



ORIGINAL

Power Generation

245 Market Street
San Francisco, CA 94105Mailing Address
Mail Code N11C
P.O. Box 770000
San Francisco, CA 94177

January 26, 2009

2009 JAN 30 P 4:42

FEDERAL ENERGY
REGULATORY COMMISSION

Ms. Kathleen Wood
Assistant Field Supervisor
U.S. Fish and Wildlife Service
2800 Cottage Way, Rm W-2605
Sacramento, CA 95825-1846

**RE: Kilarc-Cow Creek Hydroelectric Project, FERC No. 606
Additional Details on the Project's Decommissioning Effects to Fish and
Wildlife**

Dear Ms. Wood:

This letter is in response to the November 7, 2008 letter prepared by the U.S. Fish and Wildlife Service (USFWS) addressing the Service's comments on the Draft License Surrender Application (DLSA) for the Kilarc-Cow Creek Hydroelectric Project (Project). Pacific Gas & Electric Company (PG&E) appreciates the Service's comments and effort to work collaboratively with PG&E to develop a comprehensive License Surrender Application (LSA), including the Proposed Decommissioning Plan and implementation schedule. PG&E is committed to decommissioning the Project in a manner that will protect and enhance fish, wildlife and other resources currently affected by the Project.

PG&E anticipates filing a final LSA with the Federal Energy Regulatory Commission (FERC) by FERC's March 2009 deadline. Upon acceptance of the LSA, FERC will undertake an Environmental Assessment under the National Environmental Policy Act and will consult with federal and state resource agencies under the Endangered Species Act. PG&E has been designated as the non Federal lead for the consultation with USFWS. PG&E met with Jeremiah Karuzas, Fish and Wildlife Biologist, USFWS, on January 6, 2009 to discuss the Proposed Project and consultation process. Federally-listed species with potential to occur in the Project area were discussed, as well as avoidance and minimization measures to avoid impact to these species. Mr. Karuzas agreed that with these measures, the Project would not likely adversely affect the species discussed. Mr. Karuzas indicated that formal consultation would not be required and a biological assessment would not need to be prepared. PG&E also met with the USFWS (William Foster and Brenda Olson) at an interagency meeting on December 17, 2008 to discuss the proposals for fish passage at the Project diversions. Additionally, PG&E has requested a meeting with Mr. Foster to discuss the November 7, 2008 comment letter, but has not been able to schedule a meeting to date.

In the meantime, we have responded to the comments in the same order they were presented in the November 7, 2008 letter. The issues are shown in bold italics with

Ms. Kathleen Wood
January 26, 2009
Page 2

PG&E's response(s) following. We look forward to continued dialog on USFWS comments with your staff at an interagency meeting scheduled on February 10, 2009.

- 1. The project related and environmental resource protection measures proposed in the DLSA/PDP for the surrender of the license and the decommissioning of the Project's facilities appear to follow the Kilarc-Cow Project Agreement that was signed by the Service on March 4, 2005.**

We appreciate your recognition of PG&E's efforts to decommission the Project consistent with the Project Agreement.

- 2. The DLSA/PDP provides the basic concepts and proposals for the de-construction and decommissioning of the Project's various diversion structures, canals and forebays. However, at this stage of the FERC process, some specific details of the various proposals for the numerous decommissioning actions are still not entirely clear. The DLSA/PDP proposes general de-construction options, basic pre-construction surveys, minimal control or mitigation measures, and generic monitoring proposals. In addition, the DLSA/PDP proposes that the Applicant not prepare detailed engineering, management, and mitigation plans until the Commission issues an Order granting the Applicant's License Surrender Application (containing the Project's Final Decommissioning Plan) some time prior to 2011. However, in order for the Service to completely evaluate the potential effects of the Project's decommissioning on fish and wildlife species, we would need more information. Specific details must be provided on the how, where, and when additional roads or access would be constructed, various segments of Project's facilities would be dismantled, and specific mitigations for various decommissioning actions would be implemented.**

As discussed at the December 17, 2008 agency meeting, PG&E is continuing to develop the detailed plans for the dismantling and removal of Project features. Additional information on decommissioning plans will be provided to USFWS as it becomes available. We are developing some additional information on potential project effects that will be included in the final LSA. This will include estimates of the acreage of potentially affected areas, and associated additional protection, mitigation and enhancement measures. The additional information developed to date is summarized below, and in subsequent responses.

Preliminary information has been developed to identify improvements on access roads to implement the decommissioning plan. The road assessment is divided into improvements for (a) potential new access roads, and (b) existing access roads, and are illustrated in Appendix A, Figures 2.1 and 2.2 in the DLSA. The vast majority of the roads that will be used for decommissioning access are existing roads. Most of these

Ms. Kathleen Wood
January 26, 2009
Page 3

existing roads will need only minor improvement. In the Kilarc development, elevated flume structures prevent access to some canal segments, and therefore new temporary road segments are being considered that allow construction equipment to reach these canal segments. Eight of these canal segments are cut off by the elevated flume structures. In order to access these segments, thirteen short potential access roads are being considered, encompassing about 0.5 mile in total distance, or 2/3 of an acre. In the Cow Creek development, no new access roads will be needed for decommissioning. Additional details on decommissioning of the roads are provided below in response to comments No. 3 and 9.

- 3. *More specific details on the Project's decommissioning effects to fish and wildlife should be provided to the Service 60 days before the Final License Surrender Application (containing the Final Decommissioning Plan) is filed with the Commission in March 2009.***

Per your request we are providing you with additional details on the Project's effects to fish and wildlife and associated Protection, Mitigation and Enhancement (PM&E) measures we have identified since the DLSA was released.

PG&E has continued to refine the project actions and evaluate potential project effects. PG&E is also continuing to consult with resources agencies and develop additional PM&E measures in response to agency comments. Several PM&E measures were added or modified to incorporate more specific information in response to USFWS comments received during informal consultation on endangered species, and from comments received from USFWS, National Marine Fisheries Service (NMFS), California Department of Fish and Game (CDFG) and State Water Board in a recent meeting (December 17, 2008) to discuss dismantling of the Project diversions. These measures include PM&E measures WILD-1 (see response to comment No 4 below), GEOL-1 (See response to comment No 6 below), BOT-1 (response to comment No 8 below) and the new PM&Es listed below. PG&E is incorporating these into the LSA.

Diversions

Dam removal could result in the creation of potential fish passage barriers. A new measure AQUA-5 will be added to the LSA to monitor passage conditions following removal of Kilarc Main Canal and South Cow Creek Diversion dams. To assess any potential development of long-term barriers, PG&E will monitor fish passage conditions from upstream of the current sediment accumulations above each of the two dams to a point approximately 10 channel widths downstream of the dams for two years after the diversions are removed. If a long-term passage impediment is identified as a result of the diversions being removed, PG&E will consult with CDFG and NMFS to determine appropriate measures to remedy the situation.

Ms. Kathleen Wood
January 26, 2009
Page 4

Tailrace and Forebays

Adverse effects that might occur to individual animals entering construction areas during deconstruction activities at the tailrace and forebays could be avoided or mitigated by relocation of these animals in advance of construction activities. As noted in response to comment No 4 below, PG&E will conduct preconstruction surveys and remove any individuals at risk, if necessary (PM&E measure WILD-1).

Canals

In order to decommission the canals, a few small trees (less than two inches in diameter) growing along the steep canal banks will need to be removed, which constitute a slight loss of habitat for foraging or nesting birds.

Access roads

The creation of new road segments may be necessary in order to access some areas of the canal. Building these roads would include the removal of vegetation, including limited areas of live oak woodland and ponderosa pine plantation. These new roads would constitute about 0.5 miles or 2/3 of an acre, and would be built only in areas that have already been disturbed by logging.

To offset potential impacts on botanical and wildlife resources, as a result of the construction and decommissioning of these roads, the following measures will be implemented: at all construction areas where vegetation will be disturbed and along access roads, PG&E will conduct pre-construction surveys for special-status plants, including a survey for elderberry shrubs within 100 feet of decommissioning activities. Additionally, pre-construction surveys for nesting birds will be conducted if vegetation removal is scheduled during the breeding period. These measures correspond to PM&E measures BOTA-1, BOTA-2, and BOTA-3 and PM&E measures WILD-1, and WILD-2, and are detailed in the DLSA Sections E.4.6 and E.4.7.

Construction traffic on access roads has the potential to injure or kill wildlife species. An additional PM&E measure will be incorporated into the LSA that will enforce speed limitations of 15 miles per hours on the roads for protection of individuals in the vicinity.

General measures

In order to further minimize construction related effects on fish and wildlife, PG&E plans to conduct environmental awareness training. The biological monitor will be responsible for conducting worker environmental awareness training to all construction personnel (including new, added, and/or replaced workers) prior to the onset of active construction. This training will include a brief description of the special-status species

Ms. Kathleen Wood
January 26, 2009
Page 5

that potentially occur at the site and distribution of a brochure or pamphlet that describes the species to all workers. Workers will be instructed to drive carefully and look for amphibians, reptile or mammal in the path of their vehicles. In the event that an amphibian of any species is observed, workers shall stop their equipment immediately until such a time that the onsite biological monitor has identified it, relocated it if necessary or it moves from the active construction area by its own initiative (See response to comment No 4 for additional information).

Since fish and wildlife resources could be affected by accidental release of oil or hazardous materials associated with construction activities, PG&E will incorporate spill prevention and clean-up measures to minimize the release of oil or hazardous materials into the environment. These measures will include, but not be limited to, such measures as (1) Requiring that fueling or maintenance of equipment (including washing) only be performed in specified areas outside an approved protective strip of predominately undisturbed and vegetated soil; (2) Not allowing refueling of construction equipment within 100 feet from riparian or aquatic habitats; (3) Reporting any release of oil or hazardous materials immediately upon detection in accordance with all applicable laws and regulations; (4) Requiring all contractors to have materials on hand to control and contain a spill of oil or hazardous materials.

4. Specific protocols for pre-construction, deconstruction, and monitoring surveys to assess potential threats to fish and wildlife species must also be further developed, provided, or referenced in a manner other than stated generally as "standard practices" or "best management practices."

The text for PM&E Measure WILD-1 has been expanded to state that "PG&E will conduct pre-construction surveys for amphibians (including foothill yellow-legged frog and California red-legged frog), reptiles (including pond turtles), and any other individual at risk prior to construction activities at the diversions and powerhouse tailraces utilizing standard USFWS species-specific protocols¹, and any individuals will be captured and if necessary, relocated to suitable habitat. Exclusion fencing will be installed around the construction area. A biological monitor will be available throughout the construction phase to identify and relocate, if necessary, any individual animals found in the construction area. If California red-legged frog is found, construction work will be stopped and USFWS will be notified. Construction activity will recommence upon USFWS approval.

Additional text has been added to the LSA stating "Biologists with experience in conducting breeding bird surveys will conduct the surveys. Surveys will be conducted between dawn and 10 am."

¹ USFWS, 2005. Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog. August 2005.

Ms. Kathleen Wood
January 26, 2009
Page 6

Because the hydroelectric Project will no longer exist once deconstruction is completed, no future monitoring surveys are proposed.

5. Please explain why turbidity and fecal coliform levels are expected to decrease with the increase in flow in South Cow Creek.

Turbidity and fecal coliform levels are expected to decrease because the increase in flow would have a dilution effect. PG&E does not expect the source of these constituents (runoff affected by cattle, native animals) to change.

6. The measures for erosion control do not appear to be sufficient. There is no discussion on what measures would be implemented if the proposed erosion control measures are found to be ineffective (i.e., will the Applicant develop and implement alternative erosion control measures to remediate the problem?).

Additional text describing the erosion control measures has been added to the final LSA. In developing the erosion control measures, PG&E will adhere to standard erosion control procedures, including applicable measures developed by the U. S. Forest Service (USFS) and published in the Water Quality Management for Forest System Lands in California Best Management Practices (BMPs; USDA-FS, 2000)². The Water Quality Management for Forest System Lands in California provides a set of standardized BMPs to protect water quality during the planning and construction of projects. The BMPs are organized into eight land use activity categories, including Road and Building Site Construction and Watershed Management. Also, additional text in the final LSA will include that during the construction period, post-storm assessments will be made and, if necessary, adjustment to BMPs will be made. The monitoring assessment will identify necessary repairs or replacements of BMPs and/or recommend additional measures based on site conditions. Two years of in-stream post-construction monitoring are proposed to identify any potential need to implement additional or alternate measures to control erosion following deconstruction activities.

To meet Project permit conditions for construction and post-construction, PG&E will develop effective, site-specific, erosion control measures based on BMPs described above for construction and dismantling actions in consultation with the appropriate agencies, including USFWS, NMFS, CDFG, the U.S. Army Corps of Engineers and the State Water Board in the State Water Board 401 water quality certification and Army Corps of Engineer Section 404 permit processes. If the implemented BMPs are ineffective, PG&E will work with interested agencies to develop alternative measures in accordance with Project permit conditions.

² United States Department of Agriculture - Forest Service. 2000. Water Quality Management for Forest System Lands in California, Best Management Practices. USDA-FS PSW Region, Available on-line under: http://www.fs.fed.us/r5/publications/water_resources/waterquality/water-best-mgmt.pdf

Ms. Kathleen Wood
January 26, 2009
Page 7

7. The Applicant does not provide a clear description of how the proposed thalweg channels, to be cut into the sediment wedges behind the dams, will be contoured. Will these channels be at bankfull width, will the banks be angled back, or will the banks be straight up and down?

Additional text describing the proposed thalweg has been added to the final LSA. This text incorporates suggestions made during consultations with NMFS, USFWS, CDFG and State Water Board. Additionally, a NMFS Biological Opinion will be issued prior to commencing deconstruction activities and will include measures addressing fish passage; and all terms and conditions of the Biological Opinion will be implemented.

The purpose of the thalweg channel is to facilitate fish passage during the period of time directly following the removal of the diversion dam. During this period, the stored sediments will be transported by flow from the former impoundment sites and distributed downstream to contribute spawning gravel and other sediment to the natural stream processes. The channel work is designed to advance the processes of natural channel formation at the nickpoint created by the dam removal. The pilot thalweg is to be dimensioned so that it provides adequate depth during low flows allowing for fish passage. The pilot thalweg will be shaped on-site during the dam removal process. The pilot thalweg will have a minimum 6-foot bottom width, which is approximately 20 percent of the 30 foot bankfull channel width³ downstream from the dam. The side slopes of the pilot thalweg will be laid back to a natural, stable angle of repose. The pilot thalweg will be constructed to a starting depth that is approximately equivalent to the water surface elevation of the plunge pool immediately downstream from each of the respective dams. Adjustments to these thalweg dimensions and elevation will be allowed if site specific conditions make it infeasible to construct the pilot channel to the recommended dimensions at either of the dam sites.

8. Please specify further if certified weed-free straw or native seeds/plants will be used for revegetation of banks or access points/roads.

The LSA PM&E measure BOTA-1 has been revised to state "If straw is used for temporary erosion control, it will be certified weed-free. Native plants will be used for re-seeding and other revegetation, unless the property owners specify the use of other materials. If the use of native seed is intended, but sufficient supplies are not available, then cereal seed will be used for temporary erosion control." The lands surrounding the project are privately owned. Plant materials used for revegetation will be determined in part by the preferences of the landowners who may be interested, including non-native plants in the revegetation of their properties.

³ The bankfull width corresponds to the water surface elevation in the channel that would accommodate the 1.5-year instantaneous peak flood flow, which is much greater than is needed for a pilot thalweg to accommodate a low flow.

Ms. Kathleen Wood
January 26, 2009
Page 8

- 9. The Applicant's descriptions and proposals for road decommissioning are vague. The Applicant appears to propose that ripping and seeding is the most vigorous course of action. However, if steep roads are ripped, then rill and gully formations will develop unless the roads are ripped along the slope (cross-wise to the road). In addition, the Applicant does not discuss the connectivity of the roads to drainages. The Applicant should address potential erosion issues associated with roads to be decommissioned or with new access roads. The means by which the Applicant would design roads to minimize erosion is not discussed in detail.**

Additional text addressing the potential erosion issues to access roads has been added to the final LSA. Most of the roads that will be used during the decommissioning are existing roads located on private property. Several new short road segments are being considered to facilitate work on the canals (see the response to comment No 3). For the disposition of existing roads, or any new access roads that are created for decommissioning, the roads will either be left in place or scarified and seeded (see response to comment No. 8) depending on landowner preferences. To minimize potential erosion issues, any new temporary roads required for the project will be designed and constructed in accordance with USFS Standard Specifications for Roads and Bridges, as well as follow the applicable BMPs outlined in the USDA-FS guidance on Water Quality Management for Forest System Lands in California (specifically BMP 2-1 through 2-11, 2-13 and 2-17).

- 10. The Applicant does not discuss the rationale for leaving the cut-off wall in-place on South Cow Creek and how the presence of that structure would affect the stream and movement of the sediment wedge upstream.**

As discussed with USFWS and other agencies during the December 17, 2008 meeting, removal of the two parallel cut-off walls might lead to unnecessary streambed disturbance and to channel instability. Further, the cut-off walls will function as a grade control structure, which will ensure limits on channel down-cutting below the elevation of the top of the cut-off wall, (elevation 1549.6 ft), which is estimated to be approximately the original elevation of the pre-dam channel bed. Section E.3.5.2 Cow Creek Development discusses the rationale for leaving the concrete cut-off wall in place as a grade control structure. Since the sediment wedge that has deposited behind the dam is situated above the top of the cut-off wall elevation (i.e., above the original bed elevation before dam construction), leaving the cut-off wall in place will not affect transport of the sediments stored behind the dam.

PG&E looks forward to discussing this further with you at the February 10, 2009 meeting scheduled in Sacramento. The Service will have the opportunity to provide feedback on these responses, along with all other resources agencies representatives present at the meeting. PG&E looks forward to working collaboratively with USFWS and all interested

Ms. Kathleen Wood
January 26, 2009
Page 9

parties, and trusts that all parties will come to an agreement on how to best address these concerns.

Feel free to contact me at (415) 973-4731 or SXEF@pge.com if you have any questions or comment.

Sincerely,



for

Stacy Evans, Project Manager
Hydro Licensing

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

Mr. William Foster
US Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Ms. Brenda Olson
US Fish and Wildlife Service
10950 Tyler Road
Red Bluff, CA 96080