

IRVINE RANCH WATER DISTRICT POLICY POSITION WATER BANKING, TRANSFERS AND WHEELING

Revised: April 27, 2026

Issue Summary:

The Irvine Ranch Water District is further diversifying its water supply portfolio by developing water banking facilities in the Kern Fan area located in the southern San Joaquin Valley in Kern County. Water supplies continue to be stressed in California due to implementation of the Sustainable Groundwater Management Act (SGMA), increased competition for water supplies, potential shortages from the Colorado River, supply limitations from and environmental constraints in the Sacramento-San Joaquin Delta (Delta), potential climate change and reoccurring droughts. Under such conditions, water banking recharge, storage and recovery programs will continue to provide a cost effective and reliable supplemental source of water that can be relied upon during major droughts and periods of supply interruptions. The development of and participation in water banking programs and other types of emergency supply projects by retail water agencies should be encouraged throughout the State. This policy position paper provides Policy Principles for the implementation of the IRWD water banking program as well as other banking programs in the Metropolitan Water District of Southern California (MWD) service area.

IRWD Supply Diversity Requirements:

IRWD's primary mission is to provide a safe and reliable water supply to its customers. IRWD's water supply reliability is directly related to supply diversity. Along with the implementation of numerous water use efficiency programs, IRWD has developed and continues to develop a diverse mix of local and non-local supplies including high quality groundwater, impaired groundwater, and recycled water – all of which reduce IRWD's dependence on imported water.

In August 2025, IRWD completed an update to its Water Supply Reliability Study that affirmed the need for IRWD's water banking programs to meet District demands during future droughts and major supply interruptions. Findings of the study include that current demand projections indicate IRWD has a long-term need to store 115,000 AF of water as Extraordinary Supply ("Extraordinary Supply Needs") that could be called upon during drought conditions or major supply interruptions. In the event of a major and prolonged supply interruption, such as an earthquake that significantly damages the levees in the Delta, this stored water would be available to fulfill IRWD's estimated needs for imported water over six years with a peak recovery capacity of 24,000 AF per year. The study concluded that IRWD should pursue another 25,000 AF of storage capacity for its own use in its water banking programs and be prepared to implement additional conservation measures in response to more extreme events. The study also demonstrated the importance of IRWD continuing development of the Kern Fan Project, and associated conveyance facilities, as well as potential participation in the construction and operation of the Sites Reservoir Project.

IRWD's water banking programs make IRWD more resilient during major shortages. IRWD's water banking program is a cost effective and environmentally sound method to store and recover supplemental water to meet such long-term supply reliability requirements.

Key Elements of IRWD's Water Banking Program:

Since 2005, IRWD has made significant progress in the development of its water banking program and in securing associated supplemental supplies. IRWD has purchased land, constructed facilities, and is now operating the Strand and Stockdale Integrated Banking Projects through a long-term partnership with Rosedale-Rio Bravo Water Storage District (Rosedale). In addition, IRWD and Rosedale as members of the Groundwater Banking Joint Powers Authority are constructing recharge and recovery facilities at the Kern Fan Project and pursuing important conveyance facilities that will allow the capture of wet-year supplies currently being lost to the ocean. IRWD retains equity ownership of these water banking projects. IRWD has also partnered with Rosedale and Santa Clarita Valley Water Agency to complete the construction of wells that ensure IRWD's ability to recover water for itself and its partners during peak demand periods.

Securing Water Supplies:

So far, IRWD has secured water supplies for its water banking projects through unbalanced exchange partnerships with other agencies. These partnerships allow agencies with surplus water to store water in IRWD's water banking projects in return for transferring 50 percent or more of the water to IRWD. Such exchanges are called unbalanced exchanges because only half or less of the water that is delivered into storage is returned to the originating agency. IRWD is currently participating in the planning and environmental review of the Sites Reservoir Project, which would provide a schedulable source of water to the Kern Fan Project without the use of unbalanced exchanges. The IRWD Board has not taken action to participate in the construction and operation of the Sites Reservoir Project, which would be subject to future findings regarding the cost-effectiveness and benefits of the project.

Addressing Increased Competition:

SGMA was signed into law by Governor Jerry Brown in September 2014 for the purpose of developing and implementing sustainable groundwater management plans throughout California. By January 31, 2022, all high- and medium-priority groundwater basins were to have in place a Groundwater Sustainability Plan and all basins in overdraft must achieve groundwater sustainability by year 2042. The implementation of these plans is increasing competition for water supplies and putting upward pressure on the cost of water as agencies work to optimize the use of surface supplies and expand water storage capabilities.

Other factors that are increasing the cost of water in the Kern Fan area include implementation of amendments to the State Water Project (SWP) Contract allowing compensation for transfers of water and the completion of the Isabella Lake Dam Safety Modification project, both of which allow water right holders to better manage their supplies with a greater financial return. The use of transfers with associated financial compensation are now more flexible and easier to implement. Unbalanced exchanges will frequently include financial compensation components.

Increased competition for water supplies will require IRWD to adopt strategies to continue securing water for its Water Banking Projects while minimizing its cost of water. Strategies to

be adopted by the IRWD Board of Directors could include leveraging IRWD's existing banked supplies to secure greater amounts of water and focusing on increasing the District's reliance on smaller schedulable sources of supply, such as participating in the construction and operation of the Sites Reservoir Project.

Wheeling and Exchange Agreements:

In 2011, IRWD, Metropolitan Water District of Southern California (MWD) and Municipal Water District of Orange County (MWDOC) executed a long-term Coordinated Operating, Exchange and Delivery Agreement (Coordinated Agreement) that facilitates the delivery of SWP supplies from IRWD's water banking projects to IRWD's service area. The agreement allows IRWD to secure SWP supplies with the concurrence of MWD, with MWD maintaining control of the introduction of these supplies into its service area. In 2014, IRWD, MWD and MWDOC developed and executed a template Wheeling Agreement that facilitated the delivery of non-SWP water into IRWD's service area. Water delivered to IRWD's service area, through the use of either of these agreements, is considered "Extraordinary Supply" by MWD during water supply allocation periods. It is IRWD's position, that the Coordinated Agreement and the template Wheeling Agreement will be used by IRWD in the future to facilitate the delivery of water that is recovered from IRWD's water banking projects to IRWD's service area.

Supporting Extraordinary Supply Projects:

Other agencies in southern California are pursuing the development of Extraordinary Supply Projects that will require water purchase, wheeling and exchange capabilities. It is IRWD's position that MWD Member Agencies should support and not impede the ability of agencies to develop and implement agreements for purchasing water, implementing exchanges and wheeling of water associated with Extraordinary Supply Projects. Sponsors of all Extraordinary Supply Projects should work together to avoid impediments being imposed on projects.

Sharing Reliability Benefits:

The acquisition of supplemental supplies for IRWD's water banking projects is likely to require the use of unbalanced exchange concepts whereby IRWD stores water on behalf of another party in return for 50 percent or more of the water being transferred to IRWD. The storage and recovery of water for IRWD's exchange partners will take up capacity in IRWD's water banking projects that might otherwise be available for IRWD's use.

Recently, other agencies have expressed an interest in securing shared reliability from IRWD's water banking programs. In 2025, IRWD implemented a Water Storage and Exchange Program with Las Virgenes Municipal Water District that results in an unbalanced exchange that provides reliability benefits to both agencies. It is IRWD's intent, after taking into consideration IRWD's reliability needs as well as hydrologic conditions, regional and local water supply conditions and storage levels, that IRWD will be able to enter into other shared reliability program agreements that will allow other retail water agencies to receive reliability benefits from IRWD's water banking program. In exchange for receiving these benefits, the agencies would reimburse IRWD

for its costs along with a proportional share of IRWD's capital investment in its water banking facilities.

Need for Expansion:

The implementation of future unbalanced exchanges and sharing of reliability benefits from IRWD's water banking projects has resulted in the need to expand IRWD's water banking capacities. In addition, potential climate change impacts could further increase the need to expand IRWD's water banking projects. Such expansions will ensure that IRWD can meet its water supply reliability requirements while meeting the requirements of its partners. IRWD and Rosedale are working to expand their respective water banking projects with the further development of the Kern Fan Project, including the construction and operation of significant conveyance facilities. IRWD and Rosedale will each have equity ownership in half of the project with exclusive access to specific components. IRWD and Rosedale have been conditionally approved to receive \$111.1 million in Proposition 1 Water Storage Investment Program funding for the Kern Fan Project. The agencies have also received \$8.47 million in Small Storage Investment Program funding from the Bureau of Reclamation and are currently pursuing up to \$25 million more for the project.

Offsetting Capital Investments:

When IRWD has enough water in storage to meet its Extraordinary Supply Needs as well as the needs of those agencies to which IRWD has committed to shared water supply reliability, then IRWD could consider selling a portion of its banked supplies in dry years to offset its capital investment in the water banking projects. The use of this strategy would need to take into careful consideration of existing regional and local storage levels, current water supply conditions, IRWD's demands for imported water and expectations for future water supplies.

Objectives for Acquiring Supplemental Water Supplies:

IRWD's objectives for acquiring both short and long-term supplemental water supplies through water transfers, exchanges and other market transactions, that would be available to IRWD's water banking projects and other water supply reliability programs, excluding supplies needed to fulfill local operations (including irrigation), are as follows:

1. IRWD seeks to acquire cost effective and diverse supplemental sources of water such as high flow Kern River water, State Water Project supplies, water associated with pre-1914 rights, CVP supplies, water from Sites Reservoir and water from other available sources depending on annual availability and conveyance capacity availability.
2. Generally, IRWD seeks to acquire up to 67% of its supplemental supplies during wet hydrologic periods subject to the conditions established by the water supplier and availability. IRWD does not intend to compete for supplemental supplies during dry years.

3. Over the long term, IRWD plans to acquire up to 33% of its supplemental supplies through smaller sustained, controllable and schedulable supply sources. Such supplies could be acquired through participation in Sites Reservoir, the purchase of farmland that has water supply entitled to it, and by securing rights to new water supplies and the ability to convey the water without significant losses. IRWD intends to preserve existing agricultural uses on purchased lands when possible, and will schedule excess water for direct or exchange delivery to its water banking and other water supply reliability programs through rotational fallowing or onsite conservation using methods that are implemented in coordination with the local community with the intent to minimize significant third-party impacts to local economies.

Policy Principles:

Based on the information provided above, the following IRWD policy principles have been developed. These principles provide guidance on issues related to water banking, transfers, exchanges, wheeling of water and Extraordinary Supply projects.

1. The State's water supplies are being impacted by reoccurring droughts, problems in the Delta, a growing population, competition for supplies, increasing costs of water, regulatory pressure, potential climate change impacts, and an imbalance between available water supplies and available storage. As a result, IRWD needs supplemental supplies, conveyance, and storage facilities to bank the supplemental water supplies for use during dry periods and major supply disruptions.
2. Based on economic and environmental criteria, water banking programs involving storage in groundwater aquifers are preferred, having demonstrated that they are less expensive and preferable to surface storage.
3. A primary mission of IRWD is to provide a highly reliable supply of water. Reliability is enhanced by having multiple redundant sources of supply. To address this need, IRWD will develop diverse supplemental water supply sources and water banking capacities that will be sufficient to meet changes in IRWD's reliability needs in the future.
4. IRWD seeks to secure cost-effective and diverse supplemental sources of wet year and smaller schedulable water supplies including high flow Kern River, State Water Project supplies, water with pre-1914 rights, CVP supplies, water from Sites Reservoir, and water from other available sources depending on annual availability and conveyance and/or exchange capacity that will allow IRWD to achieve its water supply reliability goals through the implementation its water banking program.
5. Because of the District's obligation to its customers, long-term equity ownership of water banking capacity as well as lands and projects that have water supplies entitled to them is strongly preferred over contract or lease arrangements. Equity partnerships that provide benefits to both the District and to local entities are preferred.

6. The District's water banking partners will benefit from the sharing of recharge, storage and recovery capacity through unbalanced exchanges and shared reliability benefit programs. In addition, due to potential climate change, the future intervals between wet years could become longer with increases in the rate of runoff. These issues may make it necessary for IRWD in the future to consider increasing conveyance, recharge, storage and recovery capacities in its water banking program.
7. Expansion of water banking capacities may be considered through equity purchases of capacities available in existing water banking programs or development of partnerships for capacity expansion.
8. IRWD will support wheeling policies and rates adopted by MWD, MWD Member Agencies and other agencies to the extent they reflect cost of service approach. Any wheeling or exchange of water through MWD's conveyance facilities should be consistent with MWD's Administrative Code, must not financially impact MWD or its Member Agencies and should protect MWD's rights including its SWP contract.
9. MWD Member Agencies should support and not impede the ability of agencies to implement Extraordinary Supply projects and to wheel or exchange water through MWD's conveyance facilities.
10. IRWD will work with sponsors of other Extraordinary Supply projects and support exchanges of water that prevent or avoid impediments that threaten the feasibility or increase the costs of the projects.
11. IRWD will put all available supplemental water supplies to beneficial use using methods that are implemented in coordination with the communities that are local to the source waters and where necessary attempt to minimize significant third-party impacts while preserving the agricultural benefits of the contributing lands through temporary fallowing arrangements and / or water conservation efforts.
12. IRWD will seek partnerships that result in mutually beneficial exchange and transfer opportunities including the ability to enhance direct and in-lieu recharge or recovery operations associated with IRWD's water banking program and/or result in water stored in Southern California.
13. IRWD will support and actively work with the State and the Federal governments and available legislative processes to streamline procedures for the implementation of short and long-term water transfers and exchanges as well as the formation of local, regional and statewide water marketing systems.
14. IRWD will support the development of water marketing systems in the State of California that are consistent with and do not expand existing lawful authorities, provide local and regional oversight of markets, encourage regional and statewide cooperation, protect existing land, water and capacity rights, attempt to protect communities from unreasonable third party and / or environmental impacts, do not interfere with contract

rights and that result in streamlined abilities to effectuate water transfers, exchanges and wheeling of supplies among voluntary market participants.

15. To address increasing competition and costs for water, IRWD will consider leveraging its existing banked supplies to secure greater amounts of water while maximizing the exportability of water. IRWD will also consider increasing the District's reliance on small and schedulable sources of supplies such as Sites Reservoir.
16. IRWD will provide water supply reliability benefits to others from its water banking program after considering its own water supply reliability needs as well as local and regional water supply conditions including storage levels, in a way that makes IRWD financially whole.
17. When IRWD has enough water in storage to meet its current Extraordinary Supply Needs as well as the needs of the agencies to which IRWD has committed to provide water supply reliability, then IRWD will consider selling a portion of its banked supplies in dry years to recover all costs including, capital, operating and maintenance and other costs associated with its water banking projects. Such sales would consider existing local and regional storage levels, current water supply conditions, IRWD's demands for imported water and expectations for future water supplies.