

**Metropolitan Domestic Water Improvement District
Board of Directors Meeting**

May 9, 2011

Avra Valley Recharge Project Update

Synopsis

This report provides an update on the performance of the Avra Valley Recharge Project (AVRP) since the District acquired it from the Central Arizona Water Conservation District on January 1, 2011. The report also discusses the new data communications system and the status of proposed modifications to Basin 4.

AVRP Recharge Performance

Through the efforts of the Central Arizona Water Conservation District, B.K.W. Farms, Inc. and the District, the Avra Valley Recharge Project (AVRP) became operational in July 1996. The AVRP is permitted to annually store up to 11,000 acre-feet. However, the recharge facility can operationally store 7,000 acre-feet per year because infiltration rates in Basin 4 are low due to an eight foot thick layer of fine-grained materials at the surface. The District has recharged 2,255 acre-feet of CAP water from January 1, 2011 through March 31, 2011 at AVRP, which is 401 acre-feet ahead of the scheduled deliveries.

Telemetry System Changeover

Utility staff has scheduled the replacement of CAWCD's outdated SCADA system at AVRP for April 26th and 27th. The AVRP purchase price was discounted \$100,000 by CAWCD because of AVRP SCADA system is obsolete. So far, a total of \$10,137 has been spent on the new SCADA system, which is well below the \$100,000 budget.

Basin 4 Modification

Per the Board of Directors approval on December 10, 2010, a portion of the unused AVRP operations and maintenance budget was expended for a consultant to develop feasible options to modify Basin 4 beyond recharging only 1.73 acre-feet per day. Clear Creek Associates' contract was amended by the Board on January 10, 2011. The contract's not to exceed fee of \$23,700 was for Clear Creek Associates to complete a modification proposal for the Arizona Department of Water Resources' (ADWR) review and decision. The purpose of the proposal to ADWR was to learn if ADWR would require a permit modification and what the permit fee would be. A total of \$4,952.63 has been invoiced as of March 4, 2011 by Clear Creek Associates.

Clear Creek Associates and the District submitted to ADWR a proposal with five options to modify Basin 4 on March 15, 2011. A favorable response was received on April 14, 2011 in which a permit modification will not be necessary and thus save \$25,000. District staff has decided to pursue the adding borings (Option 4) to Basin 4 as the most time efficient and within District's staff expertise and budget. See attachment for a schematic of Option 4.

The District would contract with a drilling firm to have twenty 4 foot diameter borings completed to a depth of 15 feet. The District would use its dump trucks to load clean coarse fill material purchased from a sand and gravel pit and transport the materials to the excavated borings. A District backhoe would place the clean material into the borings. Additionally, the District's water wagon would be needed to minimize fugitive dust during excavation and placement of the clean materials.

Hydrology staff conservatively estimates these construction expenses as \$10,000 to \$15,000. This capital expense if it met AVRP's full recharge capacity of 11,000 acre-feet per year would equate to \$3.33 to \$5.00 per acre-foot. If this capital cost is divided over 20 years, the \$0.17 to \$0.25 per acre-foot expense becomes a significant savings compared to the potential annual operation and maintenance savings of up to \$1.80 per acre-foot.

The District will first meet on May 11, 2011 with ADWR to discuss the District's preferred option before getting price quotes to modify Basin 4. ADWR believes the meeting will provide the District with what information and documentation would be required so that AVRP modification can proceed.

District staff envisions the price quotes and work could be completed by June 30, 2011. If not, a \$15,000 should be reserved in the Capital Projects budget for FY11/12. Staff will provide the bids for Board consideration and action.

Summary

Staff will be available to answer any questions about the project status. No motion is required for this agenda item.

Respectfully submitted,

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General Manager