

**Metropolitan Domestic Water Improvement District
Board of Director's Meeting**

December 9, 2013

Resolution 2013-12

**Execution of Member Service Area Agreement for Metro Southwest-Diablo Village with
the Central Arizona Groundwater Replenishment District**

Synopsis

As part of the process for obtaining a Designation of Assured Water Supply for Metro Southwest-Diablo Village, the Board is requested to approve Resolution 2013-12 to approve executing a member service area agreement with the Central Arizona Groundwater Replenishment District for Metro Southwest-Diablo Village.

In December 2009, the Board of Directors approved the purchase of a new service area called Metro Southwest-Diablo Village. Staff then coordinated with the Central Arizona Groundwater Replenishment District (CAGRDR) to ensure the new service area could have membership transferred from Member Lands to a Member Service Area. CAGRDR staff informed District that the conversion could be completed as proposed by the District. As the water provider for the service area, the CAGRDR requires the District Board of Directors to approve a Resolution authorizing the Board Chair to sign the Resolution and a Member Service Area Agreement.

Background

The Metro Southwest-Diablo Village service area is located south and east of Ryan Airfield in southern Avra Valley between Ajo Road at Valencia Road on the west and Wade Road on the east. Staff submitted a designation of 100 year assured water supply (AWS) application to the Arizona Department of Water Resources (ADWR) in June 2013. A Designation of Assured Water Supply (DAWS) is required before any new development can occur within a service area, unless the municipal water provider instructs the developer to complete their own Certificate of Water Supply (CAWS) and apply for member lands (MLs) membership with the Central Arizona Groundwater Replenishment District (CAGRDR). A water provider with a DAWS is required to replenish all mined groundwater pumped within the entire service area. A water provider can accomplish this by one of three ways: 1) Either the water provider can join the Central Arizona Groundwater Replenishment District as a member service area (MSA) and have the CAGRDR replenish the mined groundwater; or 2) the water provider can recharge and recover its own CAP water; or 3) directly use treated CAP water.

A water provider cannot join the Central Arizona Groundwater Replenishment District as a Member

Service Area unless the service area has a physical 100 year supply of groundwater. The CAGRDR will replenish any mined groundwater through its CAP supplies or CAGRDR allow a water provider to recharge its own CAP water to avoid CAGRDR replenishment fees. Presently, the District does not have a CAP water allocation for Metro Southwest-Diablo Village.

The Hydrology Report completed in 2012 by Clear Creek Associates found sufficient amounts and quality of groundwater to supply the service area for at least 100 years. Therefore, the service area is eligible for Member Service Area membership with the Central Arizona Groundwater Replenishment District.

Issues

At this time, the District does not have in place a way to use either CAP water or effluent for Metro Southwest-Diablo Village. While the District is working on options such as CAP water wheeling agreements and seeking control of its effluent generated, membership with the CAGRDR would be a stop gap measure until those renewable supplies became available.

Membership approval is expected from CAGRDR because a sufficient volume and quality of groundwater for 100 years has been demonstrated to ADWR for this service area. The ADWR has found the District's DAWS application as complete, but the application does not meet the substantive requirements until the District is enrolled as a Member Service Area with the CAGRDR.

CAGRDR membership can result in a substantial annual cost to water providers if the water provider does not have the ability to independently replenish any groundwater used each year with renewable supplies. The replenishment charges by CAGRDR in FY13/14 are \$548 per acre-foot and expected to rise to at least \$671 per acre-foot by FY17/18. In FY13/14 with a replenishment rate of \$548 acre-foot, the cost for replenishment services on 66 percent of the current pumpage of 248 acre-feet would be \$89,697. If full build out of 2,725.81 acre-feet occurred in FY17/18 and had a replenish obligation of 100 percent, the CAGRDR cost would be \$1.829 million dollars.

If the water provider has renewable supplies, the CAGRDR and ADWR does allow the water provider to conduct storage (replenishment) outside of their service area and recover their CAP credits by service area wells provided the groundwater levels in the service area do not decline on the average no more than 4 feet per year over a 5 year period. The Hydrologic Report found water levels in the Diablo Village service area were declining 2.1 feet per year in 2011, but levels in 2012 were found rising at the average rate of 4.2 feet per year.

Therefore, Metro Southwest-Diablo Village could store CAP water at SAVSARP and use the two existing supply wells (DV-1 and DV-2) for "recovering" CAP water to meet its water demands with a small risk of incurring CAGRDR replenishment costs, if a CAP supply is allocated to the District. The total cost of independently completing replenishment at Tucson Water's SAVSARP in this case for FY12/13 on 248 acre-feet of groundwater would be \$45,044.24 versus \$89,697 for CAGRDR services or a total annual savings of \$44,652.76 (50%).

The following tables compare the costs of recharging and using the CAGR. If the District has a CAP supply for Diablo Village, the District could store CAP water at Tucson recharge facilities (Table 1) and use District wells to recovery to avoid CAGR replenishment fees (Table 2).

Table 1. CAP Water and Recharge Costs

Year	2012	2013	2014	2015	2016	2017	2018
CAP Water Cost/AF	\$137	\$144	\$166	\$178	\$186	\$190	\$193
Tucson Water Recharge Cost/AF	\$15.17	\$15.63	\$15.63	\$16.10	\$16.58	\$17.08	\$17.59
Water O&M Cost/AF							
Total/AF	\$152.17	\$159.63	\$181.63	\$194.10	\$202.58	\$207.08	\$210.59

Table 2. CAGR Replenishment Fees

Year	FY12/13	FY13/14	FY14/15	FY15/16	FY16/17	FY17/18
CAGR Cost/AF	\$474	\$548	\$614	\$666	\$668	\$671

State statutes require the Board of Directors to approve a resolution for joining Metro Southwest-Diablo Village as a member service area with the CAGR. Additionally, statutes require the District to advertise the resolution once a week for two weeks in a publication of general circulation prior to signing the member service area contract with CAGR. Staff will complete the advertising requirement upon Board approval of the resolution and have the Board Chair sign the Member Service Area Agreement after the legal notice requirement is finished. The contract will be scheduled for the Central Arizona Water Conservation District’s Board of Directors consideration at their January 2014 meeting.

Lastly, the Member Service Area Agreement includes existing and proposed developments, such as Sendero Pass, Tucson Mountain Ranch and Valencia Ranch (Exhibit A – Service Area Map). Section 1.17 of the agreement allows the District to add Pomegranate Farms and the Marr’s property provided the additional water demand does not exceed the service area demand of 2,725.81 acre-feet (Section 1.72). If the total demand will exceed the CAGR contract volume, then the District would apply to CAGR for modification.

Staff Recommendations

It is recommended that the Board of Directors approve Resolution 2013-12 regarding membership in the Central Arizona Groundwater Replenishment District for the Metro Southwest-Diablo Village service area. It is further recommended that the Board of Directors approve the Board Chair to sign the Member Service Area Agreement with the Central Arizona Groundwater Replenishment District

upon the successful completion of the advertizing of the resolution by the District.

Suggested Motion

I move to approve Resolution 2013-12 regarding membership in the Central Arizona Groundwater Replenishment District for the Metro Southwest-Diablo Village service area. I further move that the Board of Directors approve the Board Chair to sign the Member Service Area Agreement with the Central Arizona Groundwater Replenishment District upon the successful completion of the advertizing of the resolution by the District.

Respectfully submitted,

Mark R. Stratton, P.E.
General Manager