

# **Appendices**

# **APPENDIX A**

## **TECHNICAL COMMITTEE MEETINGS**

## **Hemet/San Jacinto Groundwater Technical Committee**

### **Draft Meeting Notes**

**Date:** Monday, April 9, 2007

**Time:** 10:00 AM to 11:30 AM

**Place:** Eastern Municipal Water District  
Administration Center Building  
Room 217

#### Attendees

- Steve Johnson – Stetson Engineers, Inc. (Representing City of San Jacinto)
- Dennis Williams – Geoscience Support Services, Inc. (Representing City of Hemet)
- Ali Taghavi – WRIME, Inc.
- Behrooz Mortazavi – Eastern Municipal Water District (“EMWD”)
- Mike Garner – EMWD
- Christie Crother – EMWD
- Ralph Phraner – EMWD
- Eric Hong – California Department of Water Resources (“DWR”)
- Dale Schafer – Center for Collaborative Policy, Facilitator for DWR
- John Loncar – Representing Lake Hemet Municipal Water District

The CAM group, at its March 12, 2007, meeting, requested the Technical Committee convene to discuss three issues and report back with recommendations:

- How much water should be pumped from the three extraction wells versus using agency wells for part of the extraction?
- Which wells, and at what production levels, should be used to best manage the mound?
- What would be the best mechanism for tracking and billing the extraction and delivery of water to each agency?

#### Discussion of the Planned Operation of Extraction Wells

Ralph Phraner provided an update on the status of Phase I IRRP extraction and monitoring wells from the last meeting of this committee. He distributed a packet containing well location maps, water level hydrographs, and computer simulations of the areal extent and vertical component of potential mounding of recharged water.

The preferred drilling site for the first recovery well, IRRP-P2 (Well 14R), is located at the northwest end of the recharge ponds footprint, on property that is now under development. An eminent domain proceeding will delay drilling at this site for several months to a year. Consequently, the first well to be drilled, IRRP-P3 (Well 11R), will be

located approximately one-quarter of a mile southeast of the Meridian Channel near the riverbed; drilling should start within a week and be completed by the end of the year. The next recovery well to be drilled, IRRP-P2, is located just north of the Meridian Channel near the riverbed and should also be finished by the end of the year. The third recovery well, IRRP-P1, will also be drilled in 2007 on property owned by EMWD near Evans Road, west of the Ramona Expressway. All three wells will be equipped by the end of 2008.

Water level hydrographs of wells near the conjunctive use ponds indicate a multilevel aquifer system is present due to impermeable or semi-permeable layers within the Upper Pressure sub-basin. Wells screened above about 400 feet tend to have shallower static water levels than wells perforated to depths of 1000 feet or more. Natural and imported water recharge is impeded by these layers to varying degrees, creating perched water at various levels. This phenomenon will have a major impact on well design and operation as the wells will need to be able to effectively control the mounding that will occur. IRRP-P1 and IRRP-P3 will probably be constructed to extract water from deeper in the aquifer as they are situated farthest from the ponds and the recharged water will have had more opportunity to move deeper into the aquifer. IRRP-P2 which is very close to the recharge site may need to be screened high and low to be able to pick up perched water and water at depth. These wells are spaced approximately 2000 feet apart.

Several shallow wells located at intervals of 1000 feet may be installed in the future if perched water becomes a problem. These wells will be drilled around 400 feet deep and will be used to shape the mound as needed. Water level monitors may also be installed in these wells and in IRRP-P2 to determine to what extent perching is occurring.

MWD is required to deliver 7,500 afy on average, but this may vary from no water in dry years to as much as 15,000 afy if excess water is available. IRRP-P2 will be constructed and equipped to produce 4,000 afy. During dry periods when no water is imported, IRRP-P2 may be sufficient to control mounding from previous imports. During wet years, a minimum of 6,000 afy would need to be extracted, which would necessitate the operation of the other two Phase 1 wells and possibly some of the shallow wells.

At this time, the effect of agency well production on controlling the mound has not been modeled. EMWD's groundwater model is currently being upgraded with more layers to provide a finer scale with which to analyze groundwater movement. However, production from agency wells is expected to have some influence on reducing the overall size of the mound by creating de-watered zones to which recharged water can migrate.

#### Recommendations to CAM

During years when MWD is not delivering water, an average annual production of 4,000 af will be needed from the preferred extraction well, IRRP-P2. In years when water is delivered, a minimum of 6,000 afy will need to be extracted from all three Phase 1 wells, and possibly from the shallow wells depending upon the occurrence of perched water. The Watermaster can adjust the required amounts to be pumped based upon operation

and monitoring data accumulated over time and from analysis of EMWD's groundwater model simulations.

The agencies will be required to purchase their pro rata share of extracted water each year. EMWD will bill the Watermaster for the operation and maintenance of the facilities, the cost of the conveyance of the water to the agencies' turnouts, and a facility replacement fee. The Watermaster will bill each agency for the amount of water delivered to their respective turnout(s).

**NEXT MEETING TO BE DETERMINED**