

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

April 14, 2014

Lower Cañada Del Oro Basin Aquifer Storage Change Monitoring Contract

Synopsis

The Board of Directors is requested to consider terminating at the end of the Fiscal Year the agreement with the United States Geological Survey (USGS) to monitor aquifer storage changes in the Lower Cañada Del Oro Basin. Staff has determined that the District's groundwater monitoring network and ADWR's subsidence monitoring program has expanded sufficiently to provide the necessary information to the District, which has removed the need to continue participation in the USGS monitoring project.

Background

The District and the United States Geological Survey (USGS) have a three year agreement to monitor aquifer storage changes in the Lower Cañada Del Oro Basin. The contract expires on September 30, 2016. Initiated in 1996, the original purpose of the monitoring project was to determine areas favorable for artificial recharge of the District's Central Arizona Project (CAP) water in and along the Lower Cañada Del Oro (CDO) Wash. Since 2000, the study's purpose changed to determine the impacts on groundwater storage and land subsidence from the on-going Arizona drought. The data collected has also aided in better determining the amount of groundwater losses (mining and drought) in the basin as compared to the Arizona Department of Water Resources' (ADWR) estimates. In 2008, the District contracted with ADWR to use satellite images to measure land subsidence within its service areas. The District has also expanded its groundwater monitoring network.

The District, the Towns of Marana and Oro Valley, Pima County, Tucson Water, ADWR and the USGS were the original project sponsors based on different contributions. The project's current funding totals \$140,351.

Issues

The need for the USGS monitoring program has greatly diminished for the following reasons: The District has moved forward with recharging its CAP water outside of the CDO sub-basin and instead in Avra Valley. Metro-Main and Metro-Hub have an extensive groundwater monitoring network with continuous water level recorders that is expanded by District staff each year. Lastly, the District now has a long-term land subsidence monitoring agreement with ADWR. These reasons question the need to continue funding the USGS aquifer storage change monitoring project.

District staff contacted the ADWR Project Manager to inquire if the District's termination of the microgravity data collection by the USGS would impact ADWR's subsidence monitoring work. The Project Manager stated the USGS's data was not used to generate ADWR's land subsidence reports.

Other participants in the USGS aquifer storage monitoring program have adjusted their involvement in the study. Tucson Water did not renew its 2014-2016 contract with the USGS for an annual contribution of \$15,000. As a result, Pima County increased its annual contribution from \$15,000 to \$20,000. The Town of Marana and Town of Oro Valley did renew their contract for three years. The Town of Marana reduced its contribution from \$15,000 per year to \$7,500 per year to match the reduction previously made by the District during the prior contract period with the USGS. The Town of Oro Valley retained their funding at \$15,000 per year. Tucson Water decision to reduce its contribution was because they have an extensive groundwater level monitoring network and they find the information produced by ADWR's land subsidence monitoring program to be more useful.

The USGS contract allows for termination by the end of June 30, 2014. The contract provides the District with the ability to terminate by giving a 60 day written notice. If the Board recommends termination, the project expenditure of \$7,500 will not be included in the Fiscal Year 2014-15 budget. The USGS invoices the District quarterly instead of annually and having a fiscal year from October 1st through September 30th. Payments are for work completed in the past quarter.

Staff Recommendation

Staff recommends the Board of Directors terminate the District's involvement in the project by the end of the current Fiscal Year 2013-14. Staff believes the District's groundwater monitoring network and ADWR's subsidence monitoring program has expanded sufficiently to provide the information necessary to the District removing the need to continue the USGS monitoring project.

Suggested Motion

I move to approve the termination of the USGS contract for Aquifer Storage Change Monitoring Project by June 30, 2014.

Respectfully submitted,

Joseph Olsen, P.E.
General Manager