.

Requested Study Modification

Acoustic Model

Kendrick Taylor and Joyce Kaufman request that the approved study plan be modified to collect noise measurement data from the same models of helicopters that would be used during proposed construction, including analogous payload weights, flight maneuvers, and atmospheric conditions and that these parameters be used to calibrate the acoustic model. They state this modification is necessary to accurately determine anticipated noise levels.

Points of Interest

Joyce Kaufman requests that the approved study plan be modified to include two POIs, one at the east end of Mono Street and one at the west end of Mono Street, within the residential neighborhood north of the helicopter flight paths.

Reply Comments

Acoustic Model

In its reply comments, SCE states that the Advanced Acoustic Model (AAM) software being used for the study computes time-varying noise levels for a defined flight path/area accounting for variation in topography and atmospheric conditions, including wind and air temperature. SCE states that a U.S. Department of the Navy study analyzed the accuracy of noise-modeling computer programs, including AAM, by comparing real-time aircraft sound monitoring to the results of computer-modeled aircraft noise analysis. SCE notes that the Navy's analysis found that, "the Department of Defense-approved noise models work as intended", and that, "the noise levels of modeled aircraft (a key input to the model) are accurate as they were obtained by actually measuring sound generated by the aircraft in various parameters under controlled conditions" (Navy 2021). Additionally, SCE notes that the Navy's analysis used noise data gathered from similar, but also larger and louder helicopters compared to the helicopters that would be used for proposed construction activities. SCE contends that the acoustic model used in the study is the best available methodology to determine potential noise levels because it is based on technical information, extensive development, and testing of the software that calibrated the AAM. Therefore, SCE does not propose to modify the Noise Study.

Points of Interest

In its reply comments, SCE states that the Noise Study already includes POIs near the two requested POIs on either end of Mono Street – one POI is located on the eastern

end of Palisades Drive (HE-1), about 350 feet from one requested POI, and one located on the southern end of Pine Crest Avenue (HE-2), about 200 feet from the other requested POI. SCE states that, while it does not propose to modify the Noise Study, it will be collecting data at the two additional requested POIs in 2024.

Discussion and Staff Recommendation

Acoustic Model

The ISR did not include the detailed information on the AAM that SCE provided in its reply comments described above. The information provided by SCE in its reply comments provides a clear explanation regarding the methodology and efficacy of the AAM software, verified by the Navy's findings, and that the software is appropriately calibrated to assess helicopter noise under the parameters requested by the stakeholders for this study. Therefore, the requested study plan modification is not necessary. Although the approved study plan specified that the ambient noise monitoring would be conducted between June and October 2023, SCE's postponement of that study component until June 2024 does not change the intent or effectiveness of the study in collecting adequate ambient noise condition data for the area.

Points of Interest

The approved study plan does not identify specific POIs or their exact locations but indicates that a POI would be established within 100 meters of the June Mountain Ski Area parking lot and that two or three POIs would be established along the helicopter flight path and identified in consultation with stakeholders, subject to landowner permission. However, in its reply comments SCE identified two specific POIs, HE-1 and HE-2. After reviewing the relative locations of the identified POIs, we expect that noise data collected from the two requested POIs is unlikely to be materially different than data collected from HE-1 and HE-2 and that information gathered from HE-1 and HE-2 will provide sufficient information for our environmental analysis. Therefore, we do not recommend modifying the approved study plan to require the additional requested POIs.

Literature Cited

Department of the Navy (Navy). 2021. Report to Congress. Real-Time Aircraft Sound Monitoring Final Report. November 30, 2021.

U.S. Fish and Wildlife Service (USFWS). 2014. Programmatic Biological Opinion on Nine Forest Programs on Nine National Forests in the Sierra Nevada of California for the Endangered Sierra Nevada Yellow-legged Frog, Endangered Northern

Distinct Population Segment of the Mountain Yellow-legged Frog and Threatened Yosemite Toad. December 19, 2014.

USFWS. 2016. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Yellow-Legged Frog, the Northern DPS of the Mountain Yellow-Legged Frog, and the Yosemite Toad; Final Rule. Federal Register 81: 59046-59119. August 26, 2016.

Document Content(s)