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

AUG 2 2 2013

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

Subject: Draft Environmental Impact Statement for Hydropower License, Drum-Spaulding Hydroelectric Project FERC Project No. 2310-193 and Yuba-Bear Hydroelectric Project FERC Project No. 2266-102, California (CEQ # 20130134)

Dear Ms. Bose:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement for the Hydropower License for the Drum-Spaulding Hydroelectric Project FERC Project No. 2310-193 and Yuba-Bear Hydroelectric Project FERC Project No. 2266-102. Our comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508) and our NEPA review authority under Section 309 of the Clean Air Act.

The Draft EIS evaluates the Federal Energy Regulatory Commission's proposal to issue new major licenses, for a period of 50 years, to Pacific Gas & Electric and Nevada Irrigation District to operate and maintain their Drum-Spaulding and Yuba-Bear hydroelectric projects. The proposed actions / preferred alternatives are the licensee proposals with staff modifications (Staff Alternative), which include many conditions proposed by other agencies. EPA acknowledges the need for renewable energy generation and appreciates the opportunity provided by the relicensing process to further protect and enhance environmental resources.

We have rated this project Environmental Concerns – Insufficient Information (EC-2) (see attached "Summary of the EPA Rating System"), due to our concerns regarding potential impacts to air quality and water resources, including such impacts from the projects' construction activities, as these activities were not evaluated in the DEIS. We request that FERC clarify, in the Final EIS, the extent of these activities and their anticipated impacts. In addition, we recommend that the Final EIS consider the reasonably foreseeable reintroduction of endangered anadromous salmonids over the course of the license term. The enclosed detailed comments elaborate on the above and other concerns, and provide recommendations regarding analyses and documentation needed to fully assess the potential adverse impacts from the Proposed Action and Action Alternatives.

EPA appreciates the opportunity to review this DEIS. When the Final EIS is released for public review, please send one copy to the address above (mail code: CED-2). If you have any questions, please

contact me at (415) 972-3521, or contact Jean Prijatel, the lead reviewer for this project, at 415-947-4167 or prijatel.jean@epa.gov.

Sincerely,

Kathleen Martyn Goforth, Manager
Environmental Review Office

Enclosure: Summary of EPA Rating Definitions
EPA's Detailed Comments

cc: Richard Wantuck, National Marine Fisheries Service
James Eicher, U.S. Bureau of Land Management
Drew Lessard and Rob Schroeder, U.S. Bureau of Reclamation
Beth Paulson, U.S. Forest Service
Jeffrey Parks, California State Water Resources Control Board
Field Supervisor, U.S. Fish and Wildlife Service

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment

EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR HYDROPOWER LICENSE DRUM-SPAULDING HYDROELECTRIC PROJECT AND YUBA-BEAR HYDROELECTRIC PROJECT, CALIFORNIA, AUGUST 22, 2013

Air Quality

The project proposals include numerous activities proposed by Pacific Gas & Electric, Nevada Irrigation District and FERC staff that have the potential to impact air quality, including powerhouse and recreation construction, maintenance and operational activities. We understand, through a brief conversation with FERC staff, that these activities are not expected to have significant impacts; however, the DEIS does not provide sufficient descriptions of the activities to support a determination of their associated impacts. Air quality impacts are only mentioned briefly in discussions about fire risk and "fugitive air emissions" as elements of recreation construction that may disturb sensitive species. The DEIS does not include an evaluation of existing air quality within the geographic scope of the project; nor does it examine the potential impacts to air quality from the project. Such an evaluation is necessary to demonstrate compliance with State and Federal air quality regulations, and to disclose the potential impacts from temporary or cumulative degradation of air quality. The project area is currently classified as a nonattainment area for the federal 8-hour ozone National Ambient Air Quality Standard and a maintenance area for the carbon monoxide NAAQS; therefore, a conformity analysis is needed.

Recommendation:

The Final EIS should demonstrate that the emissions from construction and operation of the projects would conform to the approved State Implementation Plan and would not cause or contribute to violations of the NAAQS.

The Final EIS should include a discussion of existing air quality and compliance with State and Federal air regulations. It should describe and estimate air emissions from potential construction and other activities, and identify mitigation measures that would minimize those emissions. It should also include an analysis of direct, indirect and cumulative air quality impacts of the proposed emissions.

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 and associated Plans do not address whether or not CWA Section 404 would apply to the projects. The DEIS does acknowledge that many of the construction activities may result in erosion, increased turbidity and sedimentation 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 recreation facility construction that will alter shorelines, such as boat launches and shoreline campgrounds.

Recommendation:
The Final EIS should include a discussion of the applicability of CWA Section 404 to project construction, operations and maintenance activities. If applicable, it should discuss the permit requirements under this statute and identify the role of the Army Corps of Engineers in implementing these programs.

Impacts from Connected Actions

The DEIS lists a number of proposed environmental measures in Sections 2.2.3 and 2.3.1; however, the potential impacts of construction, operations and maintenance activities associated with these measures are not addressed. These environmental measures are included in the Staff Alternative, but are inconsistently described throughout the resource sections of the EIS and not thoroughly described in the Alternatives chapter.

The list references dozens of plans, including Recreation Facilities, Construction Erosion Control and Restoration, Jordan Creek Diversion Decommissioning, Fire Prevention and Response, Large Woody Debris Management and Non-Native Invasive Species Management. It is unclear whether these Plans were filed with the initial application or are separate proposed measures that are all filed separately and individually. Little information is provided as to what the plans entail, including mitigation measures. The plans seem to be an integral part of the projects, particularly the Erosion Control plans, which are intended to provide guidance on preventing erosion and sedimentation. None of the plans are described in the existing conditions (No Action) chapter, so it appears that all the plans contain new actions that are not being currently implemented.

EPA is particularly concerned with the following:

- ***Recreation Facilities***. Construction of recreation facilities, including boat ramps, parking, campgrounds, toilets and other related facilities, would likely result in environmental impacts that have not been including in the DEIS environmental analysis. The plans and process for recreation construction are briefly outlined in Recreation Facilities Plans that are referenced in the DEIS, but those do not contain detailed descriptions of the construction projects and their potential impacts.

- ***Rollins Powerhouse Upgrade.*** The DEIS acknowledges that construction of the Rollins Powerhouse upgrade could result in increased erosion, turbid run-off and sedimentation or project-affected water, but does not include an analysis or mitigation of these impacts. It proposes a "Construction Erosion Control and Restoration Plan" for the project with an agency review period.

- ***Decommissioning of Jordon Creek Diversion.*** The DEIS requires that a "Decommissioning Erosion Control and Restoration Plan" be developed for the Jordon Creek diversion dam and canal decommissioning project, and states that such a plan would ensure adequate restoration of the disturbed area. The DEIS also lists general parameters for the plan, but does not include the impacts of this project or plan in the environmental analysis.

Recommendation:
The above plans should be more thoroughly described in the Final EIS. Information should include timing, responsibility and specific actions that would be taken under each of these plans.

Where appropriate, the discussion should include a list of proposed Best Management Practices. For plans that include actions with environmental impacts, those impacts – and measures that could be taken to avoid and minimize them – should be discussed in the environmental analysis.

Consideration of Reasonably Foreseeable Actions

The DEIS repeatedly states that the U.S. Army Corps of Engineers' Englebright Dam prevents passage of anadromous fish into the project areas, and that fish passage at that dam is not a reasonably foreseeable development. It also mentions that the National Marine Fisheries Service has issued a Biological Opinion for Continued Operation and Maintenance of Englebright Dam and Reservoir, Daguerre Point Dam, and Recreational Facilities on and Around Englebright Reservoir (Biological Opinion). The February 2012 version of the Biological Opinion found that fish passage above Englebright Dam is essential to the recovery of federally listed threatened Central Valley spring-run Chinook salmon, threatened Central Valley steelhead and threatened North American green sturgeon, and required the Corps to effectively reintroduce fish to the upper Yuba River by January 31, 2020. We understand that the Biological Opinion is undergoing revision and is expected to be reissued by May 12, 2013. Nevertheless, prior to the release of the 2012 Biological Opinion, NMFS provided similar information to FERC in scoping comments, dated 12/17/2008, for this DEIS, and published a Draft Recovery Plan in 2009 that included the Upper Yuba river watershed as a "Priority Area for Reintroduction" of spring-run Chinook.

In addition to NMFS' publications and comments, there is further evidence of other ongoing efforts to reintroduce anadromous salmonids to the Middle and South Yuba rivers. The Yuba Salmon Forum – comprised of state and federal resource agencies, water agencies, hydropower producers, conservation organizations and other local constituents – has evaluated the feasibility of fish passage at Englebright dam. The Upper Yuba River Studies Program released a Chinook salmon and Steelhead habitat assessment in 2007, which indicated that the upper Middle Yuba River could support substantial populations of spring-run Chinook and steelhead (http://www.water.ca.gov/fishpassage/projects/yuba.cfm).

We appreciate that the DEIS notes that the U.S. Forest Service, U.S. Bureau of Land Management, U.S. Bureau of Reclamation and U.S. Fish and Wildlife Service have stated that they may modify their license conditions in the event of reintroduction of anadromous salmonids to the project areas.

Given that the license would be in effect for 50 years, it is important that FERC's action be consistent with reasonably foreseeable long term ecological restoration efforts, such as reintroduction of anadromous salmonids along the Yuba River. Although we acknowledge that uncertainties remain regarding the implementation program set forth by NMFS in its 2012 Biological Opinion, it is important that actions taken now do not impede future recovery actions for the listed species.

Recommendation:
The Final EIS should discuss the current status of proposals to reintroduce Central Valley spring-run Chinook salmon, Central Valley steelhead and North American green sturgeon in the project stream reaches, and consider reintroduction as a reasonably foreseeable action. It should discuss the extent to which the projects could support such reintroduction efforts, such as by adjusting streamflow and providing fish passage at project dams. We recommend that the projects include a mechanism for modifying the FERC license conditions in the event that reintroduction is initiated, or that NMFS' recommendations for minimum stream flows, large woody debris,

course substrate and adaptive management be included in the license conditions now, with the stipulation that they would come into effect should reintroduction occur.

Climate Change

The discussion of cumulative effects in the DEIS does not address potential cumulative effects of climate change on the project areas, proposed projects and alternatives. While it is difficult to predict specific climate change impacts, the range of possible effects should be identified and discussed to the extent available information allows. The Forest Service has done extensive modeling, monitoring and data collection regarding climate change impacts in the project region (http://www.fs.fed.us/psw/topics/climate_change/). The California Office of Environmental Health Hazard Assessment recently published a report titled "Indicators of Climate Change in California" (oehha.ca.gov/multimedia/epic/pdf/ClimateChangeIndicatorsReport2013.pdf), which documents a 9% decline in Spring runoff in the Sacramento River system, including the Yuba River, in the 20th century.

Possible effects in the project area include average temperature increases in Spring with earlier initial and maximum snow melt and higher water levels; changing precipitation patterns with more rain and less snow in winter, causing winter stream flows to increase; decreased snowpack and altered timing of Spring runoff; larger and more severe storms; warming temperatures and more severe drought with increased risk of warmer stream temperatures negatively affecting aquatic organisms and fish species that thrive in cold water.

Recommendation:
The Final EIS should include a discussion of historic and reasonably anticipated future impacts of climate change and its potential effects on the proposed projects and alternatives. We recommend that the projects and alternatives include an adaptive management strategy requiring monitoring and scheduled periodic updates to models over the course of the 50-year license period so that management adaptations based on changing climate conditions can be considered.

Methylmercury

The Middle Yuba River, South Yuba River, Bear River, North Fork of the American River and Deer Creek are currently on the 303(d) list of impaired waters for methylmercury (p.148). The DEIS states that methylmercury in the project area is a result of historical environmental damage associated with mining and mineral extraction, and that project operations under the new license will not affect the rate of methylmercury suspension, transport or bioaccumulation. It also states that monitoring to provide data to the California Office of Environmental Health Hazard Assessment is not warranted as it will not provide new information to guide decisions related to existing consumptive advisories.

As part of the Staff Alternative, PG&E and NID would continue to restock project waters with fish for recreational angling. As fish restocking is part of the proposed project operations and would provide fish that contribute to methylmercury bioaccumulation and promote recreational angling, a Mercury Bioaccumulation Monitoring Plan would be an appropriate environmental measure to monitor the impacts of project operations.

Recommendation:
The Final EIS should discuss the health impacts of consuming fish that contain elevated concentrations of methylmercury. We recommend that the ROD commit to a continuation of the

monitoring of methylmercury found in the fish that are annually stocked by PG&E and NID. If monitoring continues to reveal exceedances of OEHHA's methylmercury standards, signs should be posted in languages understood by likely recreationists to warn them of the risks of consuming fish that exceed recommended health levels. More information regarding methylmercury can be found at EPA's website http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/pollutants/methylmercury/index.cfm

Pesticides

The DEIS references several Plans that EPA believes may include the use of pesticides, including Integrated Vegetation Management, Non-Native Invasive Species Management, Large Woody Debris Management and Fire Prevention and Response. The DEIS addresses pesticide use only to state that use would be minimal, use would be designed to minimize impacts on known populations of specific species, and that written permission from resource agencies would be required before pesticide application occurs that could impact their lands within the project boundary.

Recommendation:
The Final EIS should list the names, uses, formulations and application protocols for all pesticides anticipated to be used in the project area. The document should also specify that pesticide labels will be followed. The likely impacts, including both beneficial and adverse effects, of the proposed treatments should be discussed and compared to existing conditions in the project area.

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 discusses some coordination efforts with, and comments from, eight tribal groups in the region, and states that FERC expects the licensees will continue to work with tribes through the Historic Properties Management Plans. The DEIS also states that it is unclear whether PG&E's and NID's plans address culturally important vegetation species, and recommends that the vegetation management plans take into consideration the cultural importance of these species (pages 295 and 304). The current drafts of publicly posted vegetation management plans for these projects do not elaborate on how culturally important species will be addressed and managed.

Recommendation:
The Final EIS should discuss the status of consultation with tribes affected by the proposed project operations and maintenance. The tribes should be included in the distribution list of the Final EIS and ROD. In addition, the Final EIS should clearly discuss the impacts and mitigation measures of the management plans specific to culturally important resources.

Environmental Justice

The DEIS does not include an analysis of the potential environmental justice impacts of this project. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and*

Low-Income Populations (February 11, 1994), directs Federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to participate in the decision-making process. Guidance by the Council of Environmental Quality (CEQ) clarifies the terms "low-income" and "minority population" (which includes American Indians) and describes the factors to consider when evaluating disproportionately high and adverse human health effects (*Guidance for Federal Agencies on Key Terms in Executive Order 12898*, December 1997).

Recommendation:
The Final EIS should include an evaluation of environmental justice populations within the geographic scope of the project. If such populations exist, the Final EIS should document the public involvement methods used, describe the likely impacts of the project on those populations, and discuss any measures that could mitigate those impacts. Assessment of the project's impact on minority and low-income populations should reflect coordination with those affected populations.