State Water Resources Control Board

August 27, 2021

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C.  20426
Sent via eFiling

Phoenix Hydroelectric Project
Federal Energy Regulatory Commission Project No. 1061

PRELIMINARY TERMS AND CONDITIONS

Dear Secretary Bose:

On July 2, 2021 the Federal Energy Regulatory Commission (FERC) issued a Notice of Ready for Environmental Analysis (REA) and an accompanying request for comments, protests, recommendations, and preliminary terms and conditions regarding a new license for the Phoenix Hydroelectric Project (Project), FERC Project No. 1061.

Pacific Gas and Electric Company, which owns and operates the Project, submitted an Application for New License Major Project (Final License Application) on August 24, 2020. In accordance with a Memorandum of Understanding executed between the FERC and the State Water Resources Control Board (State Water Board) on November 19, 2013, State Water Board staff is providing the attached preliminary terms and conditions in response to the FERC’s Notice of REA.

If you have questions regarding this letter the best means of contact is by email. Please contact me, the Project Manager, by email at eric.bradbury@waterboards.ca.gov. Written correspondence or inquiries should be directed to:

State Water Resources Control Board
Division of Water Rights - Water Quality Certification Program
Attention: Eric Bradbury
P.O. Box 2000
Sacramento, CA  95812-2000
Sincerely,

Eric Bradbury, Environmental Scientist
Water Quality Certification Unit
Division of Water Rights

Enclosure: Attachment A – Preliminary Terms and Conditions for the Phoenix Hydroelectric Project

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In accordance with the Memorandum of Understanding (MOU) executed between the Federal Energy Regulatory Commission (FERC) and the State Water Resources Control Board (State Water Board) on November 19, 2013, and to the extent that information is available, State Water Board staff is providing water quality certification (certification) preliminary terms and conditions in response to the Notice of Ready for Environmental Analysis (REA) issued by FERC for the Phoenix Hydroelectric Project (Project), FERC Project No. 1061. The Project is owned and operated by Pacific Gas and Electric Company (PG&E). This document is strictly preliminary in nature, and is being sent to further coordination of information needs and potential conditions between FERC and the State Water Board. As such, this document does not reflect a decision by the State Water Board to adopt any particular term or condition, nor does it limit the State Water Board’s consideration of terms or conditions different from or in addition to those presented here.

1. Instream Flows and Reservoir Levels
   The State Water Board will likely require the Licensee to develop and implement an Instream Flow and Reservoir Levels Plan. The State Water Board will likely condition instream flows and reservoir levels in light of the whole record. Instream flow threshold will likely be specific to particular stream or water conveyance reaches, water-year types, and timeframes. Instream flows will be set to protect water quality and sensitive beneficial uses in the particular reaches. Reservoir levels will be set to protect water quality and the sensitive beneficial uses within and downstream of reservoirs and will likely also vary with water-year type and timeframe.

   In addition to complying with Preliminary Condition 5, at a minimum, the Plan shall include:
   1. Quantifiable thresholds that will be met or exceeded and the compliance measurement/assessment locations;
   2. Timing and timeframes;
   3. Water-year types;
   4. A detailed description of how each instream flow and reservoir level along with the timing will protect water quality and the beneficial uses short and long-term; and
   5. A list of Project-related activities and their timeframe that may require a variance from the proposed schedule.
      a. Each activity will need to include a proposed instream flow and reservoir level and how the instream flow or reservoir level variance will protect water quality and the beneficial uses.

2. Instream Flow and Reservoir Level Compliance
   The State Water Board will likely require the Licensee to develop and implement an Instream Flow and Reservoir Level Compliance Plan to document compliance with
instream flow and reservoir level requirements in the new FERC license. In addition to complying with Preliminary Condition 5, at a minimum, the Plan shall include:

1. Locations where the Licensee proposes to monitor instream flows and reservoir levels;
2. Equipment to be used by the Licensee to monitor instream flows and reservoir levels;
3. A description of how the equipment will be used by the Licensee to monitor instream flows and reservoir levels (e.g., frequency of data collection, operated, calibrated, and maintained);
4. A description of how data are retrieved from the equipment used by the Licensee to monitor compliance with the requirements in the license related to instream flow and reservoir levels, including frequency of data downloads, quality assurance/quality control procedures, standard operating procedures (SOPs), and data storage;
5. A description of how instream flow and reservoir level data is provided to the State Water Board and potential users of the affected streams/reservoirs; and
6. Inclusion of a provision to report any deviation from Instream Flow and Reservoir Level Compliance Plan to the Deputy Director within 24 hours of the deviation.

3. **Ramping Rates**

   Project operations will likely be subject to ramping rate specifications in order to protect water quality and beneficial uses from being unduly impaired by artificial flow fluctuations in Project-affected river and stream reaches. Ramping rates will be set to protect water quality and the beneficial uses in specific reaches.

4. **Water Year Type Classification**

   The State Water Board will likely determine the criteria to classify water year types for the Project-affected reaches.

5. **General Condition for Plans**

   The State Water Board will likely include a general condition for all plans that are required in the certification. This general condition also applies to all Preliminary Conditions in this document that require the Licensee to develop a monitoring plan or implement an existing plan. The plans should include reporting and consultation requirements, and plan revision guidelines to adaptively manage and monitor water quality and the beneficial uses affected by Project facilities, maintenance, and operations. Adaptive management components will be tailored to address project impacts throughout the life of the plan, and using the information gathered through implementation of the plan and analysis of the resulting metrics. Each plan is intended to cover the period between FERC’s approval of the plan and issuance of a new subsequent license (i.e., through the term of the new license and any annual licenses issued by FERC until a new license is issued).

   The Licensee should provide relevant state and federal agencies and interested groups with a minimum 30-day comment period on the plans, prior to submitting a plan to the State Water Board for consideration of approval that did not receive agreement from relevant resource agencies during the relicensing process. The
Licensee should file the final plan with the Deputy Director of the State Water Board’s Division of Water Rights for approval along with documentation of consultation, comments received, and a description of how the final plan incorporates the comments or justification for excluding implementation of comments into the final plan. The Deputy Director may require modifications to the plan. Upon Deputy Director approval, the Licensee should file the approved final plan with FERC. When FERC approves the plan, the Licensee should implement the plan as approved by FERC.

6. **Water Quality Monitoring Plan**

The State Water Board will likely require the Licensee, in consultation with staff from the State Water Board, California Department of Fish and Wildlife (CDFW), United States Bureau of Land Management (BLM), United States Forest Service (Forest Service), and United States Fish and Wildlife Service (USFWS), to develop and implement a Plan to monitor water quality. In addition to complying with Preliminary Condition 5, at a minimum, the Plan shall include monitoring sites at Project reservoirs and locations throughout Project-affected stream and river reaches. The monitoring sites should be adequately abundant and spatially distributed to provide data that measures potential impacts to water quality as a result of Project facilities or operations. Water quality monitoring should occur at intervals during the license term to document trends in time and changes in water quality related to operational changes, maintenance, and construction of new Project facilities that may impact water quality or the beneficial uses of water. At a minimum, a preliminary assessment of constituents that will require monitoring include water chemistry such as temperature, dissolved oxygen, pH, and turbidity and contaminants such as mercury, recreation-related water quality factors, and bioaccumulation monitoring components. At any point monitoring indicates Project-influenced water quality conditions exceed or threaten to exceed water quality standards or prohibitions set forth in the *Water Quality Control Plan for the Central Valley Region* (Basin Plan), the Licensee should immediately notify the State Water Board and the Central Valley Regional Water Quality Control Board. Additionally, the State Water Board may include specific metrics or methods that would appear in or supplement the Plan.

7. **Fish Monitoring and Management**

The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a Plan to monitor potential Project effects on native fish¹ species within the Project boundaries. In addition to complying with Preliminary Condition 5, at a minimum, the Plan shall include:

1. A description of proposed monitoring protocols and SOPs;
2. A comprehensive description of factors that may adversely affect native fish;
3. Monitoring of water temperature in spawning habitat;
4. A detailed monitoring and reporting schedule;

¹ For the purposes of this document, “Fish” means “a wild fish, mollusk, crustacean, invertebrate, amphibian, or part, spawn, or ovum of any of those animals” as defined in California Fish and Game Code, § 45.
5. Protective measures; and
6. A plan for corrective measures and a timetable for implementation if data indicates that the Project may be adversely affecting native fish.

8. **Foothill Yellow-Legged Frogs**
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff to develop and implement a Plan to monitor potential Project effects on Foothill Yellow Legged Frogs (FYLF) within the Project boundaries. In addition to complying with Preliminary Condition 5, at a minimum, the Plan shall include:
   1. A description of proposed monitoring protocols and SOPs;
   2. A comprehensive description of factors that may adversely affect FYLF;
   3. Monitoring of water temperature where eggs and tadpoles are found;
   4. A detailed monitoring and reporting schedule;
   5. Protective measures; and
   6. A plan for corrective measures and a timetable for implementation if data indicates that the Project may be adversely affecting FYLF.

9. **Special-Status Species Plan**
The State Water Board will likely require the Licensee to develop a special status species Plan in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff. In addition to complying with Preliminary Condition 5, the Plan should describe the Licensee’s responsibilities for evaluating potential impacts to special-status species and their habitat prior to constructing new Project features.

10. **Wildlife Resources Plan**
The State Water Board will likely require a Wildlife Resources Plan to determine the possible adverse impacts to special-status wildlife species from operations and maintenance of the Project’s facilities and activities that may take place throughout the term of the license. In addition to complying with Preliminary Condition 5, at a minimum, the Plan shall include:
   1. An identification and description of the special-status wildlife species that may occur within the Project boundaries;
   2. The Licensee’s responsibilities with respect to the protection of special-status wildlife species;
   3. Actions that will be taken if it is determined that adverse effects to special-status wildlife species are occurring due to Project operations, maintenance, and/or construction activities; and
   4. A plan for corrective measures and a timetable for implementation if data indicates that the Project may be adversely affecting special-status species.

11. **Aquatic Invasive Species Monitoring and Management Plan**
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a Plan to manage aquatic invasive species (AIS). The goal of this Plan is to establish a framework with specific activities to minimize the spread and impact of AIS on native fauna and habitats. In addition to complying with Preliminary Condition 5, this Plan should identify and describe AIS currently established within
the Project area, AIS with high potential to become established within the Project area, and the potential for AIS to spread in Project-affected waters. The Plan should include specific metrics or methods that would appear in or supplement the Plan, or include specific measures to be taken if new AIS are discovered in the Project area.

12. Drought Management Plan
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, State Water Board staff and interested parties, to develop and implement a Plan that outlines overarching guidance for operations during multi-year drought conditions. In addition to complying with Preliminary Condition 5, the Plan should include an anticipated schedule to initiate State Water Board and Ecological Group (Preliminary Condition 22) consultation regarding any potential drought-related FERC license or certification variances. If particular conditions are likely to require variance in extended drought periods, the State Water Board may include a drought management term in such conditions.

13. Erosion and Sediment Control Plan
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a Plan to minimize undesirable erosion or sedimentation conditions near streams, reservoirs, and canals and their spillways caused from Project operations and maintenance. In addition to complying with requirements in Preliminary Condition 5, the Plan should contain: proposed monitoring protocols, SOPs, Initial and periodic inventory and monitoring of potential erosion and sediment control treatment sites; criteria for prioritizing and ranking erosion sites for treatment and a schedule for treating each site; performance metrics to assess the effectiveness of sites; documentation of consultation with the agencies; and details on the erosion and sediment reduction protocols for ground-disturbing activities that include, but are not be limited to: routine operations; maintenance; new construction; emergencies within the Project affected area; management of historic properties and integrated vegetation; transportation; and recreation. Protocols should abide by applicable regulations, including the National Pollutant Discharge Elimination System, and reduce impacts to water quality within the Project area.

As part of this condition, the State Water Board will likely also include a requirement for developing a plan to evaluate erosion from the Main Tuolumne Canal spill channels and mitigation measures that will be implemented as a result of any adverse impacts to water quality or the beneficial uses within the Project area. The Plan will likely also include requirements for details of operations, maintenance, and any associated construction on the Main Tuolumne Canal.

The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a Plan for storage, use, transportation, and disposal of hazardous materials in the Project area. In addition to complying with Preliminary Condition 5, this Plan should discuss appropriate measures and equipment required to prevent the extent of any hazardous material spill. This Plan should also include protocols to
prevent adverse impacts to water quality and the beneficial uses in the event that hazardous materials are spilled. On-site containment for hazardous-chemical storage should be placed away from watercourses and include secondary containment and appropriate management as specified in California Code of Regulations, title 27, section 20320. Protocols and methods in this Plan should be consistent with the Construction General Permit Order 2009-0009-DWQ. Additionally, the State Water Board may include specific metrics or methods that would appear in or supplement the Plan.

15. **Fish Stocking Plan**
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a fish stocking Plan. Species selected for stocking and fish stocking should not impair the water quality, beneficial uses, or native fish. In addition to complying with Preliminary Condition 5, this Plan should discuss appropriate measures to maintain the recreational fishery, including periodic angler surveys.

16. **Integrated Vegetation and Pest Management Plan**
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a vegetation and pest management Plan. In addition to complying with Preliminary Condition 5, this Plan should discuss appropriate measures, timelines, and success criteria for controlling non-native plant species, non-native terrestrial animal species, protecting special status species, and re-vegetating disturbed areas. This Plan should also include protocols to prevent adverse impacts to water quality and the beneficial uses.

17. **Recreation Management Plan**
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, State Water Board staff and interested parties, to develop and implement a Plan to ensure the maintenance and operation of Project related recreation areas does not have an adverse impact to water quality or the beneficial uses. In addition to complying with Preliminary Condition 5, this Plan should include:

1. A list of all current and proposed Project related recreation areas that includes quantification of direct, indirect and temporary impacts, as well as timelines;
2. A description of operation, maintenance, and construction activities at Project recreation areas; and
3. Implementation of measures to ensure that Project operation, maintenance, construction, and operation activities associated with recreation areas do not cause an adverse impact to water quality and the beneficial uses.

18. **Project Roads and Trails Plan**
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a Project Roads and Trails Plan. In addition to complying with Preliminary Condition 5, this Plan should discuss appropriate measures for constructing, operating, and maintaining Project roads and trails. This Plan should
also include protocols to prevent adverse impacts to water quality and the beneficial uses from erosion.

19. Fire Prevention and Response Plan
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a Plan for fire prevention and response. In addition to complying with Preliminary Condition 5, this Plan should discuss appropriate measures for preventing, reporting, and investigating Project-related wildfires. This Plan should also include protocols to prevent adverse impacts to water quality and beneficial uses in the event of wildfire.

20. Project Safety Plan
The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a Project Safety Plan. In addition to complying with Preliminary Condition 5, this Plan should discuss appropriate measures for protecting public safety. This Plan should also include protocols to prevent adverse impacts to water quality and the beneficial uses.

The State Water Board will likely require the Licensee, in consultation with CDFW, BLM, USFWS, Forest Service, and State Water Board staff, to develop and implement a visual resource management Plan. In addition to complying with Preliminary Condition 5, this Plan should discuss appropriate measures for preventing or reducing the visual contrast of Project facilities. This Plan should also include protocols to prevent adverse impacts to water quality and the beneficial uses.

22. Ecological Group Annual Review and Consultation
The State Water Board will likely require the Licensee to organize an Ecological Group and host Ecological Group meetings. Ecological Group meetings shall convene once per year on a defined date and additional Ecological Group meetings may be held as appropriate. Ecological Group meetings shall aim to protect water quality, special status species, and other beneficial uses listed in the Basin Plan. At a minimum, the Ecological Group should be composed of staff from the National Marine Fisheries Service, United States Fish and Wildlife Service, California Department of Fish and Wildlife, Forest Service, appropriate Tribes, and the State Water Board.

The purpose of the meetings should be to provide a forum for stakeholders to be informed of special status species and water quality impacted by the Project. Discussion topics may include, but are not limited to, monitoring reports and other data from the previous calendar year, license noncompliance, recommendations or revisions to license required monitoring or implementation plans, and scheduled Project facility maintenance.
At least 30 days prior to the Ecological Group meeting, the Licensee shall make available to the Ecological Group reports and information from the previous calendar year required by the certification, trends using all previous years of data, and other relevant meeting material. Within 30 days following each Ecological Group Meeting, the Licensee shall file a meeting summary with FERC and the State Water Board.

23. Annual Employee Awareness Training
The State Water Board will likely include a condition for annual employee awareness training. No less than once per year, the license shall conduct an employee awareness training. At a minimum, the training topics shall include: best management practices, safety, hazardous waste and spills, updates to operations, and a review of special status species that may be in the Project area.

24. Newly Identified Impacts
The State Water Board reserves the authority to require additional conditions and revise adopted conditions upon the identification of newly-identified Project-related potential impacts to water quality or upon a new listing of aquatic or riparian species, newly identified presence of listed species, or the presence of anadromous fish within the Project-affected area, in order to ensure adequate protection of Basin Plan objectives and beneficial uses. This includes the authority to reopen conditions to address changes in the way the Project affects Basin Plan objectives and the beneficial uses due to climate change.

The State Water Board also reserves the authority to require the Licensee to develop, in consultation with appropriate resource agencies, and conduct studies whenever new Project-related potential water quality impacts or newly-listed or newly present listed aquatic or riparian species within the Project-affected area are identified or introduced. Such studies should be designed to determine and recommend appropriate measures to minimize new Project-related impacts and impacts on newly-listed species within the Project-affected area.

The following conditions will likely apply to this Project in order to protect water quality and beneficial uses over the term of the Project’s license and any annual extensions.

25. Unless otherwise specified in the certification or at the request of the State Water Board, data and/or reports must be submitted electronically in a format accepted by the State Water Board to facilitate the incorporation of this information into public reports and the State Water Board's water quality database systems in compliance with California Water Code section 13167.

26. The State Water Board’s approval authority includes the authority to withhold approval or to require modification of a proposal or plan prior to approval. The State Water Board may take enforcement action if PG&E fails to provide or implement a required plan in a timely manner.

27. The State Water Board reserves the authority to add to or modify the conditions of a certification to incorporate changes in technology, sampling, or methodologies.
and/or load allocations developed in a total maximum daily load developed by the State Water Board or the Central Valley Regional Water Quality Control Board.

28. Future changes in climate projected to occur during the license term may significantly alter the baseline assumptions used to develop the conditions in a certification. The State Water Board reserves authority to modify or add conditions in a certification to require additional monitoring and/or other measures, as needed, to verify that Project operations meet water quality objectives and protect the beneficial uses assigned to the Project-affected stream reaches.

29. A certification requires compliance with all applicable requirements of the Basin Plan. The Applicant must notify the State Water Board and the Central Valley Regional Water Quality Control Board within 24 hours of any unauthorized discharge to surface waters.

30. The State Water Board reserves the authority to add to or modify the conditions of this certification: (1) if monitoring results indicate that continued operation of the Project could violate water quality objectives or impair the beneficial uses; (2) to coordinate the operations of this Project and other hydrologically connected water development projects, where coordination of operations is reasonably necessary to achieve water quality objectives or protect beneficial uses of water; or (3) to implement any new or revised water quality objectives and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Act, or section 303 of the Clean Water Act.

31. Notwithstanding any more specific conditions in a certification, the Project should be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Act or section 303 of the Clean Water Act. The Applicant must take all reasonable measures to protect the beneficial uses listed in the Basin Plan.

32. A certification does not authorize any act which results in the taking of a threatened, endangered, or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either California Endangered Species Act (Fish & G. Code §§ 2050-2097) or the Endangered Species Act (ESA) (16 U.S.C. §§ 1531 - 1544). If a “take” will result from any act authorized under a certification or water rights held by PG&E. PG&E must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. PG&E is responsible for meeting all requirements of the applicable ESAs for the Project authorized under a certification.

33. In the event of any violation or threatened violation of the conditions of a certification, the violation or threatened violation is subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into a certification.
34. In response to a suspected violation of any condition of a certification, the State Water Board may require the holder of any federal permit or license subject to a certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports should bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The State Water Board may add to or modify the conditions of a certification as appropriate to ensure compliance.

35. No construction should commence until all necessary federal, state, and local approvals have been obtained.

36. The Applicant must submit any change and/or proposed change to the Project, including Project operation, technology changes or upgrades, or methodology, which would have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. The State Water Board will determine significance and may require consultation with state and federal agencies. If the State Water Board is not notified of a change to the Project, it will be considered a violation of this certification. If such a change would also require submission to FERC, the change must first be submitted to and approved by the State Water Board.

37. The Applicant must provide State Water Board staff access to Project sites to document compliance with a certification.

38. The State Water Board will provide notice and an opportunity to be heard in exercising its authority to add or to modify any of the conditions of a certification.

39. A certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code Section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867).

40. A certification is not intended and should not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

41. Nothing in a certification should be construed as State Water Board approval of the validity of any water rights, including pre-1914 claims. The State Water Board has separate authority under the Water Code to investigate and take enforcement action, if necessary, to prevent any unauthorized or threatened unauthorized diversions of water.

42. Certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, chapter 28.