

**Model Data Request**  
**CPV Sentinel Energy Project**

<b>DOCKET</b> <b>07-AFC-3</b>	
<b>DATE</b>	_____
<b>RECD.</b>	NOV 26 2007

As discussed at the California Energy Commission's (CEC's) Data Response and Issue Resolution Workshop for the proposed CPV Sentinel Energy Project held on November 14, 2007, we have compiled a list of data that we would like for the Mission Creek Subbasin to help us develop the flow and transport model. It is our understanding that Mission Springs Water District (MSWD) and PSOMAS will not be able to provide us with their existing groundwater flow model (PSOMAS, 2007), but are willing to provide us with data for the Mission Creek Subbasin. We would like data in electronic format, either as excel or text files. In addition, Attachment A is the list of information previously requested from MSWD that are needed to respond to specific Data Requests.

- Existing pumping well data to simulate the affect of non-project pumping wells within the Mission Creek Subbasin in the past (for flow model calibration) and future (for predictive simulation):
  - Well locations (northing and easting)
  - Well construction details, including TOC elevation, total depth, and screened interval, if appropriate
  - Pumping schedules for the last 10 years
  - Projected future pumping schedule for the next 30 years
- Projected future pumping well data for any new MSWD wells to simulate future groundwater conditions:
  - Proposed future new well locations and anticipated depths
  - Estimated future pumping well schedules for proposed new wells for the next 30 years
- Groundwater elevation data collected during the last 10 years to calibrate the groundwater flow model:
  - Observation well locations (northing and easting)
  - Observation well hydrographs
  - Index indicating pumping status (on/off) when groundwater elevation data was collected if pumping wells were used as observation wells
  - Observation well construction, including TOC elevation, total depth, and screened interval
- Geologic data to help determine aquifer properties for flow model setup and calibration:
  - Drillers logs and electric wireline logs for all wells and borings available
  - Geologic cross sections
- Recharge basin data to simulate affects of both DWA and Horton recharge basins:
  - Historical recharge volumes (monthly/seasonally if available) for the past 10 years
  - Projected future recharge volumes (monthly/seasonally if appropriate) for the next 30 years

- Water quality data, including TDS, chloride, and uranium, collected during the last 10 years. These data may be used to build and verify the transport model:
  - At all wells where data were collected
  - DWA and Horton recharge basins

In addition to the data requests outlined above, please see the attached CEC Data Requests, Questions for Mission Springs Water District which was forwarded by email from URS to Mission Springs Water District on October 23, 2007.

In closing, URS has been unable to obtain copies of two documents listed below. If available, please provide copies of these documents:

- Fox, Robert C. 1992. Groundwater Resources Investigaiton: Update – A Report for Mission Springs Water District – Summary of Findings and Conclusions with Recommendations, October.
- Geotechnical Consultants, Inc., 1979. Hydrogeologic Investigation, Mission Creek Subbasin within the Desert Hot Springs County water district.

Attachment A:

CEC Data Requests, Questions for MSWD, forwarded by email from URS to MSWD on October 23, 2007.

**ATTACHMENT A**  
**CPV Sentinel Energy Project**  
**CEC Data Requests**  
**Questions for MSWD**



**ATTACHMENT A**

**CPV Sentinel Energy Project  
CEC Data Requests  
Questions for MSWD**



Anne  
Connell/SanFrancisco/URSCorp  
10/23/2007 04:21 PM

To "Dan Patneaude" <dpatneaude@mswd.org>  
cc gm@mswd.org, bhren@cpv.com, Dale  
Shillelds/SanFrancisco/URSCorp@URSCORP

bcc

Subject Information needs 

Dan:

As part of the CEC's review of the proposed Sentinel Energy Project, we recently received several data requests. Since several of these relate to MSWD's facilities and operations, can you provide us with the requested information? We will assemble the information and provide responses to CEC.

In addition, the CEC has asked the project to develop a more comprehensive groundwater model that includes all of MSWDs wells. Since PSOMAS has already developed such a model, we would like to have a copy of the model files.

Attached is the information that we need your assistance with. If you have any questions, please give me a call. I would also be happy to meet with you at your office or schedule a conference call to review the data requests with you, if that would be easier or more efficient.



Questions for MSWD 102207.doc

thanks,

Anne

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## **CPV Sentinel Energy Project**

### **CEC Data Requests**

#### **Questions for MSWD**

As part of its review of the proposed project, the California Energy Commission (CEC) has made several data requests (DRs), for which we need assistance from MSWD. Many of these questions relate to MSWD's facilities and operations.

We would appreciate your assistance in providing the following information requested by the CEC.

**DR 43.** Please discuss in detail the supply of water available to the MSWD and the project. This detailed discussion should include:

- c) The monthly and annual deliveries representative of normal and critically dry single and multiple water years for MSWD's existing customers.
- e) The available historical data for any interruptions to the proposed water supply over the last 10 years. [i.e., have there been any interruptions at the Horton WWTP?]
- f) A summary of MSWD's water supply rights, entitlements, and service contracts and commitments of its water supply to existing and planned customers, noting the: (1) priority for service; (2) maximum supply rate; (3) maximum annual volume; (4) maximum contractual deliveries for all months; and (5) the term of the agreements.

**DR 50.** Please provide a description of the site-specific hydrologic and geologic conditions of the Horton WWTP percolation site. The purpose of this request is to obtain information necessary to assess the hydrologic effect of the percolation. Please include the following information:

- a) Describe the MSWD and DWA recharge projects using SWP/CRA and reclaimed water. Include any available assessments of the recharge performance of these projects
- b) Outline the current and future service area of the WWTP on an appropriately scaled map.
- c) Describe the source of wastewater treated at the Horton WWTP.
- d) Discuss the legal authority of the MSWD to sell wastewater on a retail basis and for the project.
- e) Include a surface map of an appropriate scale of the site(s) location and a description of current recharge rate, recharge capacity, hydrology, and hydrogeology.
- f) Identify the underlying aquifer formations using geologic cross-section(s).

- g) Describe layering and subsurface features that would affect groundwater recharge, for example, hardpans, lakebed deposits or faults.
- h) Please describe the following: (1) Aquifer parameters including hydraulic conductivity and specific yield; (2) Depth to groundwater over the last 10 years, if available, and (3) descriptions and results of percolation tests or studies.
- i) Total acreage of irrigation or percolation site.
- j) Historical monthly irrigation records and/or average monthly irrigation rates (provide monthly breakdown of supply sources if reclaimed water is not sole source).
- k) Please discuss the volume of wastewater expected to be produced during 2007 and 2008 and how much of that water will be used for groundwater recharge through percolation.
- l) Average monthly potential evapotranspiration, along with evapotranspiration balance.
- m) Please discuss how much freshwater use is required to make 1,500 AF of wastewater?

**DR 57.** Please describe and quantify changes in recharge that have occurred in the Sub-basin during the last 10 years. Include information on water importation, reclamation of wastewater, and new recharge programs.

Please provide information for recharge at Horton WWTP percolation ponds for the last 10 years. How much is discharged into the percolation ponds and how much of this amount is lost to evapotranspiration?

In order to respond to Data Request 55 (see below), we would like to obtain an electronic copy of the numerical groundwater flow model developed by PSOMAS for the Mission Creek Subbasin. This is the model that is summarized in the "Groundwater Flow Model of the Mission Creek Subbasin" report prepared by PSOMAS and dated April 7, 2007.

**DR 55.** Using existing well data (well location and known pumping rates) please revise the model to assess the net affect of all groundwater extraction from the Sub-basin over the life of the project.