

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

**June 13, 2011**

**Avra Valley Recharge Project Basin 4 Modification**

**Synopsis**

The Board of Directors is requested to include in the Fiscal Year 2011-2012 budget funding to modify Basin 4 at the Avra Valley Recharge Project (AVRP).

**Basin 4 Modification**

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 of low infiltration rates in Basin 4 due to a five to seven foot thick layer of clay at the surface.

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 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 in regulatory fees and \$50,000 in consulting fees budgeted for FY11/12. District staff has decided to pursue adding borings (Option 4) to Basin 4 as the most time and cost efficient method for the District.

The District would contract with a drilling firm to have 20 four foot diameter borings completed to a depth of 12 to 14 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 \$20,000 to \$25,000. The District has advertised for bid proposals on the drilling of the shallow borings and is obtaining price quotes for the clean backfill into the borings. Bids for the borings work are due on June 14, 2011 and would be available for Board of Directors' consideration at the Board

meeting of July 11, 2011. If approved, the work could be completed in late July or early August. The proposed project has been included in Capital Projects budget for FY11/12 at \$25,000. Corresponding, the District FY11/12 Operating budget has been reduced \$75,000 (Regulatory and Consultant Services). Thereby, the overall District budget is \$50,000 less.

**Recommendation**

Staff has included an additional \$25,000 for capital projects in the Fiscal Year 2011-2012 budget for the purpose of modifying Basin 4 at the Avra Valley Recharge Project. It is recommended that that item remain in the budget.

**Suggested Motion**

The Board does not need to take formal action under this agenda item but rather direct staff whether \$25,000 should remain in the capital projects. Staff will be available to answer any questions about this capital project. The formal action will be under the approval of the Fiscal Year 2011-2012 budget of whether this capital project should not be included in the budget.

Respectfully submitted,

Mark R. Stratton, P.E.  
General Manager