

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

**August 15, 2022**

**Approval of Amendments to Groundwater Savings Storage Agreements with  
BKW Farms, Inc., Cortaro Water Users' Association, and Kai Farms Red Rock**

**Synopsis**

The Board of Directors is requested to approve a storage Agreement Amendment with BKW Farms, Inc. (BKW Farms) Groundwater Savings Project, Cortaro Water User's Association's (Cortaro) Groundwater Savings Project, and the Kai Farms Red Rock (Kai Farms) Groundwater Savings Project for the purpose of fully utilizing the District's Central Arizona Project (CAP) allocation in calendar year 2023.

**Background**

As a municipal and industrial (M&I) CAP water subcontract holder, the District is entitled, under its contract with the Central Arizona Water Conservation District (CAWCD), to have CAP water delivered for recharge. The District holds water storage permits at the Avra Valley Recharge Project (AVRP), the BKW Farms Groundwater Savings Project, the Cortaro Groundwater Savings Project, the Kai Farms Groundwater Savings Project, the Lower Santa Cruz Replenishment Project, the Southern Avra Valley Storage and Recovery Project (SAVSARP), and the Lower Santa Cruz River Managed Effluent Recharge Project.

This agenda item focuses on storage Agreement Amendment No. 4 with BKW Farms, Cortaro, and Kai Farms Groundwater Saving Facilities (GSF) for calendar year 2023. All three contracts expire on December 31, 2023. Table 1 summarizes all District CAP water deliveries and which facilities were utilized.

Due to uncertainties in how much CAP water will be available to the District, the proposed volumes to be stored with our GSF Partners will be "up to" amounts. If the District is able to order the expected 9,960 acre-feet allocation (13,460 acre-feet less 3,500 acre-feet for the 500 Plus Plan), the volumes presented below will represent the District's total order.

If the District orders are reduced by more than 3,500 acre-feet due to more advanced Tiers of shortage in Lake Mead or unilateral actions taken by the Secretary of the Interior after the August 24-Month Colorado River Study report results are known, deliveries to the GSF partners will be reduced proportionally per the delivery volume proposed below.

*BKW Farms Groundwater Savings Project*

In 1996 when the District acquired its CAP water allocation from the City of Tucson, BKW Farms began to store water for the District. The amount has varied over the years based on how much water from the City of Tucson was stored at BKW Farm’s Groundwater Savings Project per a previous agreement between BKW Farms and Tucson. Whenever BKW Farms has had additional capacity, they have made it available to the District. The District has stored water at the BKW Farms GSF every year since 2003. For calendar year 2023, storage at BKW Farms will be up to 500 acre-feet.

*Cortaro Water User’s Association Groundwater Savings Project*

In 1999, the District entered into its first agreement with Cortaro for storage at its Groundwater Savings Project. Since 2000, the District has consistently stored CAP water at the Cortaro every year, with the exception of 2006. Storage requested for calendar year 2023 will be up to 7,960 acre-feet.

*Kai Farms Red Rock Groundwater Savings Project*

In 1997, the District began storing CAP water at the Kai Farms Red Rock Groundwater Savings Project through an agreement with Herb Kai. The District has stored water at the Kai Farms every year since 1997. In calendar year 2023, the District will store up to 1,500 acre-feet.

**Table 1 – The District’s Storage at Groundwater Saving Facilities 1996 – 2021**

<b>Year</b>	<b>Avra Valley USF</b>	<b>Lower Santa Cruz USF</b>	<b>SAVSARP USF</b>	<b>Cortaro GSF</b>	<b>Kai-Red Rock GSF</b>	<b>BKW Farms GSF</b>	<b>Total</b>
1996						1,000	1,000
1997	2,794				2,000		4,571
1998	2,200				2,000		4,200
1999	2,200				2,000		4,200
2000	5,000			1,000	2,000		8,000
2001		4,000		1,000	3,000		8,000
2002		3,104		1,000	3,000		7,104
2003				1,000	2,000	5,828	8,858
2004				1,000	3,929	3,929	8,858
2005				1,000	3,579	4,179	8,858
2006					4,929	3,929	8,858
2007				2,487	5,258	3,000	10,745
2008				7,917	3,258	100	11,275

<b>Year</b>	<b>Avra Valley USF</b>	<b>Lower Santa Cruz USF</b>	<b>SAVSARP USF</b>	<b>Cortaro GSF</b>	<b>Kai Farms GSF</b>	<b>BKW Farms GSF</b>	<b>Total</b>
2009				9,273	500	585	10,358
2010				3,329	1,000	100	4,429
2011	6,065			3,329	1,000	100	10,494
2012	6,436			3,700	1,000	100	11,246
2013	7,117			5,243	1,000	100	13,460
2014	6,232			4,358	1,000	100	11,690
2015	5,214			4,403	1,000	1,000	11,617
2016	3,950		50	4,412	1,100	2,400	11,912
2017	3,450	1,000	9	5,801	1,200	2,000	13,460
2018	3,100		60	6,800	1,500	2,000	13,460
2019	1,960		500	7,400	2,000	1,600	13,460
2020	998			6,462	2,000	500	9,960
2021				7,960	1,000	1,000	9,960
2022				7,960	1,500	500	9,960
2023				7,960	1,500	500	9,960

### **Recharge Balance and Asset Value**

The Arizona Department of Water Resources (ADWR) has deemed the District's long-term storage credit account at 48,482.58 acre-feet as of December 31, 2021. Staff estimates Metro Main's 2022 pumpage is 7,500 acre-feet, which excludes the approximately 500 acre-feet from the South Shannon well. In 2022, Metro Main delivered 3,500 acre-feet of its CAP order to the 500 Plus Plan through an agreement with CAP. With 9,960 acre-feet of CAP delivery in 2023, the long-term storage credits earned would be approximately 2,460 acre-feet of CAP water and approximately 900 acre-feet of effluent after anticipated 2023 demands are taken into account.

With the implementation of the 500 Plus Plan Agreement between the District, CAP, and the Bureau of Reclamation, 3,500 acre-feet of the District's CAP allocation will not be stored at AVRFP or GSF Partners in 2023. However, due to unprecedented declines in Lake Mead and Lake Powell, the existence of the 500 Plus Plan may be eliminated and there is a potential for a reduction in the District's CAP allocation. By late August or September, the outcome of the Colorado River 24-month Study will give the Bureau of Reclamation the information to make decisions about 2023 deliveries to the Lower Basin States.

The volume of CAP water that is available (9,960 acre-feet if no additional reductions are enforced) to the District's CAP allocation will be stored at GSFs in calendar year 2023. Between AVRFP and the GSFs, the annual Metro Main demand can be recovered annually with existing well capacity. A total of at least 3,500 acre-feet or more of storage capacity at AVRFP will continue to be used by the City of Phoenix, provided potential reductions do not impact Phoenix's CAP allocation to a level where they must reduce deliveries to AVRFP.

**Issues**

The District has received a groundwater savings project storage request from BKW Farms, Cortaro, and Kai Farms for storage in calendar year 2023.

For CAP water delivered to groundwater savings projects and direct recharge projects in 2023, the District will incur charges for the capital cost of CAP water at \$53 per acre-foot and a delivery cost of \$217 per acre-foot (Tier 1 M&I price CAP water).

Use of GSF are critical to the District’s ability to store its entire CAP allocation, which provides the ability of using renewable supplies to meet customers water demands. Additionally, using GSF Partners returns a \$12 per acre-foot rebate that will total approximately \$119,520 in calendar year 2023. Continuing the District’s GSF partnerships meets the goals of a renewable, sustainable water resource portfolio needed to meet the current and future demands for the District’s customers.

**Recommendation**

It is recommended that the Board of Directors approve Amendment No. 4 to the CAP water storage agreement with BKW Farms, Cortaro, and Kai Farms for calendar year 2023 storage.

**Suggested Motion**

I move to approve Amendment No. 4 between the District and BKW Farms, Inc. for “In-Lieu Water Deliveries and Storage” for calendar year 2023.

I move to approve Amendment No. 4 between the District and Cortaro Water Users’ Association for “In-Lieu Water Deliveries and Storage” for calendar year 2023.

I move to approve Amendment No. 4 between the District and Kai Farms Red Rock for “In-Lieu Water Deliveries and Storage” for calendar year 2023.

Respectfully submitted

Wally Wilson  
Water Resources Manager

I concur with staff’s recommendation.  
Respectfully submitted,

Joseph Olsen, P.E.  
General Manager