Placer County Water Agency

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A Public Agency

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November 8, 2005

Mr. Takeshi Yamashita, Regional Engineer FEDERAL ENERGY REGULATORY COMMISSION 901 Market Street, Suite 350 San Francisco. CA 94103

Re: FERC Project No. 2079-CA, NATDAM Nos. CA00857, CA00858, CA00859

Dear Mr. Yamashita:

The purpose of this letter is to reply to your letter dated September 19, 2005, in which you requested that we submit a plan and schedule to evaluate the impact of Hell Hole, Interbay and Ralston Afterbay Dams being overtopped under PMF conditions. The plan and schedule we are proposing are as follows:

HELL HOLE DAM

During the PMF there is only 1 foot of freeboard between the maximum PMF elevation and the lowest point on the Hell Hole Dam crest. In addition, it is estimated that wave height, including run-up, could be up to 5 feet above portions of the crest. It is our understanding the next 5 year dam safety inspection report will be due by November 1, 2006, and that this safety inspection report must incorporate the Dam Safety Performance Monitoring Program (DSPMP). Our independent consultant, Mr. Richard C. Harlan, and we have been at work preparing for next year's inspection process for both Hell Hole and French Meadows dams which will include potential failure modes analyses. The potential effects of a PMF on the dam will be carefully reviewed as part of this process, including any potentially required remedies. We believe that there is a strong likelihood that the impact of the PMF on Hell Hole Dam will be fully evaluated during next year's 5 year dam safety investigation and reporting process.

INTERBAY DAM

The PMF overtops Interbay Dam by 12.9 feet. However, Interbay Dam's downstream hazard potential rating is low, and the reservoir capacity behind the dam is only 175 acre-feet. We believe that an Incremental Hazard Evaluation and an Inflow Design Flood (IDF) determination, following the principles in chapter II of the FERC engineering guidelines, would show that the IDF is less than the PMF, and that, therefore, as long as the dam can safely pass the IDF, failure of the dam at a flow greater than the IDF will not present an unacceptable threat to downstream life or property. Therefore, we are proposing to contract with a qualified engineering firm to determine the IDF so that we will be able to submit the IDF report to FERC by the end of 2006.

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RALSTON AFTERBAY DAM

This dam has a high downstream hazard potential rating. However, the reservoir active storage is only about 1600 acre-feet. According to a dam break and inundation investigation completed by Sierra Hydrotech in November, 1993, it is about 30 river miles from Ralston Afterbay Dam to the head of Folsom Reservoir and about 46 miles to Folsom Dam. Sierra Hydrotech used NWS DAMBREAK to simulate failure of Ralston Afterbay Dam and to route the flow downstream. In the simulation, the failure of the dam was considered to be complete in 9 minutes resulting in a peak discharge at the dam under fair weather conditions of 223,000 cfs.

The accepted PMF at the time that Sierra Hydrotech did this study was 201,000 cfs. The rise in surface water attributed to the failure of Ralston Afterbay Dam under PMF conditions dropped off rapidly in the downstream direction. For instance, the rise was 4.8 feet 6.3 miles downstream from the dam and 2.0 feet 19.7 miles downstream. It appears to us that the principle hazard downstream is due to recreational activities such as rafting, and that the recreational activities in or near the river are primarily during the warmer times of the year.

We believe that there is a high probability that an Incremental Hazard Evaluation and an Inflow Design Flood (IDF) determination, following the principles in chapter II of the FERC engineering guidelines, would show that the IDF is less than the PMF, and that, therefore, as long as the dam can safely pass the IDF, failure of the dam at a flow greater than the IDF will not present an unacceptable threat to downstream life or property. Therefore, we are proposing to contract with a qualified engineering firm to determine the IDF so that we will be able to submit the IDF report to FERC by the end of 2006.

By letter dated May 12, 2005, we submitted to you three copies of the Ralston Afterbay Dam Five-Year Dam Safety Inspection Report of the inspection and Potential Failure Mode Analysis conducted earlier this year, and we submitted a plan and schedule for following up on the 4 recommendations made by the independent consultant. Two of those recommendations (Numbers 2 and 4) and our responses concerned PMF related work, and these recommendations and responses were as follows:

<u>Recommendation No. 2</u>: The overtopping of the dam by the general storm PMF requires comprehensive investigations of the stability of the dam and the radial gates, when fully open, under PMF conditions, ways and means of mitigating damage to the dam structure, the spillway gates and equipment, and possible means of safely passing that flood. These investigations should be initiated within one year and completed within four years.

<u>Response</u>: Within the next year we plan to contract with a qualified firm to complete these comprehensive investigations within four years.

Recommendation No. 4: An updated stress analysis of the radial gates under PMF conditions should be performed to determine their safety. This analysis should be initiated within one year and completed within four years.

<u>Response</u>: Within the next year we plan to contract with a qualified firm to complete an updated stress analysis within four years.

We would like to request that our Plan and Schedule for responding to these two recommendations be put on hold until the study to determine the IDF has been completed and evaluated by FERC.

If you have any questions, please call me at (530) 885-6917.

Sincerely,

PLACER COUNTY WATER AGENCY

Stychan J. Jones

Stephen J. Jones

Power System Manager

cc: David Breninger
Ed Tiedemann