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

November 13, 2007

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

Subject: Draft Environmental Impact Statement (DEIS) for Hydropower License: Upper American River Hydroelectric Project and Chili Bar Hydroelectric Project, El Dorado County, California (CEQ # 20070400)

Dear Ms. Bose:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

The project proposes to relicense seven hydroelectric developments that make up the existing 688-megawatt (MW) Upper American River Project, to construct an eighth 400 MW development at Iowa Hill, and to relicense the 7 MW Chili Bar Project. The preferred alternative is the Proposed Action, which consists of the Settlement Agreement filed by the applicants, Sacramento Municipal Utilities District (SMUD) and Pacific Gas and Electric (PG&E), with additional Federal Energy Regulatory Commission (FERC) staff recommendations.

Based on our review, we have rated the DEIS as Lack of Objections (LO) (see enclosed "Summary of Rating Definitions"). We congratulate the applicants and the various agencies and non-governmental organizations for achieving a successful Settlement Agreement, which includes enhancements to river flows and recreational opportunities. We encourage FERC to make a good faith effort to honor the hard-won agreement as much as possible. While we have no objections to the project, we have some recommendations for improving the Final Environmental Impact Statement (FEIS), which are attached. Specifically, we recommend that a discussion of cumulative effects of climate change on the project be included in the FEIS, clarification of impacts to waters of the U.S., and assurances that air emissions will conform with General Conformity criteria.

EPA appreciates the opportunity to review this DEIS. When the FEIS is released, please send one hard copy and CD to this office at the address above (mail code: CED-2). If you have any questions, please contact me at 415-972-3846 or Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

/s/

Nova Blazej, Manager
Environmental Review Office

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

cc: Kathy Norton, U.S. Army Corps of Engineers
Marcella Mc Taggart, El Dorado County Air Quality Management District

Cumulative Effects of Climate Change

The discussions of cumulative effects in the DEIS do not mention the potential cumulative effects of climate change on the project area and how this may affect the operation of the proposed projects. While it may be difficult to predict specific climate change effects, they should be identified and discussed to the extent knowledge allows, especially considering the long term nature of the proposed relicense.

The Government Accountability Office recently released a report entitled, "Climate Change: Agencies Should Develop Guidance for Addressing the Effects on Federal Land and Water Resources" (August 2007). According to the GAO report, federal land and water resources are vulnerable to a wide range of effects from climate change, some of which are already occurring.

Based on the freshwater ecosystem case study in the GAO report, possible effects to the proposed projects could include average temperature increases in Spring with earlier initial and maximum snow melt and higher water levels; vulnerability to fire due to evaporative stress (drying) from more hot days; changing precipitation patterns with more rain and less snow in winter causing winter streamflows to increase; decreased snowpacks and altered timing of spring runoff; larger and more severe storms and lightning causing more forest fires and drier conditions feeding larger, more intense wildland fires; warming temperatures and more severe drought with increased risk of insects and diseases to trees; possible increases in invasive species, and warmer stream temperatures negatively affecting aquatic organisms and fish species that thrive in cold water.

> *Recommendation:* We recommend the FEIS include a discussion of climate change and its potential effects on the proposed action and the action's impacts. We recommend this discussion include a short summary of any applicable climate change studies, including their findings on potential environmental and water supply effects and their recommendations for addressing these effects.

CWA Section 404 Permit

The DEIS identifies wetlands and intermittent drainages on the proposed transmission line route and Iowa Hill site (p. 3-181). The Iowa Hill development will clear 141 acres of land, however the DEIS also states that "no riparian vegetation or wetlands would be affected by construction of the proposed development" (p. 3-231). This does not seem plausible in light of the riparian drainages identified.

The DEIS states that Sacramento Municipal Utilities District would obtain all necessary permits including a Clean Water Act Section 404 permit (p. 3-101). If a 404 permit is required, EPA will review the project for compliance with 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 ("404(b)(1) Guidelines"). Pursuant to 40 CFR 230, any permitted discharge into waters of the

U.S. must be the least environmentally damaging practicable alternative available to achieve the project purpose.

> *Recommendation:* The FEIS should clarify the potential impacts to waters of the U.S. that will occur for the Iowa Hill development. The FEIS should indicate how the project will comply with the 404(b)(1) guidelines, such as identifying how the preferred alternative avoids waters of the U.S. and what design measures could be used for further avoidance upon final detailed project design. Once impacts to waters are avoided and minimized to the extent practicable, compensatory mitigation can be used. If a map or more information on jurisdictional waters for Iowa Hill is available, we suggest including it in the FEIS.

Air Quality

The Clean Air Conformity Analysis (Appendix A) indicates that oxides of Nitrogen (NOx) emissions will exceed de minimis criteria temporarily, but that the construction schedule will be adjusted to move some construction activity to other years to eliminate this exceedance and achieve compliance with the General Conformity rules (p. A-20). The DEIS does not identify this requirement in the preferred alternative recommendations, however. The project must demonstrate that no emissions will exceed the de minimis levels or the project does not meet the General Conformity requirements (40 CFR part 93 subpart B).

> *Recommendation:* The FEIS should include a revised General Conformity analysis that reflects the adjusted construction schedule to show that emissions are below de minimis for all pollutants. EPA also recommends that a requirement be included in the license terms and conditions or other regulatory mechanism to ensure this construction schedule reduction of approximately 10% for the peak construction year occurs, as indicated in Appendix A.