



PASADENA WATER AND POWER

May 14, 2012

Ms. Judy Huang
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105

Subject: Perchlorate Contamination in Pasadena's Sunset Reservoir Wells

Dear Ms. Huang:

Between 2007 and 2010 there have been many communications between various regulatory bodies (including the United States Environmental Protection Agency (USEPA), the California Department of Toxic Substance Control (DTSC), and the California Department of Public Health (CDPH)), National Aeronautics and Space Administration (NASA), and the City of Pasadena's Water & Power Department (PWP) on the subject perchlorate contamination at the Sunset Reservoir Wells. In NASA's 2007 Technical Memorandum (NASA TM) it was argued that the perchlorate found in the Sunset Reservoir Wells had a different isotopic signature than the perchlorate found on the Jet Propulsion Laboratory (JPL) which, when combined with information from groundwater modeling, stable isotope analysis of water and strontium, sulfate analysis, carbon tetrachloride (CTC) analysis, as well as water typing, demonstrated that the perchlorate in the Sunset Reservoir Wells could not have come from JPL. In June of 2007 PWP submitted a review of the TM (prepared by our consultant Geoscience) 86 pages in length identifying where PWP believed that shortcomings and errors occurred in the TM. In October of 2007 Lewis Mitani of the USEPA, the Remedial Project Manager at the time, wrote a five page memorandum identifying technical deficiencies in the TM. Similarly, in May of 2008 Juli Osborne of DTSC submitted a 10 page memorandum identifying additional concerns about the soundness of the TM. Since then various exchanges between the above mentioned parties has occurred, but no resolution has been achieved. All three of the above mentioned memoranda (USEPA, PWP, and DTSC) concurred that the TM did not make a convincing case that the JPL could not have contributed to contamination at the Sunset Reservoir Wells.

The last communication on this topic was your letter of February 4, 2010. In that letter to NASA, you identify two areas of investigation that USEPA believes needs resolution: Groundwater Modeling and Interpretation of Perchlorate Isotope and Degradation Information.

- 1) Both NASA and PWP, using the same models and data, produced somewhat different results. You wrote that you hoped that written exchanges between NASA and PWP might resolve: "... some differing interpretations, and the two parties along with EPA can then focus on the outstanding differences that may remain during the planned meeting in the next few months." However, the Request for Information (RFI) submitted by NASA

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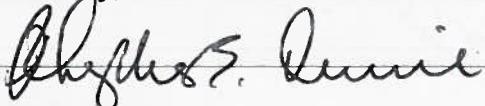
to PWP for pumping record to be found and entered into the groundwater model would require many months and cost nearly 200,000 USD. Moreover, it is not clear that even if these were accomplished that it would move the parties closer to agreement as most of NASA's claims in the TM are not based upon groundwater modeling, but chemical analysis. As a result, PWP does not believe that the additional time and costs associated with further development of the groundwater model will be fruitful.

- 2) Your letter suggests that the interpretation of the perchlorate isotope information depends entirely upon the issue of microbially mediated degradation. While this is an important issue it is not the only one, there are a great many issues associated with the interpretation of the perchlorate isotope data. Further, the NASA TM contains a great deal of data on the water chemistry of the northwestern Raymond Basin, which must all be assessed in conjunction with the perchlorate isotope data.

PWP believes that the data in the NASA TM, when combined with a small amount of additional data, and the groundwater modeling information, conclusively demonstrates that JPL is the dominant source of perchlorate in the Sunset Reservoir Wells. PWP staff has prepared a TM documenting these assertions, which when examined with the previous memoranda from USEPA, DTSC, and Geoscience, make a thoroughly compelling case. PWP does not believe that any further investigations are necessary to conclude that the Sunset Reservoir Wells should be included in the JPL Superfund Site. We are requesting USEPA, and all other appropriate parties to review this new analysis and determine how to move forward. It is PWP's contention that USEPA should invoke its CERCLA powers to effect a cleanup of the Sunset Wells contamination at the earliest practicable time. Enclosed is a copy of PWP's TM. Additionally, there are five additional enclosures, a synopsis of PWP's TM, the original PWP claim from 2004, the letter from Lewis Mitani of the USEPA in 2007, the letter from Juli Osborne of DTSC in 2008, and your last correspondence in 2010. We look forward to meeting with you shortly.

If you have any questions, please contact Mr. David Kimbrough, Water Quality Manager, at (626) 744-7315.

Sincerely,



Phyllis Currie
General Manager

DK/hs

Enclosures

cc: Senator Dianne Feinstein, Senator Barbara Boxer, Representative Adam Schiff, Representative Judy Chu, Steve Slaten (NASA), Jeff O'Keefe (DPH), Juli Osborne (DTSC), Tony Zampiello (RBMB), Mic Stewart (MWDSC), Jean-Lou Chameau (California Institute of Technology)