

**Metropolitan Domestic Water Improvement District  
Board of Directors Study Session**

**April 25, 2011**

**Resolution 2011-1  
WaterSMART Grant Financial Assistance for  
Northwest Water Providers Recovery of Recharged Water Demonstration Project**

**Synopsis**

The Board of Directors is requested to approve Resolution 2011-1, which is required as part of the submittal for a WaterSMART Grant, to demonstrate the District's commitment to the financial and legal obligations associated with the grant.

**Background**

The District, Town of Marana, Town of Oro Valley, and Flowing Wells Irrigation District (Partners) have been working for years on ways to use renewable supplies in order to not be solely dependent upon groundwater and meet the Assured Water Supply Rules. This has involved various studies.

One of the studies has involved researching the best treatment for the Central Arizona Project water. Through a Science and Technology (S&T) grant from the U.S. Bureau of Reclamation and working closely with researchers from the University of Arizona, the treatment studies had originally focused on the use of slowsand as a method for pre-treating CAP water before using Reverse Osmosis. However, the Partners have also start a pilot study using micro-filtration (MF) as a more viable treatment process for CAP water, especially when considering future containments that could be added to EPA's regulations. The S&T grant also looks at the use of halophyte plants as a means for managing the concentrate brine left over after the Reverse Osmosis treatment process. As another tool for concentrate management, a study has been initiated to look at VSEP technology. These efforts went on for over three years.

Reclamation has discontinued the extension of funding for the S&T grant. Therefore, the Partners and the UofA have been discussing other options in order to continue research that would be beneficial to the Partners.

**Report**

Last year, the Board of Directors decided that with the acquisition of the Avra Valley Recharge Project, the District would utilize recharge as the initial treatment process for its CAP allocation,

then recover the water and deliver it the District's service area where it would be blended with groundwater. Oro Valley and Marana are also looking at this approach.

The Partners are pursuing the opportunity to relocate the research area from I-10 and Tangerine Road to a BKW Farms well site near the Avra Valley Recharge Project. The objective would be to look at the quality of the recovered water. The recovered water is legally classified as CAP water; however, the actual molecules is comprised of recharged CAP water, recharged effluent, and existing groundwater. The Partners would like to understand better the quality of that water. In addition, the Partners would like to look at advanced treatment options including the use of solar driven reverse osmosis.

The Partners are working with the University of Arizona researchers to apply for a WaterSMART Grant in order to finance this research project. The Partners are willing to commit a total of \$60,000 to this research effort, which is the same amount as previous years for the S&T demonstration project. The amount above that would be funded through the WaterSMART Grant. The District will serve as Project Manager as it has with the previous projects. As part of the grant submittal process, a resolution is required. Therefore, the attached resolution has been drafted and reviewed by Legal Counsel. The grant submittal is due May 10, 2011 and awards are scheduled to be announced in July.

### **Staff Recommendation**

It is recommended that the Board of Directors approve Resolution 2011-1 in an effort to continue the research efforts associated with the use of Central Arizona Project water.

### **Suggested Motion**

I move to approve Resolution 2011-1, which is required as part of the submittal for a WaterSMART Grant, to demonstrate the District's commitment to the financial and legal obligations associated with the grant.

Respectfully submitted,

Mark R. Stratton, P.E.  
General Manager