UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

April 12, 2019

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Subject: Draft Environmental Impact Statement for Relicensing the Don Pedro Hydroelectric Project, FERC Project No. 2299-082, and Issuing an Original License for the La Grange Hydroelectric Project, FERC Project No. 14581-002, Stanislaus and Tuolumne Counties, California (EIS No. 20190014)

Dear Secretary Bose:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. The Federal Energy Regulatory Commission (FERC) is considering applications from the Turlock Irrigation District and the Modesto Irrigation District for two projects located on the Tuolumne River: a hydropower license renewal for the Don Pedro Hydroelectric Project, as well as an original license for continued operation of the La Grange Project.

Following our review of the Draft Environmental Impact Statement (DEIS), as well as other agencies' submittals to FERC for the project, EPA has identified several recommendations regarding the analysis of effects of water temperature on salmonid species, temperature and dissolved oxygen monitoring plans, and conditions provided by resource agencies. These and other recommendations are described in the enclosed *Detailed Comments*. We note that effective October 22, 2018, EPA no longer includes ratings in our comment letters. Information about this change and EPA's continued roles and responsibilities in the review of federal actions can be found on our website at: https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act.

EPA appreciates the opportunity to review this DEIS, and we are available to discuss our comments. When the FEIS is released for public review, please send one CD copy to the address above (mail code: ENF-4-2). If you have any questions, please contact me at 415-947-4161, or contact Jean Prijatel, the lead reviewer for this project. Ms. Prijatel can be reached at 415-947-4167 or prijatel.jean@epa.gov.

Sincerely,

Connell Dunning

Connell Dunning, Acting Manager
Environmental Review Section

Enclosure: EPA's Detailed Comments

cc via email: James Hastreiter, Federal Energy Regulatory Commission
Kaylee Allen, US Fish and Wildlife Service
William Foster, NOAA Fisheries
Steve Edmondson, NOAA Fisheries
Chase Hildeburn, State Water Quality Control Board
Julie Vance, California Department of Fish and Wildlife
Michael Nepstad, US Army Corps of Engineers

DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE RELICENSING OF THE DON PEDRO HYDROELECTRIC PROJECT, FERC PROJECT NO. 2299-082, AND ISSUING AN ORIGINAL LICENSE FOR THE LA GRANGE HYDROELECTRIC PROJECT, FERC PROJECT NO. 14581-002, STANISLAUS AND TUOLUMNE COUNTIES, CALIFORNIA – APRIL 12, 2019

Water Quality

EPA acknowledges the analyses completed by the Turlock Irrigation District and the Modesto Irrigation District (Districts) in modeling the effects of different operations on reservoir pool storage, the lower Tuolumne River flow, water temperatures, and populations of *Oncorhynchus tshawytscha* and *O. mykiss*. Also, EPA supports the alternative plans developed by FERC staff for a temperature monitoring plan at Don Pedro Reservoir dam and at points down river, a large woody material management plan downstream of La Grange Diversion Dam, and a coarse sediment management plan in the lower Tuolumne River. We appreciate that the DEIS considers all beneficial uses in the project area as identified in the *Water Quality Control Plan for the Sacramento and San Joaquin Basins* (Basin Plan).

303(d) Listings for Dissolved Oxygen and Temperature

California's most recent 303(d) list was approved by the EPA on April 6, 2018 and lists the Lower Tuolumne River from Don Pedro Reservoir to the San Joaquin River as impaired for temperature and other parameters. Various temperature monitoring requirements are proposed in the DEIS. For dissolved oxygen impacts, the Districts proposed the following environmental measure: "Conduct dissolved oxygen (DO) monitoring in the La Grange Project forebay, immediately downstream from the powerhouse and at the lower end of the tailrace channel, from September 1 to November 30 each year *for the first 2 years of a new operating license*. If results indicate that a specific cause for low DO exists, the Districts would develop and file an action plan in year 3 of the license." Additionally, the DEIS includes a proposed requirement to "[d]evelop a plan to determine and mitigate the extent of project-caused low DO in the La Grange Powerhouse tailrace." (pages 36 & 45, emphasis added).

> **Recommendation**: The EPA supports suggestions by the State Water Resources Control Board (State Board), U.S. Fish and Wildlife Service (FWS), California Department of Fish and Wildlife (CDFW), and National Marine Fisheries Service (NMFS) to establish robust temperature monitoring programs, consistent with CA 303(d) listing policy, and to ensure that the project does not cause or contribute to a violation of water quality standards. Additionally, the EPA suggests the Final EIS include a requirement for increased monitoring of dissolved oxygen beyond two years, in addition to environmental measures the Districts proposed above. EPA recommends a monitoring period of more than five years to capture California's high degree of interannual variability in river runoff, and to sufficiently describe the dissolved oxygen range and critical conditions which can vary based on weather and dam operations.

The DEIS uses a temperature value of 22° C for the lower Tuolumne River in its model to determine impacts to water quality and aquatic resources from the alternatives. This temperature value is based on a study of peak performance, as measured by aerobic scope, for juvenile *O. mykiss* using swim tunnel respirometry (Verhille et al., 2016). The study concluded that salmonid peak performance in the lower Tuolumne River occurs over a broad temperature range, but did not consider other physiological and ecological effects under a warmer thermal regime. A subsequent evaluation of Verhille et al. by the Districts (Farrell et al., 2017) asserts that 22° C will be protective of juvenile *O. mykiss*. The DEIS consequently concluded that *O. mykiss* have likely adapted to the recent thermal shift of the lower Tuolumne River.

We note that the duration of the aerobic scope test in Verhille et al. was six hours, which is substantially shorter than the 96-hour duration recommended by EPA for testing *acute* effects on salmonids ("Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and their Uses," U.S. EPA, 1985). Also, the DEIS does not appear to examine population level impacts or impacts to life stages other than juvenile rearing (e.g., spawning, egg incubation, fry emergence, smoltification).

The DEIS summarizes recommendations that CDFW and NMFS made regarding Verhille et al. and Farrell et al. in their filings with the Commission.[1] CDFW and NMFS had previously conducted a comprehensive evaluation of Verhille et al. and Farrell et al. and made extensive comments to FERC in 2016 and 2017, respectively.

As noted in the DEIS, EPA acknowledges that there is an open scientific question about the thermal adaptability of Central Valley salmonids (page 3-90); however, there is a lack of consensus at present regarding *O. mykiss* adaptation to the recent shift in the thermal regime of the lower Tuolumne River

> ***Recommendation***: EPA recommends that FERC consider a robust suite of data and endpoints that broadly address thermal physiological and ecological effects, both acute and chronic, when determining scientifically-sound temperature values. Include in the FEIS a description of additional studies and references available regarding protective thermal values of salmonids. We further recommend including in the FEIS a discussion of the broad range of physiological and ecological factors that can influence the health of salmonids, including potential negative effects of competition, disease, and predation under a warmer thermal regime.
>
> Further, EPA recommends that the FEIS consider additional temperature research regarding population level impacts and impacts to life stages other than juvenile rearing (e.g., spawning, egg incubation, fry emergence, and smoltification).

Drought

EPA supports the proposed requirement to develop a drought management plan; however, it is unclear how the drought management plan would be implemented. For example, the DEIS states that "[i]mplementing the staff-recommended drought management plan would allow any such temporary changes that may be required under drought conditions to be determined in consultation with the appropriate resource agencies and stakeholders" (page ES-49).

> ***Recommendation***: EPA recommends that the FEIS include a draft drought management plan that clearly identifies how releases for environmental purposes will be prioritized during droughts, including thresholds for action and monitoring frequency.

Section 4(e) and 10(j) Conditions

The range of alternatives provided in the DEIS includes (1) the applicant's proposal, (2) the staff alternative including accepted conditions, and (3) the staff alternative with all mandatory conditions from other agencies. The DEIS includes Federal Powers Act Section 4(e) conditions submitted by the Bureau of Land Management (BLM), but does not include similarly submitted 10(j) conditions from the

[1] "CDFW (10(a) recommendation M1) states that the 18° C temperature "criteria" should not be changed based on a single study, and notes that other life stages of *O. mykiss* are present in the lower Tuolumne River. NMFS recommends use of the 18° C 7DADM temperature objective for steelhead juvenile rearing in the lower Tuolumne River (NMFS 10(a) recommendation 1.5)."

NMFS or the CDFW. An adequate environmental analysis of the third alternative, and potentially the second alternative (if FERC decides to include a condition in its staff alternative), will need to include these conditions.

> ***Recommendation***: In the FEIS, include all submitted Section 4(e) and 10(j) conditions in the staff alternative with mandatory conditions and the staff alternative, if applicable. For any conditions that FERC determines to be invalid, provide supporting analysis.

Management Plans

Proposed environmental measures are listed for the applicant's proposal and staff alternative (starting on page 2-21). The list includes a number of plans filed with the application (e.g., Spill Prevention Control and Countermeasure Management Plan, Aquatic Invasive Species Management Plan, and Terrestrial Resources Management Plan), and a number that have yet to be filed (e.g., Predator Control and Suppression Program, Dissolved Oxygen Monitoring Plan, etc.). The DEIS also lists plans that would be required by BLM or State Board conditions (ex. Streamflow and Reservoir Level Compliance Plan, Water Quality Monitoring Plan, etc.). There are over 15 plans and environmental measures that are inconsistently described throughout the resource sections of the DEIS and not thoroughly described in the Alternatives chapter. It is unclear whether and how the plans overlap or coincide, and little information is provided as to what the plans entail, yet they seem to be integral to the project and intended to provide mitigation measures for impacts.

> ***Recommendation***: Describe the monitoring and management plans more thoroughly and consistently in the FEIS. Include information regarding timing, responsibility for implementation and enforcement, and specific actions that would be taken under each of these plans. To the extent feasible, include drafts of the plans in the FEIS as appendices.

CWA Section 404 Permitting

The purpose of the Clean Water Act is to restore and maintain the chemical, physical and biological integrity of waters of the United States. These goals are achieved, in part, by controlling discharges of dredged or fill material pursuant to EPA's Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA (Guidelines). Fundamental to the Guidelines is the principle that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that there is no less environmentally damaging practicable alternative that achieves the Applicant's project purpose. In addition, no discharge can be permitted if it will cause or contribute to significant degradation of waters.

The DEIS does not address whether or not CWA Section 404 would apply to the projects. The DEIS does acknowledge that some of the recreation construction activities may result in erosion in project-affected waters, but it does not state whether or not they would meet the definition of fill and require CWA Section 404 permits. EPA is particularly concerned with the installation of infiltration galleries and recreation facility construction and modification that would alter shorelines, such as boat launches.

> ***Recommendation***: Include in the FEIS a discussion of the applicability of CWA Section 404 to project construction, operations, and maintenance activities. If applicable, discuss the permit requirements under this statute and identify the role of the Army Corps of Engineers in implementing these programs. Describe the results of the CWA Section 404 impacts analysis, as well as proposed mitigation, if applicable

Consultation and Coordination with Tribal Governments

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (November 6, 2000), directs federal agencies to establish tribal consultation and collaboration processes for the development of federal policies that have tribal implications, and is intended to strengthen the United States government-to-government relationships with Indian tribes. The DEIS describes FERC's efforts with regard to tribal consultation and states that Commission staff met representatives from the Picayune Rancheria of Chukchansi Indians, Chicken Ranch Rancheria of Me-Wuk Indians, California Valley Miwok Tribe, and Tuolumne Band of Me-Wuk Indians (page 3-369). The document further describes efforts to identify and assess impacts to traditional cultural properties including research, interviews, and visits to archaeological sites.

> ***Recommendation***: In the FEIS, include an updated status of consultation with tribes affected by the project and the impacts and mitigation measures identified through that consultation. Include the tribes in the distribution list of the FEIS and Record of Decision.