

AGENDA
IRVINE RANCH WATER DISTRICT
SUPPLY RELIABILITY PROGRAMS COMMITTEE
THURSDAY, FEBRUARY 15, 2024

This meeting will be held in-person at the District’s headquarters located at 15600 Sand Canyon Avenue, Irvine, California. The meeting will be held in the second floor SC Committee room. The meeting will also be broadcasted via Webex for those wanting to observe the meeting virtually.

To observe this meeting virtually, please join online using the link and information below:

Via Web: <https://irwd.webex.com/irwd/j.php?MTID=m4fd1880315c0b5f8b2e94d9c93122f9d>

Meeting Number (Access Code): 2489 978 3480

Meeting Password: M3RacpmX3b3

As courtesy to the other participants, please mute your device when you are not speaking.

PLEASE NOTE: Participants joining the meeting will be placed into the Webex lobby when (if) the Committee enters Closed Session. Participants who remain in the “lobby” will automatically be returned to the open session of the Committee once the closed session has concluded. Participants who join the meeting while the Committee is in closed session will receive a notice that the meeting has been locked. They will be able to join the meeting once the Closed Session has concluded.

CALL TO ORDER 1:30 p.m.

ATTENDANCE Committee Chair: Doug Reinhart _____
 Alternate Member: Peer Swan _____

ALSO PRESENT Paul Cook _____ Paul Weghorst _____
 Neveen Adly _____ Fiona Sanchez _____
 Kent Morris _____ Kellie Welch _____
 Natalie Palacio _____ Robert Huang _____
 Marina Lindsay _____ _____
 _____ _____ _____

PUBLIC COMMENT NOTICE

If you wish to address the Committee on any item, please submit a request to speak via the “chat” feature available when joining the meeting virtually. Remarks are limited to three minutes per speaker on each subject. Public comments are limited to three minutes per speaker on each subject. You may also submit a public comment in advance of the meeting by emailing comments@irwd.com before 5:00 p.m. on February 14, 2024.

COMMUNICATIONS

1. Notes: Weghorst
2. Public Comments
3. Determine the need to discuss and/or take action on item(s) introduced that came to the attention of the District subsequent to the agenda being posted.
4. Determine which items may be approved without discussion.

INFORMATION

5. WATER BANKING PROJECT FACILITIES, CAPACITIES, OPERATIONS AND PROGRAMS – PALACIO / WELCH / SANCHEZ / WEGHORST

Recommendation: Receive and file.

ACTION

6. DRAFT TERMS FOR WATER MANAGEMENT PROGRAM AGREEMENT WITH HOMER LLC – PALACIO / WELCH / SANCHEZ / WEGHORST

Recommendation: That the Board authorize the General Manager to execute a Water Management Program Agreement with Homer LLC based on the terms presented, subject to substantive changes approved by the Supply Reliability Programs Committee and special legal counsel.

OTHER BUSINESS

7. Receive Oral Updates from District’s liaison to Dudley Ridge Water District and provide information on relevant activities.
8. Directors’ Comments
9. Adjourn

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the above-named Committee in connection with a matter subject to discussion or consideration at an open meeting of the Committee are available for public inspection in the District’s office, 15600 Sand Canyon Avenue, Irvine, California (“District Office”). If such writings are distributed to members of the Committee less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Committee Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available electronically via the Webex meeting noted. Upon request, the District will provide for written agenda materials in appropriate alternative formats, and reasonable disability-related modification or accommodation to enable individuals with disabilities to participate in and provide comments at public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, or alternative format requested at least two days before the meeting. Requests should be emailed to comments@irwd.com. Requests made by mail must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility.

February 15, 2024
Prepared by: N. Palacio / K. Welch
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook



SUPPLY RELIABILITY PROGRAMS COMMITTEE

WATER BANKING PROJECT FACILITIES, CAPACITIES, OPERATIONS, AND PROGRAMS

SUMMARY:

Staff has prepared information related to IRWD's water banking facilities, capacities, operations, and exchange programs. The information is regularly updated to reflect changes in the status of IRWD's projects, programs, and operations. At the Committee meeting, staff will review this information and provide information on IRWD's forecasted monthly recharge operations for 2024.

BACKGROUND:

Staff has prepared reference materials in tabular, map, and schematic formats to describe IRWD's water banking facilities, capacities, operations, storage, and exchange programs. These reference materials are updated regularly to reflect changes in the status of the projects, programs, and operations. The following is an overview of the reference materials as well as forecasted recharge operations for calendar year 2024 at the IRWD Water Bank.

Capacity and Operations Tables:

A table presenting storage, recharge, and recovery capacities of existing and planned IRWD water banking projects, including capacities available to IRWD in the Kern Water Bank (KWB), is provided as Exhibit "A". Exhibits "B" and "C" provide an update on water banking recovery and recharge operations as well as the balance of the water stored in the Kern Water Bank. Exhibit "B" provides before-loss estimates of water recharged and in storage at the water banking projects, and Exhibit "C" provides after-loss estimates of water recharged and in storage at the projects. Changes on Exhibits "B" and "C" depict the delivery of 2,200 AF of State Water Project (SWP) Table A from Dudley Ridge Water District (Dudley Ridge) in fulfillment of its obligation to IRWD under the 1-for-1 long term exchange program.

Summary of Programs:

A table summarizing IRWD's water purchase and exchange programs is presented as Exhibit "D". This table lists each water purchase and exchange program IRWD has entered into and presents information related to the type of exchange, year executed, agreement type, and water type. IRWD and partner shares are listed, and the table shows the total amount of water included in each program. The balances listed for IRWD, and its partners show the amount of water remaining in storage, with IRWD's balances specifying whether the water is stored in Metropolitan Water District's system, Kern County, or owed to IRWD by Dudley Ridge. The table also provides details related to the exportability of IRWD's supplies. Changes shown in red on Exhibit "D" correspond with the changes made to Exhibits "B" and "C."

Exhibit “E” graphically depicts how storage of SWP and non-SWP water has changed annually in the Strand and Stockdale Integrated Banking Projects. Exhibit “E” also depicts the balance of water owed to IRWD by Dudley Ridge. The table provided as Exhibit “F” shows how capacities in the water banking projects have been dedicated to IRWD’s existing and proposed exchange programs.

Project Maps:

To support the tables and figures provided as Exhibits “A”, “B”, “C”, “D”, “E”, and “F”, staff has prepared maps depicting project wells, pipelines, recharge basins, and Cross Valley Canal turnout locations, along with the most current recharge rates. These maps are provided as Exhibits “G”, “H”, and “I”, respectively. Exhibit “I” has been updated with current recharge rates at the IRWD Water Bank. The facilities shown on the maps are associated with the Strand Ranch, Stockdale West, Stockdale East, and Drought Relief Projects.

Program Agreement Diagrams:

Schematic diagrams have been prepared that depict IRWD water banking and exchange programs with Rosedale-Rio Bravo Water Storage District, Buena Vista Water Storage District, Dudley Ridge, Metropolitan, and Antelope Valley-East Kern Water Agency (AVEK). These diagrams are provided as Exhibits “J”, “K”, “L”, “M”, “N”, “O”, and “P” as described in the List of Exhibits.

Cost of Water Table:

A table presenting a summary of the costs of water from each of IRWD’s unbalanced exchange partnerships through the year 2021 is provided as Exhibit “Q”. The table lists each of IRWD’s unbalanced exchange partnerships and presents information related to the period over which water was acquired, water type, IRWD’s share of water, and various cost components as well as the total cost of water delivered to IRWD’s service area. Cost components include fixed and variable operating costs, estimated future IRWD recovery costs, the 2024 Metropolitan Full Service Untreated Tier-1 Rate, and a capital cost of water. The variable costs include an administrative fee issued by the Kern County Water Agency for staff time related to processing Transaction Request Forms. The costs of water are presented on a dollar per acre-foot basis. Exhibit “Q” will be updated to reflect 2022 and 2023 operations once all invoices have been received from Rosedale-Rio Bravo Water District.

IRWD’s Coordinated Agreement with Metropolitan:

An overview of IRWD’s Coordinated Operating, Water Storage, Exchange, and Delivery Agreement with Metropolitan and Municipal Water District of Orange County (Coordinated Agreement) is provided as Exhibit “R” (updated as of 8 Feb 2024). The benefits to IRWD are foundational to the success of IRWD’s water banking project and programs. Changes have been made to Exhibit “R” to reflect updated rates for various Metropolitan cost components.

Forecasted 2024 Water Recharge Activities:

Exhibit “S” depicts forecasted IRWD Water Bank recharge operations for 2024. Last month, Dudley Ridge suspended deliveries to the IRWD Water Bank due to current hydrologic conditions. IRWD expects that if hydrologic conditions change in the upcoming months that Dudley Ridge may resume their deliveries to the IRWD Water Bank. At the Committee meeting, staff will present an overview of current Water Supply Conditions in the State of California. Staff will update the forecasted delivery amounts from shown in Exhibit “S” as more information becomes available. Anticipated water bank deliveries in 2024 remain as follows:

- AVEK Unbalanced Exchange Program: AVEK has informed staff that it may deliver up to 13,000 AF of SWP Table A water to the IRWD Water Bank.
- Homer Capacity Exchange Program: In 2023, IRWD recharged an estimated 1,800 AF of water into storage at the IRWD Water Bank, using Homer’s Cross Valley Canal capacity. In 2024, consistent with the terms of the Pilot Capacity Exchange Program, Homer can use recharge capacity at the IRWD Water Bank to recharge an equal amount of its supplies.
- Silvertip Unbalanced Exchange Program: Staff expects that Silvertip may deliver up to 4,000 AF of SWP supplies to the IRWD Water Bank.
- IRWD’s SWP Table A Allocation: The 2024 SWP Table A allocation is currently 10%. Staff anticipates that IRWD will take delivery of its Table A water from Dudley Ridge once the allocation has been finalized later in the year.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

- Exhibit “A” – Recharge, Storage and Recovery Capacities of Current and Anticipated Water Banking Projects
- Exhibit “B” – Water Banking Storage, Recharge, and Recovery Operations before Losses
- Exhibit “C” – Water Banking Storage, Recharge, and Recovery Operations after Losses
- Exhibit “D” – Status of IRWD Purchase and Exchange Programs
- Exhibit “E” – Historic Water Storage in Strand and Stockdale Projects
- Exhibit “F” – Dedicated Capacities of Current Water Banking Projects
- Exhibit “G” – Map of Water Banking Project Wells and Pipelines

- Exhibit “H” – Map of Water Banking Recharge Basins and Turnout Facilities
- Exhibit “I” – Map of Water Banking Recharge Rates
- Exhibit “J” – Diagram of IRWD-Rosedale Water Banking and Exchange Program Agreements
- Exhibit “K” – Diagram of Long-term Water Exchange Program with Buena Vista Water Storage District and Diagram of One-year Program to Augment Recharge Using Stockdale West Recharge Facilities with Buena Vista Water Storage District
- Exhibit “L” – Diagram of Unbalanced Exchange Program Diagram with Dudley Ridge
- Exhibit “M” – Diagram of Coordinated Operating, Water Storage, Exchange, and Delivery Agreement with Metropolitan
- Exhibit “N” – Diagram of Template Wheeling Agreement with Metropolitan
- Exhibit “O” – Diagram of Dudley Ridge One-for-One Exchange
- Exhibit “P” – Diagram of Long-term Water Exchange Program with Antelope Valley-East Kern
- Exhibit “Q” – Cost of Water Tables
- Exhibit “R” – Summary of IRWD’s Coordinated Operating, Water Storage, Exchange and Delivery Agreement with Metropolitan and MWDOC (updated 8 Feb 2024)
- Exhibit “S” – Forecasted 2024 Recharge Operations

Exhibit "A"

TABLE 1
Current and Anticipated Water Banking Projects
Recharge, Storage and Recovery Capacities
 February 15, 2024

WATER BANKING PROJECT	OWNERSHIP AND WELL INFO		ALLOCATED CAPACITY (AF)					1 ST PRIORITY RECOVERY CONDITIONS (CFS)		2 ND PRIORITY RECOVERY CONDITIONS (CFS)	
	IRWD OWNED	WELLS EXISTING	TOTAL STORAGE CAPACITY	ANNUAL RECHARGE 1 ST PRIORITY	ANNUAL RECHARGE 2 ND PRIORITY	ANNUAL RECOVERY 1 ST PRIORITY	ANNUAL RECOVERY 2 ND PRIORITY	RECOVERY CAPACITY AS PLANNED ¹	RECOVERY CAPACITY (Average Daily Production 1/1/2021 - 7/31/2022)	RECOVERY CAPACITY AS PLANNED	RECOVERY CAPACITY CURRENT CONDITIONS
Strand Ranch	Yes	7	50,000	17,500	-	17,500	-	40.0	20.5	-	-
Stockdale West	Yes	3	26,000	27,100	-	11,250	-	15.0	11.6	-	-
Stockdale East	No	2	-	-	19,000	-	7,500	-	-	10.0	9.0
IRWD Acquired Storage Account ²	No	-	50,000	-	-	-	-	-	-	-	-
Drought Relief Project Wells ²	No	3	-	-	-	-	-	15.0	16.5	-	-
Kern Water Bank Storage Account ⁴	No	-	9,495	3,200	-	1,520	<5,000	-	-	-	-
TOTALS		15	135,495	47,800	19,000	30,270	12,500	70.0	48.6	10.0	9.0
Partner Capacities ³			38,000	22,300	9,500	10,850	0	35.5	25.0	-	-
IRWD Capacities (does not include Kern Water Bank capacities)			88,000	22,300	9,500	17,900	7,500	34.5	25.0	-	-
IRWD's recovery <i>during</i> 6 month partner recovery period (AF)								12,420	9,000	-	-
IRWD's recovery <i>after</i> 6 month partner recovery period (AF)								5,480	6,733	-	-
TOTALS (AF)								17,900	15,733	-	-
Number of months needed to recover IRWD's total AF after partners' recovery (Assumes IRWD has use of total recovery capacity after partners' recovery)								8.6	10.2	-	-
Strand Ranch monthly recharge amount assuming 0.3 ft/day average recharge rate (AF)										4,518	
Stockdale West monthly recharge amount assuming 0.3 ft/day average recharge rate (AF)										2,331	

¹ Based on designed Strand recovery capacity assuming 370' bgs. Assumes 5 cfs for each of the Stockdale West and Drought Relief wells in order to meet IRWD's Water Banking, Transfers, and Wheeling policy position. Assumes partners' water is recovered over 6 months.

² IRWD has use of Acquired Storage and Drought Relief Project wells until January 12, 2039, unless the term of the agreement is extended.

³ One half of storage capacity at Stockdale West and Strand Ranch will be allocated for partners.

⁴ Kern Water Bank capacities based on 6.58% of Dudley Ridge Water District's 9.62% share of the Kern Water Bank. Annual recharge amount is based on an average of recharge rates for high and low groundwater level conditions. 5,000 AF of recovery capacity may be available for second priority use.

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Exhibit "B"

TABLE 2
IRWD's Water Banking Storage, Recharge and Recovery Operations - BEFORE LOSSES
 February 15, 2024

TRANSACTIONS	WATER BANKING ENTITY							TOTAL BY WATER TYPE AND STORAGE LOCATION
	IRWD		BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	ANTELOPE VALLEY- EAST KERN (AVEK)	SILVERTIP	DUDLEY RIDGE WATER DISTRICT (DRWD) ³	
	SWP ¹	NON-SWP ²	NON-SWP	SWP	SWP	SWP	SWP	
BEGINNING WATER IN STORAGE 2023 (AF)								
Total Kern Water Bank ⁴	-	3,751	-	-	-	-	-	3,751
Total MWD System	12,033	-	-	-	-	-	43	12,076
Total Kern County	1,383	9,641	225	-	-	-	-	11,249
Total DRWD 1-for-1 Long Term Exchange Credit ⁵	16,500	-	-	-	-	-	-	16,500
TOTAL STORED WATER (1/1/2023)	29,916	13,392	225	-	-	-	43	43,576
(RECOVERY) AND RECHARGE IN 2023 (AF)								
KWB Recovery for use on Jackson Ranch ⁶	-	(232)	-	-	-	-	-	(232)
KWB Deliveries ⁷	-	803	-	-	-	-	-	803
2023 SWP Allocation (100%) Est.	875	-	-	-	-	-	874	1,749
2020 Reserve Water	13	-	-	-	-	-	-	13
BV Long Term Program Kern River Water Est.	-	8,750	8,750	-	-	-	-	17,500
BV 2023 Recharge Kern River Water Est.	-	2,250	2,250	-	-	-	-	4,500
CCWA 2023 Short Term Exchange Est.	225	-	-	225	-	-	-	450
AVEK Long Term Exchange Est.	3,425	-	-	-	3,424	-	-	6,849
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	9,358	-	-	-	-	-	-	9,358
TOTAL 2023 TRANSACTIONS	13,896	11,571	11,000	225	3,424	-	874	40,990
Total Kern Water Bank ⁴	-	4,322	-	-	-	-	-	4,322
Total MWD System	12,033	-	-	-	-	-	43	12,076
Total Kern County	15,279	20,641	11,225	225	3,424	-	874	51,668
Total DRWD 1-for-1 Long Term Exchange Credit ⁵	7,142	-	-	-	-	-	-	7,142
TOTAL STORED WATER (1/1/2024)	34,454	24,963	11,225	225	-	-	917	71,784
(RECOVERY) AND RECHARGE IN 2024 (AF)								
KWB Recovery for use on Jackson Ranch ⁶ Est.	-	-	-	-	-	-	-	-
2024 SWP Allocation (10%)	-	-	-	-	-	-	-	-
BV Long Term Program Kern River Water Est.	-	-	-	-	-	-	-	-
AVEK Long Term Exchange Est.	-	-	-	-	-	-	-	-
Silver Tip 2023 Short Term Exchange	-	-	-	-	-	-	-	-
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	2,200	-	-	-	-	-	-	2,200
TOTAL ESTIMATED 2024 TRANSACTIONS	2,200	-	-	-	-	-	-	2,200
ESTIMATED WATER IN STORAGE 2024 (AF)								
Total Kern Water Bank ⁴	-	4,322	-	-	-	-	-	4,322
Total MWD System	12,033	-	-	-	-	-	43	12,076
Total Kern County	17,479	20,641	11,225	225	3,424	-	874	53,868
Total DRWD 1-for-1 Long Term Exchange Credit ⁵	4,942	-	-	-	-	-	-	4,942
TOTAL ESTIMATED STORED WATER TO DATE	34,454	24,963	11,225	225	3,424	-	917	75,208

NOTES: MWD = Metropolitan Water District of Southern California.

¹ IRWD's SWP includes 295 AF from CVWD that stays in Kern County.

² IRWD's Non-SWP total includes 2,403 AF, net of losses, of Kern County Water Agency Article 21 Water.

³ DRWD water supply will be returned by MWD or IRWD's Strand Ranch to IRWD's Jackson Ranch. MWD took delivery of IRWD's 2022 SWP allocation in June 2022.

⁴ IRWD's KWB Account balance includes SWP, Friant and Kern River water. The KWB account balance is included in the Non-SWP column because it is not exportable to IRWD's service area.

⁵ Per the DRWD Long-Term 1-for-1 Exchange Program, Non-SWP water delivered to DRWD landowners will be returned to IRWD as SWP water at a later date. To account for the SWP water that will be returned at a later date, the amount of water owed will be shown as a credit. Total assumes all water is returned to IRWD Water Bank which adds in a 10% loss factor.

⁶ Water recovered from IRWD's Kern Water Bank account for use on Jackson Ranch.

⁷ A portion of IRWD's 2023 SWP deliveries from DRWD include 803 AF of Article 21 water, which was delivered to the Kern Water Bank.

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Exhibit "C"

TABLE 3
IRWD's Water Banking Storage, Recharge and Recovery Operations - AFTER LOSSES
 February 15, 2024

TRANSACTIONS	WATER BANKING ENTITY						TOTAL BY WATER TYPE AND STORAGE LOCATION	
	IRWD		BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	ANTELOPE VALLEY-EAST KERN (AVEK)	SILVERTIP		DUDLEY RIDGE WATER DISTRICT (DRWD) ³
	SWP ¹	NON-SWP ²	NON-SWP	SWP	SWP	SWP		SWP
BEGINNING WATER IN STORAGE 2023 (AF)								
Total Kern Water Bank ⁴	-	3,751	-	-	-	-	3,751	
Total MWD System	12,033	-	-	-	-	43	12,076	
Total Kern County	344	5,705	225	-	-	-	6,274	
Total DRWD 1-for-1 Long Term Exchange Credit ⁵	15,000	-	-	-	-	-	15,000	
TOTAL STORED WATER (1/1/2023)	27,377	9,456	225	-	-	43	37,101	
(RECOVERY) AND RECHARGE IN 2023 (AF)								
KWB Recovery for use on Jackson Ranch ⁶	-	(232)	-	-	-	-	(232)	
KWB Deliveries ⁷	750	723	-	-	-	-	723	
2023 SWP Allocation (100%) Est.	12	-	-	-	-	749	1,499	
2020 Reserve Water	-	-	-	-	-	-	12	
BV Long Term Program Kern River Water Est.	-	7,501	7,896	-	-	-	15,397	
BV 2023 Recharge Kern River Water Est.	-	1,929	2,030	-	-	-	3,959	
CCWA 2023 Short Term Exchange Est.	193	-	-	193	-	-	386	
AVEK Long Term Exchange Est.	2,936	-	-	-	2,935	-	5,871	
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	8,022	-	-	-	-	-	8,022	
TOTAL 2023 TRANSACTIONS	11,913	9,921	9,926	193	2,935	-	35,637	
Total Kern Water Bank	-	4,242	-	-	-	-	4,242	
Total MWD System	12,033	-	-	-	-	43	12,076	
Total Kern County	12,257	15,135	10,151	193	2,935	749	41,420	
Total DRWD 1-for-1 Long Term Exchange Credit	6,978	-	-	-	-	-	6,978	
TOTAL STORED WATER (1/1/2024)	31,268	19,377	10,151	193	2,935	-	64,716	
(RECOVERY) AND RECHARGE IN 2024 (AF)								
KWB Recovery for use on Jackson Ranch ⁶ Est.	-	-	-	-	-	-	-	
2024 SWP Allocation (10%)	-	-	-	-	-	-	-	
BV Long Term Program Kern River Water Est.	-	-	-	-	-	-	-	
AVEK Long Term Exchange Est.	-	-	-	-	-	-	-	
Silver Tip 2023 Short Term Exchange	-	-	-	-	-	-	-	
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	1,886	-	-	-	-	-	1,886	
TOTAL ESTIMATED 2024 TRANSACTIONS	1,886	-	-	-	-	-	1,886	
ESTIMATED WATER IN STORAGE 2024 (AF)								
Total Kern Water Bank	-	4,242	-	-	-	-	4,242	
Total MWD System	12,033	-	-	-	-	43	12,076	
Total Kern County	14,143	15,135	10,151	193	2,935	749	43,306	
Total DRWD 1-for-1 Long Term Exchange Credit	5,092	-	-	-	-	-	5,092	
TOTAL ESTIMATED STORED WATER TO DATE	31,268	19,377	10,151	193	2,935	-	64,716	

NOTES: Water in storage has been adjusted to account for losses. IRWD's water stored in Kern County is adjusted 15% for losses (5% for out of county loss, 6% surface loss, and 4% reserve loss); Water stored for BVWSD in Kern County is adjusted 10% (6% for surface loss and 4% for reserve loss); no losses for water directly delivered to MWD system.

MWD = Metropolitan Water District of Southern California.

¹ IRWD's SWP includes 251 AF from CVWD that stays in Kern County.

² IRWD's Non-SWP total includes 2,403 AF of Kern County Water Agency Article 21 Water.

³ DRWD water will be returned by MWD or IRWD's Strand Ranch to IRWD's Jackson Ranch. MWD took delivery of IRWD's 2022 SWP allocation in June 2022. MWD will not take delivery of IRWD's 2023 SWP Allocation.

⁴ IRWD's KWB Account balance includes SWP, Friant and Kern River water. The KWB account balance is included in the Non-SWP column because it is not exportable to IRWD's service area. The 2022 beginning KWB balance was revised by DRWD based on KCWA 2021 end of year balances.

⁵ Per the DRWD Long-Term 1-for-1 Exchange Program, Non-SWP water delivered to DRWD landowners will be returned to IRWD as SWP water at a later date. To account for the SWP water that will be returned at a later date, the amount of water owed will be shown as a credit. Total assumes all water is returned to IRWD Water Bank which adds in a 10% loss factor. Final amounts may be subject to additional CVC losses.

⁶ Water recovered from IRWD's Kern Water Bank account for use on Jackson Ranch.

⁷ A portion of IRWD's 2023 SWP Deliveries from DRWD include 723 AF of Article 21, after losses, which was delivered to the Kern Water Bank.

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Exhibit "D"

TABLE 4
Status of IRWD Purchase and Exchange Programs (AFTER LOSSES)
 February 15, 2024

PARTNER	EXCHANGE RATIO	YEAR EXECUTED	AGREEMENT TYPE	WATER TYPE	PARTNER WATER		IRWD WATER							SELLABLE (Y/N)		
					PARTNER SHARE (AF)	PARTNER BALANCE (AF)	IRWD SHARE (AF)	IRWD BALANCE			EXPORTABILITY					
								IN MWD SYSTEM (AF)	STORED IN KERN (AF) Strand and Stockdale	Kern Fan (W.Enos)	OWED BY DUDLEY RIDGE WD	TOTAL (AF)	EXPORTABLE TO IRWD (AF)		NON-EXPORTABLE (AF)	FOR USE ON JACKSON RANCH (DRWD)
Semitropic Water Storage District	NA	2008	Purchase	SWP Article 21	NA	NA	2,842		2,403			2,403		2,403		Yes
Carpinteria Valley Water District	2-for-1	2008	Short-Term	SWP Table A	277		250		250			250		250		Yes
Buena Vista Water Storage District ¹	2-for-1	2010	Pilot	Kern River	4,108		3,903									Yes
	2-for-1	2011	Long-Term	Kern River	29,369	8,121	27,900		10,803	0		10,803		10,803		
Antelope Valley East Kern Water Agency	2-for-1	2011	Pilot	SWP Table A	2,229		2,337	2,337				2,337	2,337			No
Carpinteria Valley Water District	2-for-1	2011	Pilot	SWP Table A	624		655	655				655	655			No
Dudley Ridge Water District (SWPAO #13012)	2-for-1	2013	SWPAO	SWP Table A	1,876		1,876	1,876				1,876	1,876			Yes
				SWP Article 21	1,553		1,554	1,554				1,554	1,554			Yes
Metropolitan Water District ²	1-for-1	2014	Short-Term	SWP Table A	NA	NA	4,000	4,000				4,000	4,000			No
Dudley Ridge Water District (SWPAO #17030)	2-for-1	2018	SWPAO	SWP Table A	1,803	792	1,887	1,055	831			1,887	1,887		792	Yes
Central Coast Water Authority (SWPAO #17001)	2-for-1	2017	Short-Term	SWP Table A	258		258	258				258	258			No
Dudley Ridge Water District ³ (SWPAO #19001)	1-for-1	2017	Long-Term	SWP Table A	NA	NA	9,908		9,682	226		9,908	15,000			No
				Credit	NA	NA	5,092				5,092	5,092				No
Central Coast Water Authority (SWPAO #19031)	2-for-1	2019	Short-Term	SWP Table A	298		323	298	25			323	323			No
Buena Vista Water Storage District ¹	2-for-1	2023	Short-Term	Kern River	2,030	2,030	1,929		1,268	661		1,929		1,929		Yes
Central Coast Water Authority (SWPAO #23012)	2-for-1	2023	Short-Term	SWP Table A	193	193	193		193			193	193			No
Antelope Valley East Kern Water Agency	2-for-1	2018	Long-Term	SWP Table A	2,935	2,935	2,936		2,041	895		2,936	2,936			No
Total:					47,554	14,071	67,843	12,033	27,496	1,782	5,092	46,403	31,018	15,385	792	NA

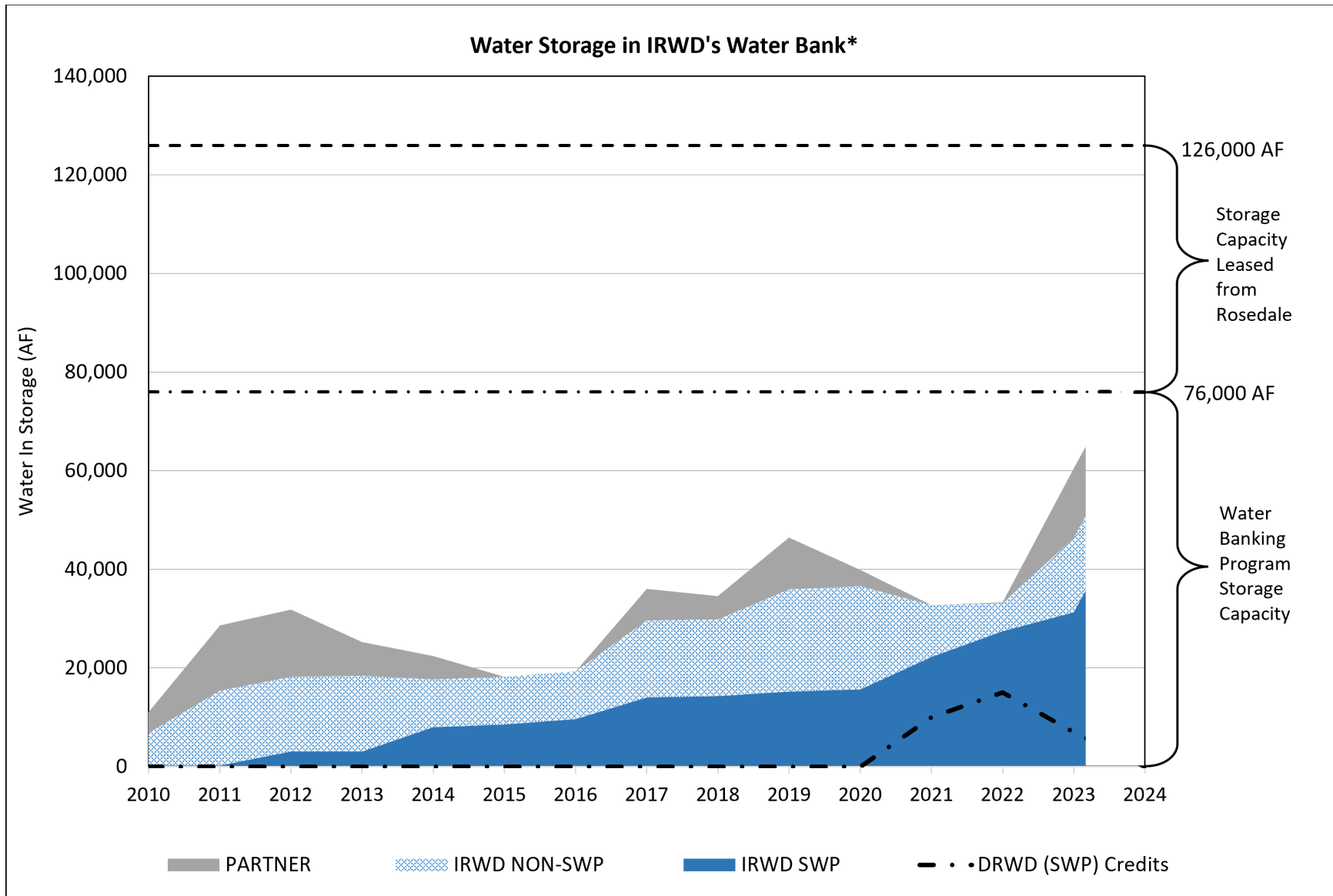
¹ Water acquired through BVWSD will be exportable after it is exchanged for SWP Table A through 1-for-1 exchange with Dudley Ridge Water District.

² Source of water was Buena Vista Water Storage District Kern River high flow water.

³ To account for the SWP water that will be returned to IRWD, the amount of water owed is shown as a credit. The total net of losses is 15,000 AF.

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Exhibit "E"



*After losses

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Exhibit "F"

TABLE 5
IRWD Dedicated Water Banking Capacities for Existing and Proposed Exchange Programs
 February 15, 2024

STORAGE CAPACITY

Program	Dedicated Storage Capacity Strand Ranch (AF)	Dedicated Storage Capacity Stockdale West (AF)	Dedicated Storage Capacity Leased Storage Account (AF)	Kern Water Bank Storage Capacity (AF)
Total Capacity	50,000	26,000	50,000	9,495
BVWSD	40,000	-	-	-
DRWD	10,000	-	-	-
AVEK	-	20,000	-	-
Total Dedicated	50,000	20,000	-	-
Total Remaining	-	6,000	50,000	9,495

RECHARGE CAPACITY

Program	Dedicated Recharge Capacity Strand Ranch (AF)	Dedicated Recharge Capacity Stockdale West (AF)	Dedicated Recharge Capacity Leased Storage Account (AF)	Kern Water Bank Recharge Capacity (AF)
Total Capacity	17,500	27,100	-	3,200
BVWSD	17,500	-	-	-
DRWD	-	-	-	-
AVEK	-	20,000	-	-
Total Dedicated	17,500	20,000	-	-
Total Remaining	-	7,100	-	3,200

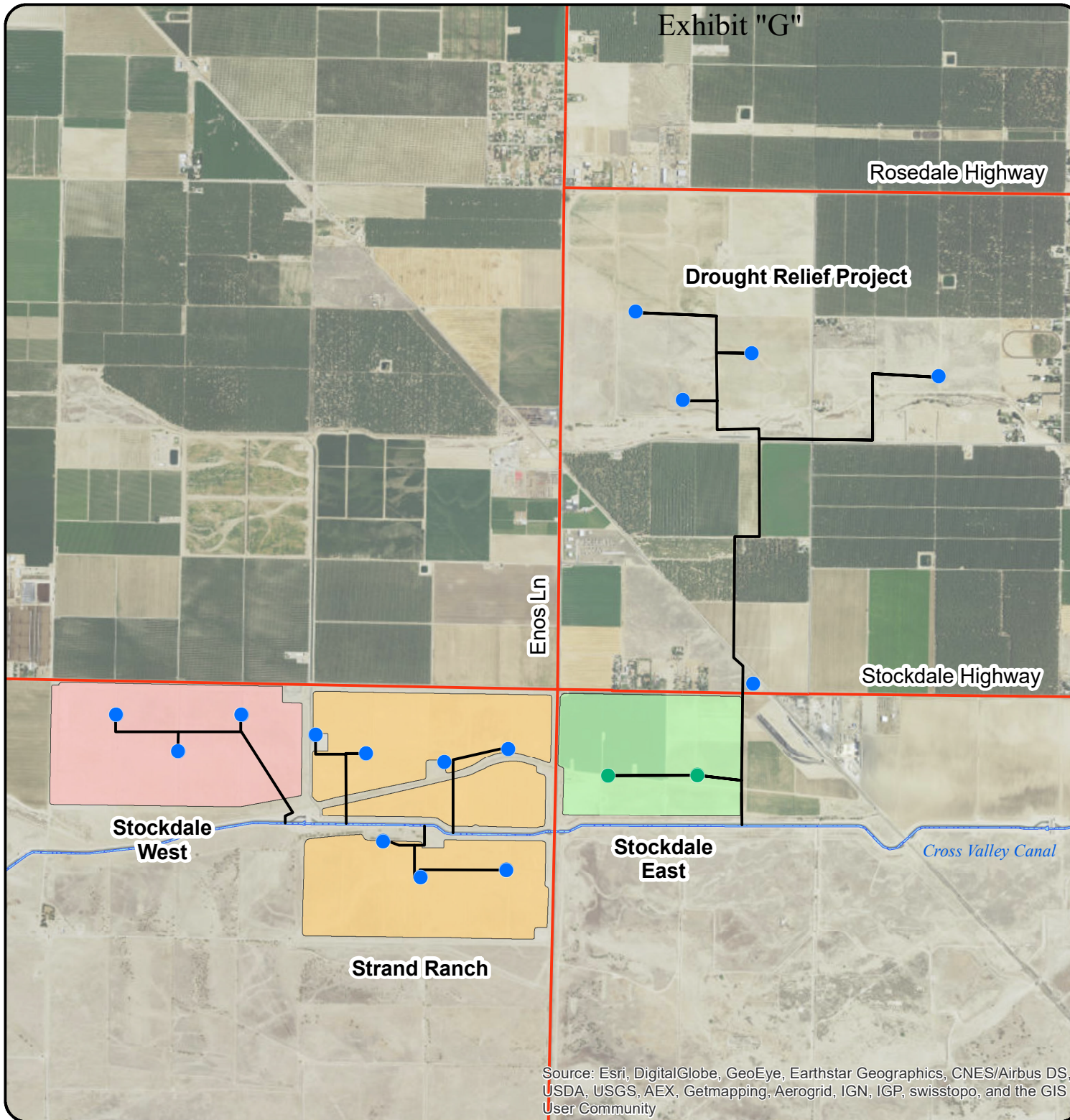
RECOVERY CAPACITY

Program Partner	Dedicated Recovery Capacity Strand Ranch (AF)	Dedicated Recovery Capacity Stockdale West (AF)	Dedicated Recovery Capacity Leased Storage Account (AF)	Kern Water Bank Recovery Capacity (AF)
Total Capacity	17,500	11,250	-	1,520
BVWSD	6,667	-	-	-
DRWD	-	-	-	-
AVEK	-	3,333	-	-
IRWD	10,833	7,084	-	1,520
Total Dedicated	17,500	10,417	-	1,520
Total Remaining	-	833	-	-

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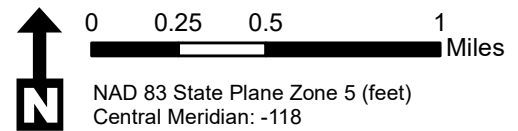
Location Map: IRWD Water Banking Projects Wells and Turnin Pipelines



MAP FEATURES

- Extraction Well (Blue)
- Extraction Well (Green)
- Well Discharge Pipelines
- Stockdale East (Green)
- Stockdale West (Pink)
- Strand Ranch (Orange)

This figure shows the location of IRWD's water banking project sites and extraction wells.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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Exhibit "H"

Rosedale Highway



Irvine Ranch
WATER DISTRICT

Location Map: IRWD Water Banking Projects Recharge Basins & Turnout Facilities

MAP FEATURES

-  Turnouts
-  Stockdale West
-  Strand Ranch

Existing Siphon
50 CFS Capacity
From Strand

Stockdale Highway

Stockdale West
Turnout
100 CFS Capacity

Existing North & South
Strand Ranch
Turnout Facilities
100 CFS Capacity Each

Cross Valley Canal

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping AeroGrid, IGN, IGP, swisstopo, and the GIS User Community



0 0.25 0.5 1
Miles

NAD 83 State Plane Zone 5 (feet)
Central Meridian: -118

5

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Location Map: IRWD Water Banking Projects Recharge Rates

MAP FEATURES

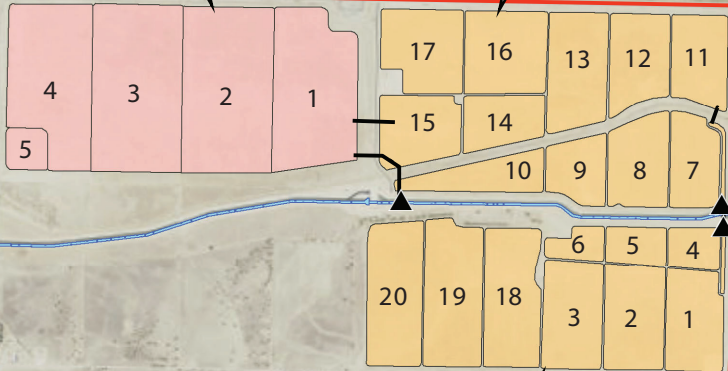
- ▲ Turnouts
- Stockdale West
- Strand Ranch

This figure shows the location of recharge basins and their associated recharge rates as of January 29, 2024

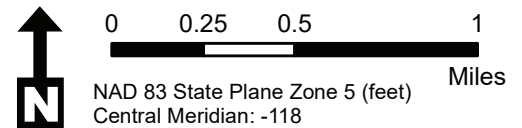
Stockdale West
0.19 feet/day
25 CFS

Strand Ranch North
0.25 feet/day
35 CFS

Strand Ranch South
0.09 feet/day
10 CFS



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



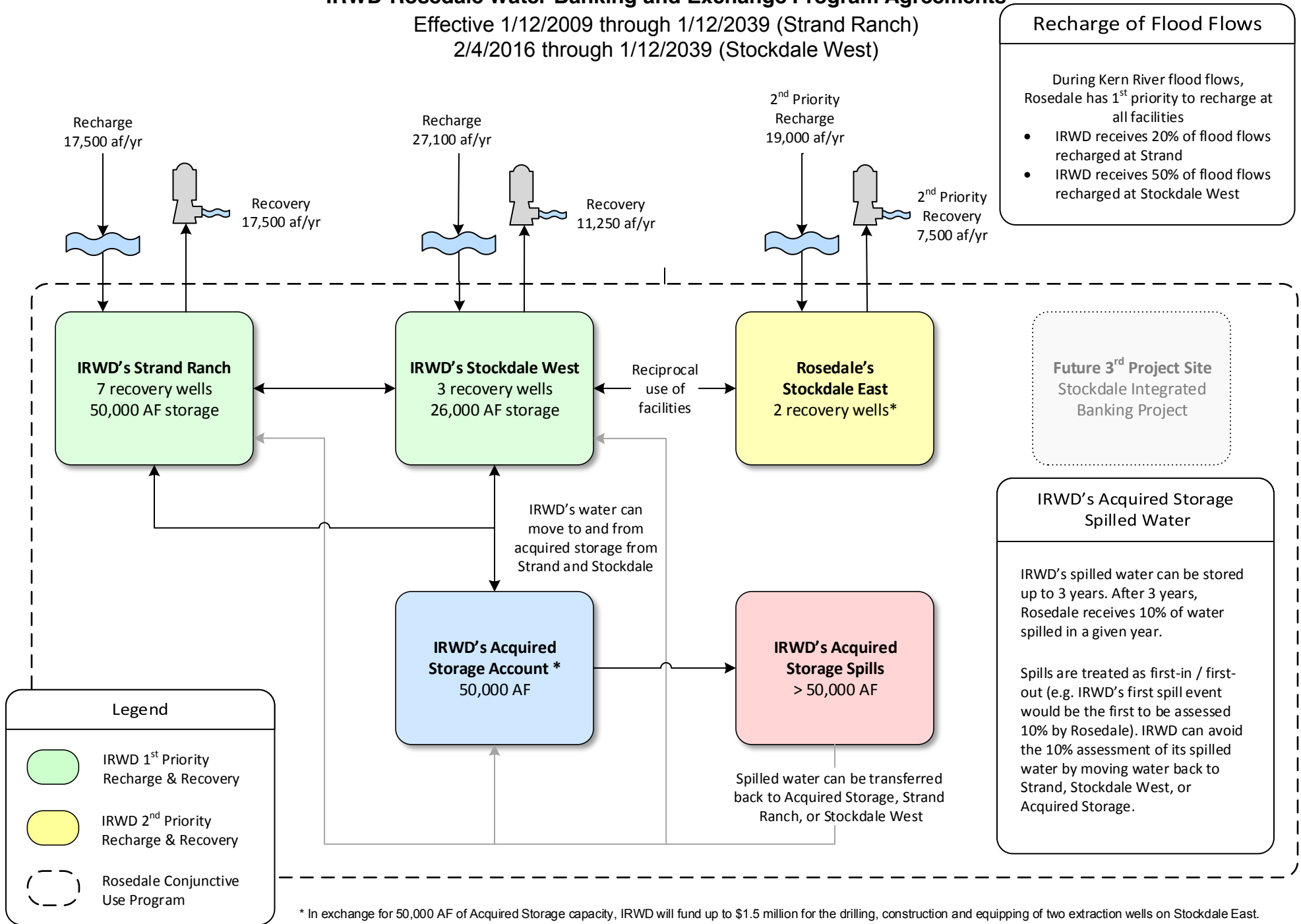
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Exhibit "J"

IRWD-Rosedale Water Banking and Exchange Program Agreements

Effective 1/12/2009 through 1/12/2039 (Strand Ranch)

2/4/2016 through 1/12/2039 (Stockdale West)



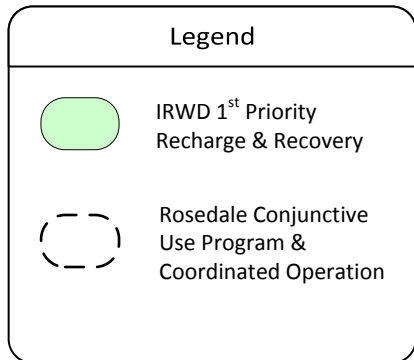
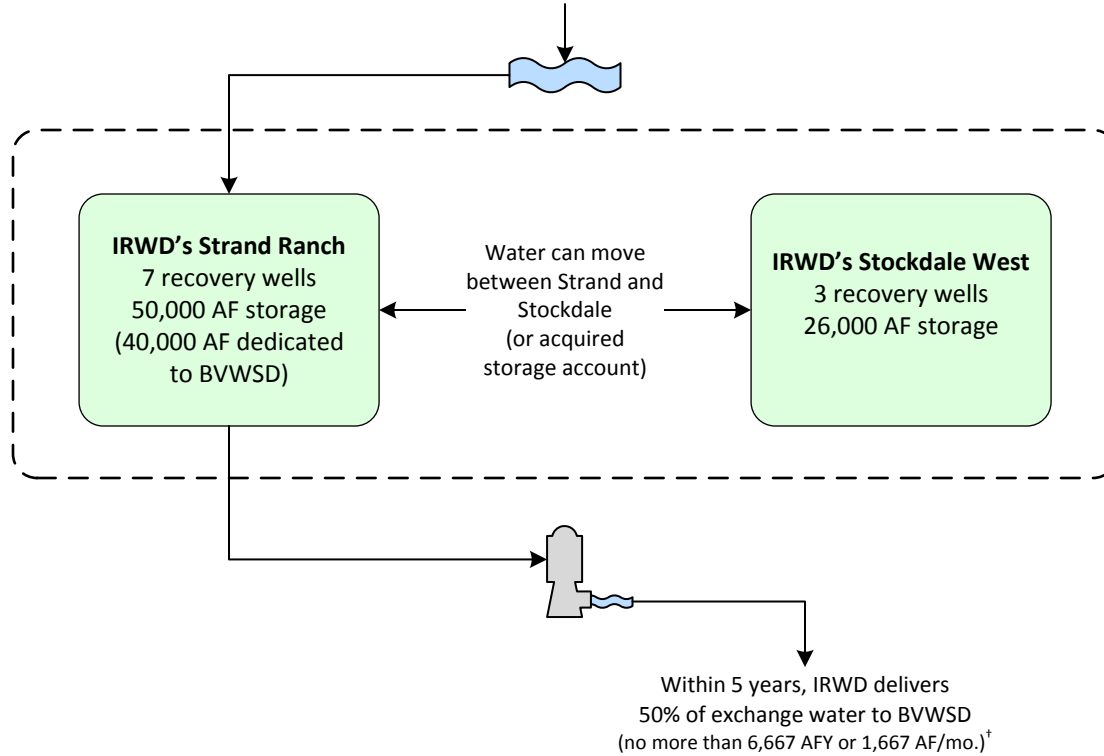
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Exhibit "K"

Buena Vista Water Storage District Long Term Water Exchange Program

Effective 1/1/2011 through 1/12/2039

**BVWSD delivers non-SWP water to Strand Ranch
(IRWD receives 50%)**
(Up to 17,500 AFY or 4,375 AF/mo.)

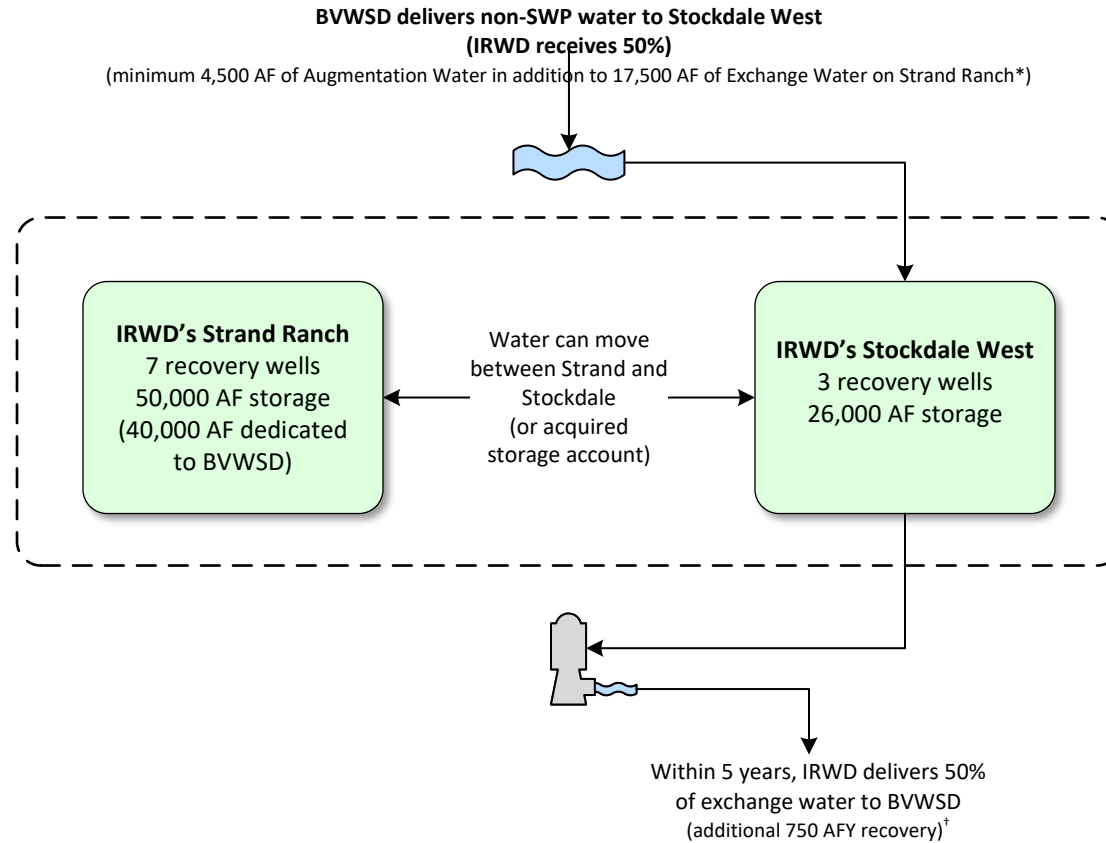


[†]IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31st of the 4th year following the associated recharge event. IRWD pays for recovery of water returned to BV. Water to be remitted back to BV may remain in storage at Strand Ranch beyond the 4th year, in exchange for a greater percent being transferred to IRWD as compensation per the table shown to the right:

Year Following Recharge Event	Percent Transferred to IRWD	Percent Returned to BV During or Before Indicated Year
1	50%	50%
2	50%	50%
3	50%	50%
4	50%	50%
5	60%	40%
6	70%	30%
7	80%	20%
8	90%	10%
9	100%	0%

Buena Vista Water Storage District One-Year Program to Augment Recharge Using Stockdale West Recharge Facilities

Effective 6/28/2023 through 12/31/2023



Legend	
	IRWD 1 st Priority Recharge & Recovery
	Rosedale Conjunctive Use Program & Coordinated Operation

* IRWD agrees to pay BV \$25 per AF for IRWD's share of the Augmentation Water and Exchange Water

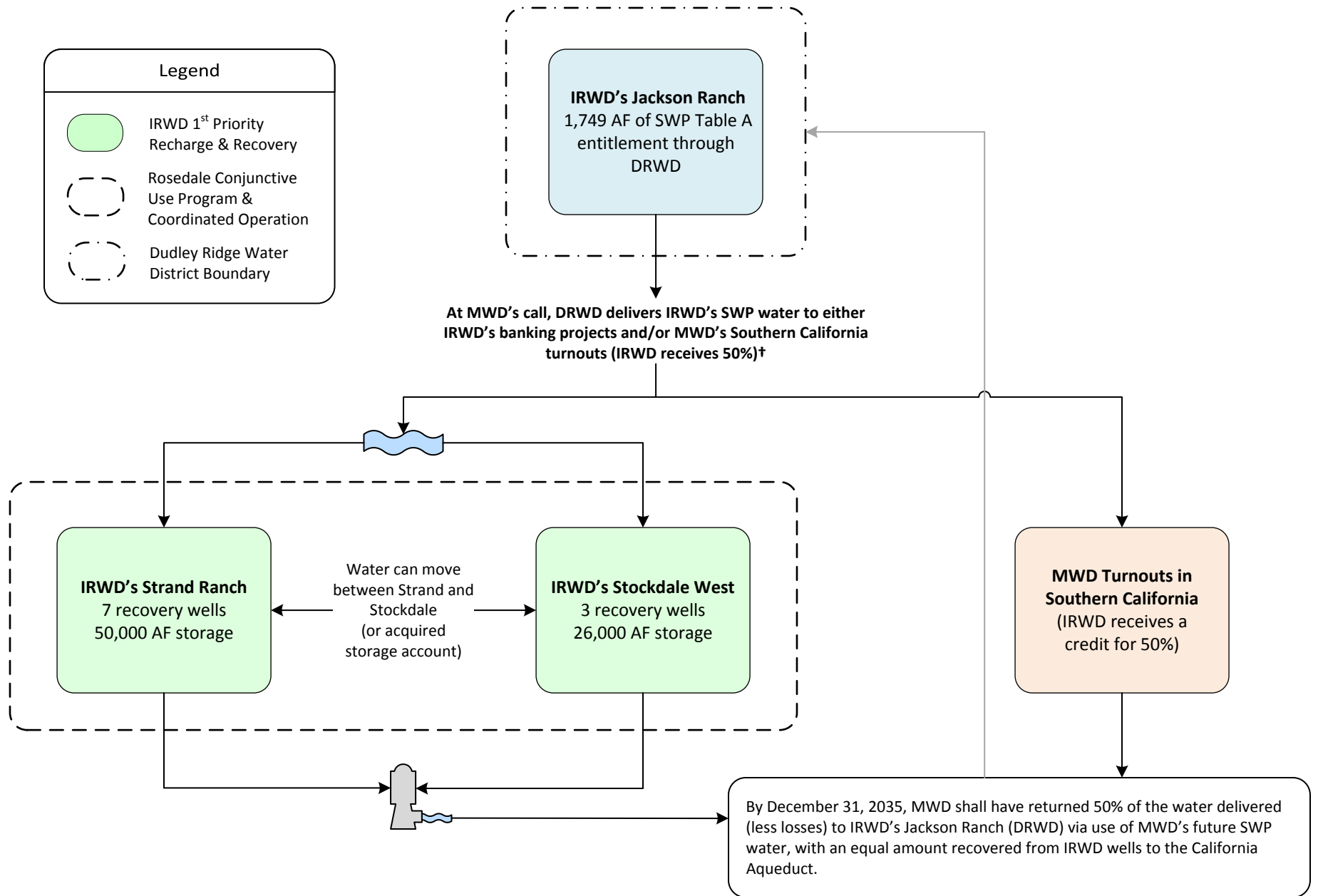
†IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31st of the 4th year following the associated recharge event. BV pays for recovery of its share of Augmentation Water. Water to be remitted back to BV may remain in storage at Strand Ranch beyond the 4th year, in exchange for a greater percent being transferred to IRWD as compensation per the table shown to the right:

Year Following Recharge Event	Percent Transferred to IRWD	Percent Returned to BV During or Before Indicated Year
1	50%	50%
2	50%	50%
3	50%	50%
4	50%	50%
5	60%	40%
6	70%	30%
7	80%	20%
8	90%	10%
9	100%	0%

Exhibit "L"

Dudley Ridge Water District (DRWD) Unbalanced Exchange Program

Up to 12,240 AF delivered from 6/7/2018 through 12/31/2027



†Consistent with IRWD-MWD coordinated operating agreement.

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Exhibit "M"

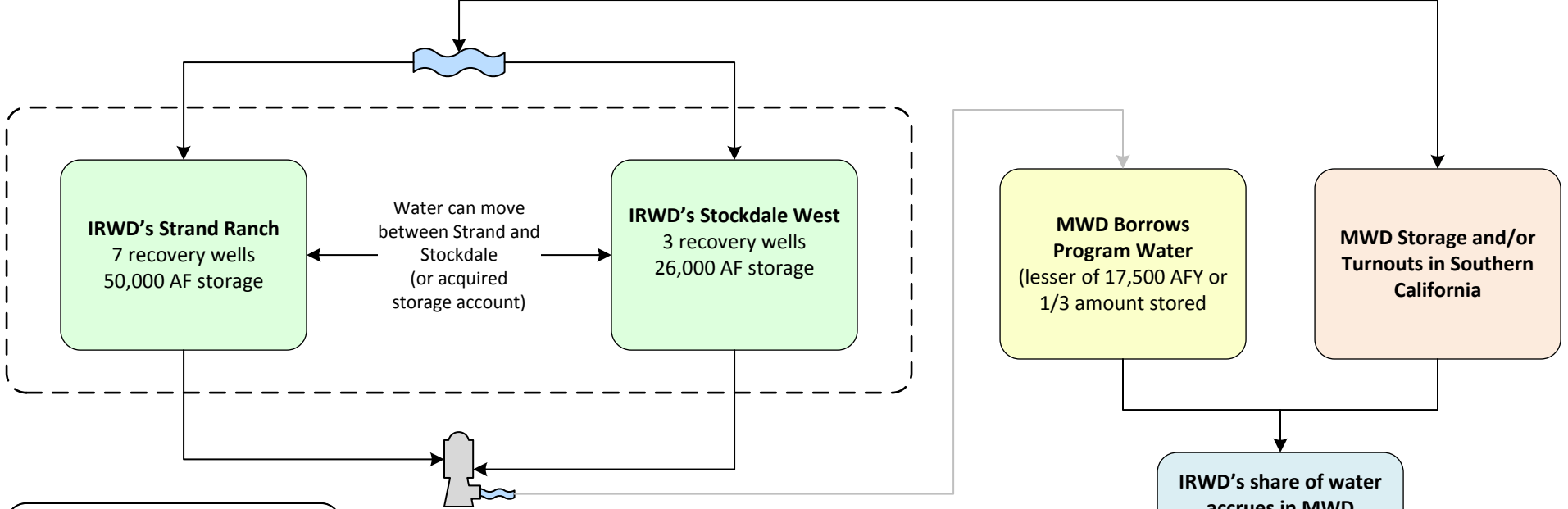
Coordinated Operating, Water Storage, Exchange and Delivery Agreement Between MWD, MWDOC and IRWD Effective 5/1/2011 through 11/4/2035

With MWD's consent, IRWD secures SWP water (Program Water) through exchanges with IRWD Banking Partners for use as extraordinary supply under MWD Water Supply Allocation Plan



MWD has three options for the use and storage of Program Water:

- Storage of water in IRWD's Integrated Banking Project
- Delivery to Southern California for immediate use and/or storage in MWD system
- Borrow a portion of Program water, with accrual in MWD Delivery Account



Legend

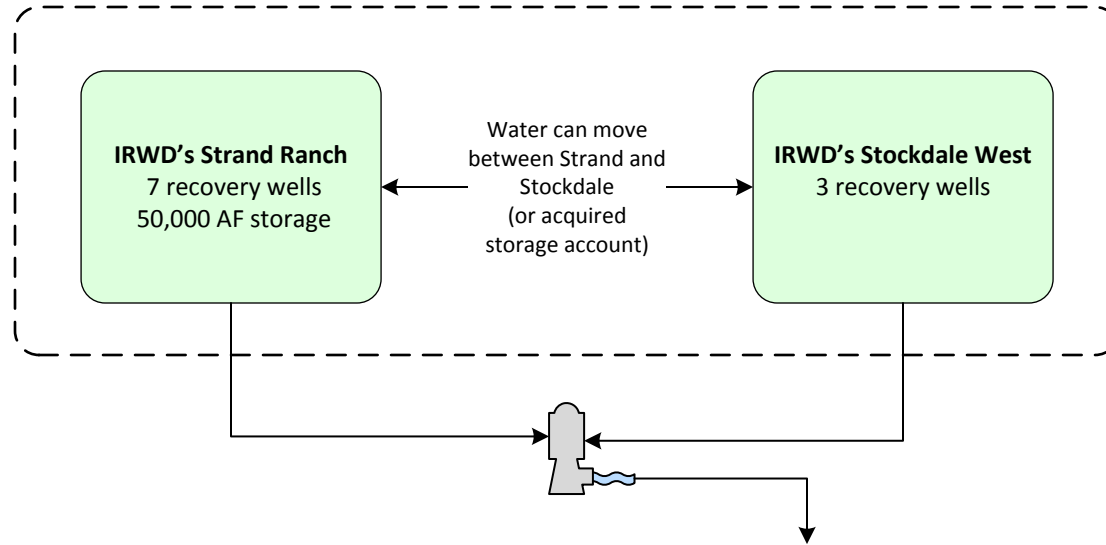
- IRWD 1st Integrated Banking Project
- Rosedale Conjunctive Use Program & Coordinated Operation

- Under an MWD Allocation, when IRWD calls for water, IRWD must first recover Program Water from the Integrated Banking Project before receiving water from the MWD Delivery Account.
- MWDOC shall pass through extraordinary supply credits for IRWD's benefit.
- † IRWD's banking partner share of Program Water to be returned by MWD.

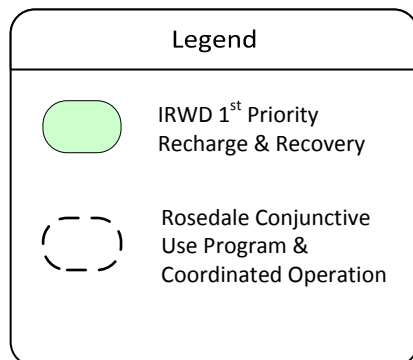
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Exhibit "N"

Agreement for Conveyance of Water Between MWD, MWDOC, and IRWD (Wheeling Agreement) Template for future agreements



IRWD recovers its share of non-SWP water from its Integrated Banking Projects for use as extraordinary supply under a declared MWD Water Supply Allocation. MWD will coordinate the conveyance and delivery of recovered water to be used within IRWD's Service Area. Delivery can also occur through an operational exchange.*



*The recovered water must be used within IRWD's service area. IRWD to pay MWD wheeling charges, including system access rate, water stewardship rate, and treatment surcharge (if applicable), for each acre foot of recovered water wheeled by MWD. IRWD will pay the actual costs of power incurred by MWD to convey recovered water in the California Aqueduct to IRWD delivery points.

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Exhibit "O"

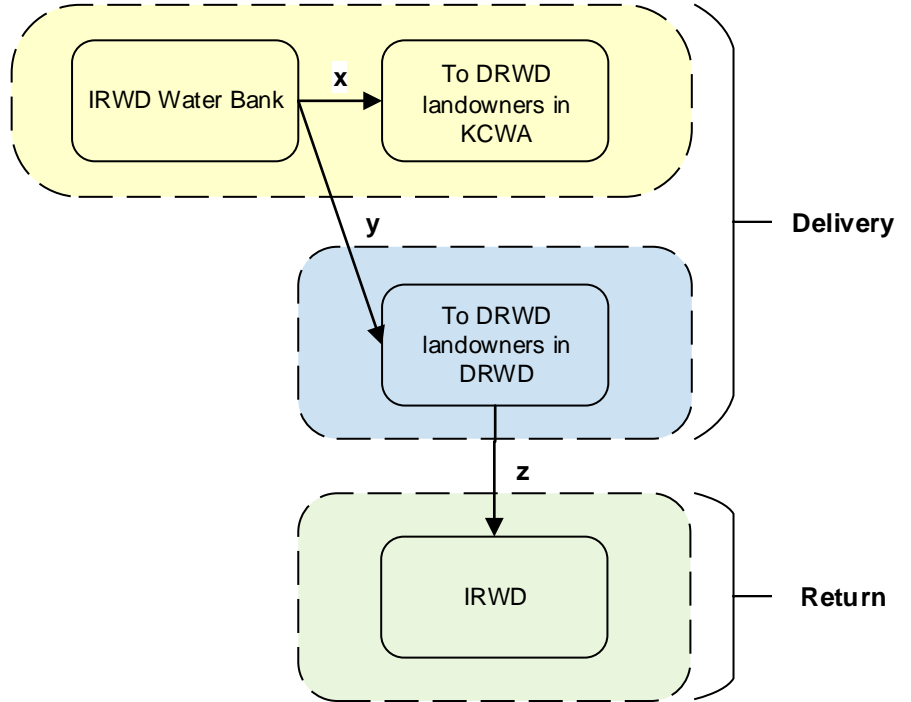
Dudley Ridge Water District Long Term 1-for-1 Water Exchange Program Effective 5/31/2017 through 11/4/2035

Scenario A

(Per Sections 2, 3, 4.1.1, and 4.1.3)

x= Non-Project Water required to stay in Kern County
 y= Non-Project Water allowed to leave Kern County
 z= DRWD Table A Water equal to x+y less applicable losses, if any

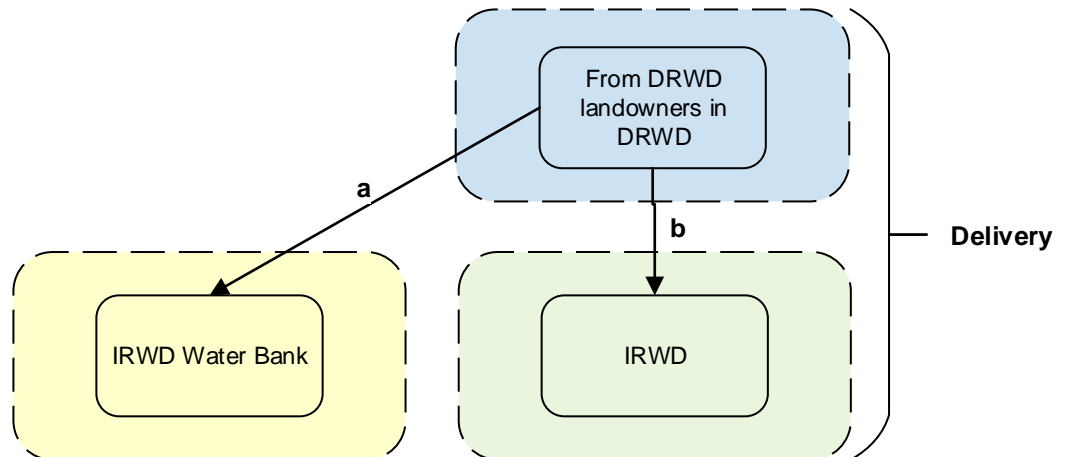
Per Section 4.1.3, z can be delivered to IRWD via in-ground transfer to IRWD, SWP delivery to IRWD banking facilities, or SWP delivery to MWDSC



Scenario B

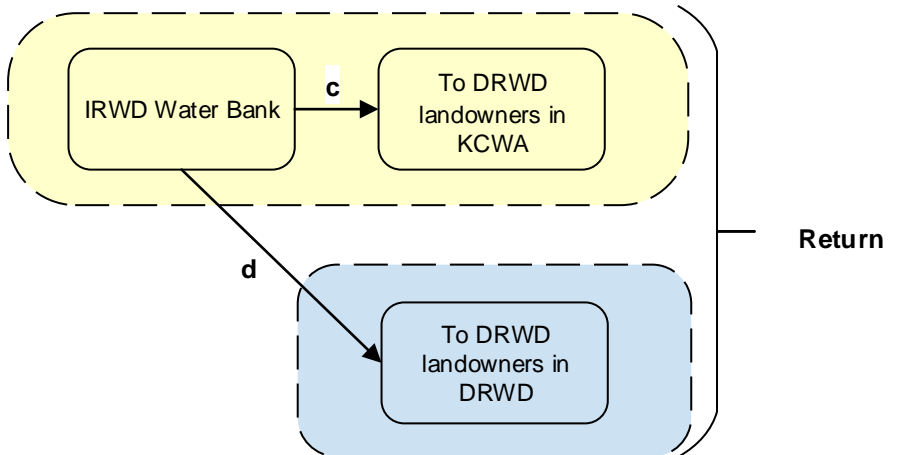
(Per Sections 2, 3, and 4.1.2)

$a + b = c + d$
 (less applicable losses, if any)



Legend

- KCWA Service Area
- DRWD Service Area
- IRWD Service Area

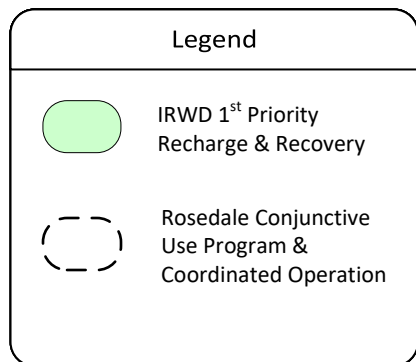
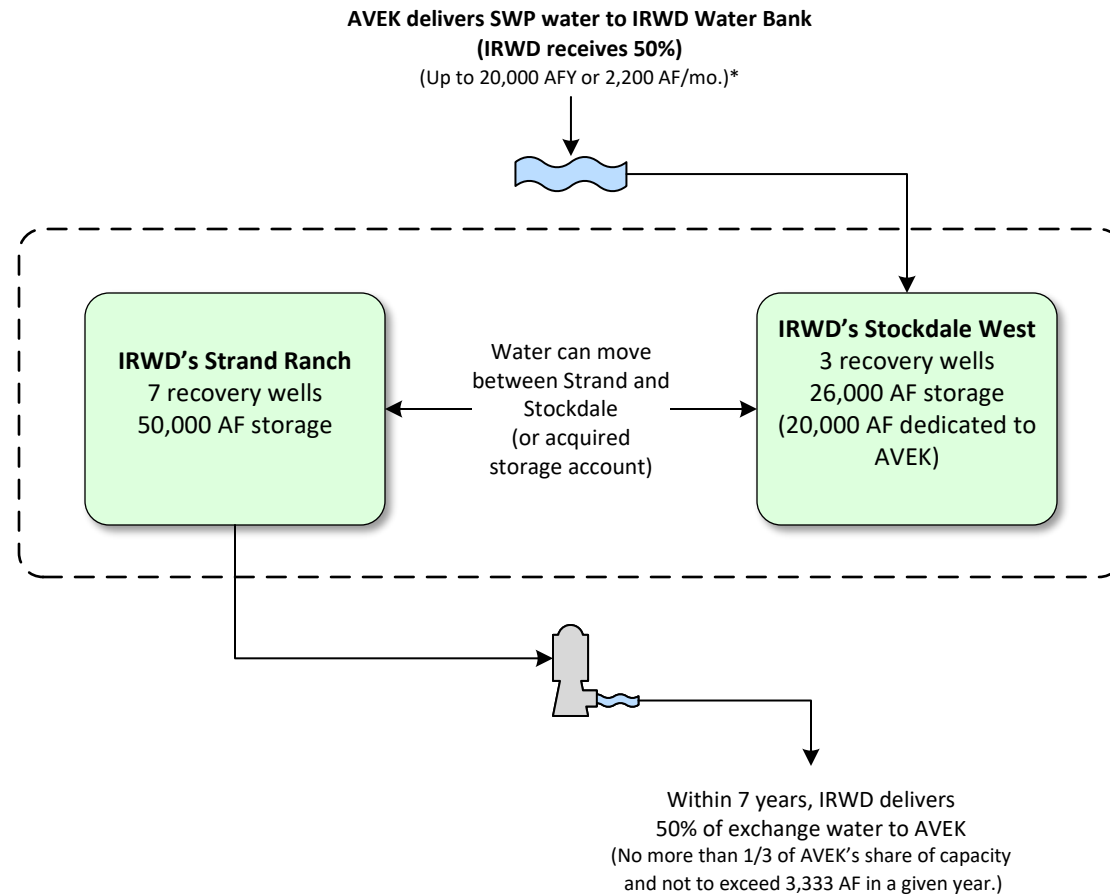


†The cost of water exchanged between IRWD and DRWD will be equalized

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Exhibit "P"

Antelope Valley-East Kern Water Agency (AVEK) Long Term Water Exchange Program Effective 12/21/2018 through 12/31/2035



*Up to 20,000 AF per year of AVEK Exchange Water may be delivered to IRWD for recharge using recharge facilities at the Strand Ranch and Stockdale West for storage in the Stockdale West Bank. IRWD shall remit one-half of stored supplies less one half of losses back to AVEK no later than December 31st of the 7th year, following the associated recharge event.

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Exhibit "Q"

TABLE 6
IRWD Water Banking Program Costs of Water Summary
 February 15, 2024

Program Partner	Time Period	Water Type	IRWD Amount (AF)	Variable costs ² (\$/AF) (A)	Fixed Cost Component ³ (\$/AF) (B)	Fixed & Variable (\$/AF) (C)	Capital Component ⁴ (\$/AF) (D)	Cost of Water (\$/AF) (E)	Estimated Recovery of Water ⁵ (\$/AF) (F)	2024 MWD Tier 1 Untreated Rate + SAC Surcharge ⁶ (\$/AF) (G)	Cost of Water in IRWD Service Area (\$/AF) (H)
						A+B		C+D			E+F+G
Buena Vista	2010-2015	Kern River	12,832	\$ 75.98	\$ 48.36	\$124.34	\$ 190.00	\$ 314.34	\$ 120.00	\$ 903.99	\$ 1,338.33
Buena Vista ¹	2017-2021	Kern River	11,256	\$ 159.16	\$ 48.36	\$207.52	\$ 190.00	\$ 397.52	\$ 120.00	\$ 903.99	\$ 1,421.51
AVEK	2012-2014	SWP Table A	2,229	\$ 11.70	\$ 48.36	\$ 60.06	\$ 190.00	\$ 250.06	\$ 120.00	\$ 903.99	\$ 1,274.05
AVEK ⁷	2012-2014	SWP Table A	108	\$ 11.70	\$ 48.36	\$ 60.06	\$ 190.00	\$ 250.06	\$ -	\$ 903.99	\$ 1,154.05
Carpinteria	2010-2015	SWP Table A	874	\$ 27.04	\$ 48.36	\$ 75.40	\$ 190.00	\$ 265.40	\$ 120.00	\$ 903.99	\$ 1,289.39
Carpinteria ⁷	2010-2015	SWP Table A	31	\$ 27.04	\$ 48.36	\$ 75.40	\$ 190.00	\$ 265.40	\$ -	\$ 903.99	\$ 1,169.39
Central Coast ⁷	2017-2021	SWP Table A	556	\$ 30.34	\$ 48.36	\$ 78.70	\$ 190.00	\$ 268.70	\$ -	\$ 903.99	\$ 1,172.69
DRWD ⁷	2014-2021	SWP Table A /Article 21	4,452	\$ 362.67	\$ 48.36	\$411.03	\$ 190.00	\$ 601.03	\$ -	\$ 903.99	\$ 1,505.02
Total			32,338								

¹ Water purchased in 2019 includes commodity charge of \$110/AF

² Variable Costs shown above are based on actual costs. The different components and average costs included in the variable cost are as follows: recharge variable operating costs (\$5.00/AF), Rosedale administration fees (\$3.00/AF), CVC pumping (\$9.00/AF), operating and stand-by fees (\$3.50/AF), and KCWA fees (\$5.00/AF) plus \$3,000 per transaction request. IRWD pays Buena Vista recovery costs. (Net of partner payments to IRWD for their share of water)

³ Fixed costs include IRWD share of fixed operating costs (\$25.00/AF), annual property taxes (\$88,000), PG&E standby costs (up to \$5,000/year), GSP fees (\$8,450/year) and CVC expansion costs (\$28,000/year)

⁴ Capital component does not include land costs, grants received, and revenue from DRWD water sold in 2021. Add \$60/AF to include these costs.

⁵ Increased PG&E costs for recovering water.

⁶ Assumes IRWD would take delivery as extraordinary supply through Irvine Lake to the Baker Water Treatment Plant. The SAC surcharge rate as of 6/30/2023 was \$0.99 per AF.

⁷ No recovery costs for DRWD water delivered in 2014-2016 and water recovered in 2022 as part of MWD borrowing.

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Exhibit “R”

Summary of IRWD’s Coordinated Operating, Water Storage, Exchange and Delivery Agreement with Metropolitan Water District and Municipal Water District of Orange County (MWDOC) (February 8, 2024)

Agreement approved (unanimously) by the IRWD Board on November 22, 2010;
Agreement Term: April 21, 2011 to November 4, 2035

Summary of Benefits to IRWD:

1. IRWD benefits from all State Water Project (SWP) water IRWD secures; Metropolitan’s borrowing of this water is temporary.
2. On behalf of IRWD, Metropolitan uses its SWP exchange and conveyance capacities to move IRWD’s water for banking.
3. IRWD can “store” water in Metropolitan’s system as a credit, freeing up space in IRWD’s Water Bank with the water stored closer to the IRWD service area.
4. IRWD does not incur conveyance or evaporation losses on its water that is conveyed in Metropolitan’s system and stored in Metropolitan’s reservoirs.
5. IRWD avoids groundwater recovery (pumping) costs when Metropolitan issues a credit for IRWD’s SWP supplies in Southern California (currently \$122/AF¹).
6. IRWD pays Metropolitan’s melded system power rate – currently \$182/AF, not DWR’s current power costs of \$330/AF² (\$148/AF savings).
7. Deliveries are on-demand to IRWD at its service connections in Orange County, which are not subject to lower priorities for wheeling.
8. Metropolitan pays all SWP costs, including variable OMP&R supply costs, associated with SWP water secured by IRWD³.
9. IRWD pays Metropolitan’s Full-Service Tier-1 Untreated Rate, which is currently \$903/AF, for deliveries at its service connections allowing IRWD to avoid higher Metropolitan wheeling charges.
10. IRWD only pays once for supply at the current Tier-1 Supply Rate of \$332/AF.
11. Deliveries to IRWD’s service area qualify as Extraordinary Supply during a Water Supply Allocation, allowing IRWD to avoid Metropolitan’s Allocation Surcharge of between \$1,480/AF and \$2,960/AF.
12. IRWD increases local water supply reliability for its ratepayers.

¹ Estimated from IRWD’s current groundwater pumping costs and Water Bank related operations costs. Metropolitan has the option to extinguish credits by returning water to the IRWD Water Bank. In recent borrowing letter agreement, Metropolitan agreed to waive its ability to return borrowed water to the Water Bank.

² Melded system and actual power costs were taken from Metropolitan’s Fiscal Years 2022-23 and 2023-24 Biennial Budget Report and 2022 Cost of Service Study.

³ Does not include fixed costs paid by IRWD’s unbalanced exchange partners. In 2014 and 2017, Metropolitan’s SWP costs were \$1,097/AF and \$359/AF, respectively.

Summary of Benefits to MWD:

1. Metropolitan maintains control of all SWP supplies entering its service area as required by its SWP Contract with California Department of Water Resources (DWR).
2. Metropolitan's investments in the SWP are protected by not causing a reduction in revenue received by Metropolitan for payment of SWP fixed charge obligations.
3. Metropolitan can temporarily borrow SWP water secured by IRWD.
4. Metropolitan is assured that IRWD is not competing for water supplies.
5. Increased regional water supply reliability.


Exhibit "S"

TABLE 7
IRWD 2024 Recharge Operations- BEFORE LOSSES
 February 15, 2024

Actual and Forecasted Amounts:

Month	IRWD Table A (AF)	DRWD 1:1 (AF)	Buena Vista (AF)	AVEK (AF)	Homer (AF)	Silver Tip (AF)	Total (AF)	Status	Expected Recharge (AF)	Expected Recharge Rate (CFS)
January		2,200					2,200	prelim	3,074	81.2
February							-		4,026	70
March				1,537	1,800	352	3,689		3,689	60
April				1,488		2,083	3,571		3,571	60
May				1,537		1,565	3,102		3,689	60
June				2,965			2,965		3,570	60
July				3,689			3,689		3,689	60
August	175			1,784			1,959		3,689	60
September							-		1,751	60
October							-		1,537	25
November							-		1,488	25
December							-		1,537	25
	175	2,200	-	13,000	1,800	4,000	21,175		35,312	
Recharge goal:	175	7,142	-	13,000	1,800	4,000	26,117			

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February 15, 2024
Prepared by: N. Palacio / K. Welch
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook 

SUPPLY RELIABILITY PROGRAMS COMMITTEE

DRAFT TERMS FOR WATER MANAGEMENT PROGRAM AGREEMENT WITH HOMER LLC

SUMMARY:

In 2023, the Board authorized the General Manager to execute an agreement with Homer LLC for a mutually beneficial Pilot Program that allowed IRWD to use Homer's Cross Valley Canal (CVC) capacity to deliver water to the IRWD Water Bank in exchange for IRWD providing Homer the ability to recharge an equivalent amount of water at the IRWD Water Bank. Based on the success of the pilot program, staff has prepared draft terms for a Water Management Program that would provide for a similar capacity exchange, as well as water exchange transactions on a 1-for-1 basis. Staff recommends that the Board authorize the General Manager to execute a Water Management Program Agreement with Homer based on the draft terms presented at the meeting, subject to substantive changes approved by the Supply Reliability Programs Committee and legal counsel.

BACKGROUND:

Homer owns land within Berrenda Mesa Water District, a member unit of Kern County Water Agency, with the right to use State Water Project (SWP) water. Homer also has the right to 217 cubic feet per second (cfs) of CVC conveyance capacity, which exceeds Homer's needs. IRWD has the right to 4.87 cfs of CVC capacity and relies on Rosedale-Rio Bravo Water Storage District to convey larger amounts of water to the IRWD Water Bank using Rosedale's unused CVC capacity. In wet years, Rosedale often does not have excess capacity to convey IRWD's supplies. As a result, IRWD is seeking to secure access to additional CVC capacity.

Pilot Program with Homer:

In 2023, a Pilot Program agreement was executed between IRWD and Homer that allowed IRWD to use Homer's CVC capacity in 2023 in exchange for IRWD allowing Homer to recharge an equal amount of water at the IRWD Water Bank. In late 2023, IRWD's use of the CVC was restricted and IRWD successfully called upon the use of Homer's CVC capacity to deliver approximately 1,800 acre-feet (AF) of water to the IRWD Water Bank. Homer has through the end of 2024 to recharge a like amount of water at the IRWD Water Bank. The recharge of Homer's water will occur after all other IRWD program recharge needs have been met. Based on the success of the Pilot Program, staff has been working with Homer to develop a longer-term Water Management Program. Staff has prepared draft terms for the proposed Water Management Program as described below.

Water Management Program Terms:

The proposed Water Management Program would provide for a capacity exchange similar to the Pilot Program as well as water exchange transactions on a 1-for-1 basis consistent with the terms provided as Exhibit “A”. Both types of exchanges would be managed under one Water Management Program Agreement. A diagram of the two types of exchanges is provided as Exhibit “B”. The following is a description of the two types of exchanges.

Capacity Exchange:

The Water Management Program would include a capacity exchange that would allow IRWD to use Homer’s CVC capacity to deliver up to a total of 8,000 AF of IRWD secured water supplies to the IRWD Water Bank over the first six years of the program. After IRWD’s use of Homer’s CVC capacity in any year, Homer would be able to recharge an equal amount of its water at the IRWD Water Bank by the end of the following year. The recharge of Homer’s water would be subject to actual recharge rates and other scheduled IRWD program deliveries.

By the end of the third year following the recharge of Homer’s water at the IRWD Water Bank, Homer would either obtain approval to transfer its stored water, net of losses, to another water banking program or IRWD would recover the water for Homer by pumping wells at the IRWD Water Bank. The recovery of Homer’s water would occur after all other IRWD program recovery needs have been met. All of Homer’s water would be returned to Homer by the end of the term of the Program, which would be December 31, 3033. The capacity exchange component of the Water Management Program would only be triggered when IRWD calls for the use of Homer’s CVC capacity and Homer has secured approval for IRWD’s use of that CVC capacity.

Water Exchange Transactions:

The Water Management Program would also allow for 1-for-1 water exchange transactions where IRWD would provide Homer with up to 8,000 AF of non-SWP water from IRWD’s Water Bank in exchange for an equivalent amount of future SWP Table A water available to Homer. The SWP water would be transferred to IRWD through Metropolitan Water District or another SWP Contractor willing to act on IRWD’s behalf. Subject to availability of IRWD’s non-SWP water and recovery capacity at the IRWD Water Bank, a water exchange would be triggered when Homer requests and IRWD agrees to provide non-SWP water to Homer. Homer may request non-SWP water from IRWD through the end of the seventh year of the program. The SWP water must be transferred to IRWD within 3 years of Homer taking delivery of non-SWP water.

The proposed Water Management Program would be mutually beneficial to IRWD and Homer. Staff recommends that the Board authorize the General Manager to execute a Water Management Program Agreement with Homer based on the draft terms presented in Exhibit “A”.

FISCAL IMPACTS:

Under the proposed Water Management Program, IRWD and Homer would each pay the recharge and recovery costs associated with their share of water delivered into storage at the IRWD Water Bank. IRWD would only pay CVC power costs for the proportional use of Homer's CVC Capacity.

ENVIRONMENTAL COMPLIANCE:

Final Environmental Impact Reports for the Strand Ranch and Stockdale Integrated Banking Project were prepared, certified, and approved in compliance with the California Environmental Quality Act (CEQA) of 1970 as amended, codified at California Public Resources Code Sections 2100 et, seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. Rosedale, as lead agency, filed Notices of Determination for both the Strand Ranch and Stockdale Integrated Banking Projects with the County of Kern. IRWD, as a responsible agency, filed Notices of Determination with the County of Orange and with the County of Kern. Homer will be responsible for any necessary environmental review for Homer's delivery of Homer's water to and from the IRWD Water Bank.

RECOMMENDATION:

That the Board authorize the General Manager to execute a Water Management Program Agreement with Homer LLC based on the terms presented, subject to substantive changes approved by the Supply Reliability Programs Committee and special legal counsel.

LIST OF EXHIBITS:

- Exhibit "A" – Draft terms for a Water Management Program Agreement between IRWD and Homer LLC
- Exhibit "B" – Diagram of Water Management Program

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EXHIBIT “A”

Draft Terms for a Water Management Program
Between Irvine Ranch Water District and Homer LLC
February 15, 2024

<p>Parties</p>	<p>The Irvine Ranch Water District (IRWD) and Homer LLC</p>
<p>Existing Water Banking Facilities and Capacities</p>	<p>The IRWD Water Bank, located in Kern County, is owned by IRWD and operated by Rosedale-Rio Bravo Water Storage District. IRWD holds first priority rights to the use of the recharge and recovery facilities within the IRWD Water Bank and at least 200 cubic feet per second (cfs) of turnout capacity available on the Cross Valley Canal (CVC). IRWD’s first priority recharge rights may be superseded when the Kern River Watermaster offers water to all takers willing to sign a notice/order or when Kern River water is offered to the California Aqueduct/Kern River Intertie or when it is expected to be delivered out-of-county.</p> <p>Homer has the right to the use of at least 200 cfs of CVC Capacity held by the Lower-Tule River Irrigation District & Pixley Irrigation District. Homer also has State Water Project (SWP) Table A supplies available to it through its land holdings within Berrenda Mesa Water District, a member unit of the Kern County Water Agency (KCWA).</p>
<p>Description</p>	<p>IRWD and Homer plan to implement a Water Management Program that would facilitate a capacity exchange in facilities and 1-for-1 water exchange transactions.</p> <p>The capacity exchange would allow IRWD to use Homer’s CVC capacity, subject to Homer’s first priority use of its CVC capacity, to deliver up to a cumulative total of 8,000 AF of IRWD Water to the IRWD Water Bank. In exchange, IRWD would allow Homer to recharge an equivalent amount of Homer Water at the IRWD Water Bank. Homer Water would be returned to Homer as Return Water as described below. The implementation of the capacity exchange would be triggered when IRWD calls, and Homer gets all approvals needed, for IRWD’s use of Homer’s CVC capacity. Homer will secure approvals for IRWD’s use of Homer’s CVC capacity in accordance with Agency Coordination described below.</p> <p>IRWD may call upon use of Homer’s CVC capacity through the end of the sixth year of the program. After IRWD’s use of Homer’s CVC capacity in any year, Homer would be able to recharge an equal amount of its water at the IRWD Water Bank by the end of the following year. Homer Water deliveries would be scheduled after the delivery of IRWD Water and subject to actual recharge rates and IRWD’s scheduling of deliveries for other programs.</p> <p>In implementing 1-for-1 water exchange transactions, IRWD may provide Homer with up to a cumulative total of 8,000 AF of non-SWP water from the IRWD Water Bank (Exchange Water) within the first seven years of the Water Management Program. In exchange for IRWD providing this water, Homer would transfer for the benefit of IRWD, an equivalent amount of Homer’s future SWP Table A (Transfer Water) to IRWD through Metropolitan Water District of Southern California (Metropolitan) or another SWP Contractor willing to act on IRWD’s behalf. The implementation of water exchange transactions would be triggered when Homer calls for, and IRWD approves at its sole discretion, the recovery of Exchange Water.</p>
<p>Term</p>	<p>The term of the Program would be through December 31, 2033.</p>

Capacity Exchange	IRWD Water	For the purpose of the capacity exchange, IRWD Water is water secured by IRWD and delivered to the IRWD Water Bank using Homer’s CVC capacity. IRWD Water deliveries would be limited to a cumulative total of 8,000 AF through the end of 2029.
	Homer Water	For the purpose of a capacity exchange transaction, Homer Water is water secured by Homer and delivered to the IRWD Water Bank for recharge. Homer Water deliveries would be limited to the equivalent amount of IRWD Water delivered in the previous year using Homer’s CVC capacity. Homer Water will be delivered to the IRWD Water Bank by Homer using Homer’s CVC capacity in the year following the delivery of IRWD water.
	Return Water	As described below under Delivery of Return Water, Homer will either transfer out its Homer Water stored in the IRWD Water Bank less losses or IRWD shall return all of the Homer Water to Homer less losses (Return Water) through use of recovery wells. Return Water shall be transferred out or returned to Homer by the end of the third year following the delivery of Homer Water. All water shall be returned by the end of the Term of the Water Management Program.
	Delivery of Return Water	By the end of the third year after the delivery of Home Water, all Return Water shall be delivered to Homer either by (1) in-ground transfer(s) to the Rosedale, Pioneer or Berrenda Mesa banking projects (Homer’s Banking Projects), and/or by (2) IRWD utilizing its recovery well capacity in the IRWD Water Bank. Homer shall obtain all approvals for delivery by in-ground transfer(s) to Homer’s Banking Projects. If delivery is by well recovery, IRWD shall utilize its recovery well capacity to deliver Return Water after all other IRWD water banking and exchange program needs have been met including IRWD’s own. No later than May 1 of each year during the term of this agreement, Homer shall provide IRWD with a schedule requesting delivery for Return Water in that year. Return Water would be recovered and delivered at an annual rate of not more than one-third of the most current amount of Homer Water delivered into storage by Homer, after losses on a first in/first out basis. The Parties will cooperate in scheduling the Return Water deliveries with deliveries associated with other IRWD banking and exchange programs.

1-for-1 Exchanges	Exchange Water	<p>For the purpose of a 1-for-1 water exchange transaction, Exchange Water shall be non-SWP water that IRWD provides Homer from the IRWD Water Bank for use inside Kern County. Exchange Water can be delivered to Homer through the use of recovery capacity within the IRWD Water Bank or transferred in-ground to Homer as described below in Delivery Points. When requested by Homer, IRWD’s at its sole discretion may recover non-SWP water for Homer up to cumulative total of 8,000 AF through the year 2030. Delivery of Exchange Water will be for use inside Kern County and will be subject to availability of IRWD’s non-SWP water, recovery capacity at the IRWD Water Bank, and the use of the recovery capacity to meet the requirements of IRWD and its other Exchange Partners.</p>
	Transfer Water	<p>Transfer Water shall be equivalent to the amount of Exchange Water delivered to Homer plus an amount needed to compensate for losses as described below. Transfer Water shall be from Homer’s approved SWP Table A supplies and shall be delivered to Metropolitan or another SWP Contractor on IRWD’s behalf. Transfer water is expected to be available from Homer when the final SWP allocation for a year is 45% or greater in a given year. All Transfer Water would be delivered to IRWD by the end of the third year following delivery of Exchange Water or as mutually agreed upon by the Parties and California Department of Water Resources (DWR). Metropolitan, at its discretion, may direct the Transfer Water to be delivered to either the IRWD Water Bank or to Metropolitan's service area consistent with the Coordinated Operating, Water Storage, Exchange and Delivery Agreement that was executed by IRWD, Metropolitan and Municipal Water District of Orange County in April 2011.</p> <p>The implementation of 1-for-1 water exchange transactions would require an agreement between DWR and the participating SWP Contractors.</p>
	Quality	<p>The quality of IRWD Water, Homer Water and Transfer Water delivered to the IRWD Water Bank as well as Return Water and Exchange Water will be limited as follows: if and to the extent that either party delivers water to, into or through the California Aqueduct, the quality of water shall meet the water quality standards established by DWR for pump-into the California Aqueduct.</p>
	Delivery Points	<p>The Point of Delivery for the Homer Water, IRWD Water, and Transfer Water under this program shall be at an IRWD Water Bank Turnout on the CVC or any other location available to Rosedale. The Point of Delivery for the Return Water and Exchange Water shall be at an IRWD Water Bank Turn-in to the CVC. The Point of Delivery for Return Water or Exchange Water transferred in-ground would be a designated Homer Banking Project approved by the Kern Fan Monitoring Committee.</p>

<p>Losses</p>	<p>Water banking losses shall be applied to IRWD Water, Homer Water and Transfer Water (estimated to be 15%). Exchange Water provided by IRWD to Homer is net of losses, therefore Transfer Water delivered to the IRWD Water Bank must include additional amounts to account for 15% losses. Homer and IRWD each may incur additional conveyance losses of 1% to 2% in the CVC for conveyance of each Party’s water, as measured and assessed by KCWA.</p>
<p>Recharge Costs</p>	<p>Homer shall pay all costs associated with the use of Homer’s CVC capacity, and IRWD will reimburse Homer for the CVC electricity costs to deliver IRWD Water to the IRWD Water Bank Turnouts at the CVC.</p> <p>IRWD shall pay all costs assessed to IRWD by Rosedale for recharging both Homer Water, IRWD Water and Transfer Water at the IRWD Water Bank. Homer would reimburse IRWD for costs paid by IRWD for the recharge of Homer Water. Payment of these costs would be paid upon completion of recharge of Homer Water. Costs are assessed by Rosedale consistent with that certain Water Banking and Exchange Program Agreement between Rosedale and IRWD dated January 13, 2009. These estimated costs may include Rosedale’s administrative charge of about \$3 per acre-foot (AF), third party wheeling charges assessed by KCWA of \$5 per AF (a minimum of \$7,500) as applicable, operations and maintenance (O&M) costs of about \$15 per AF, and applicable fixed and variable O&M-related IRWD Water Bank costs of about \$3 per AF, as well as any other costs assessed by Rosedale to IRWD for the recharge of Homer Water. IRWD and Homer would each be responsible for paying the KCWA transaction request fees of \$3,000 for delivery of their respective Homer Water and IRWD Water when such water is scheduled for delivery into storage. IRWD would pay the KCWA transaction request fee for the delivery of Transfer Water.</p>
<p>Recovery Costs</p>	<p>IRWD and Homer would each be responsible for actual costs of recovery for their own respective water either through well pumping or by exchange as assessed by Rosedale. Recovery costs associated with extraction are estimated at \$122 per AF and are comprised of average groundwater pumping costs of \$115 per AF, Rosedale’s administrative charge of about \$3 per AF, and applicable fixed and variable O&M Water Bank costs of about \$4 per AF. Homer would reimburse IRWD for its costs upon delivery of Return Water and Exchange Water to Homer. Each party will also be responsible for paying the KCWA transaction request fee of \$3,000 when their water is scheduled for recovery. Homer would pay the KCWA transaction request fee when Exchange Water is scheduled for recovery.</p> <p>IRWD and Homer would each be responsible for their proportional share (based on water recovered for each Party) of any costs assessed by Rosedale under its Long-Term Operations Plan for implementing provisions to prevent impacts from recovery operations. It is expected that banking projects, such as the IRWD Water Bank, may be required to contribute \$2.00 per AF for recovered water to a fund, which may be used to meet mitigation obligations.</p> <p>Homer shall be responsible for any costs assessed for an in-ground transfer of Return Water or Exchange Water to a Homer Banking Project.</p>

<p>SWP Variable OMP&R Costs</p>	<p>IRWD and Homer will each pay the DWR Variable Operation, Maintenance, Power, and Replacement (OMP&R) charges estimated at \$30 per AF associated with the delivery to the IRWD Water Bank of water for Homer or water for IRWD when such water is State Water Project (SWP) water. For delivery of water to Homer, Homer will pay any associated DWR Variable OMP&R charges. Each party will pay their own conveyance costs, including operations, maintenance, power and replacement costs, associated with delivery of any non-SWP water supply.</p>
<p>Agency Coordination</p>	<p>IRWD and Homer would cooperate with DWR and KCWA in preparing all necessary agreements and approvals to facilitate the Program. IRWD and Homer shall each be responsible for their own costs associated with such coordination.</p> <p>Homer would be responsible for securing all approvals in Kern County for IRWD’s use of Homer’s CVC capacity. Homer will use best efforts to secure such approvals within 15 days of IRWD’s call on the use of Homer’s CVC Capacity.</p> <p>Homer shall coordinate with KCWA for the conveyance of Homer Water, Return Water, Exchange Water and Transfer Water utilizing Homers CVC capacity. Homer shall coordinate any required agreements or approvals at DWR, KCWA, and any SWP Contractor or other agency acting on Homer’s behalf in implementing the Water Management Program.</p>
<p>Environmental Compliance</p>	<p>Both parties shall comply with the California Environmental Quality Act (CEQA) and cooperate with one another with respect to CEQA compliance that may be required by the DWR for the proposed Program. IRWD has already conducted an environmental review under CEQA for the Strand and Stockdale Integrated Banking Projects that takes into consideration the delivery, storage and recovery of SWP and non-SWP water. Rosedale certified and IRWD approved the CEQA documents for the Strand and Stockdale Integrated Banking Projects. Corresponding Notices of Determination were filed by both Rosedale and IRWD. Both IRWD and Homer shall each be responsible for any other environmental review or permitting necessary to implement the Program within their own respective service areas. Homer shall be responsible for any necessary environmental review for Homer’s delivery of Homer’s water to and from the IRWD Water Bank.</p>
<p>Water Rights</p>	<p>It is expressly agreed, understood, and acknowledged by IRWD and Homer that any recharge or recovery of water for Homer or the transfer of water to a Homer Banking Project will not result in or be considered a sale or transfer of Homer’s or IRWD’s contractual rights to water or a sale or transfer of IRWD’s ownership in the IRWD Water Bank.</p>
<p>General Expenses</p>	<p>Each Party would be responsible for its own fees and expenses arising out of the negotiation and execution of the Water Management Program Agreement, obtaining necessary approvals, and the like.</p>

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