

AGENDA
IRVINE RANCH WATER DISTRICT
SUPPLY RELIABILITY PROGRAMS COMMITTEE
THURSDAY, NOVEMBER 21, 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 on the second floor in the Committee room, please check in with the receptionist for access. 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 _____
 Committee Member: Peer Swan _____

ALSO PRESENT Paul Cook _____ Paul Weghorst _____
 Neveen Adly _____ Fiona Sanchez _____
 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 8:00 a.m. on November 21, 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 / SANCHEZ / WEGHORST

Recommendation: Receive and file.


6. SITES RESERVOIR PROJECT UPDATE – HUANG / SANCHEZ / WEGHORST

Recommendation: Receive and file.

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.

November 21, 2024
Prepared by: M. Lindsay / N. Palacio
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 an overview of IRWD’s forecasted monthly recharge operations for 2024. Staff will also provide an update on water supply conditions in California.

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. At the Committee meeting, staff will provide an update on water supply conditions.

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, 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 stored at the water banking projects. Exhibit “C” shows after-loss estimates of water recharged and stored at the projects. Changes shown in red on Exhibits “B” and “C” depict the delivery of IRWD’s 2024 State Water Project (SWP) allocation, in the amount of 700 acre-feet (AF), to the IRWD Water Bank.

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 accumulated total amount of water secured by 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. Exhibit “D” was updated to include the delivery of IRWD’s 2024 SWP allocation.

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 (shown as credits). 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” includes the most recent 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 AVEK. A new exhibit was added as Exhibit “Q” for the long-term exchange program with Santa Clara Valley Water District (Valley Water) that is currently being implemented. These diagrams are provided as Exhibits “J”, “K”, “L”, “M”, “N”, “O”, “P”, and “Q” 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 “R”. 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 “R” will be updated to reflect 2022 and 2023 operations once all invoices have been received from Rosedale.

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 “S”. The benefits to IRWD are foundational to the success of IRWD’s water banking project and programs.

Forecasted 2024 Water Recharge Activities:

Projected deliveries to IRWD's Water Bank in 2024 are depicted in Exhibit "T". Staff will update the forecasted delivery amounts shown in Exhibit "T" as more information becomes available. Anticipated water bank deliveries in 2024 are as follows:

- *Homer Capacity Exchange Program:* In 2023, IRWD recharged 1,854 acre feet (AF) of water into storage at the IRWD Water Bank using Homer's Cross Valley Canal capacity. 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 in 2024. A Transaction Request Form to KCWA was approved for the delivery of 1,854 AF of Homer's water to the IRWD Water Bank. Staff expects that these deliveries will be made in December.
- *Valley Water Unbalanced Exchange Program:* Valley Water expects to have at least 5,000 AF of SWP Table A Water available for delivery to the IRWD Water Bank in 2024. The letter agreement between IRWD and Valley Water has been fully executed and Metropolitan has consented to the exchange. DWR is working with Valley Water, Kern County Water Agency, and Metropolitan to finalize the necessary DWR agreements to deliver water to the IRWD Water Bank before the end of the year. Staff expects that these deliveries will be in the amount of 3,000 AF
- *Metropolitan Deliveries:* In 2021 and 2022, Metropolitan took direct delivery of IRWD's Dudley Ridge SWP Table A water. Metropolitan has notified staff that they would like to return 157 AF of this water to IRWD this year. Metropolitan will deliver 50% of the water to IRWD's Water Bank and the remaining 50% of water to Dudley Ridge for use on the Jackson Ranch.

Water Supply Conditions Updates:

At the meeting, staff will update the Committee on water supply conditions in California and how these updates may affect recharge operations at IRWD's Water Bank in 2025.

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” – Diagram of Long-term Water Exchange Program with Valley Water
- Exhibit “R” – Cost of Water Tables
- Exhibit “S” – Summary of IRWD’s Coordinated Operating, Water Storage, Exchange and Delivery Agreement with Metropolitan and MWDOC (updated 8 Feb 2024)
- Exhibit “T” – Actual and Forecasted 2024 Recharge Operations

Exhibit "A"

TABLE 1
Current and Anticipated Water Banking Projects
Recharge, Storage and Recovery Capacities
 November 21, 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	

¹Based 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.

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

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

⁴Kern 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.

Note: This page is intentionally left blank.

Exhibit "B"

TABLE 2
IRWD's Water Banking Storage, Recharge and Recovery Operations - BEFORE LOSSES
 November 21, 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%)	873	-	-	-	-	-	872	1,745
2020 Reserve Water	13	-	-	-	-	-	-	13
BV Long Term Program Kern River Water	-	8,713	8,713	-	-	-	-	17,426
BV 2023 Recharge Kern River Water	-	2,244	2,243	-	-	-	-	4,487
CCWA 2023 Short Term Exchange	225	-	-	225	-	-	-	450
AVEK Long Term Exchange Est.	3,537	-	-	-	3,536	-	-	7,073
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	8,975	-	-	-	-	-	-	8,975
TOTAL 2023 TRANSACTIONS⁸	13,623	11,528	10,956	225	3,536	-	872	40,740
Total Kern Water Bank ⁴	-	4,322	-	-	-	-	-	4,322
Total MWD System	12,033	-	-	-	-	-	43	12,076
Total Kern County	15,006	20,598	11,181	225	3,536	-	872	51,418
Total DRWD 1-for-1 Long Term Exchange Credit ⁵	7,525	-	-	-	-	-	-	7,525
TOTAL STORED WATER (1/1/2024)	34,564	24,920	11,181	225	3,536	-	915	75,341
(RECOVERY) AND RECHARGE IN 2024 (AF)								
KWB Recovery for use on Jackson Ranch ⁶ Est.	-	-	-	-	-	-	-	-
2024 SWP Allocation (40%)	350	-	-	-	-	-	350	700
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 TRANSACTIONS⁸	2,550	-	-	-	-	-	350	2,900
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	17,556	20,598	11,181	225	3,536	-	1,222	54,318
Total DRWD 1-for-1 Long Term Exchange Credit ⁵	5,325	-	-	-	-	-	-	5,325
TOTAL ESTIMATED STORED WATER TO DATE	34,914	24,920	11,181	225	3,536	-	1,265	76,041

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.

⁸ Total banking losses for 2023 deliveries to the IRWD bank are estimated to be 3,506 AF. Total banking losses for 2024 deliveries to the IRWD Water Bank are estimated to be 414 AF.

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Exhibit "C"

TABLE 3
IRWD's Water Banking Storage, Recharge and Recovery Operations - AFTER LOSSES
 November 21, 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	748	-	-	-	-	-	748	723
2023 SWP Allocation (100%)	748	-	-	-	-	-	-	1,496
2020 Reserve Water	12	-	-	-	-	-	-	12
BV Long Term Program Kern River Water	-	7,470	7,863	-	-	-	-	15,333
BV 2023 Recharge Kern River Water	-	1,923	2,025	-	-	-	-	3,948
CCWA 2023 Short Term Exchange	193	-	-	193	-	-	-	386
AVEK Long Term Exchange	3,032	-	-	-	3,032	-	-	6,064
DRWD 1-for-1 Long Term Exchange (Recharge)	7,694	-	-	-	-	-	-	7,694
TOTAL 2023 TRANSACTIONS	11,679	9,884	9,888	193	3,032	-	748	35,424
Total Kern Water Bank	-	4,242	-	-	-	-	-	4,242
Total MWD System	12,033	-	-	-	-	-	43	12,076
Total Kern County	12,023	15,098	10,113	193	3,032	-	748	41,207
Total DRWD 1-for-1 Long Term Exchange Credit	7,306	-	-	-	-	-	-	7,306
TOTAL STORED WATER (1/1/2024)	31,362	19,340	10,113	193	3,032	-	791	64,831
(RECOVERY) AND RECHARGE IN 2024 (AF)								
KWB Recovery for use on Jackson Ranch ⁶ Est.	-	-	-	-	-	-	-	-
2024 SWP Allocation (40%)	300	-	-	-	-	-	300	600
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	2,186	-	-	-	-	-	300	2,486
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	14,209	15,098	10,113	193	3,032	-	1,048	43,693
Total DRWD 1-for-1 Long Term Exchange Credit	5,420	-	-	-	-	-	-	5,420
TOTAL ESTIMATED STORED WATER TO DATE	31,662	19,340	10,113	193	3,032	-	1,091	65,431

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.

Exhibit "C"

Exhibit "D"

TABLE 4
Status of IRWD Purchase and Exchange Programs (AFTER LOSSES)
 November 21, 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)		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	29,336	8,088	27,869		10,772			10,772		10,772		
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	2,102	1,091	2,185	1,055	1,129			2,185	2,185		1,091	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	9,580		9,580			9,580	15,000			No
				Credit	NA	NA	5,420			5,420	5,420				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	2,025	2,025	1,923		1,183	741		1,923		1,923		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	3,032	3,032	3,032		2,461	571		3,032	3,032			No
Total:					47,910	14,428	68,199	12,033	27,803	1,504	5,420	46,760	31,412	15,348	1,091	NA

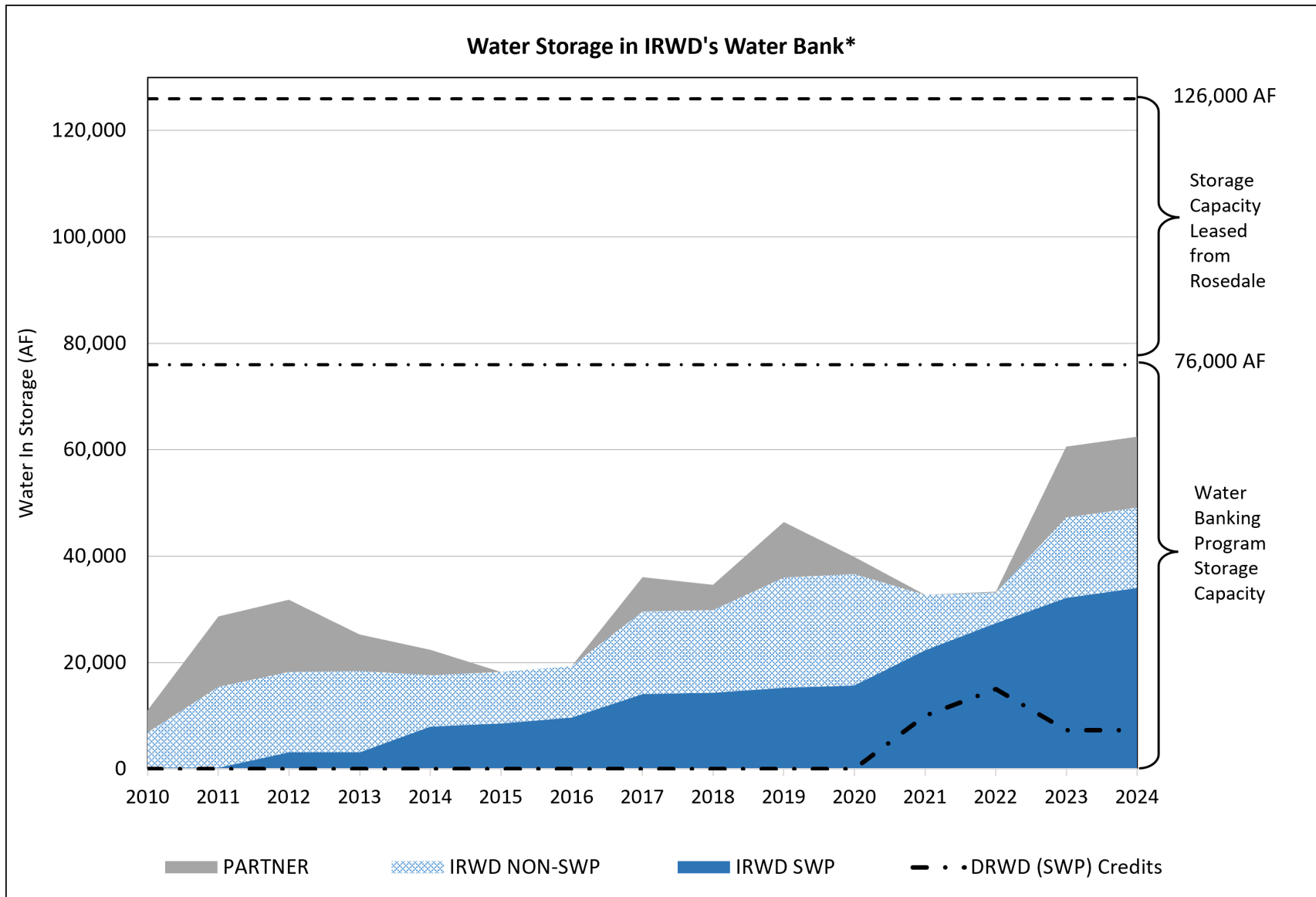
¹ Water acquired through BVWSD will be exportable after it is exchanged for SWP Table A through 1-for-1 exchange with Dudley Ridge Water District.

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

November 21, 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	-	-	-
IRWD/DRWD	10,000	6,000	-	-
AVEK	-	20,000	-	-
Valley Water	-	-	20,000	-
<i>Proposed Programs:</i>				
Homer LLC	-	-	8,000	-
Total Dedicated	50,000	26,000	28,000	-
Total Remaining	-	-	22,000	9,495

FIRST-PRIORITY 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	-	-	-
IRWD/DRWD	-	7,100	-	-
AVEK	-	20,000	-	-
Total Dedicated	17,500	27,100	-	-
Total Remaining	-	-	-	3,200

FIRST-PRIORITY 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	7,917	-	1,520
Total Dedicated	17,500	11,250	-	1,520
Total Remaining	-	-	-	-

TABLE 6
Second-Priority Recharge and Recovery Capacity Available after Annual Scheduling of Dedicated First-
Priority Recharge and Recovery Allocated to Existing Programs

November 21, 2024

SECOND-PRIORITY RECHARGE CAPACITY

Program	Dedicated Recharge Capacity Strand Ranch and Stockdale West (AF)	Minimum Program Share for Second-Priority ¹	Available Minimum Recharge Capacity if not used by Existing Programs (AF)	Total Program Recharge Capacity (AF)
Total Capacity	44,600		44,600	
First Priority Programs	44,600		-	44,600
Valley Water	-	40%	17,840	20,000
<i>Proposed Programs:</i>				
Homer LLC	-	16%	7,136	8,000
Total Dedicated	44,600	56%	24,976	
Total Remaining	-		19,624	

SECOND-PRIORITY RECOVERY CAPACITY

Program Partner	Dedicated Recovery Capacity Strand Ranch and Stockdale West (AF)	Minimum Program Share for Second Priority ¹	Minimum Available Recovery Capacity if not used by Existing Programs (AF)	Total Program Recovery Capacity (AF)
Total Capacity	28,750		28,750	
First Priority Programs	28,750		-	2,750
Valley Water	-	40%	3,333	3,333
<i>Proposed Programs:</i>				
Homer LLC	-	16%	1,333	1,333
Total Dedicated	28,750	56%	4,666	
Total Remaining	-		24,084	

¹ Second-priority recharge and recovery capacity allocated to programs on a pro-rata share based on share of leased storage capacity.

For example:

Valley Water Share: 20,000 AF of 50,000 AF leased storage (40%)

Homer LLC Share: 8,000 AF of 50,000 AF leased storage (16%)

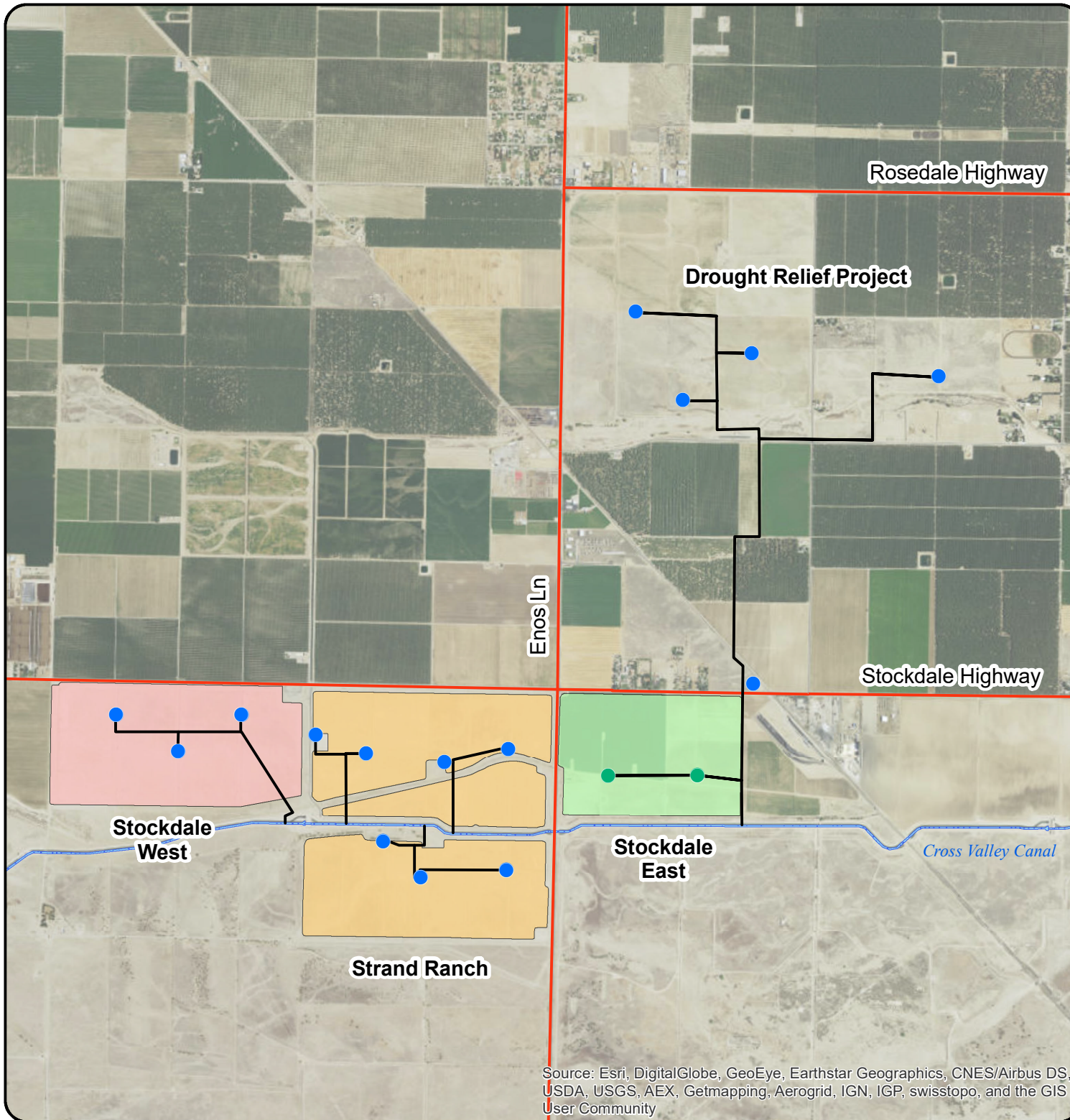


Location Map: IRWD Water Banking Projects Wells and Turnin Pipelines

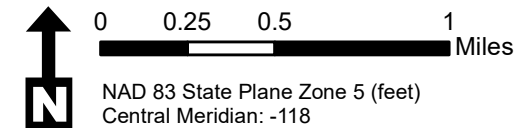
MAP FEATURES

- Extraction Well
- Extraction Well
- Well Discharge Pipelines
- Stockdale East
- Stockdale West
- Strand Ranch

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



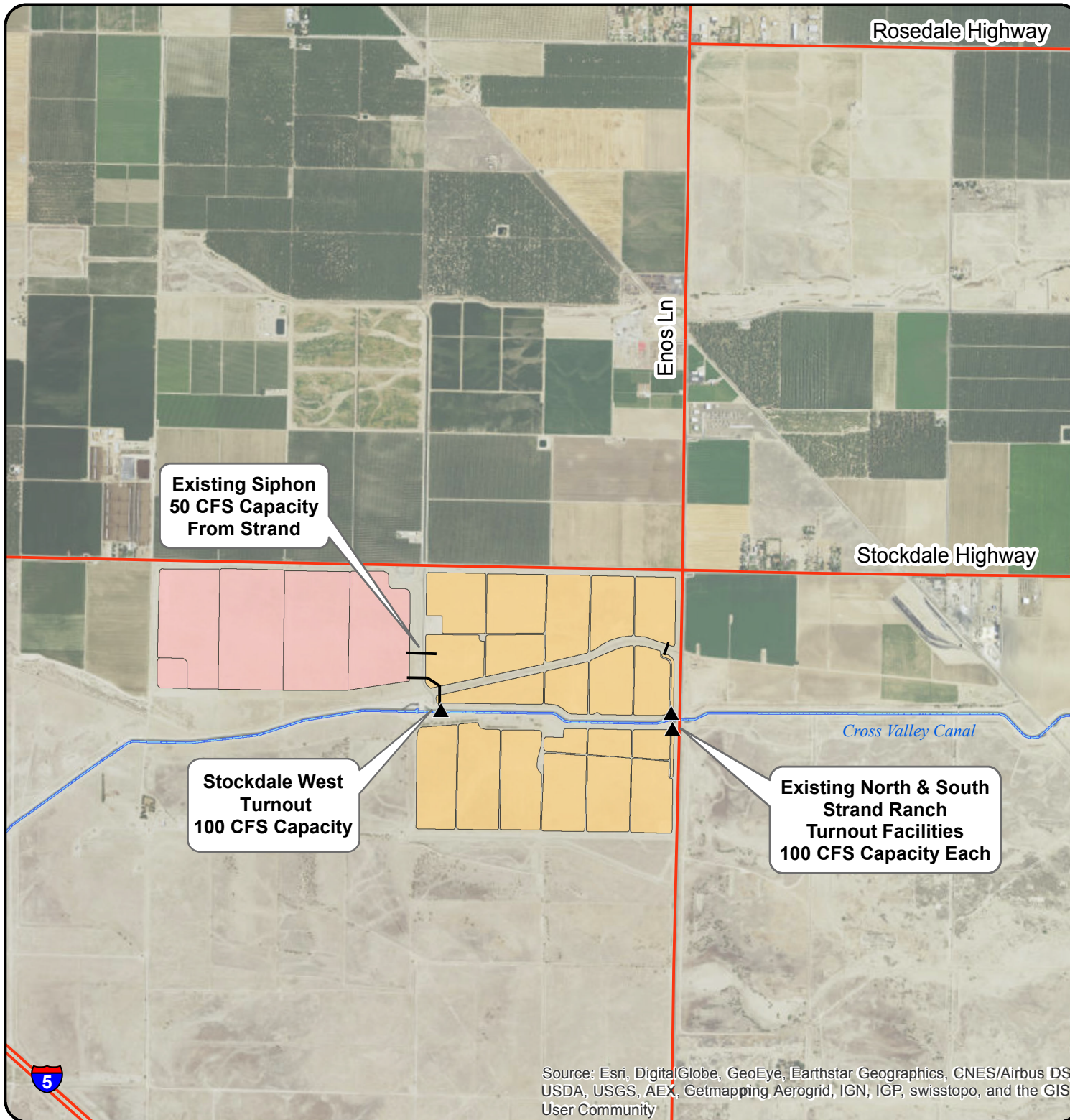
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



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



**Existing Siphon
50 CFS Capacity
From Strand**

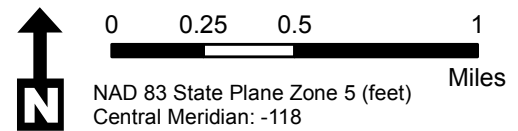
**Stockdale West
Turnout
100 CFS Capacity**

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

MAP FEATURES

- ▲ Turnouts
- Stockdale West
- Strand Ranch

This figure shows the location of recharge basins, pipelines and turnout facilities.

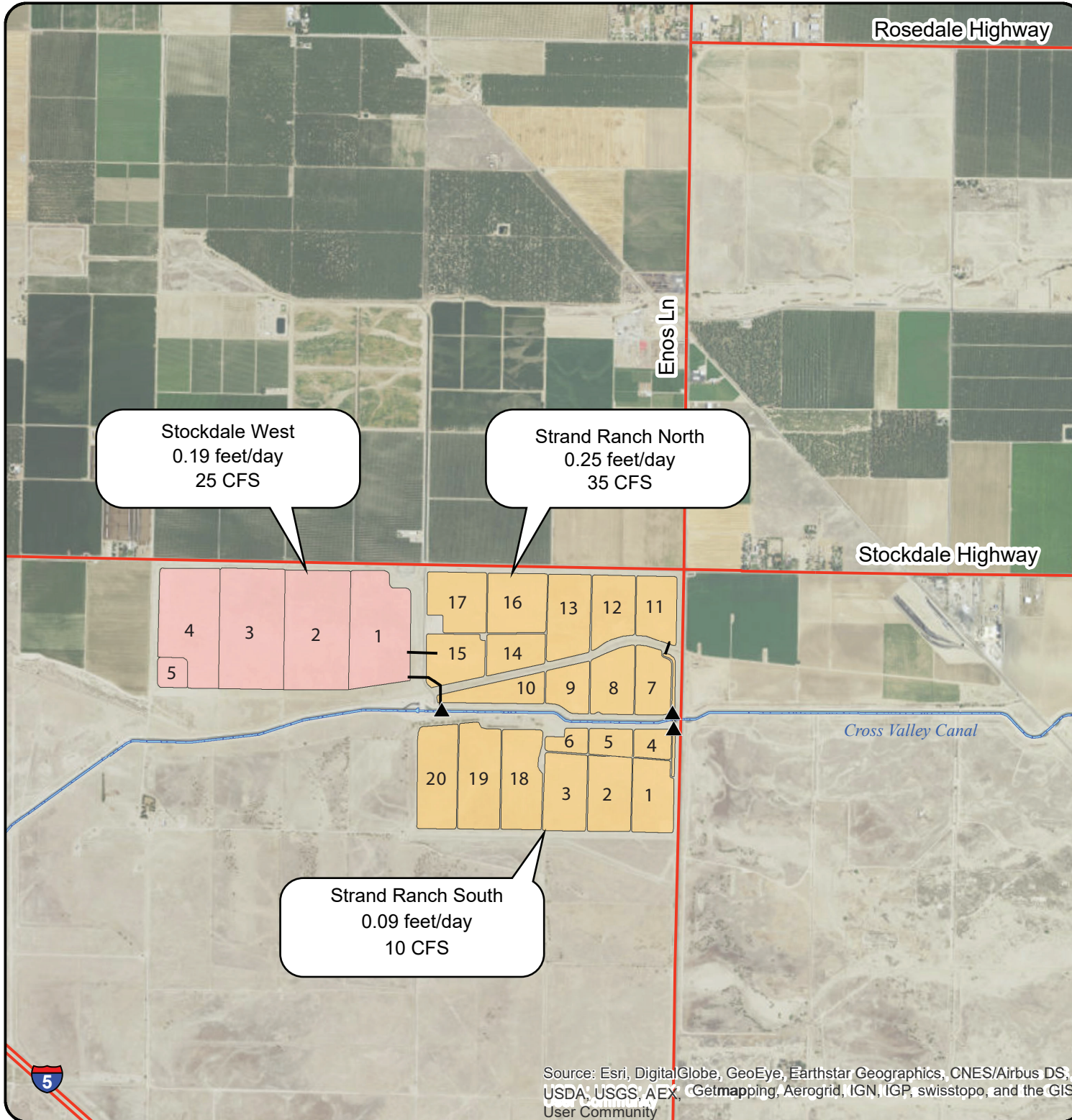


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping AeroGrid, IGN, IGP, swisstopo, and the GIS User Community

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Location Map: IRWD Water Banking Projects Recharge Rates

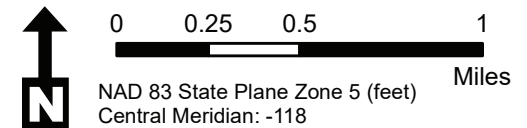


MAP FEATURES

- ▲ Turnouts
- Stockdale West
- Strand Ranch

This figure shows the location of recharge basins and their associated recharge rates as of January 4, 2024

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



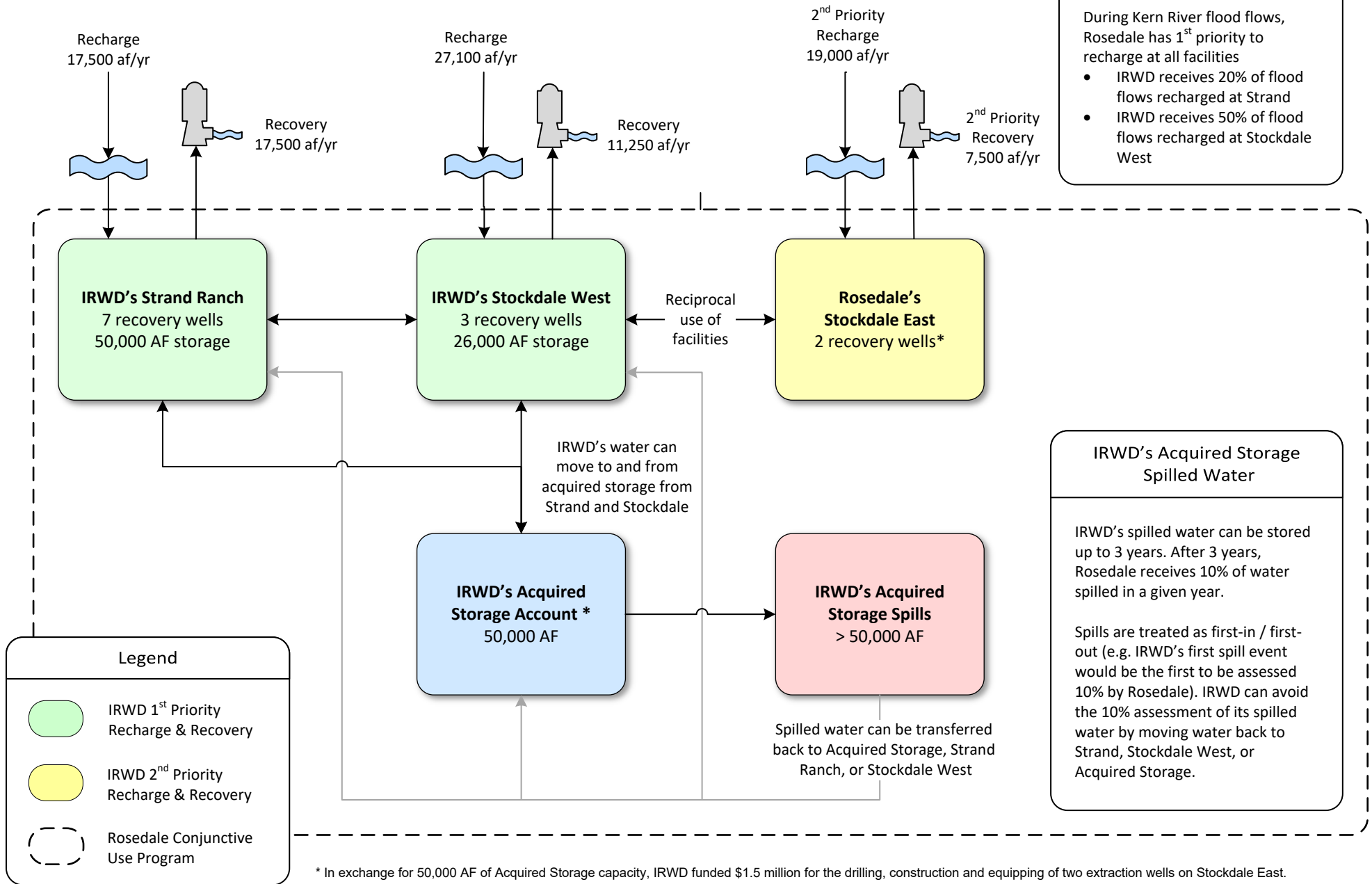
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Exhibit "J"

IRWD-Rosedale Water Banking and Exchange Program Agreements

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

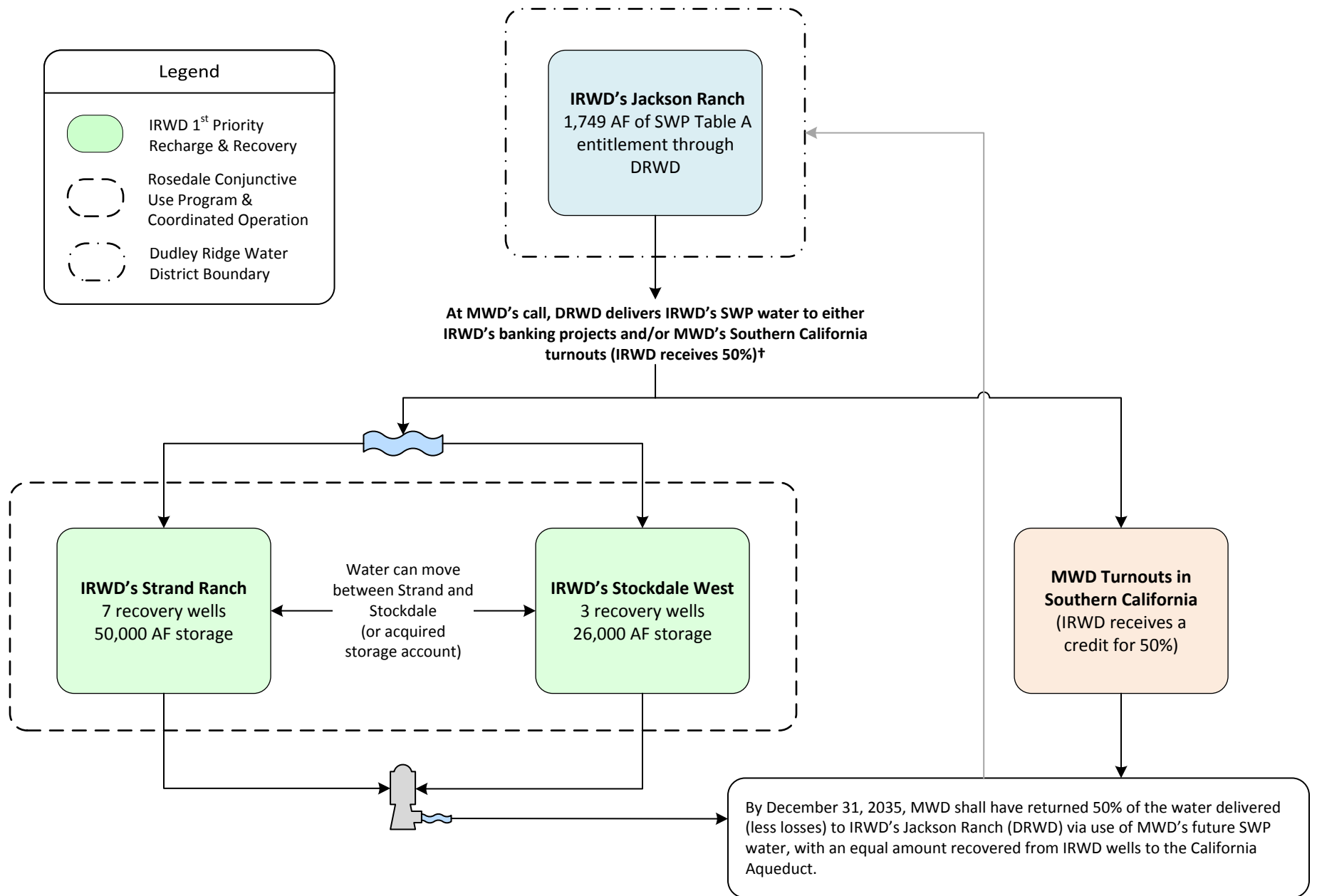
2/4/2016 through 1/12/2039 (Stockdale West)



* In exchange for 50,000 AF of Acquired Storage capacity, IRWD funded \$1.5 million for the drilling, construction and equipping of two extraction wells on Stockdale East.

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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"

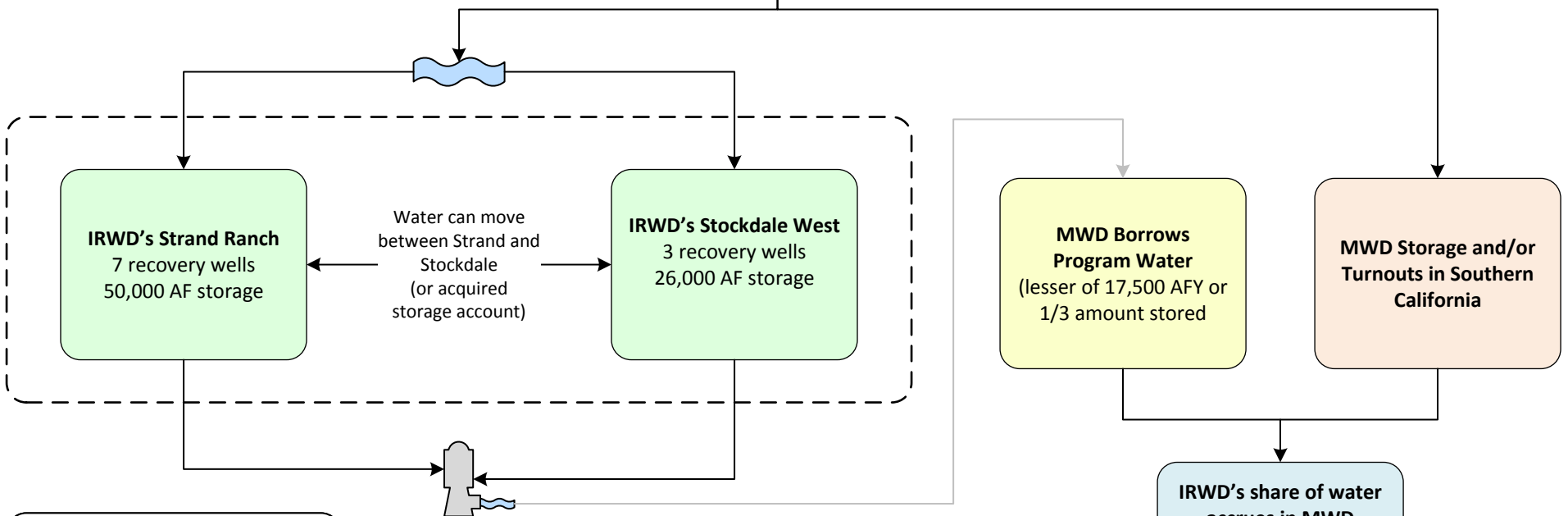
Coordinated Operating, Water Storage, Exchange and Delivery Agreement Between MWD, MWDOC and IRWD
Effective 5/1/2011 through 11/4/2035

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

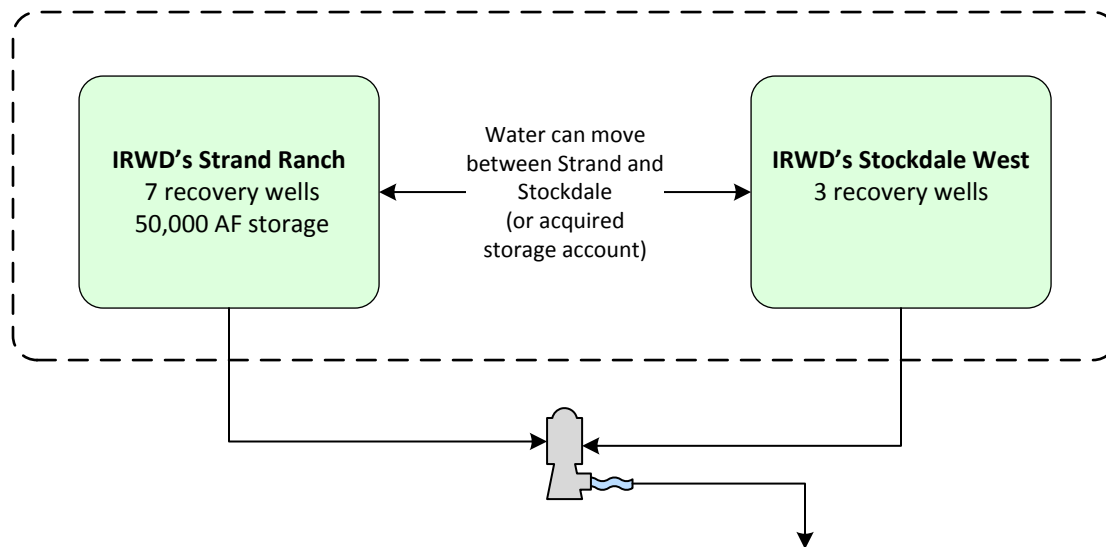
- IRWD 1st Integrated Banking Project
- Rosedale Conjunctive Use Program & Coordinated Operation

- 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.

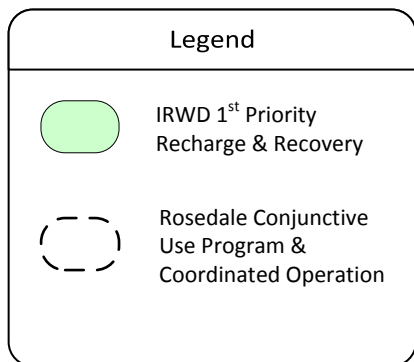
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Exhibit "N"

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.

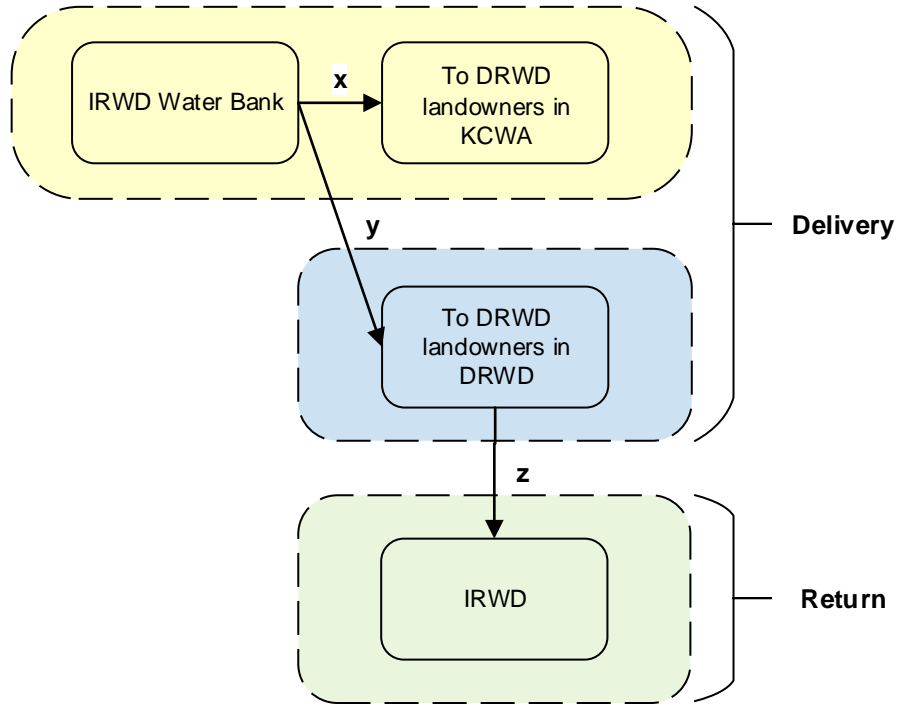
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Dudley Ridge Water District Long Term 1-for-1 Water Exchange Program
 Effective 5/31/2017 through 11/4/2035

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

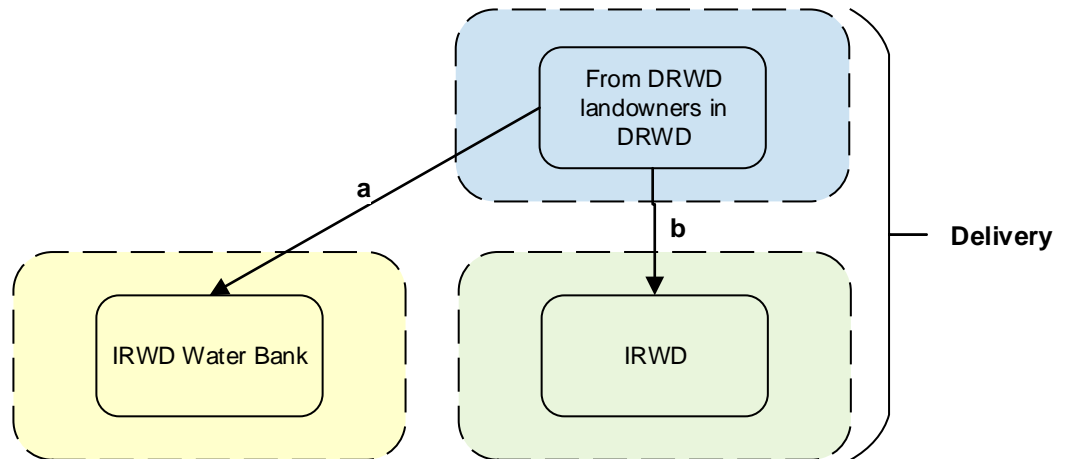
x= Non-Project Water required to stay in Kern County
 y= Non-Project Water allowed to leave Kern County
 z= DRWD Table A Water equal to x+y less applicable losses, if any

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



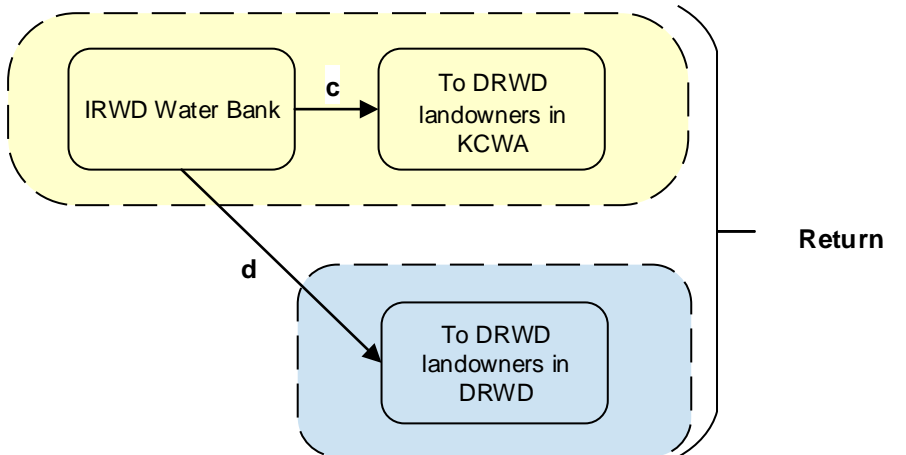
Scenario B
 (Per Sections 2, 3, and 4.1.2)

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



Legend

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

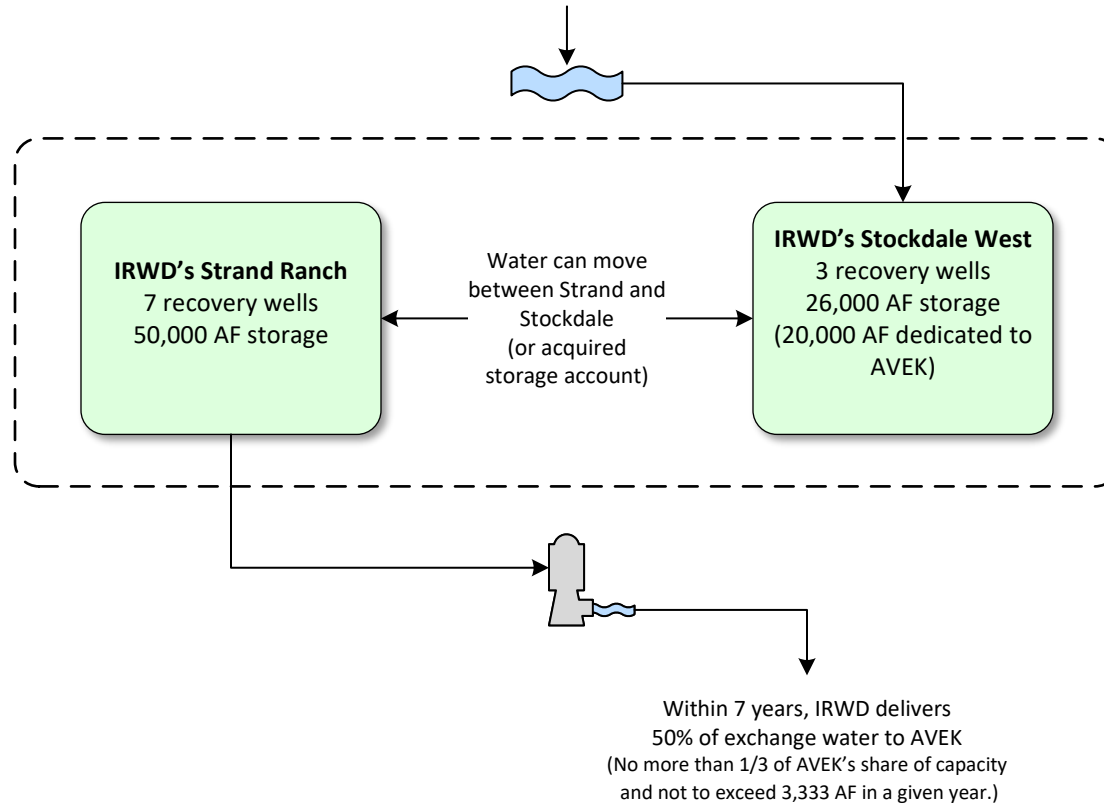




†The cost of water exchanged between IRWD and DRWD will be equalized

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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

AVEK delivers SWP water to IRWD Water Bank
(IRWD receives 50%)
 (Up to 20,000 AFY or 2,200 AF/mo.)*

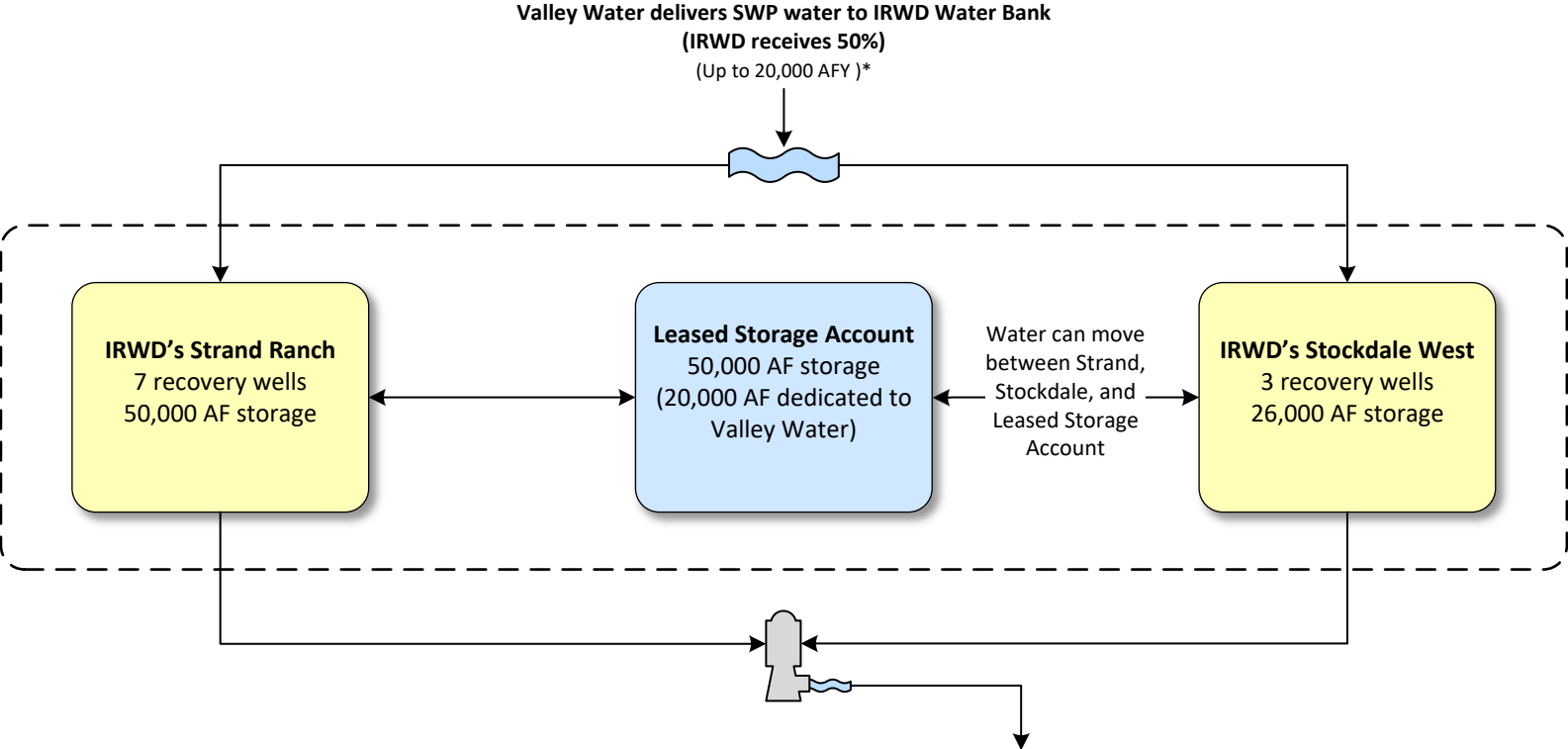


Legend	
	IRWD 1 st Priority Recharge & Recovery
	Rosedale Conjunctive Use Program & Coordinated Operation

*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"
Santa Clara Valley Water District (Valley Water) Long Term Water Exchange Program
 Effective 9/4/2024 through 12/31/2035



Legend	
	IRWD 2nd Priority Recharge & Recovery
	IRWD Leased Storage Account
	Rosedale Conjunctive Use Program & Coordinated Operation

Within 7 years, IRWD delivers
 50% of exchange water to Valley Water
 (No more than 1/3 of Valley Water's share of capacity
 and not to exceed 3,333 AF in a given year.)

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

Exhibit "R"

TABLE 7
IRWD Water Banking Program Costs of Water Summary
 November 21, 2024

Program Partner	Time Period	Water Type	IRWD Amount (AF)	Variable costs ² (\$/AF)	Fixed Cost Component ³ (\$/AF)	Fixed & Variable (\$/AF)	Capital Component ⁴ (\$/AF)	Cost of Water (\$/AF)	Estimated Recovery of Water ⁵ (\$/AF)	2024 MWD Tier 1 Untreated Rate + SAC Surcharge ⁶ (\$/AF)	Cost of Water in IRWD Service Area (\$/AF)
				(A)	(B)	(C)	(D)	(E)	(F)	(G)	(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 "T"

TABLE 8
IRWD 2024 Recharge Operations- BEFORE LOSSES
 November 21, 2024

Actual and Forecasted Amounts:

Month	IRWD Table A (AF)	DRWD 1:1 (AF)	MWD ¹ (AF)	Buena Vista (AF)	AVEK (AF)	Homer (AF)	Valley Water (AF)	Total (AF)	Status	Expected Recharge ² (AF)	Expected Recharge Rate (CFS)
January	-	2,200	-	-	-	-	-	2,200	prelim	2,200	80
February	-	-	-	-	-	-	-	-	prelim	-	70
March	-	-	-	-	-	-	-	-	prelim	-	60
April	-	-	-	-	-	-	-	-	prelim	-	60
May	-	-	-	-	-	-	-	-	prelim	-	60
June	-	-	-	-	-	-	-	-	prelim	-	60
July	-	-	-	-	-	-	-	-	prelim	-	60
August	-	-	-	-	-	-	-	-	prelim	-	60
September	-	-	-	-	-	-	-	-	prelim	-	60
October	-	-	-	-	-	-	-	-	prelim	-	60
November	700	-	-	-	-	-	-	700	prelim	5,058	85
								2,900			
December	-	-	79	-	-	1,854	3,000	4,933		5,226	85
	700	2,200	79	-	-	1,854	3,000	7,833			
Recharge goal:	700	7,525	79	-	-	1,854	5,000	15,158			

¹ In 2021 and 2022, MWD took direct delivery of IRWD's DRWD SWP Table A water. MWD will return 50% of the water to the IRWD Water Bank this year and the remaining 50% will be delivered to Jackson Ranch.

² The expected recharge is based on the expected recharge rate and remaining recharge capacity.

November 21, 2024
Prepared by: R. Huang
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook *P.A.C.*

SUPPLY RELIABILITY PROGRAMS COMMITTEE

SITES RESERVOIR PROJECT UPDATE

SUMMARY:

IRWD is participating in the planning of the Sites Reservoir Project with the intent to secure approximately 1,000 acre-feet (AF) of annual release capacity and 6,234 AF of storage capacity in the project. These capacities would provide IRWD with a regulated annual water supply for recharge at the proposed Kern Fan Groundwater Storage Project. The following is an update on project development activities. At the Committee meeting, staff will present an overview of the information provided.

BACKGROUND:

The Sites Reservoir Project will provide 1.5 million acre-feet of off-stream water storage in the Sacramento Valley that would allow the diversion and storage of stormwater flows from the Sacramento River after all other water rights and regulatory requirements are met. The project facilities will be owned by the Sites Project Authority and capacities in the project will be owned by project participants. A map showing the project facilities and location is provided as Exhibit "A". At the committee meeting, staff will present an overview of IRWD's participation in the project, the status of securing water rights and permits for the project, and an update on the design process and costs. Staff will also provide an update on the development of agreements to implement the project and a project schedule.

IRWD Participation in the Project:

IRWD's participation in the project corresponds to 1,000 AF of annual release capacity and 6,234 AF of storage capacity in the reservoir, representing 0.4% of the project, as shown in the Allocation of Available Storage table provided in Exhibit "B". These capacities would provide IRWD with a regulated annual water supply for recharge at the proposed Kern Fan Groundwater Storage Project. As a participant in the project, IRWD is a member of the Reservoir Committee, which consists of 22 voting agricultural and urban water agencies and two non-voting members: California Department of Water Resources (DWR) and Bureau of Reclamation (Reclamation).

Amendment 3 Work Plan:

In March 2022, IRWD executed Amendment 3 to the Sites Reservoir Project Agreement, which committed IRWD to participate in and fund project planning activities. The Amendment 3 work plan includes conducting an environmental review of the project, obtaining critical permits and water rights, advancing preliminary design and other pre-construction work, finalizing federal and state coordinated operations agreements, completing right-of-way acquisitions, and securing project financing. IRWD's share of costs for the Amendment 3 work plan efforts is \$400,000, which is based on \$400 per AF of annual release capacity.

Obtaining Project Water Rights:

The main water supply for the project will be high flows diverted from the Sacramento River when the Sacramento-San Joaquin Delta is in excess conditions and all senior downstream water rights have been met. In May 2022, the Sites Authority filed a permit application for water rights in the Sacramento River with the State Water Resources Control Board. The State Board deemed the application complete in May 2023 and in November 2023 assigned consideration of the application to an Administrative Hearings Officer. Public hearings on the applications are ongoing and scheduled to end in February 2025. Water rights permit is anticipated to be issued in August 2025.

Securing Project Permits:

Incidental Take Permits (ITPs), issued by the California Department of Fish and Wildlife (CDFW), are required for the Sites Authority to construct and operate the Sites Reservoir Project in compliance with the California Endangered Species Act (CESA). In October 2024, the Sites Authority received a CESA Construction ITP and Operations ITP from CDFW. The Sites Authority is in the process of submitting both ITPs to the State Board's Administrative Hearing Officer as part of the water rights proceedings.

Under Section 401 of the Clean Water Act, a federal agency may not permit any activity resulting in discharge into Waters of the United States (WOTUS) unless a Section 401 water quality certification is issued. The State Board has the authority to regulate these discharges. In March 2024, the Sites Authority submitted a request for a Section 401 water quality certification to the State Board. Simultaneously, the Sites Authority filed an application with United States Army Corps of Engineers (USACE) for a Clean Water Act Section 404 permit for discharging dredged or fill material into WOTUS. In July 2024, both applications were withdrawn for administrative reasons. Both applications are anticipated to be resubmitted in mid-2025. The Section 401 certification and Section 404 permit are expected by late 2026 prior to start of construction.

Advancing Project Designs:

The draft 30% design for the project was completed in April 2024. The project includes designs for two large dams, seven saddle dams, two saddle dikes, one pumping plant, new roads, and a bridge. In July 2024, initial results from a value engineering study of Golden Gate Dam indicated that an axis shift would reduce the dam volume from 8.7 million to 4.5 million cubic yards and save approximately \$200 million. The value engineering study will be complete in Spring 2025.

In September 2024, the Sites Authority Board and Reservoir Committee authorized submittal of a construction application to the Division of Safety of Dams (DSOD). DSOD's review of the 30% design will be completed in 2025. DSOD review is needed prior to moving forward with final design and executing a Water Storage Investment Program (WSIP) funding agreement with the California Water Commission (CWC) for the project.

Project Cost Estimates:

The current Feasibility Study cost estimate for the project is approximately \$3.9 billion in 2021 dollars. The project has been awarded \$875 million in conditional WSIP funding. The project has also been appropriated federal funding in the amount of \$516 million from the Water Infrastructure Improvement for the Nation Act and Infrastructure Investment and Jobs Act. The remaining capital costs will be allocated to participants based on their share of storage capacity in the project, as well as the project facilities they plan to utilize to take delivery of water from the project. Based on the feasibility-level estimate, IRWD's share of the capital cost is expected to be approximately \$17.2 million.

An upcoming cost estimate based on the 30% design, which is being developed as a class 3 estimate, is not yet available. (A class 3 estimate is typically used for funding authorization purposes.) The Sites Authority anticipates that this cost estimate will be available in April 2025. The project cost shown in this upcoming estimate is expected to increase significantly from the current cost estimate.

Opportunity of Additional Funding:

Contra Costa Water District is expected to withdraw its application to the CWC for \$478 million in WSIP funding for the Los Vaqueros Reservoir Expansion Project. In spring 2025, the CWC is likely to consider providing an inflationary adjustment to the Sites Reservoir Project and other WSIP projects. Staff will continue to monitor and participate in the discussion regarding the reallocation of these WSIP funds.

Project Agreements:

Multiple agreements are necessary to implement the Sites Reservoir Project. These agreements will coordinate operations of the project, commit participants to the construction and operation of the project, and facilitate other important aspects of the project. The following is an overview of the major agreements that currently are in development by the Sites Authority.

Coordinated Operations Agreement:

The Sites Authority has been working DWR and Reclamation to develop a Coordinated Operations Agreement focused on day-to-day communication protocols and procedures between Reclamation's operation of the Central Valley Project and DWR's operation of the State Water Project. The Sites Authority, DWR, and Reclamation are working to finalize the agreement, which is expected to be complete in March 2025.

Benefits and Obligations Contract:

The Benefits and Obligations (B&O) Contract between the Sites Authority and the Sites Reservoir Project participants will establish funding commitments for the construction and operation of the project in return for participants receiving capacity interests. Staff and IRWD special legal counsel have actively participated in workshops on the development of the draft B&O Contract.

In August 2024, staff and IRWD special legal counsel submitted comments on the latest draft of the B&O Contract and the Sites Reservoir Operations Plan that is incorporated into the contract. The Operations Plan describes day-to-day operations focusing on the decision process for when and how to divert and release water. IRWD’s comments sought to clarify complex diversions and release procedures, as well as to correct inconsistencies between the B&O Contract and the Sites Reservoir Operations Plan.

The Sites Authority plans to have the draft B&O Contract and Sites Reservoir Operations Plan completed in December 2024. The Sites Authority will request participants’ approval and execution of the B&O Contract once the class 3 cost estimate is complete and the water rights permit has been secured. Staff expects to present the B&O contract and Operations Plan to the IRWD Board in Fall 2025. Execution of the B&O Agreement will obligate the participants including IRWD to the costs for the final design, construction and operations of the project. Once the B&O Contracts are executed, the Sites Authority will proceed with final design and construction of the project.

Other Agreements:

In addition to the B&O Contract and the Coordinated Operations Agreement, the Sites Authority will need to develop and execute the following other agreements:

- Operations Agreements with the Tehama-Colusa Canal Authority and Glenn-Colusa Irrigation District;
- An agreement with Reclamation for its participation in the project; and
- WSIP Public Benefits and Funding Agreements.

Project Schedule:

A schedule of upcoming major milestones for the project is shown in the following table. Construction of the project is expected to begin in October 2026.

<i>Sites Reservoir Project Schedule:</i>	<i>Completion Date</i>
Golden Gate Dam Value Engineering	Spring 2025
Coordinated Operations Agreement with Reclamation & DWR	March 2025
Other Agreements	Summer 2025
30% Design Cost Estimate (Class 3)	April 2025
Water Right Permits	August 2025
B&O Contract Execution by Project Participants	Oct. 2025 – Mar. 2026
Final Design	Summer 2026
401 Certifications and 404 Permits Issued	October 2026
Construction Groundbreaking	October 2026
Construction Complete	September 2032
Start-up Complete	December 2032

FISCAL IMPACTS:

Based on the current feasibility level cost estimate for the Sites Reservoir Project, IRWD's share of the capital cost would be \$17.2 million. IRWD would not be participating in Sites Authority financing of the project.

ENVIRONMENTAL COMPLIANCE:

The Sites Reservoir Authority is the lead agency under the California Environmental Quality Act (CEQA) for the Final Environmental Impact Report (EIR) for the Sites Reservoir Project. The Sites Authority prepared a Final EIR/Environmental Impact Statement (EIS) jointly with the Bureau of Reclamation, which is the lead agency under the National Environmental Policy Act. In July 2023, Governor Newsom signed a legislative package that streamlined the challenge process under CEQA to help fast-track approved projects. Subsequently, the governor and the legislature approved streamlining for the Sites Reservoir Project. In November 2023, the Sites Authority Board approved the project and certified the Final EIR. The certification was challenged in the Superior Court of Yolo County by several environmental organizations. In May 2024, the Superior Court issued an order denying all claims in the case. The decision was then appealed to the Third District Court of Appeal. In September 2024 the appellate court released an opinion upholding the decision by the Superior Court. The Department of Interior is expected to issue a Record of Decision for the Final EIS in March 2025. IRWD would need to adopt the Final EIR/EIS as a responsible agency prior to execution of the B&O Contract.

RECOMMENDATION:

Receive and file.

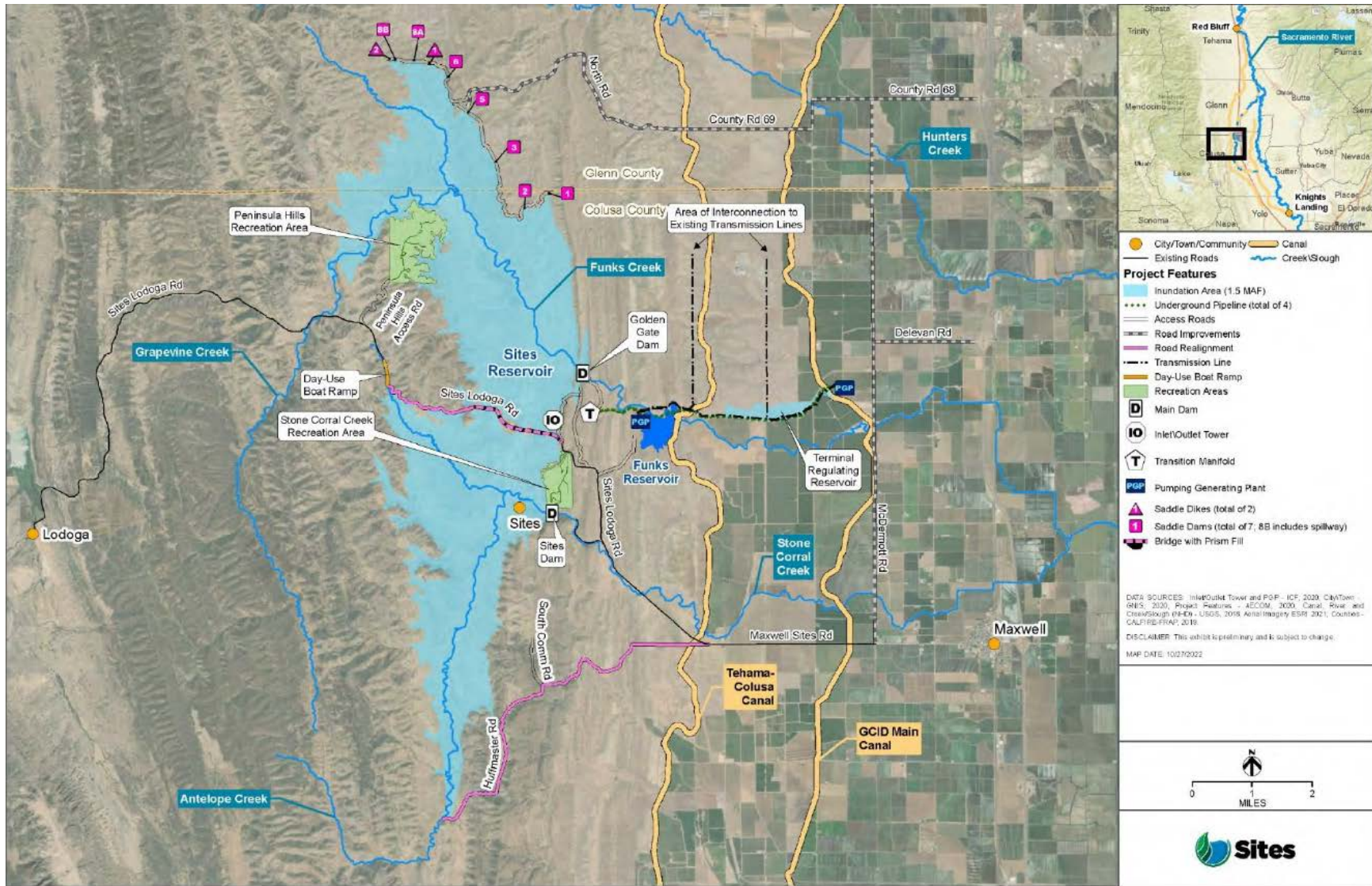
LIST OF EXHIBITS:

Exhibit "A" – Project Location and Facilities Map

Exhibit "B" – Project Participant Allocation of Available Storage

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Exhibit "A"



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Exhibit "B"

Table 1

Allocation of Available Storage				
Entity	Amendment 3 Participation Level	Percent	Amendment 3 Storage Allocation	Percent
	(AF)	(%)	(AF)	(%)
Antelope Valley-East Kern Water Agency	500	0.30%	3,117	0.2%
City of American Canyon	4,000	2.40%	24,936	1.8%
Coachella Valley Water District	10,000	6.01%	62,340	4.4%
Colusa County	10,000	6.01%	62,340	4.4%
Colusa County Water District	9,256	5.56%	57,702	4.1%
Cortina Water District	450	0.27%	2,805	0.2%
Davis Water District	2,000	1.20%	12,468	0.9%
Desert Water Agency	6,500	3.90%	40,521	2.9%
Dunnigan Water District	2,972	1.78%	18,527	1.3%
Glenn-Colusa Irrigation District	5,000	3.00%	31,170	2.2%
Irvine Ranch Water District	1,000	0.60%	6,234	0.4%
La Grande Water District	1,000	0.60%	6,234	0.4%
Metropolitan Water District of Southern California	50,000	30.03%	311,700	22.1%
Reclamation District 108	4,000	2.40%	24,936	1.8%
Rosedale-Rio Bravo Water Storage District	500	0.30%	3,117	0.2%
San Bernardino Valley Municipal Water District	21,400	12.85%	133,408	9.5%
San Geronio Pass Water Agency	14,000	8.41%	87,276	6.2%
Santa Clara Valley Water District	500	0.30%	3,117	0.2%
Santa Clarita Valley Water Agency	5,000	3.00%	31,170	2.2%
Westside Water District	5,375	3.23%	33,508	2.4%
Wheeler Ridge-Maricopa Water Storage District	3,050	1.83%	19,014	1.3%
Zone 7 Water Agency	10,000	6.01%	62,340	4.4%
Total	166,503	100.00%	1,037,980	73.6%
State			244,000	17.3%
Federal			128,020	9.1%
Total			372,020	26.4%
Grand Total	166,503	100.0%	1,410,000	100.0%

Notes:

1. Participation (AF of yield) is used primarily as the basis of local agency participation and allocation of local cost share of planning/development costs
2. The storage allocation for the State of California and Bureau of Reclamation are estimated as placeholders and will be determined at a later date. The storage allocations for local project participants are estimates until federal and state participation is finalized.

Analysis as of 05-10-2023

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