

AGENDA  
IRVINE RANCH WATER DISTRICT  
SUPPLY RELIABILITY PROGRAMS COMMITTEE  
THURSDAY, OCTOBER 19, 2023

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=mbba8c62df820b4264a862a0d7b1c64cc>  
Meeting Number (Access Code): 2485 626 3174  
Meeting Password: 7XBrUyye8J2

*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: Steve LaMar     \_\_\_\_\_

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](mailto:comments@irwd.com) before 5:00 p.m. on October 18, 2023.

---

**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.

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

Recommendation: Receive and file.

---

**OTHER BUSINESS**

---

7. CLOSED SESSION CONFERENCE WITH REAL PROPERTY NEGOTIATORS – Government Code Sec. 54956.8 – Related to Potential Purchase of Rights to Water in the proposed Sites Reservoir.

*IRWD negotiators:* Paul Cook, General Manager and Paul Weghorst, Executive Director of Water Policy.

*Negotiating parties:* Site Reservoir Authority.

*Under negotiation:* Price and terms of payment of acquisition of rights to water.

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

9. Directors’ Comments


10. 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.

October 19, 2023

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 an update on IRWD's actual and forecasted monthly recharge operations for 2023.

#### 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 monthly recharge operations for calendar year 2023 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, 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.

The California Department of Water Resources (DWR) template agreements authorizing delivery of Central Coast Water Authority (CCWA) and Antelope Valley-East Kern Agency (AVEK) water to the IRWD Water Bank were approved end of September. Changes shown in red on Exhibits "B" and "C" depict deliveries of water from CCWA and AVEK as well as from Dudley Ridge Water District. The deliveries for Dudley Ridge were made consistent with the existing 1-for-1 exchange program. The values reported in Exhibits "B" and "C" include deliveries that were made to the temporary recharge facilities on the West Enos property. Deliveries to the Kern Water Bank have yet to be reported and will be available in early 2024.

#### Summary of Programs:

A table summarizing IRWD's water purchase and exchange programs is presented as Exhibit "D." This table lists each 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 State Water Project (SWP) and non-SWP water has changed annually in the Strand and Stockdale Integrated Banking Projects. Exhibit "E" has been revised to depict 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 for IRWD's 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, Dudley Ridge, Metropolitan, and 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 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 2023 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 2023 operations once all invoices have been received from Rosedale-Rio Bravo Water District for the recharge of the various supplies.

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". The benefits to IRWD are foundational to the success of IRWD's water banking project and programs.

2023 Actual and Forecasted Water Recharge Activities:

Exhibit "S" depicts actual and forecasted recharge operations for 2023. IRWD's annual contractual recharge limit of 17,500 AF on the Strand Ranch was reached in June. IRWD deliveries continue to the Stockdale West at a rate of 20 cfs, or approximately 40 AF per day. Water deliveries to the temporary recharge facilities on the West Enos property are currently estimated at a rate of 30 cfs, or approximately 60 AF per day. Half of this capacity is for the benefit of IRWD with approximately 30 AF per day being recharged for IRWD on the West Enos property. Staff estimates that, through the end of October 2023, 37,341 AF will have been delivered for recharge at the Strand and Stockdale facilities with 24,391 AF being available for use in IRWD's service area.

*Operations Through Remainder of Year:*

Cross Valley Capacity (CVC) capacity constraints have not limited IRWD's ability to accept deliveries to both the Stockdale West and West Enos facilities. Should constraints occur before the end of the year, IRWD can exercise the use of Homer LLC's CVC capacity under the Amended 2023 Pilot Water Management Program. Throughout the remainder of the year, all IRWD recharge capacity will be dedicated to deliveries of water from AVEK.

*Water Supply Conditions:*

Deliveries to IRWD's Water Bank in 2023 reflect the wet-year conditions in the State of California. At the Committee meeting staff will present an update on water supply conditions including the Colorado River, SWP, Central Valley Project, and Kern River systems.

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
- Exhibit “S” – Actual and Forecasted 2023 Recharge Operations

# Exhibit "A"

**TABLE 1**  
**Current and Anticipated Water Banking Projects**  
**Recharge, Storage and Recovery Capacities**  
 October 19, 2023

WATER BANKING PROJECT	OWNERSHIP AND WELL INFO		ALLOCATED CAPACITY (AF)					1 <sup>ST</sup> PRIORITY RECOVERY CONDITIONS (CFS)		2 <sup>ND</sup> PRIORITY RECOVERY CONDITIONS (CFS)	
	IRWD OWNED	WELLS EXISTING	TOTAL STORAGE CAPACITY	ANNUAL RECHARGE 1 <sup>ST</sup> PRIORITY	ANNUAL RECHARGE 2 <sup>ND</sup> PRIORITY	ANNUAL RECOVERY 1 <sup>ST</sup> PRIORITY	ANNUAL RECOVERY 2 <sup>ND</sup> PRIORITY	RECOVERY CAPACITY AS PLANNED <sup>1</sup>	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 <sup>2</sup>	No	-	50,000	-	-	-	-	-	-	-	-
Drought Relief Project Wells <sup>2</sup>	No	3	-	-	-	-	-	15.0	16.5	-	-
Kern Water Bank Storage Account <sup>4</sup>	No	-	9,495	3,200	-	1,520	<5,000	-	-	-	-
<b>TOTALS</b>		<b>15</b>	<b>135,495</b>	<b>47,800</b>	<b>19,000</b>	<b>30,270</b>	<b>12,500</b>	<b>70.0</b>	<b>48.6</b>	<b>10.0</b>	<b>9.0</b>
Partner Capacities <sup>3</sup>			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	-	-
<b>TOTALS (AF)</b>								<b>17,900</b>	<b>15,733</b>	<b>-</b>	<b>-</b>
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	
<sup>1</sup> 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. <sup>2</sup> IRWD has use of Acquired Storage and Drought Relief Project wells until January 12, 2039, unless the term of the agreement is extended. <sup>3</sup> One half of storage capacity at Stockdale West and Strand Ranch will be allocated for partners. <sup>4</sup> 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.											

Note: This page is intentionally left blank.



# Exhibit "B"

TABLE 2

**IRWD's Water Banking Storage, Recharge and Recovery Operations - BEFORE LOSSES**

October 19, 2023

TRANSACTIONS	WATER BANKING ENTITY						TOTAL BY WATER TYPE AND STORAGE LOCATION
	IRWD		BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	ANTELOPE VALLEY-EAST KERN (AVEK)	DUDLEY RIDGE WATER DISTRICT (DRWD) <sup>3</sup>	
	SWP <sup>1</sup>	NON-SWP <sup>2</sup>	NON-SWP	SWP	SWP	SWP	
<b>BEGINNING WATER IN STORAGE 2022 (AF)</b>							
Total Kern Water Bank <sup>4</sup>	-	3,848	-	-	-	-	3,848
Total MWD System	8,062	-	-	-	-	-	8,062
Total Kern County	5,234	14,416	-	-	-	-	19,650
Total DRWD 1-for-1 Long Term Exchange Credit <sup>5</sup>	11,000	-	-	-	-	-	11,000
<b>TOTAL STORED WATER (1/1/2022)</b>	<b>24,296</b>	<b>18,264</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>42,560</b>
<b>(RECOVERY) AND RECHARGE IN 2022 (AF)</b>							
KWB Recovery for use on Jackson Ranch <sup>6</sup>	-	(84)	-	-	-	-	(84)
2022 SWP Allocation (5%)	44	-	-	-	-	43	87
2019 Reserve Water	76	225	225	-	-	-	526
Kern River Water	-	(5,000)	-	-	-	-	(5,000)
DRWD 1-for-1 Long Term Exchange Credit	5,500	-	-	-	-	-	5,500
Recovery of Banked SWP Water for MWD	(3,927)	-	-	-	-	-	(3,927)
MWD Credit for SWP Water	3,927	-	-	-	-	-	3,927
<b>TOTAL 2022 TRANSACTIONS</b>	<b>5,620</b>	<b>(4,859)</b>	<b>225</b>	<b>-</b>	<b>-</b>	<b>43</b>	<b>1,029</b>
Total Kern Water Bank <sup>9</sup>	-	3,764	-	-	-	-	3,764
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	16,500	-	-	-	-	-	16,500
<b>TOTAL STORED WATER (1/1/2023)</b>	<b>29,916</b>	<b>13,405</b>	<b>225</b>	<b>-</b>	<b>-</b>	<b>43</b>	<b>43,589</b>
<b>(RECOVERY) AND RECHARGE IN 2023 (AF)</b>							
KWB Recovery for use on Jackson Ranch <sup>6</sup> Est.	-	(235)	-	-	-	-	(235)
2023 SWP Allocation (100%) <sup>3</sup>	875	-	-	-	-	874	1,749
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.	435	-	-	-	434	-	869
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	11,441	-	-	-	-	-	11,441
<b>TOTAL ESTIMATED 2023 TRANSACTIONS</b>	<b>12,976</b>	<b>10,765</b>	<b>11,000</b>	<b>225</b>	<b>434</b>	<b>874</b>	<b>36,274</b>
<b>ESTIMATED WATER IN STORAGE 2023 (AF)</b>							
Total Kern Water Bank	-	3,529	-	-	-	-	3,529
Total MWD System	12,033	-	-	-	-	43	12,076
Total Kern County	14,359	20,641	11,225	225	434	874	47,758
Total DRWD 1-for-1 Long Term Exchange Credit	5,059	-	-	-	-	-	5,059
<b>TOTAL ESTIMATED STORED WATER TO DATE</b>	<b>31,451</b>	<b>24,170</b>	<b>11,225</b>	<b>225</b>	<b>434</b>	<b>917</b>	<b>68,422</b>

**NOTES:** MWD = Metropolitan Water District of Southern California.

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

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

<sup>3</sup> 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. MWD will not take delivery of IRWD's 2023 SWP Allocation.

<sup>4</sup> 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.

<sup>5</sup> 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.

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

Note: This page is intentionally left blank.

# Exhibit "C"

**TABLE 3**  
**IRWD's Water Banking Storage, Recharge and Recovery Operations - AFTER LOSSES**  
 October 19, 2023

TRANSACTIONS	WATER BANKING ENTITY						TOTAL BY WATER TYPE AND STORAGE LOCATION
	IRWD		BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	ANTELOPE VALLEY-EAST KERN (AVEK)	DUDLEY RIDGE WATER DISTRICT (DRWD) <sup>3</sup>	
	SWP <sup>1</sup>	NON-SWP <sup>2</sup>	NON-SWP	SWP	SWP	SWP	
<b>BEGINNING WATER IN STORAGE 2022 (AF)</b>							
Total Kern Water Bank <sup>4</sup>	-	3,848	-	-	-	-	3,848
Total MWD System	8,062	-	-	-	-	-	8,062
Total Kern County	4,199	10,492	-	-	-	-	14,691
Total DRWD 1-for-1 Long Term Exchange Credit <sup>5</sup>	10,000	-	-	-	-	-	10,000
<b>TOTAL STORED WATER (1/1/2022)</b>	<b>22,261</b>	<b>14,340</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>36,601</b>
<b>(RECOVERY) AND RECHARGE IN 2022 (AF)</b>							
KWB Recovery for use on Jackson Ranch <sup>6</sup>	-	(84)	-	-	-	-	(84)
2022 SWP Allocation (5%)	44	-	-	-	-	43	87
2019 Reserve Water	72	213	225	-	-	-	510
Kern River Water	-	(5,000)	-	-	-	-	(5,000)
DRWD 1-for-1 Long Term Exchange Credit	5,000	-	-	-	-	-	5,000
Recovery of Banked SWP Water for MWD	(3,927)	-	-	-	-	-	(3,927)
MWD Credit for SWP Water	3,927	-	-	-	-	-	3,927
<b>TOTAL 2022 TRANSACTIONS</b>	<b>5,116</b>	<b>(4,871)</b>	<b>225</b>	<b>-</b>	<b>-</b>	<b>43</b>	<b>513</b>
Total Kern Water Bank	-	3,764	-	-	-	-	3,764
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	15,000	-	-	-	-	-	15,000
<b>TOTAL STORED WATER (1/1/2023)</b>	<b>27,377</b>	<b>9,469</b>	<b>225</b>	<b>-</b>	<b>-</b>	<b>43</b>	<b>37,114</b>
<b>(RECOVERY) AND RECHARGE IN 2023 (AF)</b>							
KWB Recovery for use on Jackson Ranch <sup>6</sup> Est.	-	(235)	-	-	-	-	(235)
2023 SWP Allocation (100%) <sup>3</sup>	750	-	-	-	-	749	1,499
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.	373	-	-	-	372	-	745
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	9,808	-	-	-	-	-	9,808
<b>TOTAL ESTIMATED 2023 TRANSACTIONS</b>	<b>11,124</b>	<b>9,195</b>	<b>9,926</b>	<b>193</b>	<b>372</b>	<b>749</b>	<b>31,559</b>
<b>ESTIMATED WATER IN STORAGE 2023 (AF)</b>							
Total Kern Water Bank	-	3,529	-	-	-	-	3,529
Total MWD System	12,033	-	-	-	-	43	12,076
Total Kern County	11,468	15,135	10,151	193	372	749	38,068
Total DRWD 1-for-1 Long Term Exchange Credit	5,192	-	-	-	-	-	5,192
<b>TOTAL ESTIMATED STORED WATER TO DATE</b>	<b>28,693</b>	<b>18,664</b>	<b>10,151</b>	<b>193</b>	<b>372</b>	<b>792</b>	<b>58,865</b>

**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.

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

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

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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.

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

Note: This page is intentionally left blank.

# Exhibit "D"

**TABLE 4**  
**Status of IRWD Purchase and Exchange Programs (AFTER LOSSES)**  
 October 19, 2023

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)	STORIED 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 <sup>1</sup>	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 <sup>2</sup>	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	1,875	1,055	819			1,875	1,875		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 <sup>3</sup> (SWPAO #19001)	1-for-1	2017	Long-Term	SWP Table A	NA	NA	9,808		8,816	992		9,808	15,000				No
				Credit	NA	NA	5,192			5,192	5,192					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 <sup>1</sup>	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	372	372	373		131	242		373	373				No
<b>Total:</b>					<b>44,991</b>	<b>11,508</b>	<b>65,268</b>	<b>12,033</b>	<b>24,708</b>	<b>1,895</b>	<b>5,192</b>	<b>43,828</b>	<b>28,443</b>	<b>15,385</b>	<b>792</b>	<b>NA</b>	

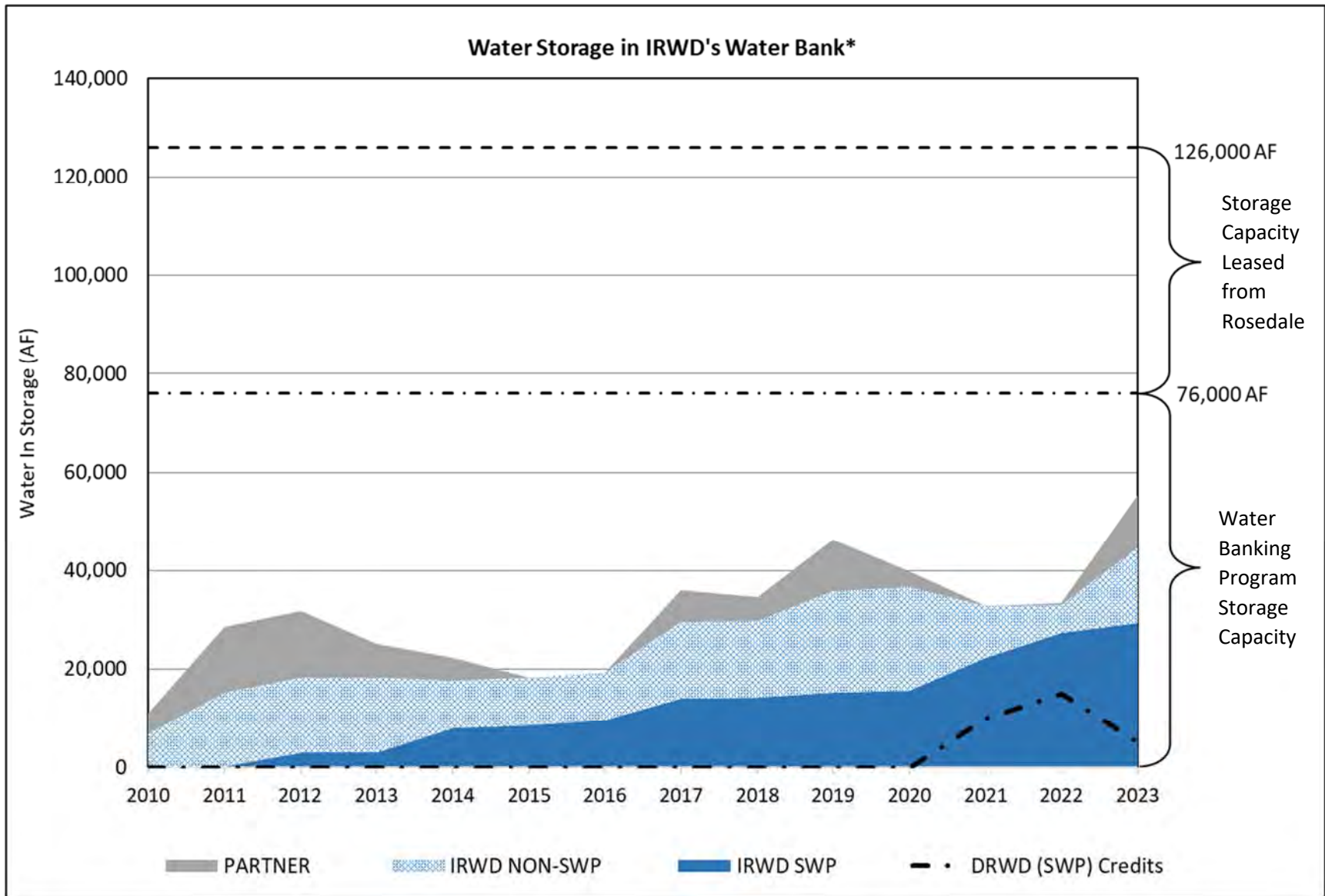
<sup>1</sup> Water acquired through BVWSD will be exportable after it is exchanged for SWP Table A through 1-for-1 exchange with Dudley Ridge Water District.

<sup>2</sup> Source of water was Buena Vista Water Storage District Kern River high flow water.

<sup>3</sup> 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.

Note: This page is intentionally left blank.

# Exhibit "E"



\*After losses

Note: This page is intentionally left blank.



# Exhibit "F"

## TABLE 5

### IRWD Dedicated Water Banking Capacities for Existing and Proposed Exchange Programs

October 19, 2023

#### 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

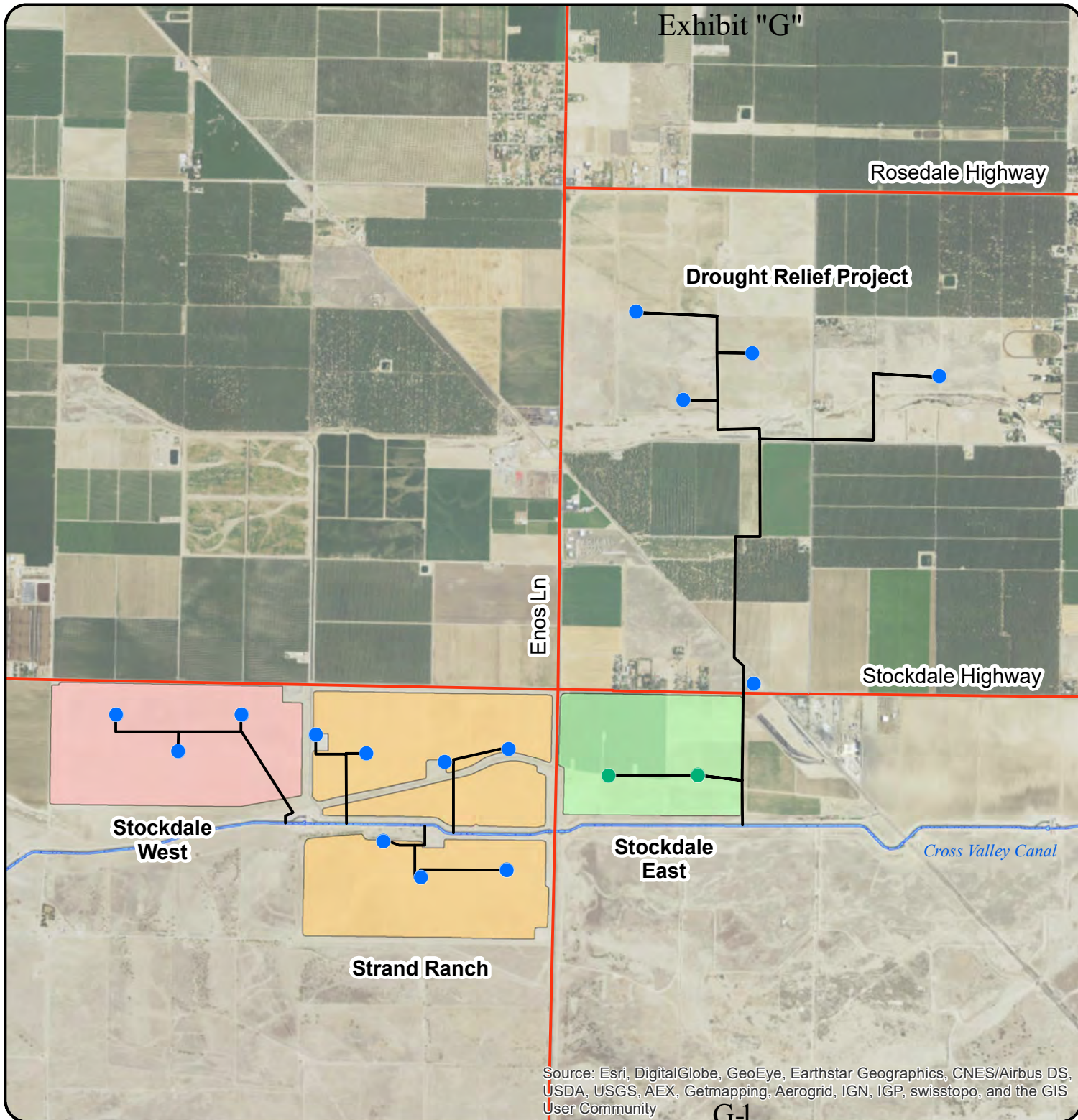
Program Partner	Dedicated Recovery Capacity Strand Ranch (AF)	Dedicated Recovery Capacity Stockdale West (AF)	Dedicated Recovery Capacity Leased Storage Account (AF)	Kern Water Bank Recovery Capacity (AF)
Total Capacity	17,500	11,250	-	1,520
BVWSD	6,667	-	-	-
DRWD	-	-	-	-
AVEK	-	3,333	-	-
IRWD	10,833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

Note: This page is intentionally left blank.

# Exhibit "G"



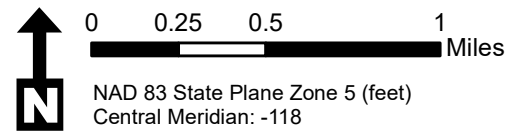
## Location Map: IRWD Water Banking Projects Wells and Turnin Pipelines



**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.

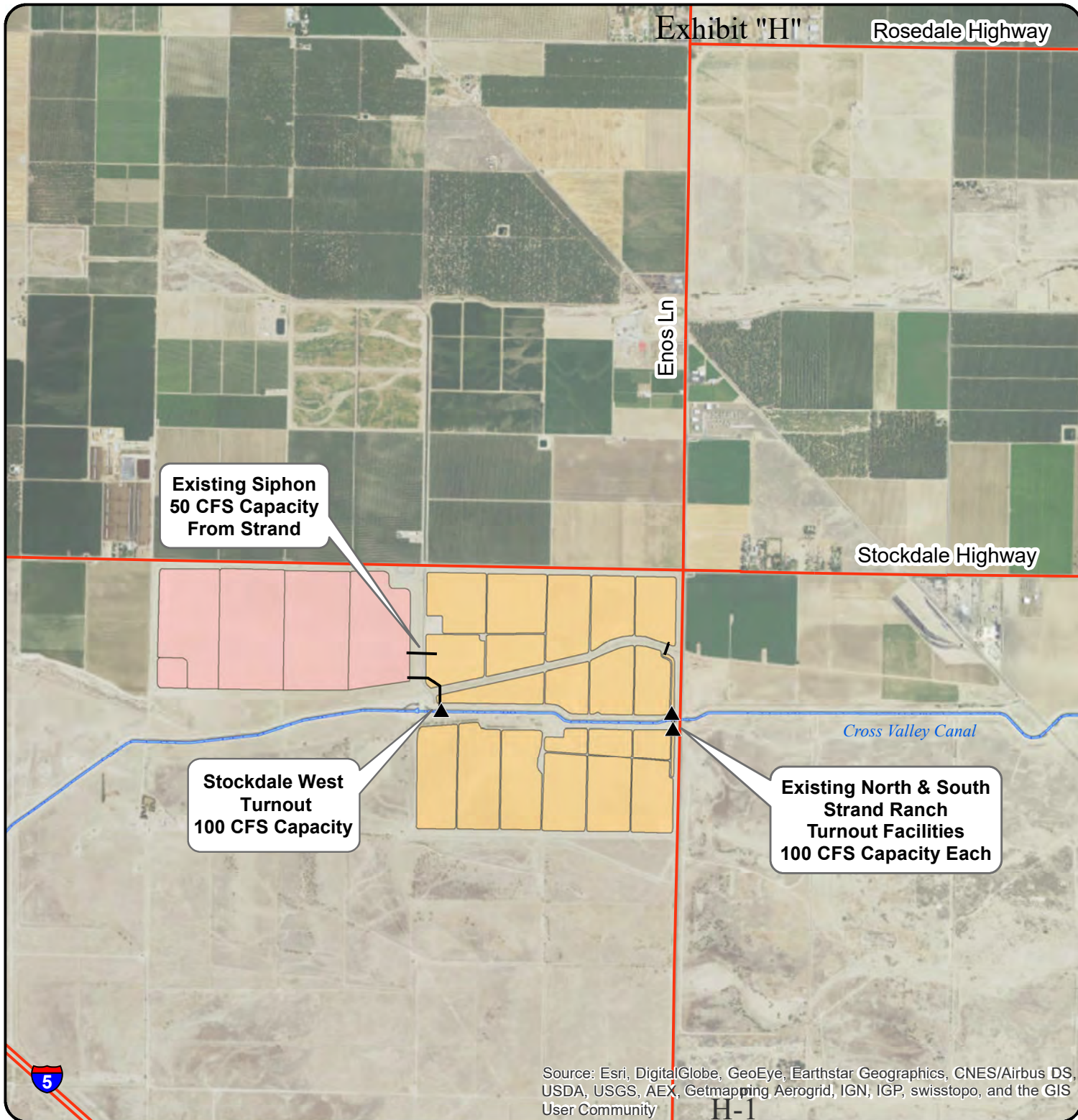


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Note: This page is intentionally left blank.



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



**Existing Siphon  
50 CFS Capacity  
From Strand**

**Stockdale West  
Turnout  
100 CFS Capacity**

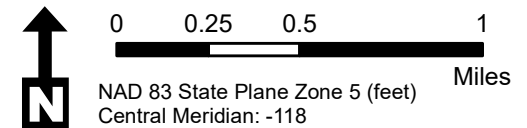
**Existing North & South  
Strand Ranch  
Turnout Facilities  
100 CFS Capacity Each**

**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



Note: This page is intentionally left blank.



### Location Map: IRWD Water Banking Projects Recharge Rates

Stockdale West  
0.15 feet/day  
20 CFS

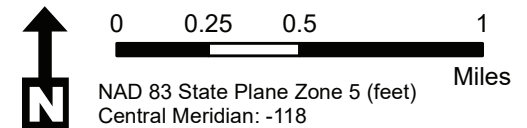
Strand Ranch North  
0.36 feet/day  
50 CFS

Strand Ranch South  
0.21 feet/day  
25 CFS

#### MAP FEATURES

- ▲ Turnouts
- Stockdale West
- Strand Ranch

This figure shows the location of recharge basins and their associated recharge rates as of August 22, 2023



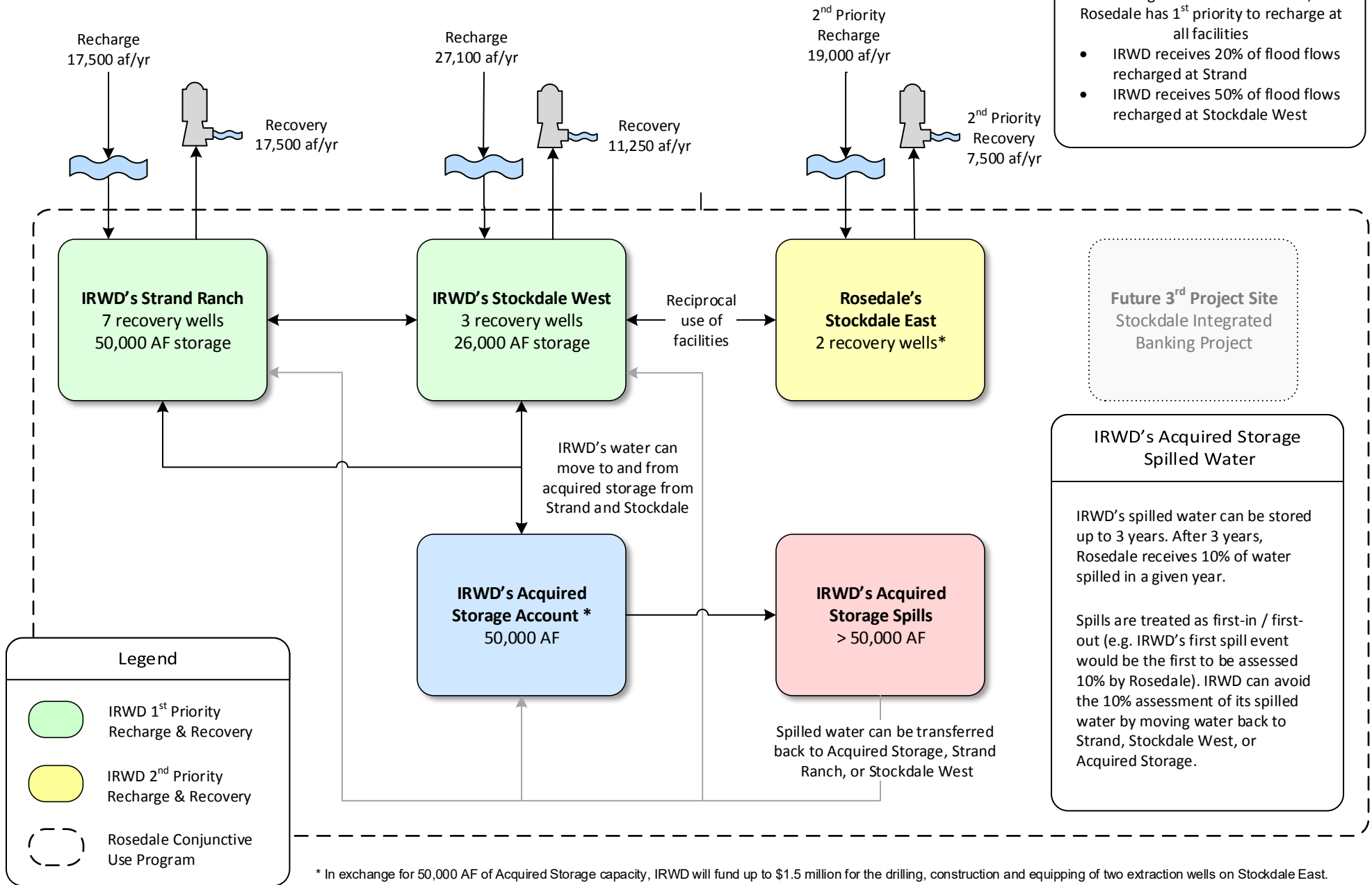
Note: This page is intentionally left blank.



# 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)



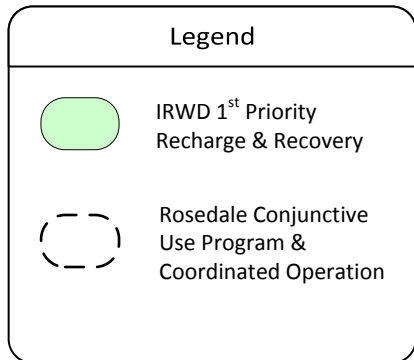
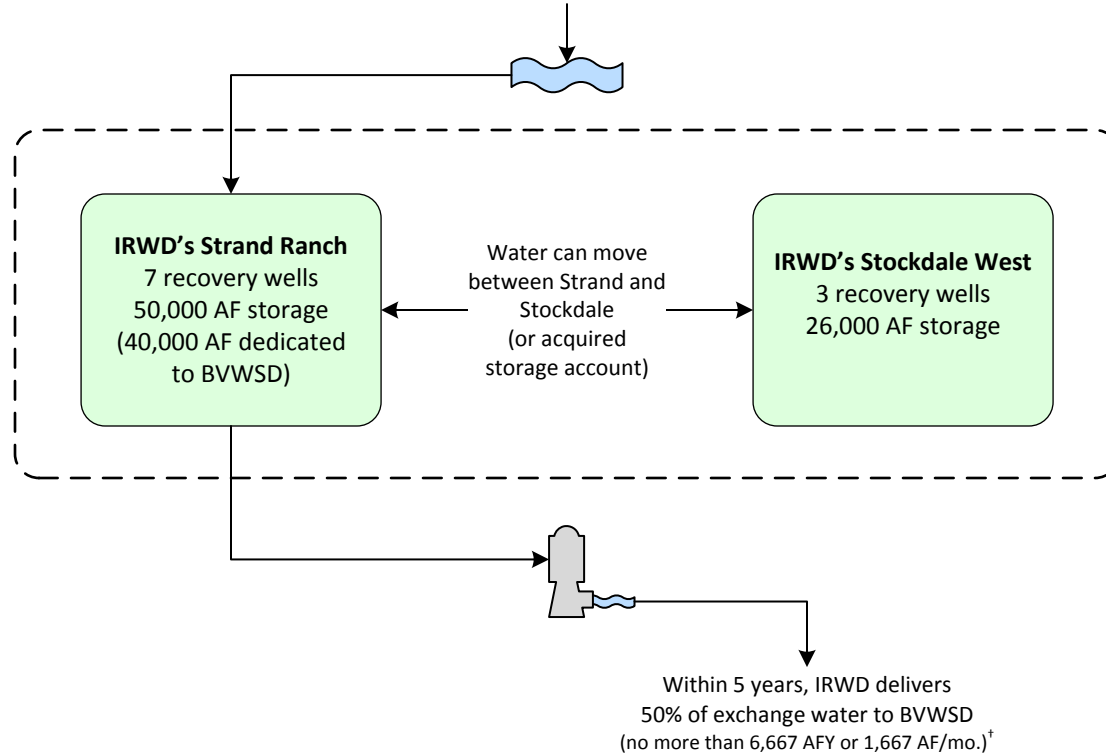
Note: This page is intentionally left blank.

# 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.)



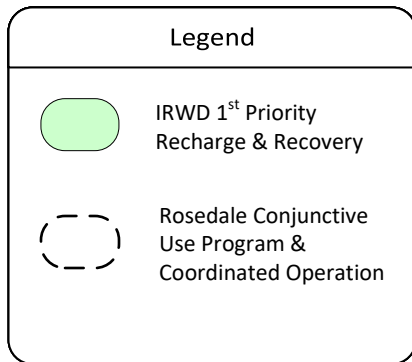
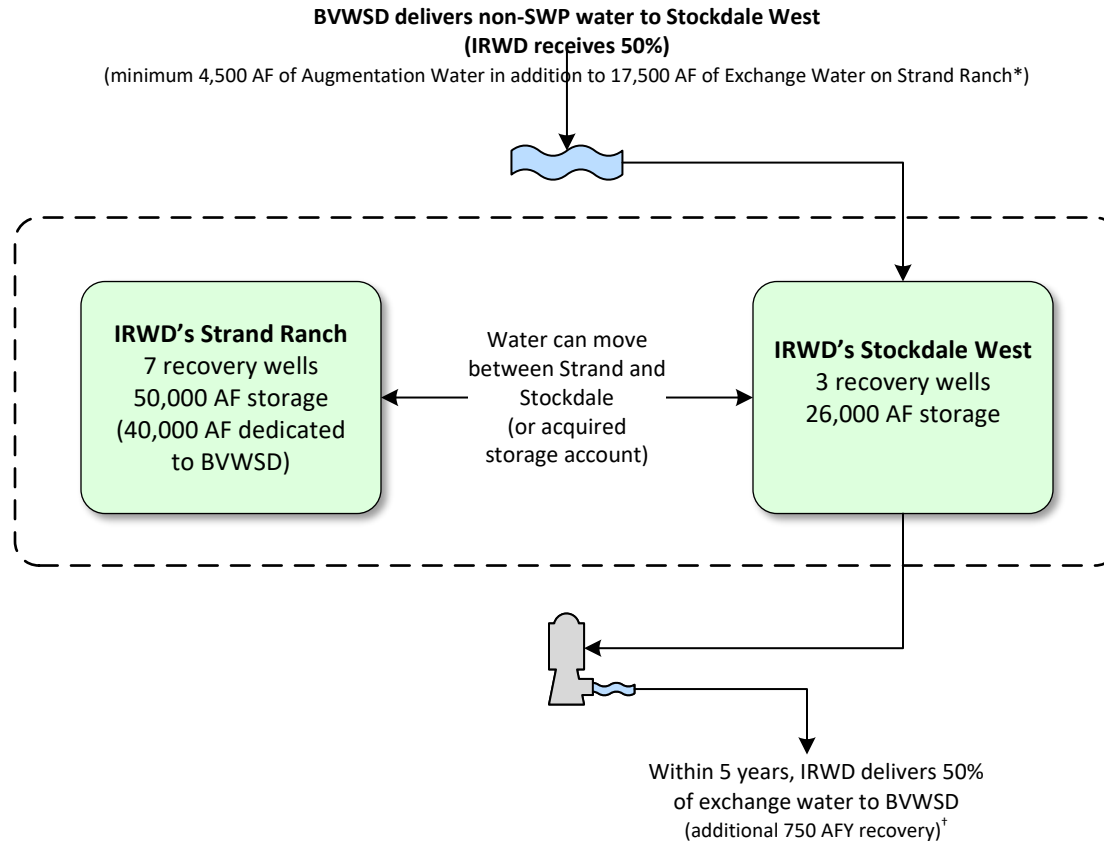
<sup>†</sup>IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31<sup>st</sup> of the 4<sup>th</sup> year following the associated recharge event. IRWD pays for recovery of water returned to BV. Water to be remitted back to BV may remain in storage at Strand Ranch beyond the 4<sup>th</sup> 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 "K"

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

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



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

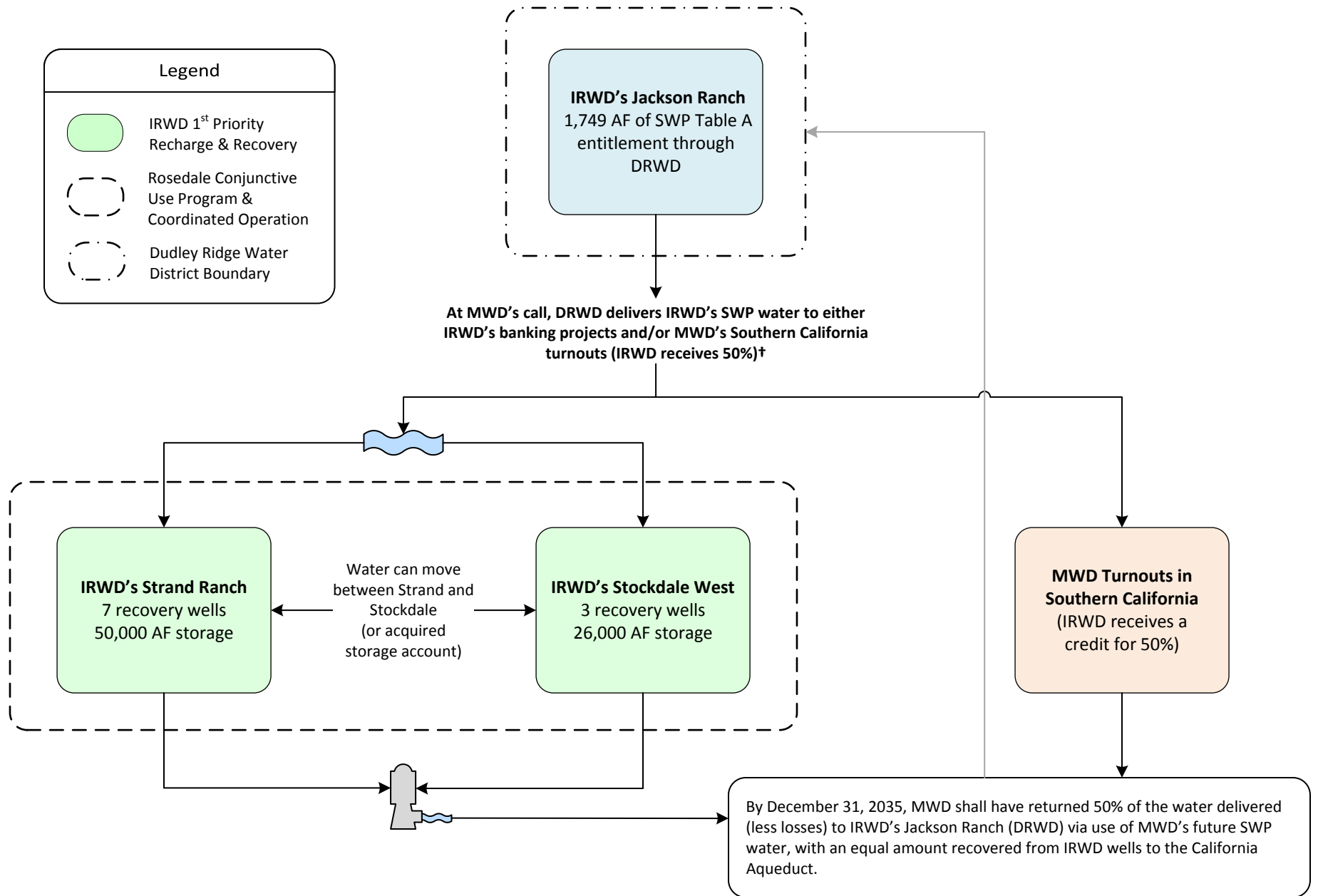
<sup>†</sup>IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31<sup>st</sup> of the 4<sup>th</sup> year following the associated recharge event. BV pays for recovery of its share of Augmentation Water. Water to be remitted back to BV may remain in storage at Strand Ranch beyond the 4<sup>th</sup> 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



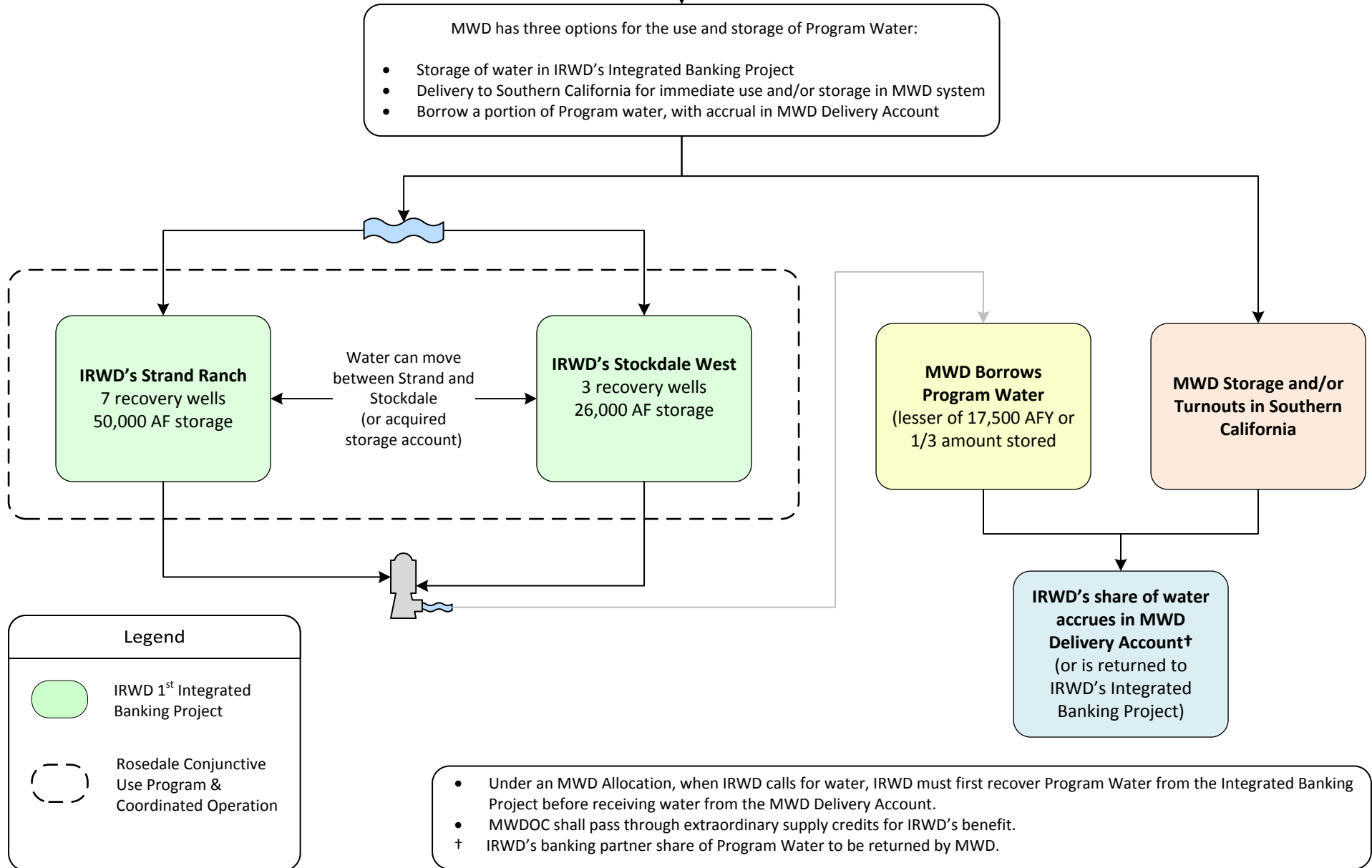
†Consistent with IRWD-MWD coordinated operating agreement.

Note: This page is intentionally left blank.

# 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

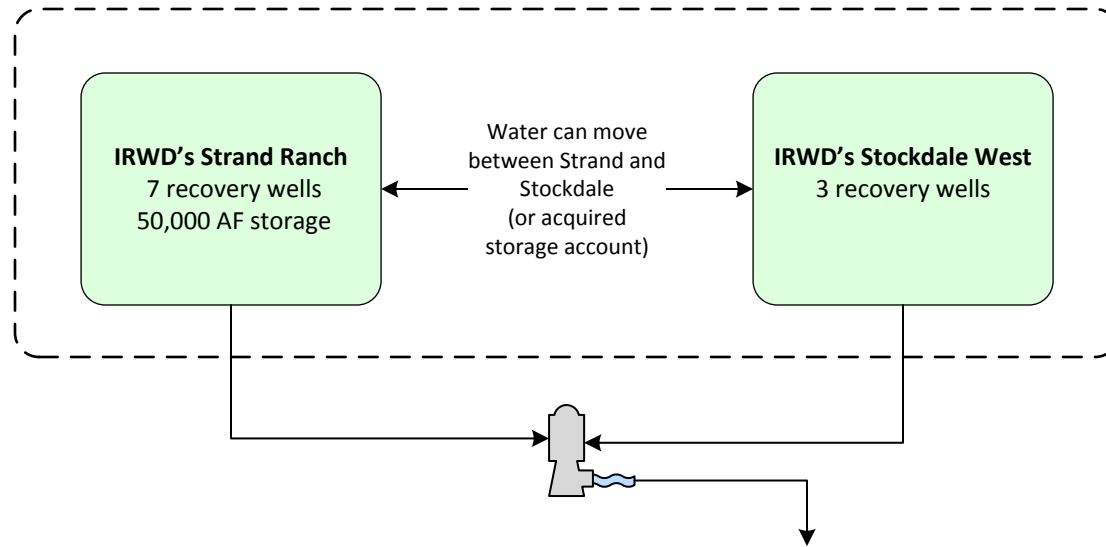


Note: This page is intentionally left blank.

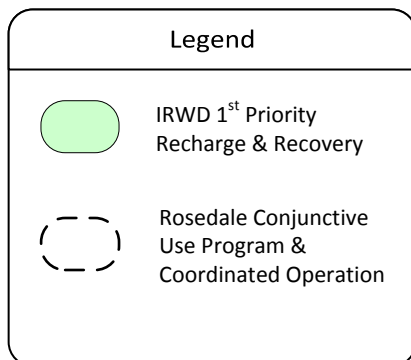


# Exhibit "N"

## 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.

Note: This page is intentionally left blank.

# Exhibit "O"

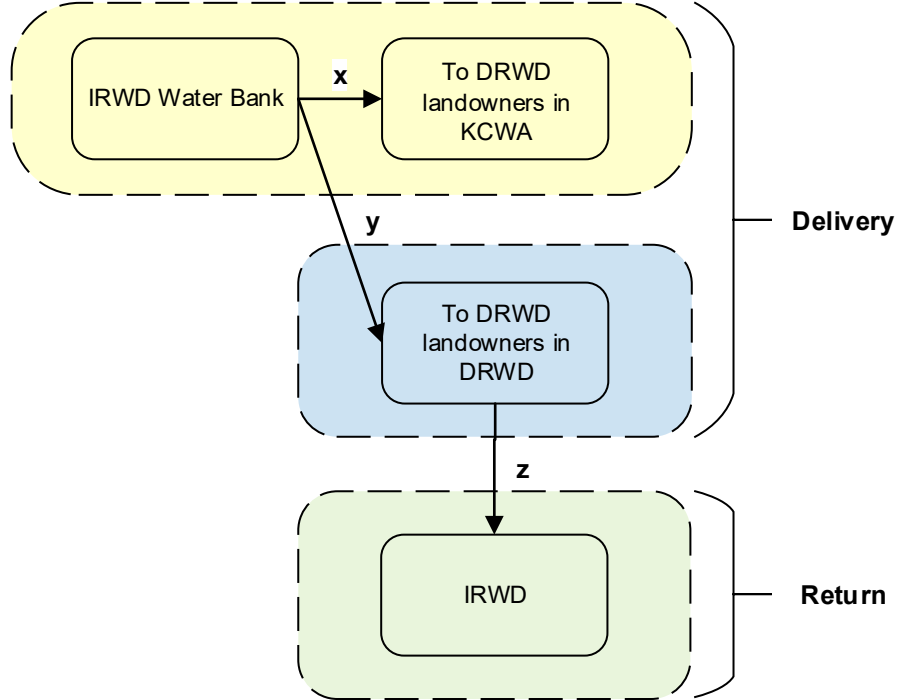
## Dudley Ridge Water District Long Term 1-for-1 Water Exchange Program Effective 5/31/2017 through 11/4/2035

**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

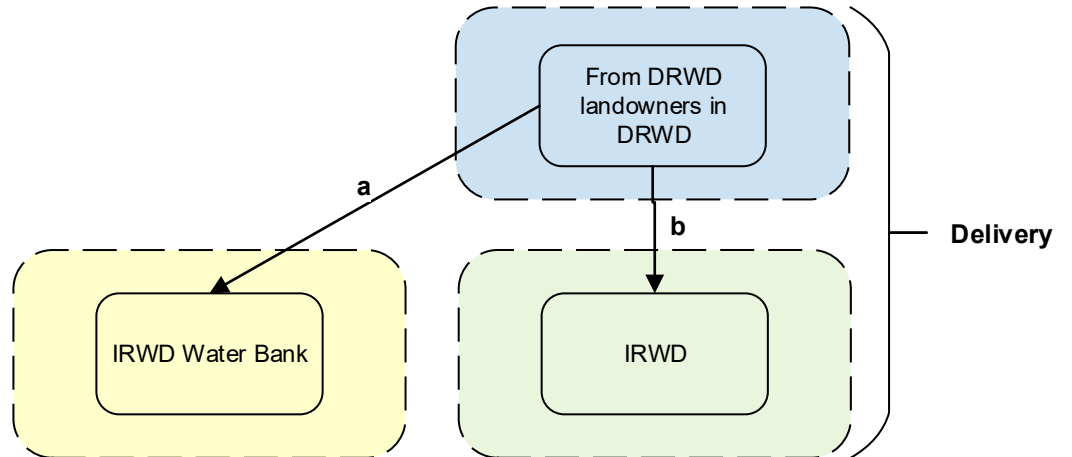
Per Section 4.1.3, z can be delivered to IRWD via in-ground transfer to IRWD, SWP delivery to IRWD banking facilities, or SWP delivery to MWDSC



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

---

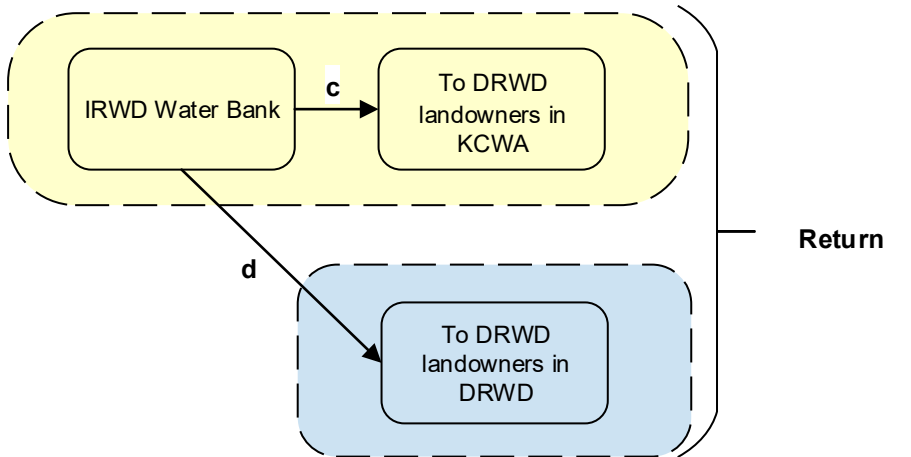
$a + b = c + d$   
(less applicable losses, if any)



**Legend**

---

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

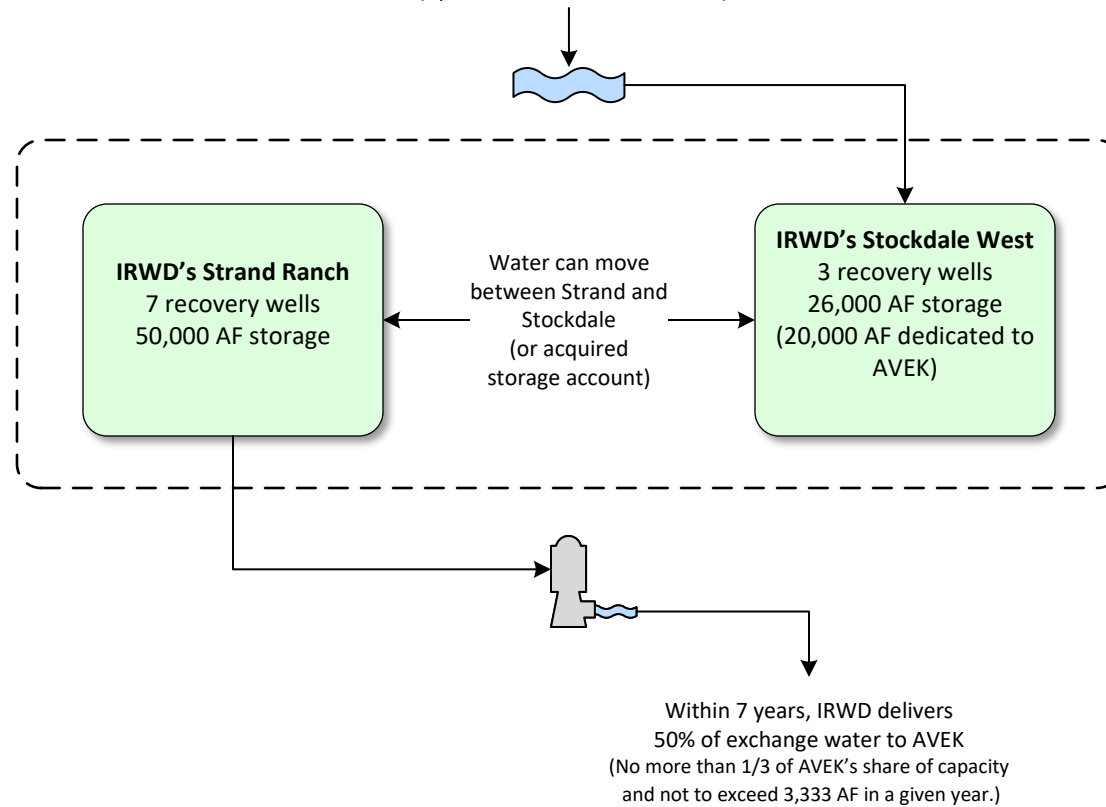




Note: This page is intentionally left blank.

# 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 <sup>st</sup> 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 31<sup>st</sup> of the 7<sup>th</sup> year, following the associated recharge event.

Note: This page is intentionally left blank.

# Exhibit "Q"

**TABLE 6**  
**IRWD Water Banking Program Costs of Water Summary**  
 October 19, 2023

Program Partner	Time Period	Water Type	IRWD Amount (AF)	Variable costs <sup>2</sup> (\$/AF) (A)	Fixed Cost Component <sup>3</sup> (\$/AF) (B)	Fixed & Variable (\$/AF) (C)	Capital Component <sup>4</sup> (\$/AF) (D)	Cost of Water (\$/AF) (E)	Estimated Recovery of Water <sup>5</sup> (\$/AF) (F)	2023 MWD Tier 1 Untreated Rate + SAC Surcharge <sup>6</sup> (\$/AF) (G)	Cost of Water in IRWD Service Area (\$/AF) (H)
						<i>A+B</i>		<i>C+D</i>			<i>E+F+G</i>
Buena Vista	2010-2015	Kern River	12,832	\$ 75.98	\$ 48.36	\$124.34	\$ 190.00	\$ 314.34	\$ 120.00	\$ 855.00	\$ 1,289.34
Buena Vista <sup>1</sup>	2017-2021	Kern River	11,256	\$ 159.16	\$ 48.36	\$207.52	\$ 190.00	\$ 397.52	\$ 120.00	\$ 855.00	\$ 1,372.52
AVEK	2012-2014	SWP Table A	2,229	\$ 11.70	\$ 48.36	\$ 60.06	\$ 190.00	\$ 250.06	\$ 120.00	\$ 855.00	\$ 1,225.06
AVEK <sup>7</sup>	2012-2014	SWP Table A	108	\$ 11.70	\$ 48.36	\$ 60.06	\$ 190.00	\$ 250.06	\$ -	\$ 855.00	\$ 1,105.06
Carpinteria	2010-2015	SWP Table A	874	\$ 27.04	\$ 48.36	\$ 75.40	\$ 190.00	\$ 265.40	\$ 120.00	\$ 855.00	\$ 1,240.40
Carpinteria <sup>7</sup>	2010-2015	SWP Table A	31	\$ 27.04	\$ 48.36	\$ 75.40	\$ 190.00	\$ 265.40	\$ -	\$ 855.00	\$ 1,120.40
Central Coast <sup>7</sup>	2017-2021	SWP Table A	556	\$ 30.34	\$ 48.36	\$ 78.70	\$ 190.00	\$ 268.70	\$ -	\$ 855.00	\$ 1,123.70
DRWD <sup>7</sup>	2014-2021	SWP Table A /Article 21	4,452	\$ 362.67	\$ 48.36	\$411.03	\$ 190.00	\$ 601.03	\$ -	\$ 855.00	\$ 1,456.03
<b>Total</b>			<b>32,338</b>								

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

<sup>2</sup> Variable Costs include 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)

<sup>3</sup> 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)

<sup>4</sup> Capital component does not include land costs. Add \$40/AF to include water banking land purchase costs.

<sup>5</sup> Increased PG&E costs for recovering water.

<sup>6</sup> Assumes IRWD would take delivery as extraordinary supply through Irvine Lake to the Baker Water Treatment Plant.

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

Note: This page is intentionally left blank.



## 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)

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/AF<sup>1</sup>).
6. IRWD pays Metropolitan’s melded system power rate – currently \$167/AF, not DWR’s current power costs of \$395/AF<sup>2</sup> (\$228/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 IRWD<sup>3</sup>.
9. IRWD pays Metropolitan’s Full-Service Tier-1 Untreated Rate, which is currently \$799/AF, for deliveries at its service connections allowing IRWD to avoid higher Metropolitan wheeling charges currently estimated at \$856/AF<sup>4</sup>.
10. IRWD only pays once for supply at the current Tier-1 Supply Rate of \$243/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.

---

<sup>1</sup> 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.

<sup>2</sup> Melded system and actual power costs were taken from Metropolitan’s April 2022 Bi-Annual Budget Report and 2022 Cost of Service Study.

<sup>3</sup> 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.

<sup>4</sup> The Coordinated Agreement requires IRWD to pay Metropolitan its Full-Service Tier 1 Rate for exchange deliveries at IRWD service connections. IRWD is expected to take delivery of such deliveries to the Baker Water Treatment Plant. Metropolitan’s current Tier-1 Untreated Rate = \$799/AF. Current Metropolitan wheeling charges of \$856/AF are estimated using Metropolitan’s current System Access Rate (\$389/AF), estimated demand management charge (\$72/AF), and actual power costs (\$395/AF).

## Exhibit “R”

Summary of IRWD’s Coordinated Operating, Water Storage, Exchange and Delivery Agreement with Metropolitan and MWDOC

February 14, 2023

Page 2 of 2

### 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 2023 Recharge Operations- BEFORE LOSSES**  
 October 19, 2023

**Actual and Forecasted Amounts:**

Month	Central Coast (AF)	IRWD Table A (AF)	BV (AF)	DRWD 1:1 (AF)	IRWD Article 21 (AF)	AVEK (AF)	Total (AF)	Status	Expected Recharge (AF)	Expected Recharge Rate (CFS)
March	-	1,312	-	-	-	-	1,312	prelim	1,312	200
April	-	437	7,562	4,068	-	-	12,067	prelim	12,067	203
May	-	-	6,069	2,628	-	-	8,697	prelim	8,697	141
June	-	-	3,869	1,815	-	-	5,684	prelim	5,684	92
West Enos (June)	-	-	356	-	-	-	356	prelim	356	6
July	-	-	1,004	583	-	-	1,587	prelim	1,587	26
West Enos (July)	-	-	264	264	-	-	528	prelim	528	8.6
August	-	-	1,954	-	-	-	1,954	prelim	1,954	31.8
West Enos (Aug)	-	-	922	-	-	-	922	prelim	922	15
September	-	-	-	1,190	-	-	1,190	prelim	1,190	20
West Enos (Sept)	-	-	-	893	-	-	893	prelim	893	15
	-	1,749	22,000	11,441	-	-	35,190		35,190	
October	450	-	-	-	-	780	1,230		1,230	20
West Enos (Oct)	-	-	-	-	-	922	922		922	15
	450	1,749	22,000	11,441	-	1,702	37,341		2,152	35
November	-	-	-	-	-	1,190	1,190		1,190	20
West Enos (Nov)	-	-	-	-	-	893	893		893	15
	450	1,749	22,000	11,441	-	3,785	39,424		2,083	35
December	-	-	-	-	-	1,230	1,230		1,230	20
West Enos (Dec)	-	-	-	-	-	922	922		922	15
	450	1,749	22,000	11,441	-	5,937	41,576		2,152	35
Recharge goal:	450	1,749	17,500	10,000	8,000	10,000	47,699			
Recharge goal with Additional BV:			4,500				52,199			

Note: This page is intentionally left blank.

October 19, 2023  
Prepared by: K. Welch  
Submitted by: F. Sanchez / P. Weghorst  
Approved by: Paul A. Cook 

## 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 1,000 acre-feet (AF) of annual release capacity and 6,234 AF of storage capacity in the project. These capacities would provide IRWD a regulated annual water supply for recharge at the proposed Kern Fan Groundwater Storage Project. The following is a status update on the Sites Project development activities, estimated project capital costs, project schedule, and the development of a Benefits and Obligations Contract that would facilitate IRWD's participation in the construction and operations of the project. At the Committee meeting, staff will provide a presentation of the information provided. In addition, IRWD's special legal counsel will present an overview of key terms of the draft Benefits and Obligations Contract.

#### BACKGROUND:

The Sites Project will provide 1.5 million acre-feet of off-stream 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 Reservoir Authority and capacities in the project will be owned by project participants. A map showing the Sites Project facilities and location is provided as Exhibit "A".

#### IRWD Participation in Sites Project:

IRWD's participation in the Sites Reservoir 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. These capacities would provide IRWD 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 consist of 20 agricultural and urban water agencies participating in the project. The Reservoir Committee participates in all the Sites Authority Board meetings and workshops.

Currently, IRWD has committed to participate in Sites Project planning activities. This commitment was made through the execution of Amendment 3 to the Reservoir Project Agreement (the Amendment 3 Work Plan), which is in effect through December 31, 2024. The Amendment 3 Work Plan includes final project environmental review, obtaining critical permits and water rights, advancing preliminary design and pre-construction work, finalizing federal and state operations agreements, completing right-of-way acquisitions, and securing project financing. Due to project delays related to the water rights permitting process, Sites Project staff expect that the current work plan will be extended to December 31, 2025, without need for additional funding.

Status of Project Development Activities:

The following is an update on important Sites Project development work being performed by the Sites Authority in accordance with the Amendment 3 Work Plan:

*Environmental Review:*

In November 2021, the Sites Authority released a Draft Environmental Impact Report / Environmental Impact Statement (EIR/EIS) for the proposed Sites Project. The public comment period for the EIR/EIS ended in January 2022. Since then, Sites Project staff and environmental consultants have been reviewing and responding to comments received on the document. When considering approval of the project, it is likely that the Sites Authority Board will need to approve a Statement of Overriding Considerations related to significant and unavoidable project impacts to various environmental resources. In considering the significant and unavoidable impacts, the Sites Authority Board will also consider and weigh key project benefits for overriding consideration. These benefits will include improved water supply reliability, ecosystem and fish benefits, and benefits to the local and regional community.

The Final EIR/EIS for the Sites Project is expected to be presented at a public hearing in November 2023 where the Reservoir Committee may recommend that the Sites Authority Board certify and adopt the EIR/EIS as well as approve the project. As a Reservoir Committee member, IRWD should not be subject to liabilities or legal challenges associated with the Sites Authority Board taking action on the item.

*Critical Infrastructure Streamlining:*

On July 5, 2023, Governor Newsom signed an infrastructure-related legislative package intended to accelerate construction timelines on eligible projects, including the Sites Project. The package streamlines the challenge process under the California Environmental Quality Act (CEQA) to help fast-track certified projects. The streamlining provisions include a 270-day judicial review period for CEQA lawsuits, including all appeals, which often take three to four years to complete. To qualify for streamlining, the Sites Authority is completing an administrative record of the Sites Project environmental review process. Once a Final EIR/EIS has been certified for the Sites Project and the administrative record is complete, the project may be found eligible for streamlining upon approval by the Governor. The legislative package also includes various changes to California law to accelerate permitting for critical infrastructure projects if specified conditions are met. With the passage of the streamlining package, the Sites Project is expected to meet critical permitting milestones.

*Obtaining Water Rights Permits:*

The main water supply for the Sites Project will be high flows diverted from the Sacramento River. These diversions will occur during times when the Delta is in excess conditions and all senior downstream water rights have been met. In May 2022, the Sites Authority filed with the State Water Resources Control Board a permit application for water rights in the Sacramento River. Through this application, the Sites Authority is seeking to divert water when the Sacramento River is not fully appropriated during the period of September 1 to June 15. After

the Site Authority's application was submitted, State Board staff requested additional analyses on water supply availability. In response to this request, the Sites Authority submitted an amended permit application in January 2023. The State Board deemed the application complete in May 2023 and the protest period closed in August 2023. Exhibit "B" provides a list of the 15 entities that filed protests to the Sites Project water right permit application. Sites Project staff have been negotiating with various protesters on differences and concerns. Over the next year, the State Board will hold hearings and consider any unresolved protests received on the permit application. Sites Authority staff expect that the State Board will issue an order approving a water right permit by January 2025.

*Other Project Permitting:*

Sites Project staff continue to develop applications for securing Clean Water Act Section 401/404 permits and Master Streambed Alteration Agreements. The applications will not be submitted until after the EIR/EIS is certified. Sites Project staff are also coordinating with the California Department of Fish and Wildlife on development of construction and operations related Incidental Take Permit applications.

*Design Work:*

Sites Project staff and engineering consultants continue to make progress on engineering-related activities including conducting geotechnical investigation, preliminary dam and conveyance designs, and hydraulics analyses. The dam designs are being developed in coordination with the Division of Safety of Dams. The 30% designs for the Sites Project are expected to be complete in the fourth quarter of 2024.

*Development of Coordinated Operating Agreement:*

The operation of Sites Reservoir will be coordinated with the Bureau of Reclamation's operation of the Central Valley Project and the California Department of Water Resources' operation of the State Water Project. Sites Project staff and legal counsel are developing a Coordinated Operating Agreement with input from Reclamation and the Department of Water Resources. Drafts of the agreement are expected to be complete in the first quarter of 2024, concurrent with the signing of the Department of Interior's Record of Decision regarding Reclamation's participation in the Sites Project.

Sites Reservoir Project Costs:

The current feasibility-level capital cost estimate for the Sites Project is approximately \$3.9 billion in 2021 dollars, which would be partially funded through state and federal grants. The remaining capital costs will be allocated to participants based on each participants' share of capacities in the Sites Project as well as which project facilities the participants will be using to take delivery of their water. Based on the feasibility-level estimate, IRWD's share of the capital cost is expected to be approximately \$15.6 million. IRWD's participation will be on a pay-go basis and IRWD will not take part in Sites Project financing.

*Cost Estimate Development:*

Engineering consultants working for the Sites Authority are preparing a Class 3 cost estimate based upon the 30% design. The estimate is expected to include a 30% contingency. The updated capital cost will provide the supporting information needed for project participants to weigh making financial contributions to the construction and operation of the project. Once the new cost estimate is complete, IRWD staff will work to develop a detailed financial and cashflow model for IRWD's continued participation in the project. Staff expects that the new cost estimate will be higher than the \$3.9 billion capital cost currently anticipated for the project.

Sites Reservoir Project Schedule:

The final design process for the Sites Project is expected to begin at the end of the third quarter of 2024, with a 60% design of the two project dams to be completed in the first quarter of 2027. Construction staging, hauling, and stockpiling is scheduled to begin during the second quarter of 2025, with construction work on access roads starting in the first quarter of 2026. Construction of the first saddle dams is expected to start in the first quarter of 2028 and construction of the first of two main dams is expected to begin in early 2029. The overall project construction is expected to be substantially completed in the fourth quarter of 2032. The current Sites Project schedule, including key project milestones, is provided as Exhibit "C". The construction schedule for the project will be updated by the time the Benefits and Obligations Contract (B&O Contract) is available for execution by the project participants.

Benefits and Obligations Contract:

Funding for the construction and operation of the project will be established when project participants commit to making significant financial contributions in return for receiving capacity interests in the project. These commitments will be established through the execution of the B&O Contract between the Sites Authority and the participants. In May 2022, the Sites Authority Board and Reservoir Committee approved Guiding Principles that established preliminary terms for the development of the B&O Contract. The Guiding Principles are provided as Exhibit "D".

*Overview of Guiding Principles:*

The Guiding Principles for the development of the B&O Contract establish that the Sites Project will be implemented through "Beneficiary Pays" principles where project costs will be allocated consistent with the flow of benefits and obligations. The Guiding Principles define the allocation of project benefits, costs, risks, financing obligations, ownership obligations, and the roles and responsibilities of the Sites Authority and the participants. The principles also identify project assets and ownership and provide for the participants' ability to lease storage or to sell water from the Project.

*Contract Development:*

The Sites Authority has been developing the draft B&O Contract based upon the Guiding Principles. Staff and IRWD special legal counsel from Kronick Moskowitz Tiedemann & Girard



have been actively participating in workshops on the development of the draft B&O Contract. A draft of the B&O Contract is expected to be available in mid-2024. Upon completion of the 30% design and Class 3 cost estimate as well as the approval of critical water rights permits, staff expects that the Sites Authority will request participants' approval and execution of the B&O Contract. This is expected to occur in the first quarter of 2025. Upon execution of the contract, the Sites Authority would then proceed with final design and construction of the project.

Staff's presentation of the information provided above is provided as Exhibit "E". At the Committee meeting, special legal counsel will present an overview of key terms of the draft B&O Contract that is under development. Staff recommends that the Committee provide feedback on the key terms presented at the meeting.

#### FISCAL IMPACTS:

Based on the current feasibility level cost estimate for the Sites Project, IRWD's share of the capital cost would be \$15.6 million.

#### ENVIRONMENTAL COMPLIANCE:

The Sites Reservoir Authority released a Draft EIR/EIS for Sites Reservoir Project in November 2021. Comments were received up to January 2022. The Site Authority will consider certifying a Final EIR/EIS and approving the Sites Project in November 2023. 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" – Location Map of the Sites Reservoir Project

Exhibit "B" – List of Sites Project Water Rights Application Protesters

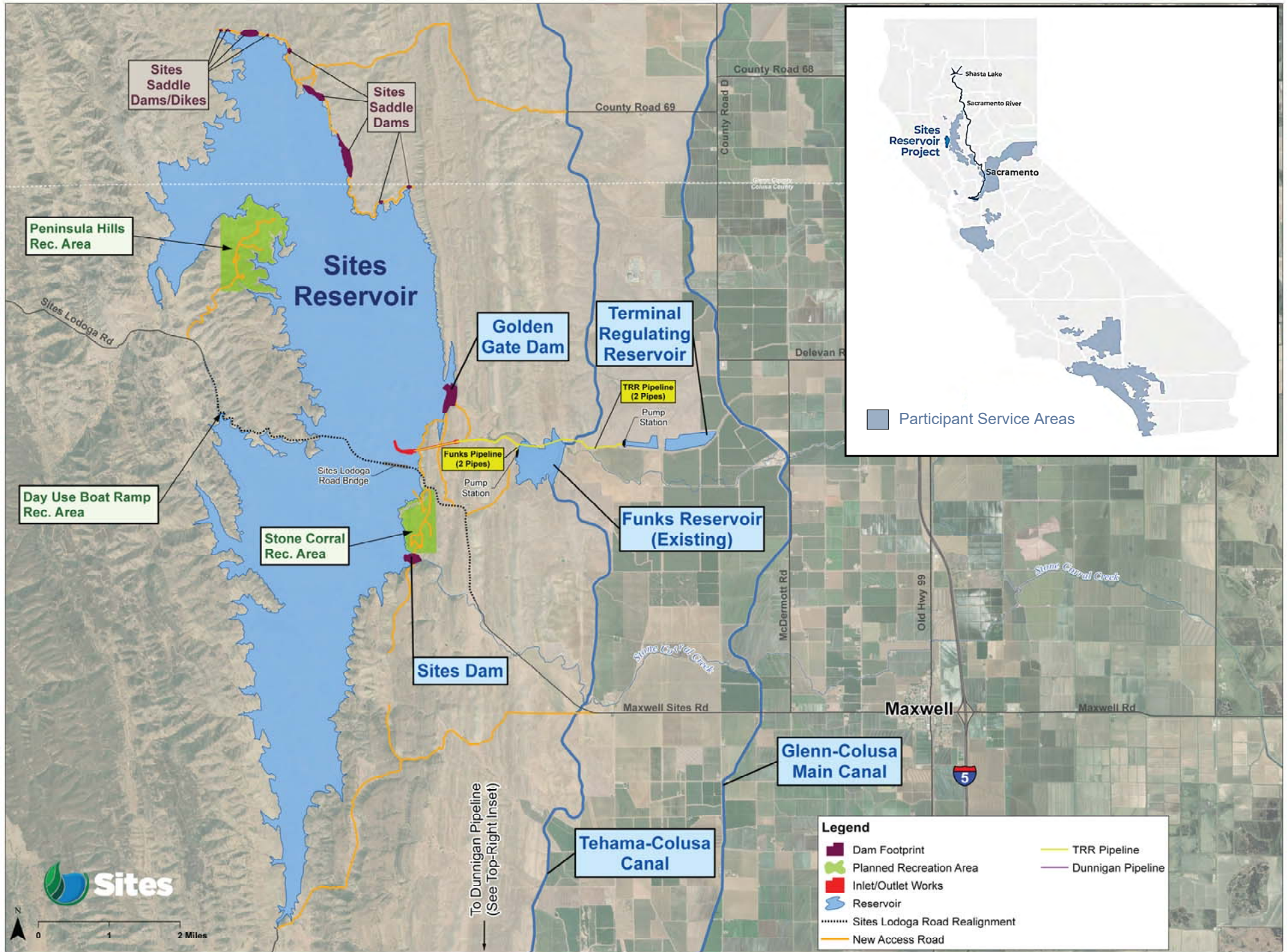
Exhibit "C" – Sites Project Schedule

Exhibit "D" – Sites Project Guiding Principles and Preliminary Terms for B&O Contract

Exhibit "E" – Draft PowerPoint Presentation

Note: This page is intentionally left blank.

# Exhibit "A"



Note: This page is intentionally left blank.

## Exhibit "B"

### **Sites Reservoir Project Water Right Application Protest 15 Total As of October 5, 2023<sup>1</sup>**

#### Environmental Organizations:

1. San Francisco Baykeeper, The Bay Institute, Defenders of Wildlife, Golden State Salmon Association
2. CalWild
3. Center for Biological Diversity
4. California Sportfishing Protection Alliance, Friends of the River, Winnemem Wintu Tribe, AquAlliance, California Water Impact Network, CalWild, Fly Fishers of Davis, Friends of Swainson's Hawk, Northern California Council of Fly Fishers International, Restore the Delta, Save California Salmon, Sierra Club California, Water Climate Trust
5. North Coast Rivers Alliance, Pacific Coast Federation of Fisherman's Association, The Institute for Fisheries Resources, San Francisco Crab Boat Owners Association, Winnemem Wintu Tribe
6. Trout Unlimited
7. Water Climate Trust, Waterkeeper Alliance, Winnemem Wintu Tribe, International Rivers

#### Water and Local Agencies:

8. Central Delta Water Agency, South Delta Water Agency, Zuckerman-Mandeville, Inc, Delta Farms Reclamation District No. 2030 (McDonald Island), Randy Mussi Investment LP
9. Contra Costa Water District
10. County of San Joaquin
11. State Water Contractors

#### Individuals:

12. Ben King
13. Clarke Ornbaun
14. Richard Morat
15. Steve Owens

Bureau of Reclamation submitted a letter that the State Water Board has determined is a substantial comment, but not a protest.

---

<sup>1</sup> The protest period closed as of August 31, 2023. However, the State Water Board has not yet determined all of these to be valid protests. For the purposes of the Authority's current efforts, they are being treated as valid. However, some may drop off as the State Water Board completes its review.

Note: This page is intentionally left blank.



Note: This page is intentionally left blank.





# Sites Reservoir Benefits and Obligations Contract Final Guiding Principles and Preliminary Terms (updated to support Indicative Credit Rating)

## Preamble

The Sites Reservoir Project (the Project) is a proposed 1.3-1.5 million acre-foot off-stream reservoir located approximately 10 miles West of the town of Maxwell, California. The Project includes the development and operation of infrastructure including necessary dams, pipelines, pump stations, power transmission lines, and other facilities needed to provide new water supply and storage. The Project will utilize existing and new conveyance facilities to divert water from the Sacramento River for storage in the reservoir and for releases. The Project will provide public benefits including environmental water supply, recreation, and regional flood control benefits. The Project also will provide water storage and water supply benefits to participating water agencies.

The Project is being developed by the Sites Project Authority (the Sites Authority), a public agency formed in 2010 through the execution of a Joint Exercise of Powers Agreement (the JPA Agreement) whose members are public agencies in the Sacramento River Watershed. The JPA Agreement and associated Bylaws identify requirements and obligations for membership in the Sites Authority and allow for Project Agreements to govern funding and participation in any project the Sites Authority undertakes. The Sites Authority has created a Reservoir Committee consisting of certain Sites Authority members and other municipal entities and special districts that will pay to participate in and receive benefits from the Project ("Participants"). The Sites Authority may also enter into agreements with other agencies for the purposes of developing the Project (see Related Agreements).

The Project is being developed in phases including Phase 1 (*complete*) — formation of the Sites Authority and state funding award, Phase 2 (*in progress*) — certification of environmental impact report and statement and acquisition of key permits, Phase 3 — final design and right-of-way acquisition, Phase 4 — construction and commissioning, and Phase 5 — construction close-out and operations.

The Sites Authority has entered into Project funding agreements for the development of the Project through Phase 2 with Participants, and with State agencies and the federal government. The Sites Authority has also received acknowledgment from the United States Environmental Protection Agency ("EPA") that the Project is eligible to apply for a \$2.2B WIFIA loan. The Sites Authority is taking the steps needed to secure an indicative credit rating and develop other documents required to apply for the WIFIA loan in the spring of 2023.

It is anticipated that beginning in Phase 3 and/or upon the initiation of long-term or short-term Project financing, the Sites Authority will enter into a Sites Reservoir Benefits and Obligations Contract (the Contract) with Participants. The purpose of this document is to establish guiding principles and preliminary terms to help guide development of the Contract between the Sites Authority and the Participants (where the Sites Authority and Participants are collectively referred to as “the parties”).

Several details still need to be finalized for a full and complete Contract to be reached; however, the parties believe this document represents their mutual understanding of the allocation of Project benefits, costs, risks, financing obligations, and ownership obligations. The parties agree to take this document to their agency management and governing bodies to receive their feedback and input and then will work cooperatively and in good faith to consider the feedback and input and work to resolve issues identified and to establish the Contract by approximately Fall 2023, prior to initiating Project financing.

Addressed principles include:

- Roles and Responsibilities
- Project Assets and Ownership
- Beneficiary Pays
- Financing and Funding by Participants
- Leasing or Sale of Storage and Sales of Water
- Minimum Contract Term, Successor Agreements, and Changes

## **Related Agreements**

The Participants acknowledge that the Sites Authority intends to enter into Agreements for the Administration of Public Benefits with various agencies of the State of California and to enter into an agreement with the Bureau of Reclamation for federal government funding a portion of the Project in exchange for agreed upon Project benefits. The Sites Authority is currently in discussions with the State of California and the Bureau of Reclamation regarding these Agreements. While these state and federal agencies are not Participants and will not be party to the Contract, they have crucial roles in providing some Project funding, in administering public benefits and in coordinating Project operations with the State Water Project (SWP) and federal Central Valley Project (CVP) operations. Through future agreements between the Sites Authority and the State of California agencies and between the Sites Authority and the federal government, the Sites Authority intends to share Project risks, obligations, and costs in a manner that is proportional to the public benefits that these entities will receive from the Project. As a result, Project obligations, costs and risks will be borne by the Participants, various State agencies, and the federal government although the allocation of costs, risks, obligations and benefits will require a number of separate agreements.

The Participants also acknowledge that the Project relies on existing conveyance facilities to receive and transmit water in and out of the Reservoir and the Sites Authority is working cooperatively to negotiate Facilities Use Agreements and Facility Partner Design and Construction Agreements for use of and, where applicable improvements to the Glenn-Colusa Irrigation District (GCID) Main Canal, fish screen and pump station; the Tehama Colusa Canal, and associated fish screen and pump station, operated by the Tehama Colusa Canal Authority (TCCA); and the Colusa Basin Drain and associated facilities (altogether referred to as “Partner Facilities”). The Sites Authority is currently negotiating a memorandum of understanding (MOU) with GCID and TCCA and will subsequently be negotiating planning agreements to help guide activities by these parties and the Sites Authority prior to execution of the Facilities Use Agreements and Facility Partner Design and Construction Agreements. The Sites Authority JPA Agreement Section 2.5 requires that written consent be secured from GCID and TCCA prior to certain actions being taken by the Sites Authority which carries an added limitation on the Sites Authority’s independent activities.

In addition to the agreements described above, the Sites Authority entered into a MOU with Colusa County regarding the storage and use of water from Funks Creek and Stone Corral Creek and the relationship of these waters to the Sites Authority’s Water Right application and Colusa County’s Area of Origin Water Right claims.

## Definitions

Throughout this document, a number of defined terms are used. These terms are defined below and their relationship to other definitions used in various Project Agreements and other Project documents are explained.

**Cost Allocation Framework:** approach to be developed by the Sites Authority to account for which Participants use which Project facilities and Partner Facilities based on input provided by the Participants. The Cost Allocation Framework distinguishes between Base Facilities and Downstream Facilities and also accounts for the use of Project and Partner Facilities by State of California agencies and the federal government.

**Base Facilities:** Project facilities and Partner Facilities that are used and paid for by all Participants, the State of California, and the federal government. Examples include Sites Reservoir, Funks Reservoir, the Terminal Regulating Reservoir, portion of the Tehama Colusa Canal upstream of the Sites Reservoir Project, and the portion of the Glenn Colusa Irrigation District Main Canal upstream of the Sites Reservoir Project.

**Downstream Facilities:** Project facilities and Partner Facilities that are used and paid for by certain Participants, the State of California, and the federal government. Examples include the Dunnigan Pipeline and Colusa Basin Drain.

**Fiscal Year:** the period beginning on January 1 of each year and ending on the last day of December of such year, or any other accounting period hereafter selected and designated by the Sites Authority as the Fiscal Year of the Sites Authority.

**Participants:** Also referred to as Reservoir Committee members, Participants are the entities that pay to participate and receive benefits in the Sites Reservoir Project including certain Sites Authority members and other municipal entities and special districts. Participants are not the same as Storage Partners.

**Partner Facilities:** existing conveyance facilities owned and operated by other entities that have excess capacity that can be used by Project Participants to access benefits from the Project.

**Plan of Finance:** the plan identifying and evaluating feasible funding options, including financing and pay-go options, and describing the requirements for funding the non-public cost share of all project costs.

**Project Water Right (Water Right):** The water right obtained and owned by the Sites Authority for the Sites Reservoir Project.

**Reservoir Committee:** A Sites Authority authorized committee consisting of certain Sites Authority members and other municipal entities and special districts to fulfill certain obligations under the Joint Exercise of Powers Agreement.

**Reservoir Project Agreement:** the agreement in which Participants indicate their individual participation levels (percentage of non-public benefits to be invested in) and commitment to project funding based on authorization by the respective home agency. The Reservoir Project Agreement is also referred to as the Participation Agreement.

**Sites Reservoir Benefits and Obligations Contract (Contract):** water supply and water storage contracts entered into by the Sites Authority with Participants that provide for the allocation of Project benefits, costs, risks, financing obligations, and ownership obligations.

**Sites Reservoir Project (Project):** Sites dams, reservoirs, certain associated diversion and conveyance facilities, and other associated facilities, mitigation lands, and Water Right.

**Sites Project Authority (Sites Authority):** an independent joint powers authority established to exercise powers common to the Authority Members to, among other things, effectively study, promote, develop, design, finance, acquire, construct, manage, and operate Sites Reservoir and related facilities such as recreation and power generation.

**Sites Storage Principles:** The document entitled “*Principles for the Storage, Delivery, and Sale of Sites Reservoir Project Water*” adopted by the Sites Authority in 2021 and hereunder referred to as the Sites Storage Principles. The Sites Storage Principles are adopted by reference into these *Guiding Principles and Preliminary Terms*.

**Storage Allocation:** the amount of storage space (storage volume) in Sites Reservoir allocated to a Storage Partner, as agreed upon in that Storage Partner’s Contract. Dead storage is not allocated to any Storage Partner.

**Storage Partners:** as defined in the Storage Principles, the governmental agencies, water organizations, and others who have funded and received a Storage Allocation in Sites Reservoir and the resulting water supply or water supply related environmental benefits from the Project. Storage Partners include the Participants, the State of California, and the federal government.

**WIFIA Reserve Policy:** Establishes and defines certain financial reserves which are intended to ensure that the Sites Authority always has sufficient funds on hand to pay its operating, capital, and debt service cost obligations on time.

## Principles and Preliminary Terms

### 1. Roles and Responsibilities

- 1.1 The Sites Authority, as currently defined by its governing documents and agreements, will act as the developer and operator of the Project and is responsible for obtaining input from the Participants to help guide its decisions.
  - 1.1.1 As the developer, the Sites Authority is responsible for obtaining the required Project Water Right, securing the Project site and any required property rights, acting as the lead agency with regard to complying with CEQA requirements, obtaining Project permits, evaluating funding options, obtaining financing for a portion of Project capital costs, collecting funds for administration and payment of financing costs, payment of Project capital costs during construction (including debt service and reserves), entering into agreements needed to support development of the Project, and overseeing Project design and construction.
  - 1.1.2 As the operator, the Sites Authority will be responsible for: allocating water to and from storage in accordance with the Storage Principles (or its successor) and requests from individual Participants, the terms of the Contract and other agreements, and with the Project Water Right; operating, maintaining, and replacing Project Facilities; permit and agreement compliance; collecting funds for administering financing and payment of Project capital costs (including debt service and reserves); operations, maintenance, replacement and administrative / management costs; and all other functions related to administration of the Project and the Project Agreements. The Sites Authority and Participant roles in Project financing are further described in Section 4, Financing.
- 1.2 The Participants (Reservoir Committee members), as currently defined by the Sites Authority's Bylaws and Reservoir Project Agreement, as amended, are responsible for: implementing responsibilities under the authorities delegated to the Reservoir Committee by the Sites Authority; covering Project costs (except for those obligations covered by grants, by Agreements for the Administration of Public Benefits with various agencies of the State of California, or by federal agreements); assuming certain Project risks and obligations as will be described in the Contract; and providing input to the Sites Authority regarding Project funding, governance, and risk management.
  - 1.2.1 As it relates to covering Project costs, the Participants are responsible for using their individual authorities (authority to establish and collect rates, taxing authority etc.) to ensure reliable cashflow to the Sites Authority to provide for the timely payment of Project costs (including debt service and reserves).

- 1.2.2 As it relates to assuming certain Project risks and obligations, the parties agree that the Participants must have the opportunity for meaningful input into the definition and management of those risks and obligations. For clarity, risk management decisions that will materially affect Project costs and / or Participant’s risk exposure shall be made by the Sites Authority consistent with duly authorized recommendations of the Reservoir Committee. For example, any decision to expand the Project scope to include significant purchase of property downstream of the dam as a means of mitigating flooding or dam failure risk would fall into this category.
- 1.2.3 As it relates to providing input to the Sites Authority more broadly, the Participants are all individual members of the Sites Reservoir Committee (and its workgroups) established by the Sites Authority to undertake specific work activities for the development of the Sites Reservoir Project.
- 1.3 Future Changes to Roles and Responsibilities. The parties acknowledge that future changes in the roles and responsibilities (governance and decision making) between the Sites Authority and Participants will need to be considered as the Project progresses. Such changes will be considered prior to initiation of each subsequent Project phase 3, 4, and 5. The parties acknowledge that Sacramento Valley leadership and Project participants from outside of the Sacramento Valley are both equally essential for Project success and have governance needs that must be met. The parties have agreed that the attached diagram (see Exhibit 1) represents an accurate representation of these interests. Any changes to the existing governance and decision making would require approval of the Sites Authority via a change to the Sites Authority governing documents and Bylaws. Loan agreements and borrowing agreements executed by the Sites Authority may also limit the type of governance changes that may be made.

## **2. Project Assets and Ownership**

- 2.1 Project Infrastructure. Project infrastructure, including the land on which Project facilities are sited, including buffer and mitigation lands and physical features of the Project (excluding Partner Facilities) will be owned by the Sites Authority.
- 2.2 Other Assets. Other assets as described below, will be owned by the Sites Authority and/or by Participants.
- 2.2.1 Water Right. The Project Water Right will be owned by the Sites Authority .
- 2.2.2 Storage. A Participant’s Storage Allocation will be an asset owned and controlled by the Participant consistent with certain operating limits established by the Sites Authority and the Contract. Storage Allocations and the associated rights to Sites water will be considered saleable and leasable assets, subject to certain terms to be determined in the Contract. (See Section 5 below). A preliminary schedule of Storage Allocations among the Participants is included in Amendment 3 to the Reservoir Project Agreement.

- 2.2.3 Stored Water. Water stored in Sites Reservoir and allocated to individual Participants in accordance with the Contract will be owned by said Participants.
- 2.2.4 Conveyance. Capacity ownership, priority, use, and ability to sell or lease capacity rights in Project conveyance will be established by the Contract.
- 2.2.5 Power Generation. Power sales will be managed by the Sites Authority. Allocation of revenues from power generated upon releases of stored water will be established by the Contract.
- 2.2.6 Demand exceeds availability. Allocation of water and capacity when demand exceeds availability will be established by the Contract.

### **3. Beneficiary Pays**

- 3.1 The parties agree that, in principle, Project costs should be allocated consistent with the flow of Project benefits and obligations. For clarity, this means that a Participant receiving benefits from the Project or from a Partner Facility agrees to pay a pro-rated share of fixed and variable Project costs (minus those costs covered by State agencies and the federal government under separate agreements) and, if applicable, wheeling charges assessed by the Sites Authority to cover the cost of use of Partner Facilities. The parties also agree that the levels of reserves held by the Sites Authority will reflect those payment and funding risks that are applicable to all Participants as provided for in the WIFIA Reserve Policy. The Sites Authority will develop a Cost Allocation Framework to account for which Participants use which Sites Facilities and Partner Facilities, with input from the Participants. The Cost Allocation Framework will also account for use of the Sites Reservoir and Partner Facilities by State of California Agencies and the federal government.
- 3.2 Project Costs include actual costs of Project development (i.e., land, Water Right, permits, mitigation), design, construction, debt service, operation and maintenance, major renewals and replacements, and administrative costs. Project development costs to date have been funded on a pay-as-you-go basis.
  - 3.2.1 Project fixed costs (excluding fixed costs associated with Partner Facilities) will include debt service (finance participants only), administrative and general costs of the Sites Authority, operations and maintenance costs (including any ongoing mitigation and monitoring costs), costs of replacements and renewals, and costs to develop and maintain financial sufficiency reserves. Project fixed costs (excluding fixed costs associated with Partner Facilities) will be allocated between all Participants based on their Storage Allocation (excluding any storage allocated to federal and California state agencies whose fixed costs will be allocated based on their percent shares, under separate agreements).



- 3.2.2 Project variable costs generally include power consumption (pumping) net any revenues from power generation and wheeling costs to account for use of Partner Facilities. Variable costs will be allocated based on the estimated annual amount of water moved into and out of storage by each Participant as a percent share of the total annual amount of water moved into and out of storage by all Participants. At the end of the Fiscal Year a true-up process will be used to align estimated and actual quantities of water moved. State agency and federal government allocation of Project variable costs will be defined in separate agreements with those entities.
- 3.3 Partner Facility Costs. The parties recognize that certain Partner Facilities are needed to realize Project benefits but that not all Participants need to use all the Partner Facilities. Partner Facility costs will be allocated to Participants based on actual use and wheeling rates established in the respective Facilities Use Agreements.
- 3.4 Preliminary allocation of Project costs among Participants are attached to the Plan of Finance; these allocations are subject to change.

## **4. Financing**

- 4.1 The parties agree that the Sites Authority will issue debt to fund all or a portion of the Project capital costs at such time that the Sites Authority has obtained the water right and has otherwise made sufficient progress such that the Sites Authority as advised by the Reservoir Committee, has determined that debt issuance is warranted. The Sites Authority will use its best efforts to obtain cost-effective financing with due consideration of terms and conditions. The Sites Authority, in consultation with its Municipal Advisor and Bond Counsel, will comply with all applicable federal and state law.
- 4.2 The parties further recognize that benefits to the Project as a whole would result from group financing (i.e., lower interest rates, ability of all Participants to fund their obligations) and that financing entities that lend to the Project may impose conditions on the financing that will likely impact each of the Participants. The parties agree to continue to evaluate group financing along with other financing methods beneficial to the Project.
- 4.2.1 Group Financing and Ratings of Individual Participants
- 4.2.1.1 Group financing will depend on the shared risk of default among all Participants, not only on those Participants participating in the group financing. Participants' ability to lease or sell their Storage Allocation and/ or to sell Sites water will help serve as a backstop to default for those Participants included in the group financing. In addition, the Participants agree to explore and develop other risk management approaches to support the group financing.

- 4.2.1.2 Not all of the Participants that may wish to participate in group financing are rated by recognized credit rating agencies and are therefore unable to lend their credit rating to a group financing. Therefore, for group financing to be viable, the financing will need to be based on the credit ratings of a significant subset of those Participants that are rated. To the extent that an unrated Participant wishes to be rated and is likely able to obtain a rating of “A” or better, the parties agree that such Participants are encouraged to inquire into the process for obtaining an individual credit rating.
- 4.2.1.3 The parties acknowledge that those Participants lending their rating to a group financing are taking additional risk and the parties agree to explore means to offset this risk, including those measures described in 4.2.1.1.
- 4.2.2 Obligations of “pay-go” Participants to Support Project Financing
  - 4.2.2.1 The parties recognize that some Participants may wish to obtain their own financing or to pay Project costs as they are incurred out of their own available revenues (“pay-go”).
  - 4.2.2.2 “Pay-go” Participants recognize that they will receive an indirect benefit from Project group financing in that it provides a greater assurance there will be a sufficient number of Participants committed to a long-term investment in the Project which assures viability of the Project.
  - 4.2.2.3 “Pay-go” will be allowed as long as it does not materially adversely affect the ability to obtain group financing for the Project.
  - 4.2.2.4 “Pay-go” Participants also recognize the Sites Authority’s need for reliable cash-flow to fund Project design and construction. Therefore each “pay-go” Participant will commit to fund reserves through early payment to reliably meet the Sites Authority’s funding obligations.
- 4.2.3 For group financing to be viable, financing entities have indicated they will require any financing agreement to include a “Project Sufficiency Pledge” or other means for all Participants to share the risk of default. The Project Sufficiency Pledge may be established through the Liquidity Reserve, as defined in the Master Resolution. The allocation of each Participant’s share of the Liquidity Reserve or the Project Sufficiency Pledge will be defined in the Contract. All Participants will need to agree to these obligations, even if they select a “pay-go” option.
- 4.3 Sites Authority Credit Rating. The parties support the Sites Authority’s efforts to obtain an investment grade credit rating as part of its efforts to obtain the WIFIA loan and other project financing and agree in principle to the following terms:
- 4.4 Payment of Project Costs. In order to better allow the Sites Authority and Participants to minimize Participant paid reserves levels at the Sites Authority and to minimize borrowed (debt service) reserves, amounts payable under the Contract are proposed be paid by each Participant as set forth in the WIFIA Reserve Policy:

- 4.4.1.1 Fixed Project Costs- Each Participant will agree to pay the Sites Authority semi-annually one year in advance 100% of the projected fixed project costs (debt service and repair and replacement costs) and Fixed Operation and Maintenance Costs allocated to such Participant for the Fiscal Year. At the end of the Fiscal Year, a true-up process will be used to compare estimated and actual fixed project costs with any overpayment by a given Participant credited to that Participant.
- 4.4.1.2 Variable Operation and Maintenance Costs – Each Participant will agree to pay the Sites Authority the variable operation and maintenance costs allocated to such Participant semi-annually six months in advance. At the end of the Fiscal Year a true-up process will be used to compare estimated and actual variable project costs with any overpayment by a given Participant credited to that Participant.
- 4.4.2 Supplemental Billing. Amounts invoiced to the Participants are expected to be based on budget estimates. In the event that amounts billed by the Sites Authority are insufficient to pay the actual fixed project costs and fixed operation and maintenance costs or variable operation and maintenance costs for a Fiscal Year, the Sites Authority will have authority to send out supplemental bills due and payable during such Fiscal Year for any short fall.
- 4.4.3 Nature of Payments Obligation. Each Participant will agree to pay all costs due and payable under its Contract for both water supply and water storage as an operation and maintenance expenses of such Participant and will be irrevocable, whether or not water is delivered or storage provided and whether or not the Project is completed or operable.
- 4.4.4 Cure for Payment Defaults. For failure to make payments by the date due, a default “waterfall” process will be utilized, as defined in the Plan of Finance.

## **5. Leasing or Sale of Storage and Sales of Water**

- 5.1 **Storage.** Participants may share, lease, or sell their Storage Allocation with other Participants and with other entities. The terms of storage sharing, leasing, or sale are at the discretion of the Participant who is a party to the storage or lease agreement but must not negatively impact other Participants’ proportional share of first priority allocated benefits. Any sharing, leasing, or sale of a Storage Allocation must be consistent with the Project Water Right and Project permits. Any sharing, leasing or sale will be coordinated with the Sites Authority so that proper Project operations and water accounting can be maintained. A Participant may not transfer or assign any of its rights or obligations to the Sites Authority as part of any sharing or leasing agreement; the Participant will be ultimately responsible for meeting any such obligations to the Sites Authority.

Any lease of a Storage Allocation must specify rights to stored water at the beginning and end of the lease period, which would likely cover a multi-year term. Leasing of a Storage Allocation may provide a Participant with a means to generate revenue to help cover Project costs.

Any sale or lease agreement for a Storage Allocation must specify how conveyance constraints will limit withdrawals from storage and how reservoir losses will be accounted for; these provisions shall be consistent with any procedures and policies established by the Sites Authority including provisions in the Storage Principles that indicate losses will be allocated proportionately to each Storage Partner based on the amount of water in storage. The Sites Authority will develop a methodology for determining and allocating losses that take into account losses associated with diversions, losses due to reservoir evaporation and seepage, deliveries to Participants located north of the Sacramento River Delta (i.e., Participants not required to use the Dunnigan Pipeline), deliveries to Participants located south of the Sacramento River Delta (i.e., Participants making use of the Dunnigan Pipeline), and deliveries to the Yolo Bypass. The methodology will also account for monthly and/or seasonal variations and may be updated by the Sites Authority from time to time to reflect changes in climate or other factors affecting the amount of losses.

Any sale of a Participant's Storage Allocation cannot result in a change to the Project's bond rating, violate any agreed-to financing covenants, or otherwise pose any risk to Project financing, and may be subject to the approval of the financing entity(ies) depending on the terms of any financing agreement. The sale of a Participant's Storage Allocation will require approval by the Sites Authority regardless of whether or not the sale is to another Participant or to a non-Participant because, in addition to affecting financing, sales could affect the allocation of water north and south of the Sacramento River Delta which in turn could affect access to conveyance because of capacity constraints of the conveyance infrastructure. Such approval shall not be unreasonably withheld by the Sites Authority.

Any Participant selling or leasing its Storage Allocation must first pay any money due to the Sites Authority and thus receive payment "net" of any payments owed to the Sites Authority.

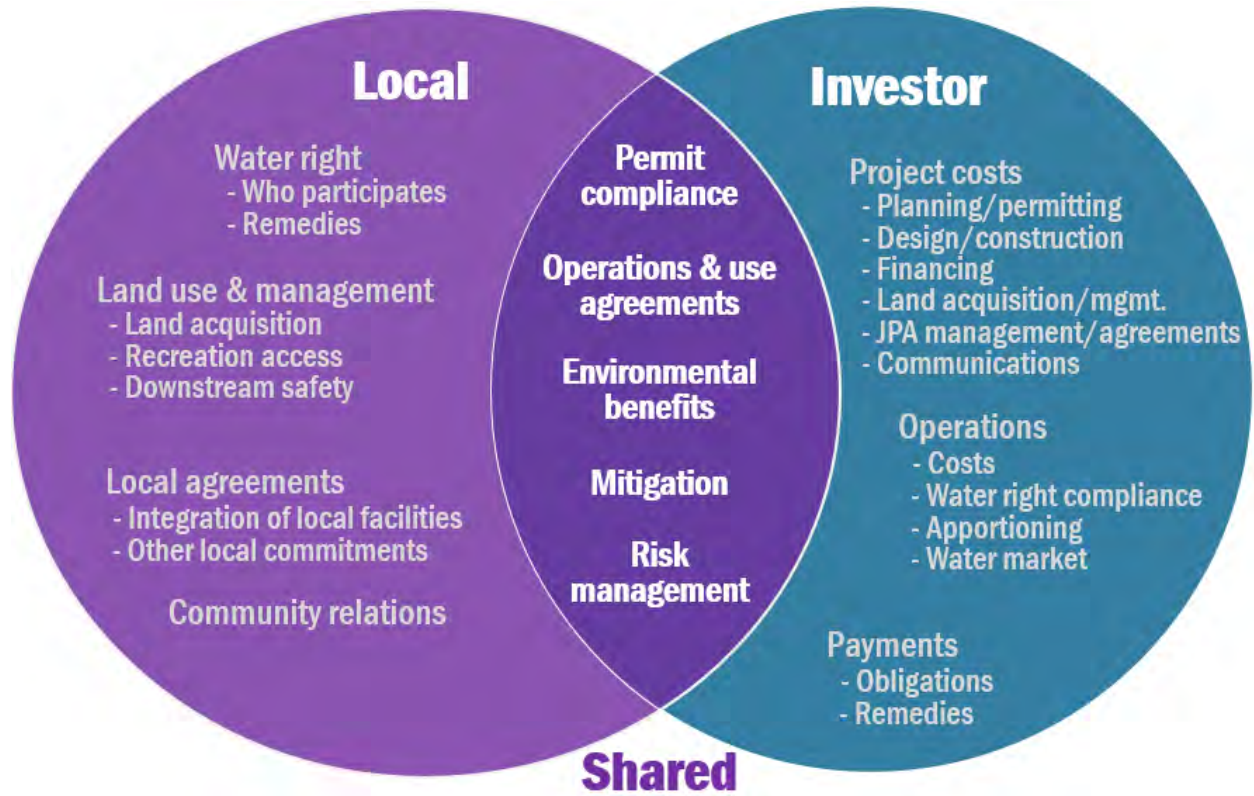
Participants will be given "right of first refusal" with respect to the sale or lease of a Storage Allocation by another Participant. While the Sites Authority may act in an administrative role with respect to such sales or leases, the Sites Authority will not act to set the price for water at the Sites Reservoir. The Sites Authority will, however, set charges for wheeling water from the Sites Reservoir to the point where conveyed water exits the Sites system.

5.2 Water Sales. Participants may sell water held in their Storage Allocation to other Participants or other entities. The terms of sales of water held in Sites Reservoir under a Participant's Storage Allocation are at the discretion of the Participant. Sales terms must not negatively impact other Participants' proportional share of first priority allocated benefits. In addition, the terms of wheeling and cost of wheeling the water, if not made within the Participant's first priority allocated capacity, will be determined and assessed by the Sites Authority. Any sale of water held in a Storage Allocation will be coordinated with the Sites Authority so that proper Project operations and water accounting can be maintained. A Participant may not transfer or assign any of its rights or obligations as part of any sale of water. The receiving entity must either have sufficient available Storage Allocation to store the water, release the water upon purchase, or utilize that Participant's Storage Allocation until the sold water is released.

## **6. Minimum Contract Term, Successor Agreements, and Changes**

- 6.1 The parties agree that the initial term for the Contract will, at a minimum, coincide with the length of the financing agreement, and that the Contract will contain provisions for extensions of the Contract term to reflect the long term nature of the Sites Project.
- 6.2 The parties agree that it is the intent of the Sites Authority to enter into a Contract with a given Participant that is substantially the same as the Contracts entered into with the other Participants. Nonetheless, because Participants will employ various means of funding their participation in the Project, specific appendices to the Contract will be developed to address terms that are uniquely applicable to a group of Participants based on their selected method of funding.
- 6.3 The parties further acknowledge that it will be necessary to develop successor agreements and that the Contract will detail the process and timeline for developing, negotiating and agreeing to such successor agreements.
- 6.4 The parties agree that Participants will be provided the ability to opt out of the Project, with an associated rebalancing of storage before financing.
- 6.5 The parties acknowledge that future regulatory changes and permit conditions may affect Project obligations (i.e., costs, storage, financing, operations etc.) although such changes are currently unknown. The parties agree to cooperate with one another and the Sites Authority to allocate the impact of such changes. Agreements with State agencies and the federal government must also address allocation of the impacts of any such future changes.

## Exhibit 1: Governance Interests



**Sites Reservoir Project Update**

Supply Reliability Programs Committee  
October 19, 2023


 Irvine Ranch Water District

**DRAFT** 1

1

**PRESENTATION OVERVIEW**

1. Background on Sites Reservoir Project
2. IRWD participation
3. Status of project development activities
4. Project costs and schedule
5. Guiding Principles for Benefits & Obligations Contract
6. Overview of key contract terms

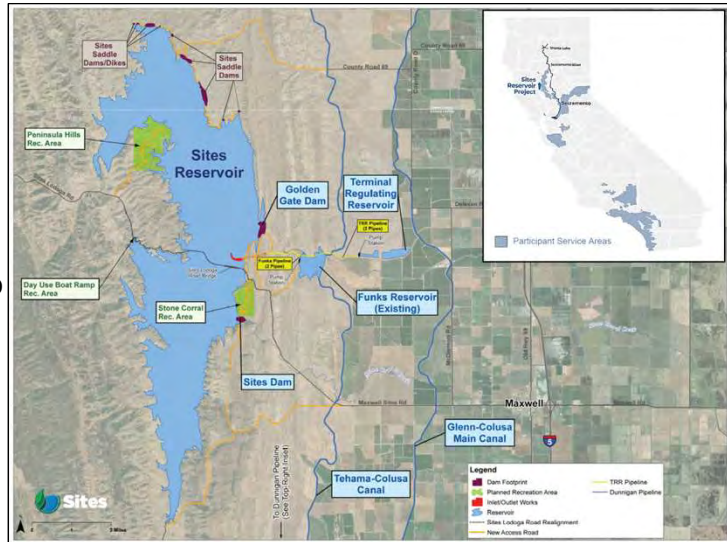
 Irvine Ranch Water District

2

2

## BACKGROUND ON SITES RESERVOIR PROJECT

- New off-stream 1.5 MAF reservoir with 230,000 AF average annual deliveries:
  - 190,000 AF for participants
  - 40,000 AF for State of California
- Diverts and stores Sacramento River stormwater flows
  - After all water rights and regulatory requirements are met



3

## IRWD PARTICIPATION IN SITES PROJECT

- 1,000 AF of reservoir release capacity and 6,234 AF of storage
- IRWD entered into agreement to participate in planning and environmental review through December 2025
  - IRWD share of planning costs = \$608,500
- IRWD is a member of the Reservoir Committee

### *Benefits of Participation:*

- 1) IRWD will have a small annual schedulable supply for the Kern Fan Groundwater Storage Project
- 2) IRWD can lease storage and/or exchange / transfer water

4



## STATUS OF PROJECT DEVELOPMENT ACTIVITIES

- **Environmental Review**
  - EIR/EIS released November 2021; Public Hearing on Final EIR/EIS to occur in November 2023
  - Sites Authority expected to certify the document and approve the project with statement of overriding considerations (no legal exposure to IRWD)
- **Legislation for Infrastructure Streamlining**
  - Limits CEQA challenges and accelerates project permitting
  - Governor likely to deem Sites Project as eligible
- **Obtaining Water Rights Permits**
  - Application to State Board deemed complete in May 2023
  - Protest period ended August 2023 with 15 protests
  - State Board to hold protest hearings with permits expected by January 2025



5

5

## STATUS OF PROJECT DEVELOPMENT ACTIVITIES

- **Other Project Permitting – Preparing applications for:**
  - 401/404 permits
  - Master Streambed Alteration Agreement
  - Incidental Take Permits
- **Design work**
  - Geotech investigations
  - Dam designs
  - Division of Safety of Dams coordination
  - Hydraulic modeling
- **Developing Coordinated Operating Agreement**
  - With California DWR and Bureau of Reclamation



6

6

## PROJECT COSTS

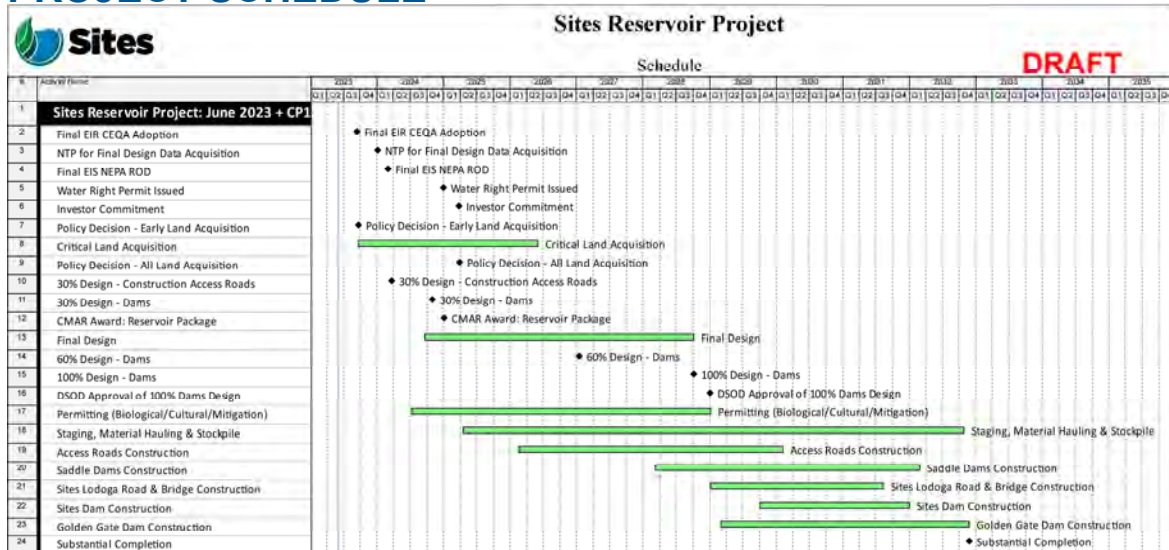
- Feasibility Level Cost: \$3.9 billion (2021 dollars)
  - State to pay \$875 million (Prop 1 grant)
  - Federal government to pay up to \$244 million
- Remaining costs to be allocated to participants based on project shares
  - Participants to pay based on storage capacity and which facilities are used
- IRWD's participation
  - IRWD share (0.4%) estimated at \$15.6 million
  - IRWD will be a "pay-go" participant
- Class 3 cost estimate due by end of 2024



7

7

## PROJECT SCHEDULE



8

8

## **GUIDING PRINCIPLES AND BENEFITS & OBLIGATIONS CONTRACT**

- Guiding Principles establish the preliminary terms for development of contract between Sites Authority and project participants
  - Define allocation of benefits and costs, ownership, roles & responsibilities
  - Approved by Board and Reservoir Committee in May 2022
- Benefits & Obligations Contract
  - Draft agreement in development
  - Provides capacity interest in Project
  - Participants to make long-term commitment to construction and operation of project
- IRWD's legal counsel will provide an overview of key terms

Note: This page is intentionally left blank.