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IN REPLY
REFER TO:

June 20, 2005

Tim Ramirez
CALFED Ecosystem Restoration Program
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Subject: Battle Creek Salmon and Steelhead Restoration Project – Agency Response to Initial Recommendation from the California Bay-Delta Authority Ecosystem Restoration Program Selection Panel

Thank you for the June 20, 2005 initial recommendation of the CALFED Ecosystem Restoration Program (ERP) Selection Panel in support of the Battle Creek Salmon and Steelhead Restoration Project. The efforts of the ERP staff, Joint Battle Creek Review Panel (JBCRP) and ERP Selection Panel toward a timely and comprehensive review of the Restoration Project proposal are a noteworthy and valuable contribution to the eventual implementation of this uniquely integrated and highly promising restoration effort.

Restoration Project agencies, which include the California Department of Fish and Game (CDFG), NOAA National Marine Fisheries Service (NOAA Fisheries), U.S. Bureau of Reclamation (Reclamation), and U.S. Fish and Wildlife Service (USFWS), are pleased to respond to the items of concern enumerated within the initial recommendation and look forward to the final recommendation in the days ahead.

Selection Panel Recommendation # 1:

Develop a supplemental document on fish management and potential reintroduction strategies no later than June 2007, and subject this document to independent peer review in a manner similar to the review of the steelhead management strategy for Battle Creek conducted last year by the CBDA Science Program.

CDFG is writing a fish management strategy with extensive collaboration from the Greater Battle Creek Watershed Working Group (GBCWWG). This effort includes a draft winter-run Chinook salmon feasibility analysis, which is being reviewed by technical members of the GBCWWG. The winter-run Chinook salmon feasibility analysis should be complete by January 2006, and work will continue on the larger fish management strategy. We expect that a final draft of the Battle Creek fish management strategy will be ready for independent peer review by the proposed date of June 2007.

Selection Panel Recommendation # 2:

Commit to making adequate expertise in population dynamics modeling and genetics available to the Battle Creek Adaptive Management Technical Team, or other project teams or forums where such expertise is needed.

The project agencies are committed to making experts in population dynamics modeling and genetics available to the teams responsible for implementing the Battle Creek Restoration Project Adaptive Management Plan. As you know, NOAA Fisheries and USFWS have well-qualified and highly respected experts located at nationally known science-based programs in salmonid genetics and population dynamics. To this end, the USFWS and NOAA Fisheries are making requests to their responsible management organizations requesting the services of those expert individuals and programs. If sufficient agency expertise is not available, the agencies will work with academic institutions and private contact sources to obtain the necessary services.

Selection Panel Recommendation #3:

Develop quantitative life-cycle models for salmon and steelhead and use these models to inform adaptive management of the Battle Creek project, consistent with recommendations of the JBCRP.

The project agencies are committed to using quantitative salmonid life cycle models to inform and assist in the adaptive management process associated with the Battle Creek Salmon and Steelhead Restoration Project. Several life cycle modeling efforts for Central Valley salmon are currently in development (*inSALMO* by Steve Railsback, Annje Dodd, and Steve Jackson at Humboldt State University; *Modeling the historical population trajectory of winter run Chinook salmon* by Wim Kimmerer & Randy Brown; *Winter-run salmon integrated modeling framework* by S. P. Cramer and Associates). Additionally, as part their most recent request for proposals, the Bay-Delta Science Program has recommended funding for the development of a *Statistical model of Central Valley Chinook incorporating uncertainty* by Louis Botsford. The agencies will closely track the development of these models, and any future modeling efforts, with the specific purpose of evaluating their use, as suggested by the JBCRP, in the adaptive management process for the Battle Creek Salmon and Steelhead Restoration Project. If the models are lacking

needed specificity, the project agencies will pursue modifications or expansions of those models for use in Battle Creek.

Selection Panel Recommendation #4:

> **Conduct two workshops, consistent with the JBCRP recommendations, the first to be focused on improving plans for monitoring and the second to present restoration findings to date and to evaluate performance of methods used to monitor restoration. These workshops could be structured similar to the Adaptive Management Forum for large-scale, riverine habitat restoration projects conducted jointly by the ERP and the Central Valley Project Improvement Act's Anadromous Fish Restoration Program.**

Restoration Project agencies are committed to working with CALFED ERP staff on public workshops to provide an open forum within which the Restoration Project can be evaluated, discussed, and presented to the public and interested parties. Coordination with and participation by both PG&E and the GBCWWG, representing diverse stakeholder groups and governmental agencies, would also be pursued for such events.

Selection Panel Recommendation #5:

> **Commit to long-term monitoring and adaptive management for the Battle Creek project. This would include better integrating the Adaptive Management Plans for the Battle Creek project and the operation of Coleman National Fish Hatchery.**

The Restoration Project is committed to long-term monitoring and adaptive management. Monitoring and focused studies of the Restoration Project Adaptive Management Plan (AMP) are summarily described in Table 25 of the Restoration Project AMP (Terraqua, Inc. 2004). Although funding for some monitoring and adaptive management activities could be expended by the end of project construction other activities should be sufficiently funded for the longer term. In any case, the Restoration Project agencies and PG&E are committed to acquiring additional funds to conduct effective monitoring and adaptive management, as required by the Restoration Project. Potential funding sources include the CALFED ERP and Central Valley Project Improvement Act's Anadromous Fish Restoration Program and Comprehensive Assessment and Monitoring Program.

The Restoration Project presently has budgeted $3.36 million for biological and environmental monitoring ($1 million is allocated to monitoring from CALFED ERP funds received in 1999 and, ensuing from the CALFED ERP independent technical review of the Restoration Project in 2003, an additional $2.36 million has been requested as part of the March, 2005, proposal solicitation package to the CALFED ERP) (USBR and SWRCB 2005a:3-81). If these funds are insufficient for long-term monitoring needs, the Restoration Project agencies and PG&E understand and agree that if sufficient funding is not available through the above sources, they will jointly pursue other appropriate funding sources (USBR and SWRCB 2005a:3-81).

For adaptive management, an additional $3 million has been allocated from 1999 CALFED ERP funds for purchases of additional instream flow releases in Battle Creek, as needed, for a 10-year period following prescribed flow implementation. Another $3 million is to be provided by a

third-party donor in an interest-bearing account for potentially needed changes in the Restoration Project, as determined through the Restoration Project AMP, while PG&E would provide up to $6 million for facility modifications or water acquisition (USBR and SWRCB 2005b:2-18). In addition, PG&E is to provide for fish counting and monitoring of fish movement through ladders during the first 3 years of ladder operations. It is unknown how long these funds for adaptive management would last, but is likely that some funding would be available beyond the end of project construction for longer-term activities. In any case, the Restoration Project and PG&E are committed to acquiring additional funds needed to achieve restoration objectives to the extent practicable through adaptive management.

Regarding the relationship between the Coleman National Fish Hatchery AMP and Restoration Project AMP, the Restoration Project is supportive of adaptive management as the best strategy for addressing scientific uncertainties that underlie all aspects of Battle Creek fisheries management, including the interactions between the Restoration Project and Coleman National Fish Hatchery. Such adaptive management was deemed essential by the independent science panel (Coleman Science Panel) for the CBDA's Science Program. The need for adaptive management of hatchery operations was acknowledged by staff from Reclamation (the agency responsible for funding Coleman National Fish Hatchery) and staff from the USFWS (the agency responsible for operating Coleman National Fish Hatchery) at a public meeting of the CBDA Science Program, held February 5, 2004. The Restoration Project and Coleman National Fish Hatchery are committed to coordinated cooperation for monitoring and adaptive management on Battle Creek.

Because the Restoration Project AMP does not cover activities of the Coleman National Fish Hatchery, the Battle Creek Project Management Team (PMT) developed a proposal for CBDA funding to facilitate development of an adaptive management plan for Coleman National Fish Hatchery in April, 2004. The Coleman National Fish Hatchery AMP would be compatible with, and as rigorous as, the Restoration Project AMP. Development of the Coleman National Fish Hatchery AMP would include responsible agencies and interested stakeholders, conform to the "goals and objectives" of the Restoration Project and legally managed hatchery-specific goals and objectives, be reviewed by the Coleman Science Panel and other principal scientific bodies, and include the scoping and prioritization of diagnostic studies necessary for Coleman National Fish Hatchery adaptive management.

The proposed Coleman National Fish Hatchery AMP would be developed and organized in a manner similar to the Restoration Project AMP. The Coleman National Fish Hatchery AMP would include goals, objectives, conceptual models, uncertainties, monitoring and data assessment approaches, specifications of focused studies, description of decision-making process, funding prioritization, and all other elements of formal adaptive management. Adaptive management operating procedures would be well coordinated with those of the Restoration Project AMP. The Coleman National Fish Hatchery AMP would assess hatchery operations that may affect the Restoration Project, and closely coordinate with the Restoration Project AMP and salmon and steelhead restoration in Battle Creek.

This coordination, including public involvement, would be encouraged during all phases of Coleman National Fish Hatchery AMP development. Coordination would include regular

meetings and reports to the GBCWWG, contact with Battle Creek landowners and residents through the Battle Creek Watershed Conservancy, public meetings for scoping and reviewing the draft Coleman National Fish Hatchery AMP, and public participation in the implementation of the Coleman National Fish Hatchery AMP. The final draft version of the Coleman National Fish Hatchery AMP would be completed within 18 months of contract initiation. More details on the proposed Coleman National Fish Hatchery AMP can be found in Master Response D, Volume III of the Final EIS/EIR for the Restoration Project (USBR and SWRCB 2005b:2-24).

The USFWS has previously demonstrated its commitment to operate in a manner compatible with the Restoration Project with hatchery programs designed to avoid or reduce adverse effects on natural-origin fish in Battle Creek. These include the completion of the hatchery's ozone water treatment plant, proposed modification to the barrier weir and associated fish ladders, and efforts to screen the facility's water delivery intakes. Another program annually incorporates naturally spawned Chinook salmon and steelhead into the broodstock collected by the hatchery for fish propagation to help maintain a genetic similarity between hatchery-origin fish and natural origin fish. Other hatchery actions compatible with restoration efforts include cessation of steelhead supplementation above the hatchery barrier weir and conducting the Hatchery Reevaluation Process. The reevaluation contributed substantially to the completion of the hatchery's Biological Assessment for Endangered Species Act compliance and the development of many hatchery management alternatives that will be examined as part of the Coleman NFH adaptive management.

In addition to our responses to the five items above, we also want to respond to the additional recommendations mentioned by the Selection Panel at the conclusion of their report. The Restoration Project agencies, PG&E and stakeholders recognize the need to report on progress to various parties as the Restoration Project is implemented. Reporting may be accomplished through several means. During implementation construction reports will be prepared and filed with various agencies, including FERC. These reports may also be made available to a wide audience. In addition, the PMT will report progress to the GBCWWG. The GBCWWG has recently recognized the need to develop public outreach programs to provide information on the Restoration Project and other activities within the Battle Creek watershed. The GBCWWG and the PMT will work together to broaden public outreach, including participation at major professional societies. Reporting on the implementation of the Restoration Project will occur as described in the AMP. The AMP provides that all data collected as part of adaptive management will be stored or disseminated in an appropriate agency information system that is publicly accessible. And as in the past, the PMT is prepared to provide reporting to senior leadership within State and federal agencies and the Bay-Delta Public Advisory Committee as requested.

If you have any questions, please contact any of the signatories of this letter at their address below or contact the Restoration Project Manager, Mary Marshall, at (916) 978-5248.

Sincerely,

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References

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