

## **WATER SUPPLY**

**Testimony:** Robert Harrington, Ph.D, RG, Director, Inyo County Water Department

### **I. INTRODUCTION**

A. **Qualifications:** Dr. Harrington's qualifications are as noted in the general statement of his qualifications and his resume contained in Appendix A to the County's General Project Comments.

B. **Prior Filings:** In addition to the statements provided herein, this testimony includes by reference the following documents submitted in this proceeding:

1. Inyo County Response to Notice of Intent to Prepare Environmental Impact Statement. Dated: December 6, 2011; Posted: December 13, 2011.
2. Inyo County PSA Comments. Received: July 25, 2012.
3. Letter from the BLM to Mike Monosmith transmitting the BLM's water-related concerns and proposed mitigation measures for HHSEGS. Received: March 12, 2012.
4. Mitigation for the Hydrological Impacts of the Proposed Hidden Hills Solar Project as Proposed by the County Of Inyo. Received: January 30, 2012.

C. Attachments:

1. Memorandum from Bob Harrington, Water Director, to Dana Crom, Deputy County Counsel dated January 16, 2013 presenting comments on the Hidden Hills Solar Electric Generating System –Water Supply Section of the California Energy Commission Final Staff Assessment.
2. Memorandum from Robert Harrington, Ph.D, R.G, to Mike Monosmith presenting "Comments on Preliminary Staff Assessment for the Hidden Hills Solar Energy Generating System"

### **II. TESTIMONY**

The Final Staff Assessment (FSA) for the Hidden Hills Solar Electric Generating System (HHSEGS) contains an assessment of the water supply for HHSEGS in section 4.14. The FSA arrived at five conclusions with seven associated conditions of certification aimed at addressing

issues related to water supply. Four of these conclusions (FSA pages 4.14-1 – 4.14-2) are used below as a framework for commenting on water supply aspects of HHSEGS.

**Conclusion #1.** Concerning overdraft in the Pahrump Valley groundwater basin, the FSA concludes that:

The proposed project would exacerbate overdraft conditions in the Pahrump Valley groundwater basin. WATER SUPPLY-1 would require the proposed project to mitigate for its groundwater use by offsetting it with groundwater pumping reductions that would constitute a real water savings for the basin. Such mitigation could only be effective if pumping reductions are associated with a real pumping history and could not be replaced by other unused water rights.

There is no disagreement that the basin is in overdraft. Condition of Certification WATER SUPPLY-1 adequately mitigates HHSEGS's contribution to overdraft.

**Conclusion #2.** Concerning the amount of water supplied to the HHSEGS, the FSA concludes that:

Potential project impacts must be consistent with those analyzed. Staff thus proposes Condition of Certification WATER SUPPLY-2 which limits the applicant's water use and WATER SUPPLY-3, which requires the applicant to construct and report well-related information in accordance with appropriate LORS and install metering devices to ensure accurate reporting of water use.

The duration of the construction period should be specified in WATER SUPPLY-2. Rather than leaving the length of the construction period undefined, WATER SUPPLY-2 should be modified to require that the project's groundwater use shall not exceed 288 acre-feet per year for the first three years following the start of construction, and shall not exceed 140 acre-feet per year for the period commencing either for the fourth year following start of construction, or on the completion of construction, whichever occurs sooner. This would avoid potential inconsistencies between the amount of pumping analyzed in the FSA and the actual amount of pumping, should the construction period extend beyond three years.

**Conclusion #3.** Concerning water level declines near HHSEGS, the FSA concludes that:

The proposed project pumping could exacerbate water level declines in the project vicinity. To prevent such declines from becoming significant impacts, staff proposes a monitoring plan: WATER SUPPLY-4 monitors groundwater conditions for potential impacts on existing neighboring wells, groundwater dependent vegetation, the Stump Spring Area of Critical Environmental Concern (ACEC), and groundwater quality. The monitoring is designed to prevent

potential impacts to groundwater dependent vegetation, among the other concerns noted above, and therefore also compliments conditions recommended in the Biological Resources section. WATER SUPPLY-5 mitigates for pumping induced drawdown impacts in existing wells. WATER SUPPLY-6 recommends a plan to monitor land subsidence as a result of declining water levels and aquifer dewatering that potentially may occur as a result of pumping.

To address concerns that have been raised over the effect of HHSEGS on off-site groundwater wells and groundwater-dependent habitat, a thorough groundwater elevation and groundwater quality monitoring program is needed, and, in general, WATER SUPPLY-4 fulfills this need.

There are two points that require clarification.

WATER SUPPLY-4 section D.2.e and f are aimed at compensating adversely affected neighboring well owners. It should be clarified that the level at which it may be necessary to lower pumps or deepen wells is the water level in the well while the well in question is operating, not under static conditions.

Inyo County must comply with the California Groundwater Elevation Monitoring Program with regard to reporting groundwater elevations in the basin where the project is located. In the FSA, responding to comments 1.11 and 1.12, CEC staff asserts that “The revised conditions would ensure that the project owner shares their groundwater elevation data with the county.” In order to ensure that these data are shared with the County, the verification section of WATER SUPPLY-5 Section D (page 4.14-88) should be modified to include Inyo County as a recipient of the data that the project owner shall submit to the CPM. This modification pertains to items #3 and #5 on page 4.14-18.

**Conclusion #4.** Concerning effects of the HHSEGS on groundwater flow to the Amargosa River, the FSA concludes:

Given the lack of evidence for a hydraulic connection, the relatively large intervening distance (about 20 miles), and uncertainty in potential flow barriers and permeability contrasts within the subsurface it would be speculative to conclude that project pumping would adversely affect the Amargosa River. There is no available data that identifies groundwater flow paths or confirms a hydraulic connection between PVGB and the Amargosa River, so the water consumed by project pumping may or may not be a source of inflow to the Amargosa River. Although staff concludes that a significant impact due to project pumping is unlikely, WATER SUPPLY-1 which requires an offset of project water use in the

PVGB would ensure there is likely no net overall change in subsurface outflow from the PVGB that might affect the Amargosa River.

Inyo County is concerned about potential effects of the project on down-gradient groundwater users and groundwater-dependent habitat in the China Ranch/Amargosa River/Tecopa area. While there may be a lack of evidence for a hydraulic connection and uncertainty about flow barriers and permeability contrasts, this absence of data cannot be construed as indicating that the connection does not exist, it simply means there is a lack of data. Absence of data does not justify a conclusion that adverse effects will not occur. That conclusion can only come from evidence that a hydraulic connection does not exist and that an adverse impact will not occur.

That said, in light of the large intervening distance and the proposed pumping rate, conditions of certification BIO-23, WATER SUPPLY-1, WATER SUPPLY-2, and WATER SUPPLY-5 are sufficient mitigation for potential down-gradient effects outside the Pahrump Valley groundwater basin.