COMMENTS
ON PROPOSED STUDY PLAN
MERCED FALLS HYDROELECTRIC PROJECT NO. 2467-019
AND COMMENTS ON PROJECT 2179-042

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E-filing

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE Room 1-A
Washington D.C. 20426

Dear Ms. Bose:

Conservation Groups (Merced River Conservation Committee, Trout Unlimited, California Sportfishing Protection Alliance, Golden West Women Flyfishers, Northern California Council Federation of Flyfishers, American Rivers and Friends of the River) have reviewed Pacific Gas and Electric Company's August 6, 2009 Proposed Study Plan for the Merced Falls Hydroelectric Project (FERC 2467) relicensing. Conservation Groups respectfully submit the following comments in response to licensee's proposed study plan.

Geographic Scope and Environmental Document Preparation

Commission staff has stated that it intends to prepare a single NEPA document to address the environmental effects of both the Merced Falls (FERC 2467) and Merced River (FERC 2179) Hydroelectric Projects. Conservation Groups agree that it is logical and appropriate to consider the two projects to be intrinsically linked, both operationally and ecologically. It is thus also appropriate to gather information and data regarding both projects simultaneously. A single NEPA document is required to provide the public with a focused and concise analysis of the combined effects of the projects.

Commission staff states that it intends to prepare an Environmental Assessment for the Merced Falls (FERC 2467) and Merced River (FERC 2179) Hydroelectric Projects. The purpose of an Environmental Assessment (EA) is to provide sufficient (and brief) evidence to determine whether a project requires a full Environmental Impact Statement or can be properly addressed in a Finding of No Significant Impact. An EA is appropriate when impacts will occur but will be *minor or can be successfully mitigated to acceptable levels*. Conservation Groups believe that it is likely that study of the Projects' potential direct, indirect, and cumulative effects on the Merced River, San Joaquin River, and the Sacramento-San Joaquin Delta will demonstrate that an Environmental Impact Statement is called for. Effects from current project facilities, operations, and/or maintenance, or from potential changes to these, include:

- Effects on sediment transport and distribution.
- Effect on benthic macroinvertebrates.
- Effects on total dissolved gasses, water temperature, toxic compound concentrations, macrophyte growth, and pH.
- Effects on fish passage, including entrainment and turbine mortality.
- Effects on woody debris transport and recruitment.
- Effects on fish entrainment within the project boundary.
- Effects on anadromous and resident fish populations.

Commission Determination of Projects' Linkage and Operations

Commission staff found that the two projects are intrinsically linked, both operationally and ecologically. This will require that information and data from both projects be collected simultaneously.[1]

Conservation Groups believe that revised study and information requests for Merced Irrigation District's (Merced ID or MID) Merced River Project (P-2179) are also applicable to P-2467, and that both projects, Crocker-Huffman Dam, and other non-FERC water diversion facilities should be considered as one integrated water and power complex on the Merced River that is operated by Merced ID.

[1] See FERC filing 20090806-3066, Scoping Document 2, August 6, 2009, page 5.

Although the P-2467 project is owned by PG&E, as a practical matter it is operated by Merced ID personnel. Merced ID's Project 2179 controls all flow releases for the Merced River from the New Exchequer Dam. Merced ID operates the Merced River Hydroelectric Project, including New Exchequer and McSwain Dams (P-2179), Merced Falls (P-2467), and the Crocker-Huffman Dam (a Merced ID non-FERC irrigation dam) in tandem to provide consumptive water and power generation and to release water in order to meet requirements for instream flows under Merced ID's existing FERC license, other commitments, and senior water users downstream.

The Merced Falls Hydroelectric Project (P-2467) operates passively, based almost entirely upon the flows provided by the Merced River Hydroelectric Project. In addition, Merced ID also operates two major consumptive water diversions; the Northside Canal on the Merced Falls Reservoir (within the Project 2467 FERC boundary) and the Main Canal at Crocker-Huffman Diversion Dam. The two licensees should be encouraged to develop a plan for jointly conducting the studies and equitably sharing the responsibilities for the conduct of studies needed to analyze the combined effects of their operations and maintenance.

Integration of Merced Falls and Merced River Hydroelectric Project Studies

Conservation Groups have not seen any attempts by Commission, Pacific Gas and Electric Company, or Merced Irrigation District staff to enter into public discussions or agreements to conduct joint studies. On the contrary, Merced ID has stated at several meetings during the past 12 months that it has no plans to collaborate with PG&E. For its part, PG&E states in the Merced Falls Proposed Study Plan:

> "The Licensee is not adopting any new study requests in the PSP. The Licensee understands the interest in coordinating with MID and anticipates there maybe some opportunity for coordination of efforts. However coordination with MID's studies would be is somewhat impractical given the asynchrony between the ILP schedules for the two projects at this stage. Many studies by MID have already been initiated, or will be starting toward the end of 2009, while studies by Licensee will not start until spring or summer of 2010."

Conservation Groups request that Commission staff provide leadership and resolution of this obvious disconnect in the execution of the respective studies for the two projects,

Fish Passage and the Merced Falls Project

One of the Conservation Groups (Merced River Conservation Committee, June 22, 2009) commented on the Merced Falls SD-1 and Preliminary Proposed Study Plan. In response, PG&E dismissed requests for studies of project effects on special status anadromous fisheries below project boundaries, arguing that Crocker Huffman Diversion Dam, downstream of the projects, blocks fish passage. Commission staff, in Scoping Document 2 (20090806-3066), equally stated: "Existing information indicates that neither listed steelhead nor listed or non-listed Chinook salmon are found within the Merced Falls Project area."

In comments on licensee's Proposed Revised Study Plan for the Merced River Hydroelectric Project (20090716-5008), Conservation Groups argued that, on the contrary, Crocker-Huffman Diversion Dam is not a complete barrier to passage of anadromous fishes (see pages 13-16). The section entitled **MID Operations Are a Direct, Indirect and Cumulative Cause of Lack of Fish Passage** showed how Project 2179 operations historically and presently affect fish passage at Crocker-Huffman Dam. We traced the history by which the operability of fish passage facilities was impaired at Crocker-Huffman Dam and eliminated at Merced Falls Dam, and how this resulted from decisions related to the inundation of anadromous salmonid spawning habitat by McSwain Reservoir. We showed how the elimination by New Exchequer Dam of high flows in the Merced River reduced the ability of fish to pass Crocker-Huffman Dam under present conditions.

This section of those comments concluded with the following:

> In short, the current partial fish passage condition at Crocker-Huffman Diversion Dam is caused by project operational decisions for instream flows from the New Exchequer Dam, and is also contributed to by current operations at the McSwain, Merced Falls and Crocker-Huffman Diversion Dams, which now are seldom operated in a high flow mode (gates opened) because of the highly impaired and regulated releases from the New Exchequer Dam and its storage capacity. *The lack of fish access to historic habitat therefore has a direct and indirect, as well as cumulative, nexus to project operations, and could be mitigated and enhanced with new license terms.*
>
> The current situation can be summarized as follows: MID and PG&E relied on current project operations at New Exchequer to justify shutting the fishways at Crocker-Huffman and Merced Falls. Now the licensees seek to rely on their success in shutting the fishway at Crocker-Huffman to justify rejection of requests to study the impacts of project operations and opportunities for improvement. FERC should not allow the District and the Company to succeed.

Conservation Groups also referenced a study by Stillwater Sciences, Volume II of Stillwater Science's *Merced River Corridor Restoration Plan Baseline Studies* (2001). Stillwater stated on page 9: "Presently, anadromous fish generally do not pass upstream of Crocker-Huffman Dam, *although some fall chinook salmon may surmount the dam during high flows* (M. Cozart, pers. comm., 2000)." Mr. Cozart has been the operator of the fish hatchery located directly adjacent to Crocker-Huffman Diversion for thirty years.

Equally significant is a more recent Stillwater study, *Merced River Alliance Final Report, Volume II: Biological Monitoring and Assessment* (2008), which states on page 7-16:

> In the lower river segment, 12,364 individual fish from 29 species were observed during the 2006–2008 seasonal surveys. Of these, 12,186 (98.5%) were identifiable to species and hence could be categorized as anadromous or resident

> and native or introduced (Table 7-7). Three anadromous species were present at relatively low abundance, including two native species, Central Valley fall-run Chinook salmon and Pacific lamprey, and the introduced striped bass (Figure 7-6). Chinook salmon and striped bass were observed exclusively downstream of Crocker-Huffman Dam, while Pacific lamprey were present both downstream of the dam and in the Merced Falls Reach, just upstream of the dam but still in the lower river segment. It is assumed that the partially removed fish ladder at Crocker-Huffman provided limited passage for lamprey observed above the dam. *The O. mykiss observed upstream of Crocker-Huffman Dam were considered resident since Crocker-Huffman Dam is a migration barrier to most fish species.*

Given the presence of Pacific lamprey upstream, Stillwater thus concluded that Pacific lamprey successfully ascend Crocker-Huffman. The assumption that *O. mykiss* cannot do so as well, and that all *O. mykiss* upstream of Crocker-Huffman are resident fish, has no apparent foundation. The statement's logic is unsound; the authors assume away the question. Only because they assume Crocker-Huffman blocks fish passage does it follow that the *O. mykiss* must be resident fish.

O. mykiss, like lamprey, are known to be extremely adept at ascending barriers. *O. mykiss*, moreover, are known to inhabit the upper section of the reach between Merced Falls and Crocker-Huffman. The hatchery manager states that Chinook salmon may pass Crocker-Huffman at some flows. Steelhead (*O. mykiss*) are better swimmers and jumpers than Chinook salmon.

It therefore appears reasonably likely that — given current physical structures and flows in recent history — Merced Falls is the upper limit of anadromy for *O. mykiss* as well as Pacific lamprey, and that both species may be "bumping their noses" on the PG&E dam at Merced Falls.

PG&E, like Merced ID, may dispute that steelhead and lamprey move above Crocker-Huffman, and that different project operations would make fish passage more likely, but such a dispute cannot be the basis for collecting more information at this stage of the proceeding. The purpose of the statute is to require decision makers to investigate and assess potential impacts of a project and to disclose those impacts to itself and to the public, and to investigate potential mitigation measures and alternatives.

It is established under NEPA that uncertainty regarding a project's impacts is no excuse to avoid investigating those potential impacts and developing appropriate alternatives and mitigation measures. See *National Parks & Cons. Assn. v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001) (an agency's lack of knowledge about a potential impact "does not excuse the preparation of an EIS; rather it requires the [agency] to do the necessary work to obtain it"). Licensees' position that they are required to study a project effect only where the effect is precisely and conclusively known turns the statute on its head.

NMFS Public Draft Recovery Plans

The history of efforts to sustain and, more recently, recover salmon and steehead trout populations has been a long one. Almost 50 years ago, the Commission, too, played its role in adopting articles 40, 41, and 42 in Merced ID's license (#2179) to ensure that flows for the protection of fall-run chinook salmon were sustained well downstream of the District's Crocker-Huffman Dam. License article 38 of PG&E's Merced Falls Project license was also included at that time to ensure that the operations of this dam and reservoir complemented the efforts of Merced ID to comply with Commission-required measures to sustain this fishery.[2]

Over the last half century, these efforts to sustain the fishery have not been as successful as either the Commission or the licensee would have hoped for. Today recovery plans are needed, and among the list of species requiring recovery has expanded to Central Valley Spring-run Salmon and Steelhead Trout. It has become increasingly clear that it is important to geographically diversify population locations and improve habitat and passage below the major dams of the Central Valley, such as the Merced ID's FERC-licensed dams. It may well be important to take advantage of opportunities to gain passage over the high dams as well. The publication of NMFS's Public Draft Recovery Plans[3] are just the latest documentation of these active efforts by fisheries agencies. And these efforts are not just of interest to the public and the responsibility of state and federal natural resource agencies, but central to the Commission's equal consideration and comprehensive planning responsibilities of the Federal Power Act.

The strategies to recover these species, improved water temperature and flow regimes (by improved project operations, outlet modifications, and establishment of minimum pools for reservoirs), installing fishways on presently impassable dams to allow access to tail water habitat, and providing means for some anadromous fish populations to gain access to colder tailwater, headwater, or higher habitat, are all meaningful issues to the operations of the dams of the Commission's licensees on the Merced River. They are all within the expertise of Commission, agency, and licensee staff. Finally, the precedents for Commission license

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[2] FERC No 2467. "Article 38. Licensee, for the protection, propagation, and preservation of the fish and wildlife resources of the Merced River shall coordinate project operations with the project operations of the Merced Irrigation District's Project No. 2179 and shall, insofar as releases from Merced Irrigation District's Project No. 2179 permit, release past Merced Falls dam (RM 55) such minimum flows as have been designated in Articles 40, 41 and 42 of the license for Project No. 2179."

[3] These plans include, NMFS 2009e. "Public Draft Recovery Plan for Sacramento River Winter-run Chinook Salmon, Central Valley Spring-run Chinook Salmon, and Central Valley Steelhead." NMFS, Southwest Region, Sacramento, California. 7pp. October , 2009. A plan for Green Sturgeon was also released at the same time.

articles to address these issues (whether successfully or unsuccessfully) are a half a century old.

For now, at this study decision phase of this licensing proceeding, one thing should be clear: the condition of the fisheries downstream of both projects and the habitat conditions upstream of the dams of Commission licensees (including existing fisheries which may compete with restored salmon and/or steelhead) need to be understood in order to evaluate the need and the opportunities to mitigate the combined impacts of the projects on the fisheries, including the effects of the projects in blocking fish passage, as well as sustain and recover these important fisheries.

Thank you for considering our comments in response to Pacific Gas and Electric Company's filing of a Proposed Study Plan for the Merced Falls Hydroelectric Project on August 6, 2009.

Respectfully submitted,

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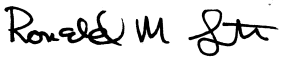

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APPENDIX A. CONSERVATION GROUP'S REVISED STUDY REQUESTS FOR MERCED FALLS HYDROELECTRIC PROJECT AND MERCED RIVER PROJECT, NOVEMBER, 2009, FILED JOINTLY WITH RESOURCE AGENCIES.

List of Conservation Groups Study Requests

ASSP Study:	2.1 Hydrologic Alteration
ASSP Study:	2.2 Water Balance/Operations Model
ASSP Study:	2.3 Water Quality Monitoring
ASSP Study:	2.4 Water Temperature Model
ASSP Study:	2.5 Bioaccumulation
ASSP Study:	2.6 Reservoir Water Temperature Management Feasibility
ASSP Study:	6.1 Riparian Habitat and Wetlands
ASSP Study:	G1 Gravel Sediment Budget and Mobility
ASSP Study:	3.1 Reservoir Fish Populations (Substitutes for PG&E's FA-S1)
ASSP Study:	3.1a Upper River Fish Populations and Habitat
ASSP Study:	3.1b Anadromy Salmonid Habitat
ASSP Study:	3.2 Fish Entrainment (Substitutes for PG&E's FA-S1)
ASSP Study:	3.3 Anadromous Conservation Hatchery
ASSP Study:	3.4 Anadromous Fish Passage
ASSP Study:	3.5 Anadromous Fish Passage Facilities
ASSP Study:	3.6 Salmonid Floodplain Rearing Study
ASSP Study:	3.7 Chinook Salmon Egg Viability Study
ASSP Study:	3.8 Instream Flow Study (PHABSIM)

Text of proposed studies dated October 20, 2009 follow: