

AGENDA  
IRVINE RANCH WATER DISTRICT  
SUPPLY RELIABILITY PROGRAMS COMMITTEE  
WEDNESDAY, DECEMBER 8, 2021

This meeting will be held in person at the District’s headquarters located at 15600 Sand Canyon Avenue, Irvine, California. 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=m9969b65cca0a7e29baf329c58102fb80>

Meeting Number: 146 960 5062

Password: rGquTTMW374

PLEASE NOTE: Webex observers of the meeting will be placed into the Webex lobby when 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. Observers joining the meeting while the Committee is in closed session will receive a notice that the meeting has been locked. They will be able to observe the meeting once the closed session has concluded.

CALL TO ORDER     3:00 p.m.

<u>ATTENDANCE</u>	Committee Chair: Douglas Reinhart	_____		
	Member: Peer Swan	_____		
<u>ALSO PRESENT</u>	Paul Cook	_____	Paul Weghorst	_____
	Rob Jacobson	_____	Fiona Sanchez	_____
	Kellie Welch	_____	Christine Compton	_____
	Natalie Palacio	_____	Jo Ann Corey	_____
	Marina Lindsay	_____		_____
	_____	_____		_____
	_____	_____		_____

PUBLIC COMMENT NOTICE

Public comments are limited to three minutes per speaker on each subject. If you wish to address the Committee on any item, you may attend the meeting in person and submit a “speaker slip.”

You may also submit a public comment in advance of the meeting by emailing [comments@irwd.com](mailto:comments@irwd.com) before 9:00 a.m. on Wednesday, December 8, 2021.

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**COMMUNICATIONS**

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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.

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**INFORMATION**

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

Recommendation: Receive and file.

6. UPDATE ON SITES RESERVOIR PROJECT AND RELATED HYDROLOGIC MODELING – WELCH / SANCHEZ / WEGHORST

Recommendation: Receive and file.

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**OTHER BUSINESS**

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7. Directors' Comments
8. Adjourn

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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](mailto: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.

December 8, 2021  
Prepared by: N. Palacio / K. Welch  
Submitted by: F. Sanchez / P. Weghorst  
Approved by: Paul A. Cook *P.A.C.*

## 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 efforts to secure additional water for recharge at IRWD's water banking projects.

#### BACKGROUND:

To facilitate discussion with the Committee, staff has prepared reference materials in tabular, map and schematic formats to describe IRWD's water banking facilities, capacities, operations, storage and exchange programs. The 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.

#### 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 at the water banking projects, and Exhibit "C" provides after-loss estimates of water recharged at the projects. Both Exhibits "B" and "C" include columns that provide totals for each water type and storage location.

Changes shown in red on Exhibits "A" and "F" show a corrected first priority annual recovery capacity of 1,520 acre-feet (AF) at the Kern Water Bank and a corresponding estimated maximum second priority capacity of 5,000 AF per year. The changes to Exhibit "A" also reflect the current recovery capacity for the Stockdale East wells.

Changes shown in red on Exhibits "B" and "C" show the estimated recovery of 556 AF of water for the Central Coast Water Authority and delivery of 235 AF by Metropolitan Water District to Dudley Ridge Water District landowners as part of a sales program with Dudley Ridge. The delivery of the 235 AF concludes the sale of 3,907 AF of SWP water to Dudley Ridge landowners. IRWD recovered a total of 3,672 AF for Dudley Ridge under the sales program. This sale of State Water Project (SWP) water fulfills IRWD's remaining obligation to return half of its SWP allocation water to Dudley Ridge, per the unbalanced exchange program agreements with Dudley Ridge (SWPAOs #13012 and #17030).

Summary of Programs:

A table presenting a summary of IRWD's water purchase and exchange programs is presented as Exhibit "D". The table lists each purchase and exchange program that IRWD has entered and presents information related to the type of exchange, year executed, agreement type and water type. IRWD and partner shares are listed and show 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's system, Kern County or owed to IRWD by Dudley Ridge. The table also provides details related to the exportability of IRWD's supplies. Changes shown in red on Exhibit "D" correspond with the changes made to Exhibits "B" and "C".

Exhibit "E" graphically depicts how storage of SWP and non-SWP water has changed in the Strand and Stockdale Integrated Banking Projects through time. 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. Exhibit "F" has been updated to remove a potential program with Carpinteria Valley Water District and the associated dedicated storage, recharge and recovery capacity. Exhibit "F" was also revised to show the correct annual recovery capacity, on a first priority basis, associated with IRWD's participation in the Kern Water Bank at 1,520 AF.

Project Maps:

To support the tables provided as Exhibits "A", "B", "C", "D" and "F", as well as the figure provided as Exhibit "E", staff has prepared maps that depict project wells and 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. The facilities shown on the maps are associated with the Strand Ranch, Stockdale West, Stockdale East and Drought Relief Projects.

Program Agreement Diagrams:

Schematic diagrams have been prepared that depict IRWD water banking and exchange programs with Rosedale-Rio Bravo Water Storage District, Buena Vista Water Storage District, Dudley Ridge and Metropolitan. These diagrams are provided as Exhibits "J", "K", "L", "M", "N" and "O", as described in the List of Exhibits.

Other Program Opportunities:

IRWD has been pursuing additional opportunities to secure water for recharge. At the Committee meeting, staff will provide an update on efforts to enter into water banking partnerships with Mojave Water Agency and Santa Clarita Valley Water Agency.

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 Cross Valley Canal 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 and Diagram of One-year Program to Augment Recharge Using Stockdale West Recharge Facilities with Buena Vista

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

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# Exhibit "A"

**TABLE 1**

## Current and Anticipated Water Banking Projects Recharge, Storage and Recovery Capacities

December 8, 2021

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>	ESTIMATED RECOVERY CAPACITY (APR. 2019 CONDITIONS)	RECOVERY CAPACITY AS PLANNED	RECOVERY CAPACITY CURRENT CONDITIONS
Strand Ranch	Yes	7	50,000	17,500	-	17,500	-	40.0	40.0	-	-
Stockdale West	Yes	3	26,000	27,100	-	11,250	-	15.0	15.0	-	-
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	15.0	-	-
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>70.0</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	
<p><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.</p> <p><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.</p> <p><sup>3</sup>One half of storage capacity at Stockdale West and Strand Ranch will be allocated for partners.</p> <p><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.</p>											

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# Exhibit "B"

TABLE 2

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

December 8, 2021

TRANSACTIONS	WATER BANKING ENTITY					TOTAL BY WATER TYPE AND STORAGE LOCATION
	IRWD		BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	DUDLEY RIDGE WATER DISTRICT (DRWD) <sup>3</sup>	
	SWP <sup>1</sup>	NON-SWP <sup>2</sup>	NON-SWP	SWP	SWP	
<b>BEGINNING WATER IN STORAGE 2020 (AF)</b>						
Total Kern Water Bank (estimated)	-	4,683	-	-	-	4,683
Total MWD System <sup>4</sup>	8,027	-	-	-	296	8,322
Total Kern County	4,929	24,596	11,177	636	3,491	44,828
<b>TOTAL STORED WATER (1/1/2020)</b>	<b>12,955</b>	<b>29,279</b>	<b>11,177</b>	<b>636</b>	<b>3,786</b>	<b>57,833</b>
<b>(RECOVERY) AND RECHARGE IN 2020 (AF)</b>						
MWD Water to Jackson Ranch <sup>5</sup>	-	-	-	-	(96)	(96)
2020 SWP Allocation (20%) <sup>3</sup>	175	-	-	-	175	350
Kern River Water	-	-	(7,500)	-	-	(7,500)
SWP Table A	-	-	-	-	-	-
2017 Reserve Water	106	258	258	11	95	728
<b>TOTAL 2020 TRANSACTIONS</b>	<b>281</b>	<b>258</b>	<b>(7,242)</b>	<b>11</b>	<b>174</b>	<b>(6,518)</b>
Total Kern Water Bank	-	-	-	-	-	-
Total MWD System	8,027	-	-	-	200	8,226
Total Kern County	5,210	24,855	3,935	647	3,761	38,406
<b>TOTAL STORED WATER (1/1/2021)</b>	<b>13,236</b>	<b>24,855</b>	<b>3,935</b>	<b>647</b>	<b>3,960</b>	<b>46,632</b>
<b>(RECOVERY) AND RECHARGE IN 2021 (AF)</b>						
MWD Water to Jackson Ranch (estimated)	-	-	-	-	-	-
SWP Table A (estimated)	-	-	-	(556)	-	(556)
2021 SWP Allocation (5 %) <sup>3, 6</sup>	35	-	-	-	35	70
Kern River Water (estimated)	-	(10,000)	(2,681)	-	-	(12,681)
SWP Water Sale to DRWD Landowners (estimated) <sup>7</sup>	-	(439)	-	-	(3,468)	(3,907)
DRWD 1-for-1 Long Term Exchange Credit (estimated) <sup>8</sup>	10,000	-	-	-	-	10,000
<b>TOTAL ESTIMATED 2021 TRANSACTIONS</b>	<b>10,035</b>	<b>(10,439)</b>	<b>(2,681)</b>	<b>(556)</b>	<b>(3,433)</b>	<b>(7,074)</b>
<b>ESTIMATED WATER IN STORAGE 2021 (AF)</b>						
Total Kern Water Bank	-	4,683	-	-	-	4,683
Total MWD System	8,062	-	-	-	-	8,062
Total Kern County	5,210	14,416	1,254	91	528	21,497
Total DRWD 1-for-1 Long Term Exchange Credit	10,000	-	-	-	-	10,000
<b>TOTAL ESTIMATED STORED WATER TO DATE</b>	<b>23,271</b>	<b>19,099</b>	<b>1,254</b>	<b>91</b>	<b>528</b>	<b>44,242</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 2,842 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. IRWD's 2013-2016 SWP allocation amounts are stored in the MWD system. IRWD's 2017 through 2020 SWP allocation water is stored in Kern County. Half of IRWD's 2021 SWP allocation will be stored in the MWD system, the other half will be delivered to DRWD as part of the SWP Water Sale to DRWD landowners

<sup>4</sup> Beginning balance of water stored in MWD system includes: 4,000 AF from 2014 Exchange, 2,853 AF of 2014 borrowed SWP, 1,186 AF of IRWD's 2013-2016 SWP allocations through DRWD.

<sup>5</sup> Water returned to DRWD by MWD for use on IRWD's Jackson Ranch.

<sup>6</sup> 17 AF of IRWD's 2021 SWP Allocation was used to fulfill an obligation to Pastoria.

<sup>7</sup> Kern County Water Agency approved the recovery of 3,672 AF for the SWP Water Sale to DRWD landowners. In order to make up the difference between the approved amount of 3,672 AF and the amount after losses (3,233 AF), IRWD was able to use 439 AF from its Article 21 water acquired from Semitropic as part of the sale.

<sup>8</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.

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# Exhibit "C"

TABLE 3

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

December 8, 2021

TRANSACTIONS	WATER BANKING ENTITY					TOTAL BY WATER TYPE AND STORAGE LOCATION
	IRWD		BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	DUDLEY RIDGE WATER DISTRICT (DRWD) <sup>3</sup>	
	SWP <sup>1</sup>	NON-SWP <sup>2</sup>	NON-SWP	SWP	SWP	
<b>BEGINNING WATER IN STORAGE 2020 (AF)</b>						
Total Kern Water Bank	-	4,215	-	-	-	4,215
Total MWD System <sup>4</sup>	8,027	-	-	-	296	8,322
Total Kern County	3,926	20,685	9,923	545	2,992	38,072
<b>TOTAL STORED WATER (1/1/2020)</b>	<b>11,953</b>	<b>24,900</b>	<b>9,923</b>	<b>545</b>	<b>3,288</b>	<b>50,609</b>
<b>(RECOVERY) AND RECHARGE IN 2020 (AF)</b>						
MWD Water to Jackson Ranch <sup>5</sup>	-	-	-	-	(96)	(96)
2020 SWP Allocation (20%) <sup>3</sup>	150	-	-	-	150	300
Kern River Water	-	-	(7,500)	-	-	(7,500)
SWP Table A	-	-	-	-	-	-
2017 Reserve Water	101	245	258	10	90	705
<b>TOTAL 2020 TRANSACTIONS</b>	<b>251</b>	<b>245</b>	<b>(7,242)</b>	<b>10</b>	<b>144</b>	<b>(6,591)</b>
Total Kern Water Bank	-	4,215	-	-	-	4,215
Total MWD System	8,027	-	-	-	200	8,226
Total Kern County	4,177	20,931	2,681	556	3,233	31,577
<b>TOTAL STORED WATER (1/1/2021)</b>	<b>12,204</b>	<b>25,145</b>	<b>2,681</b>	<b>556</b>	<b>3,433</b>	<b>44,019</b>
<b>(RECOVERY) AND RECHARGE IN 2021 (AF)</b>						
MWD Water to Jackson Ranch (estimated)	-	-	-	-	-	-
SWP Table A (estimated)	-	-	-	(556)	-	(556)
2021 SWP Allocation (5%) <sup>3, 7</sup>	35	-	-	-	35	70
Kern River Water (estimated)	-	(10,000)	(2,681)	-	-	(12,681)
SWP Water Sale to DRWD Landowners (estimated) <sup>8</sup>	-	(439)	-	-	(3,468)	(3,907)
DRWD 1-for-1 Long Term Exchange Credit (estimated) <sup>9</sup>	10,000	-	-	-	-	10,000
<b>TOTAL ESTIMATED 2021 TRANSACTIONS<sup>6</sup></b>	<b>10,035</b>	<b>(10,439)</b>	<b>(2,681)</b>	<b>(556)</b>	<b>(3,433)</b>	<b>(7,074)</b>
<b>ESTIMATED WATER IN STORAGE 2021 (AF)</b>						
Total Kern Water Bank	-	4,215	-	-	-	4,215
Total MWD System	8,062	-	-	-	-	8,062
Total Kern County	4,177	10,492	-	-	-	14,669
Total DRWD 1-for-1 Long Term Exchange Credit	10,000	-	-	-	-	10,000
<b>TOTAL ESTIMATED STORED WATER TO DATE</b>	<b>22,239</b>	<b>14,706</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>36,945</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); KWB losses are 10%; 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 2,842 AF 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. IRWD's 2013-2016 SWP allocation amounts are stored in the MWD system. IRWD's 2017 through 2020 SWP allocation water is stored in Kern County. Half of IRWD's 2021 SWP allocation will be stored in the MWD system, the other half will be delivered to DRWD as part of the SWP Water Sale to DRWD landowners, therefore no losses are taken on the water.

<sup>4</sup> Beginning balance of water stored in MWD system includes 4,000 AF of 2014 Exchange, 2,853 AF of 2014 borrowed SWP, 1,186 AF of IRWD's 2013-2016 SWP allocations through DRWD.

<sup>5</sup> Water returned to DRWD by MWD for use on IRWD's Jackson Ranch.

<sup>6</sup> 2021 transactions may be adjusted for conveyance losses in CVC.

<sup>7</sup> 17 AF of IRWD's 2021 SWP Allocation was used to fulfill an obligation to Pastoria.

<sup>8</sup> Kern County Water Agency approved the recovery of 3,672 AF for the SWP Water Sale to DRWD landowners. In order to make up the difference between the approved amount of 3,672 AF and the amount after losses (3,233 AF), IRWD was able to use 439 AF from its Article 21 water acquired from Semitropic as part of the sale.

<sup>9</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.

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# Exhibit "D"

**TABLE 4**  
**Status of IRWD Purchase and Exchange Programs (AFTER LOSSES)**  
 December 8, 2021

PARTNER	EXCHANGE RATIO	YEAR EXECUTED	AGREEMENT TYPE	WATER TYPE	PARTNER WATER		IRWD WATER								
					PARTNER SHARE (AF)	PARTNER BALANCE (AF)	IRWD SHARE (AF)	IRWD BALANCE				EXPORTABILITY			SELLABLE (Y/N)
								IN MWD SYSTEM (AF)	STORED IN KERN (AF)	OWED BY DUDLEY RIDGE WD	TOTAL (AF)	EXPORTABLE TO IRWD (AF)	NON-EXPORTABLE (AF)	FOR USE ON JACKSON RANCH (DRWD)	
Semitropic Water Storage District	NA	2008	Purchase	SWP Article 21	NA	NA	2,842		2,403		2,403		2,403		Yes
Carpinteria Valley Water District	2-for-1	2008	Short-Term	SWP Table A	277		250		250		250		250		Yes
Buena Vista Water Storage District <sup>1</sup>	2-for-1	2010	Pilot	Kern River	4,108		3,903								Yes
	2-for-1	2011	Long-Term	Kern River	21,248		20,186		8,089		8,089		8,089		
Antelope Valley East Kern Water Agency	2-for-1	2011	Pilot	SWP Table A	2,229		2,337	2,229	108		2,337	2,337			No
Carpinteria Valley Water District	2-for-1	2011	Pilot	SWP Table A	624		655	624	31		655	655			No
Dudley Ridge Water District <sup>2</sup> (SWPAO #13012)	2-for-1	2013	SWPAO	SWP Table A	1,876	-	1,876	1,174	703		1,876	1,876		-	Yes
				SWP Article 21	1,553	-	1,554		1,554		1,554		1,554		-
Metropolitan Water District <sup>3</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	1,011	-	1,011	35	976		1,011	1,011		-	Yes
Central Coast Water Agency	2-for-1	2017	Short-Term	SWP Table A	258	-	258		258		258	258			No
Dudley Ridge Water District <sup>4</sup>	1-for-1	2017	Long-Term	SWP Table A						10,000	10,000	10,000			No
Central Coast Water Agency	2-for-1	2019	Short-Term	SWP Table A	298	-	298		298		298	298			No
<b>Total:</b>					<b>33,482</b>	<b>-</b>	<b>39,170</b>	<b>8,062</b>	<b>14,670</b>	<b>10,000</b>	<b>32,731</b>	<b>21,989</b>	<b>10,742</b>	<b>-</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.

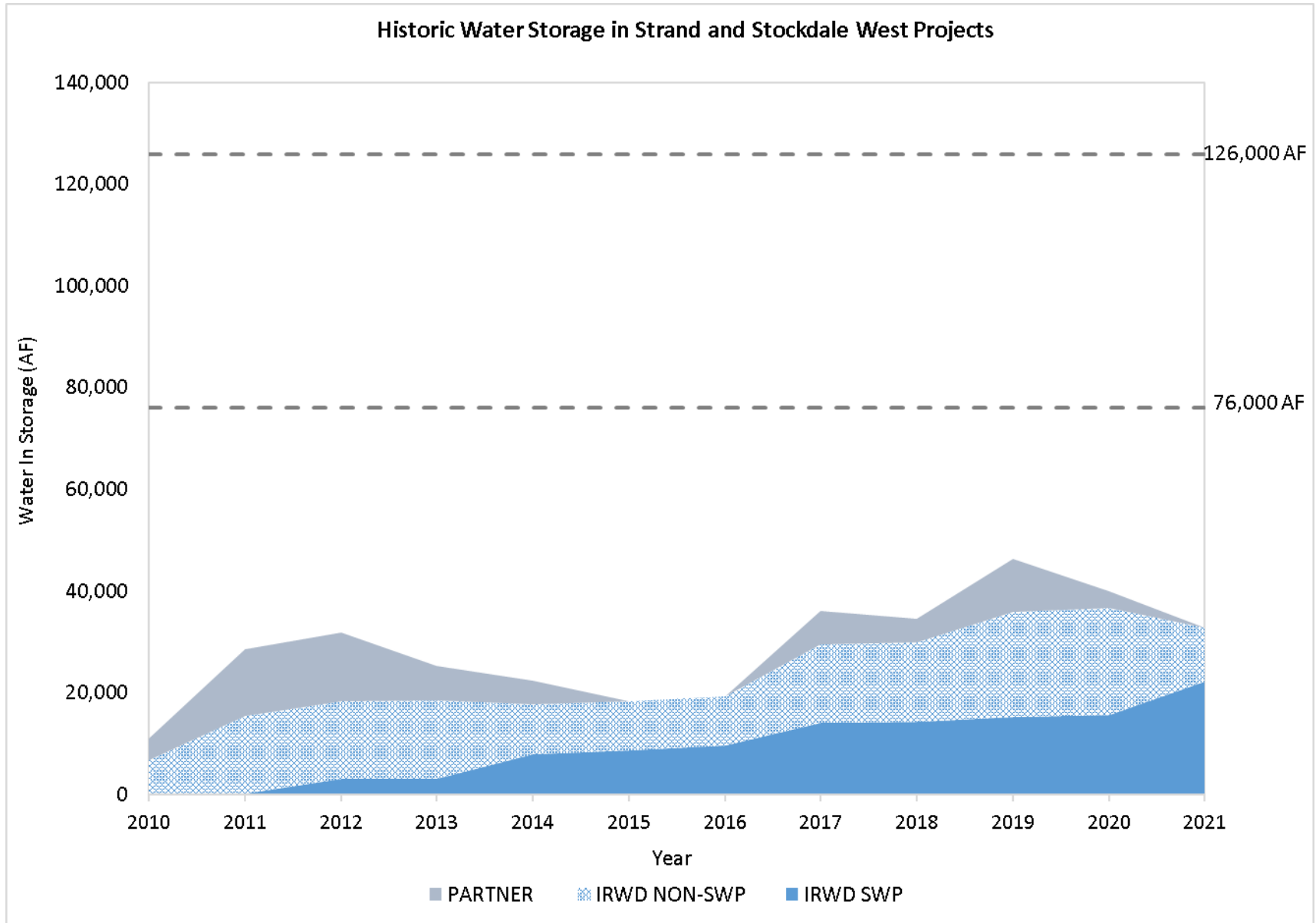
<sup>2</sup> Only the portion of water stored for use on Jackson Ranch in DRWD is sellable.

<sup>3</sup> Source of water was Buena Vista Water Storage District Kern River high flow water.

<sup>4</sup> Estimated amount of Table A to be returned to IRWD from Dudley Ridge Water District under the 1-for-1 exchange program.

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# Exhibit "E"



\*After losses

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# Exhibit "F"

**TABLE 5**  
**IRWD Dedicated Water Banking Capacities for Existing and Proposed Exchange Programs**  
 December 8, 2021

## STORAGE CAPACITY

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

## RECHARGE CAPACITY

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

## RECOVERY CAPACITY

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

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# Exhibit "G"

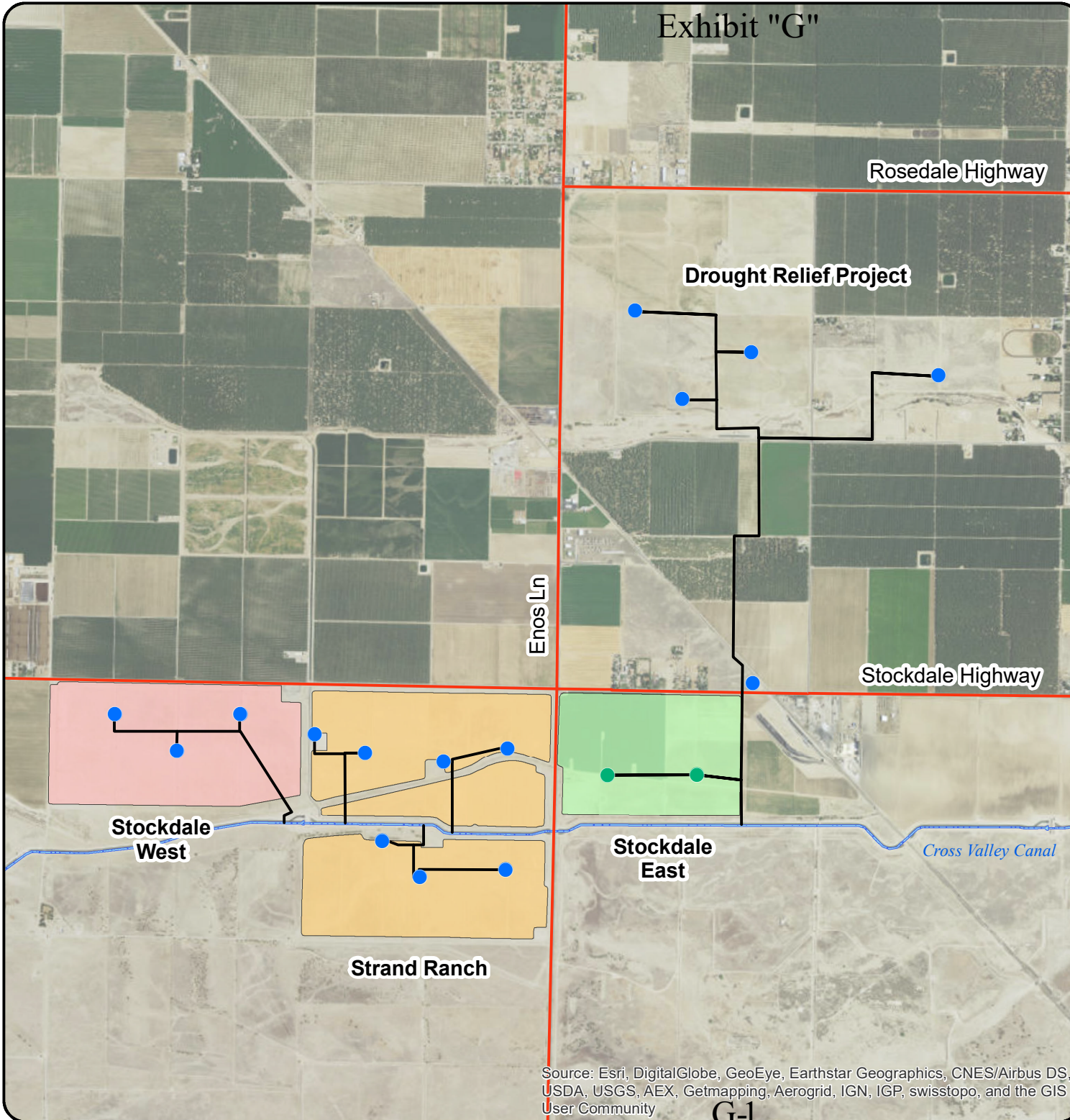


## Location Map: IRWD Water Banking Projects Wells and Turnin Pipelines

### MAP FEATURES

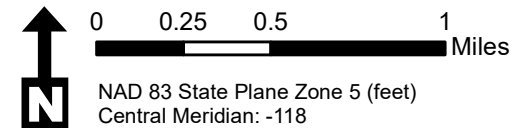
- Extraction Well
- Extraction Well
- Well Discharge Pipelines
- Stockdale East
- Stockdale West
- Strand Ranch

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



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

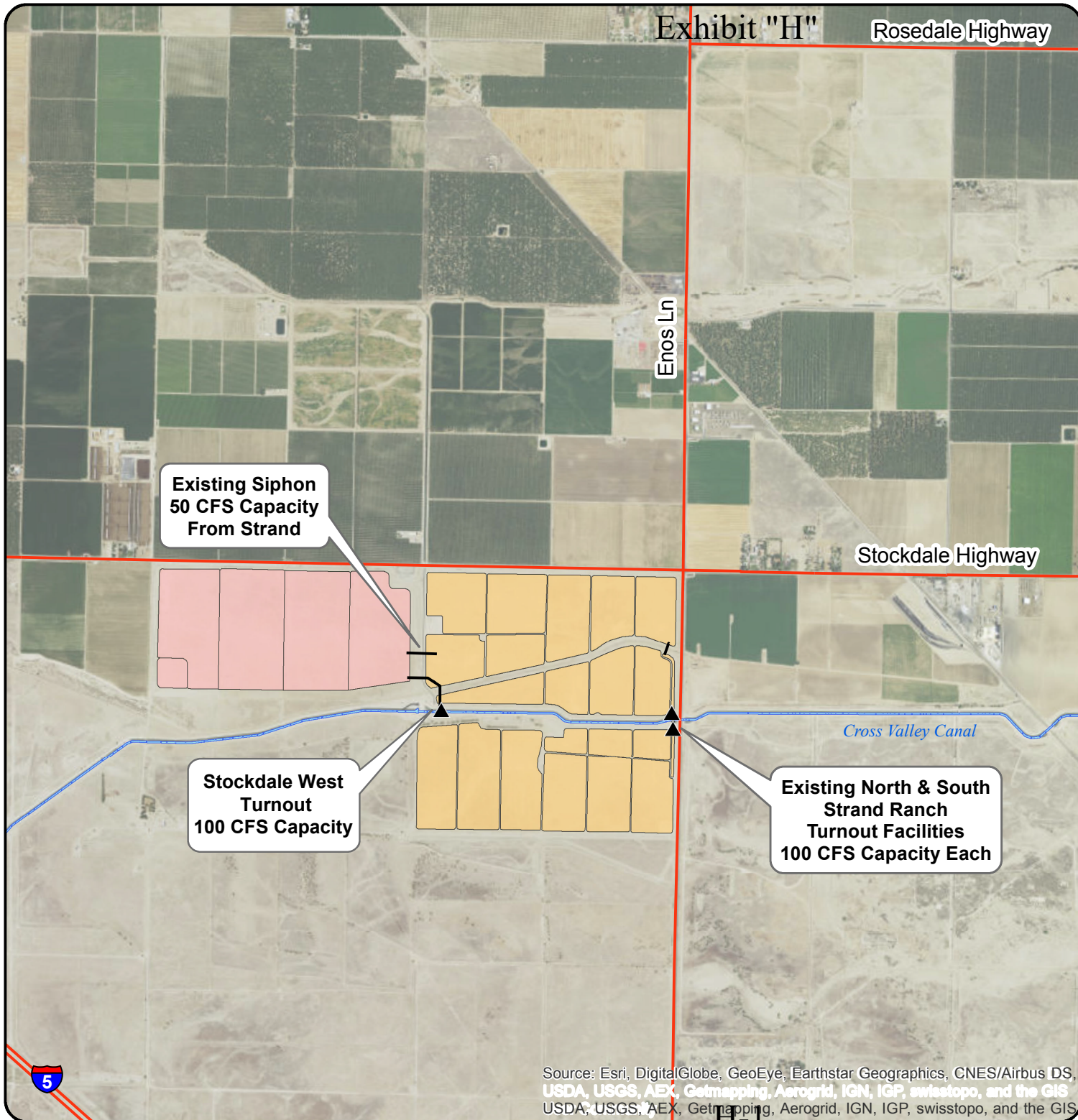
G-1



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



**Existing Siphon  
50 CFS Capacity  
From Strand**

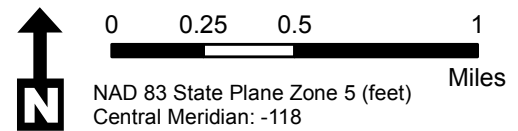
**Stockdale West  
Turnout  
100 CFS Capacity**

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

**MAP FEATURES**

- ▲ Turnouts
- Stockdale West
- Strand Ranch

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



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

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

#### MAP FEATURES

- ▲ Turnouts
- Stockdale West
- Strand Ranch

Stockdale West  
0.11 feet/day  
15 CFS

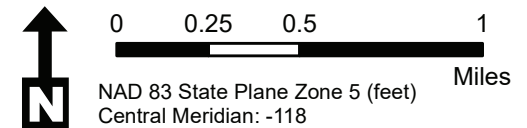
Strand Ranch North  
0.29 feet/day  
40 CFS

Strand Ranch South  
0.13 feet/day  
15 CFS

Stockdale Highway

Cross Valley Canal

This figure shows the location of recharge basins and their associated recharge rates as of June 18, 2019.



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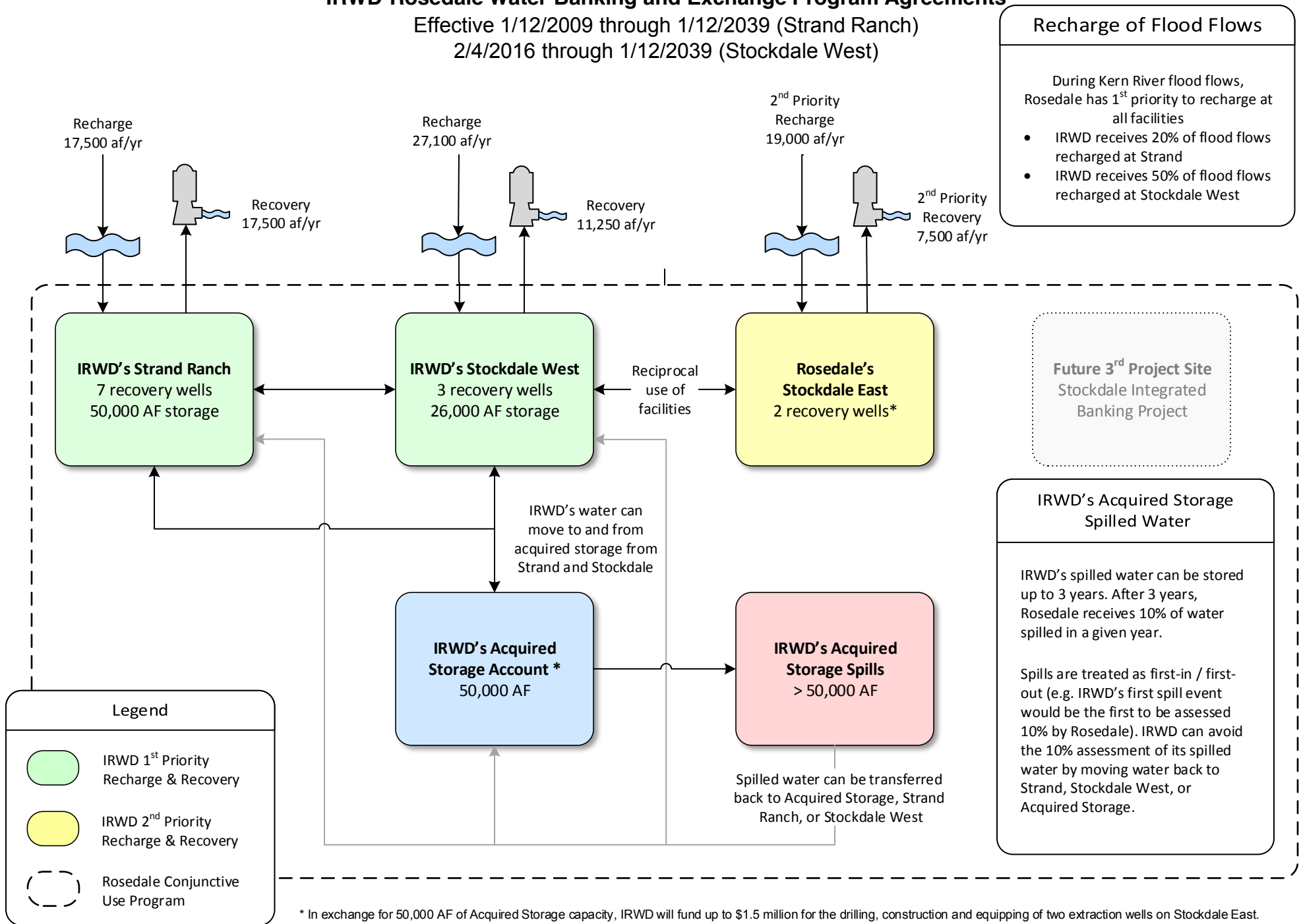


# Exhibit "J"

## IRWD-Rosedale Water Banking and Exchange Program Agreements

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

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

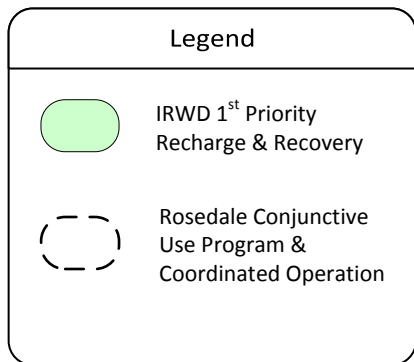
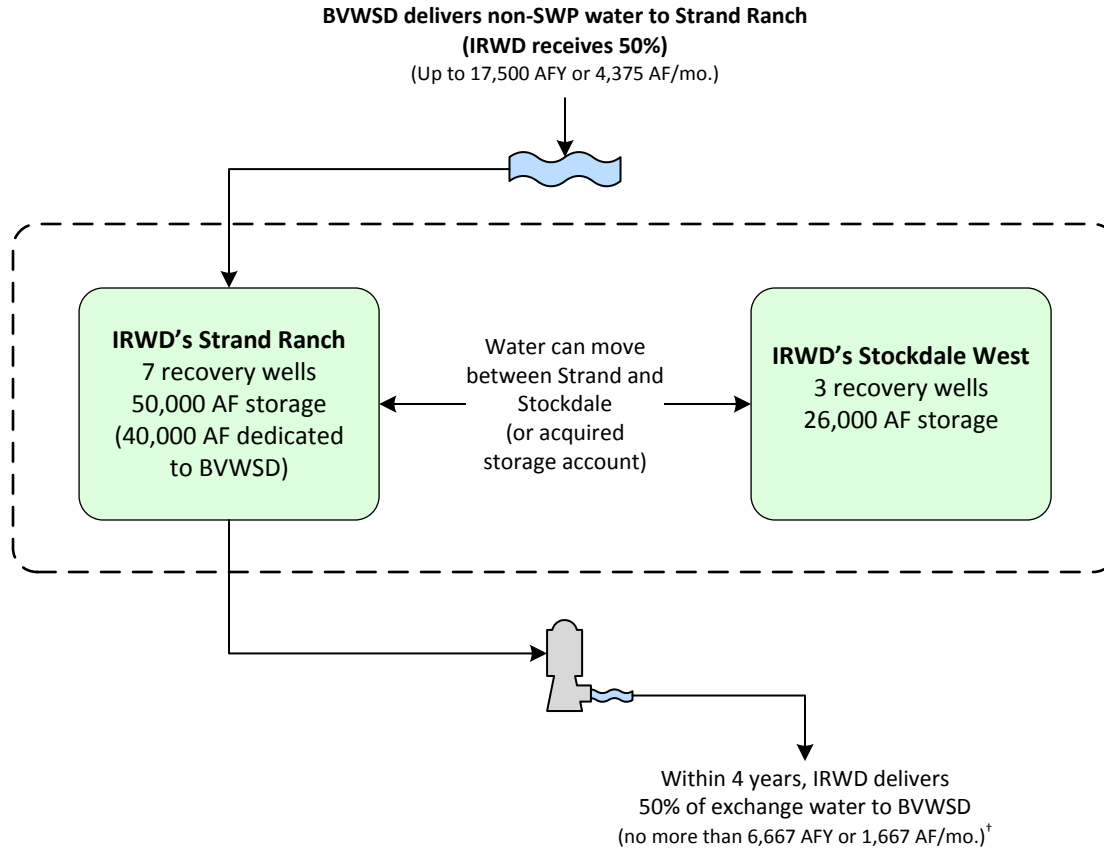


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# Exhibit "K"

## Buena Vista Water Storage District Long Term Water Exchange Program

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

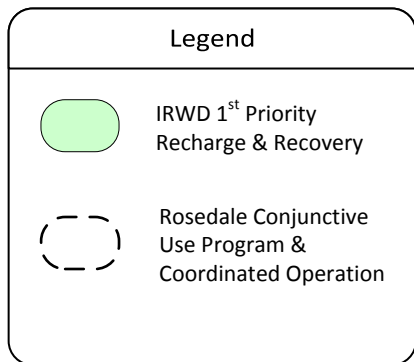
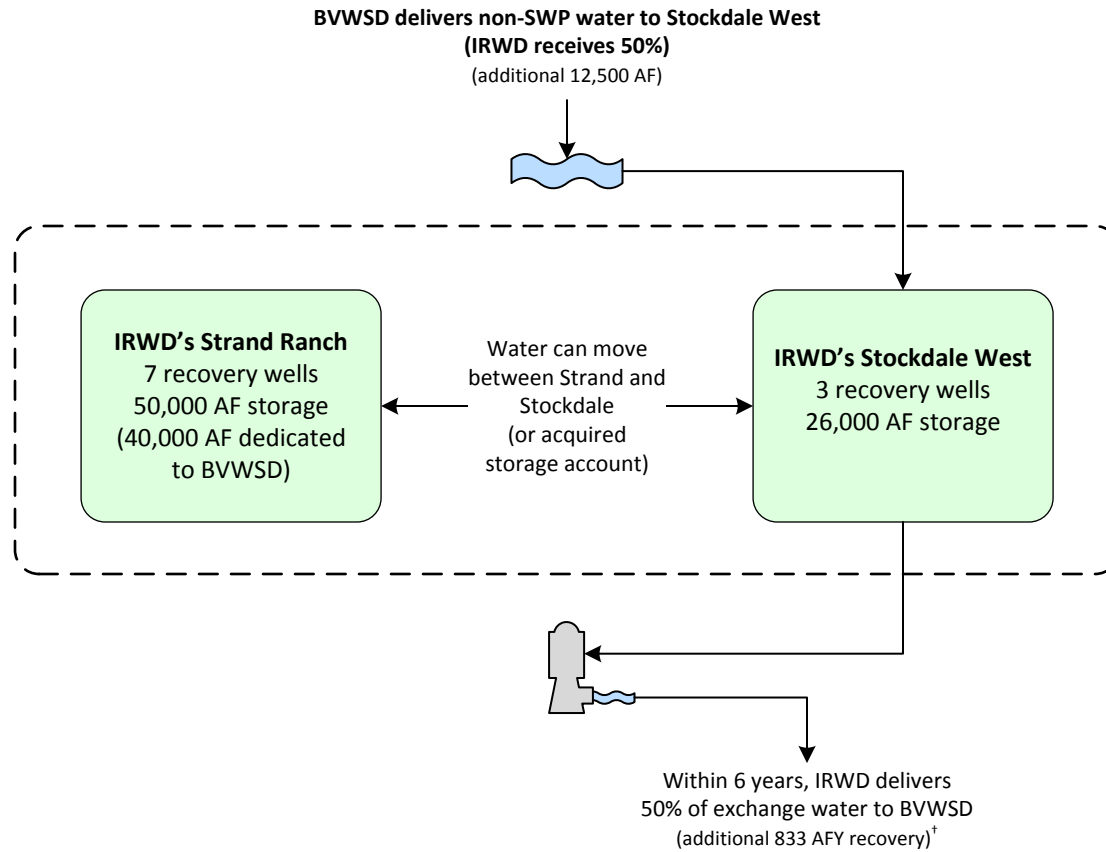


†IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31<sup>st</sup> of the 4<sup>th</sup> year following the associated recharge event. IRWD pays for recovery of water returned to BV. Water to be remitted back to BV may remain in storage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

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

Effective 4/1/2017 through 3/30/2018



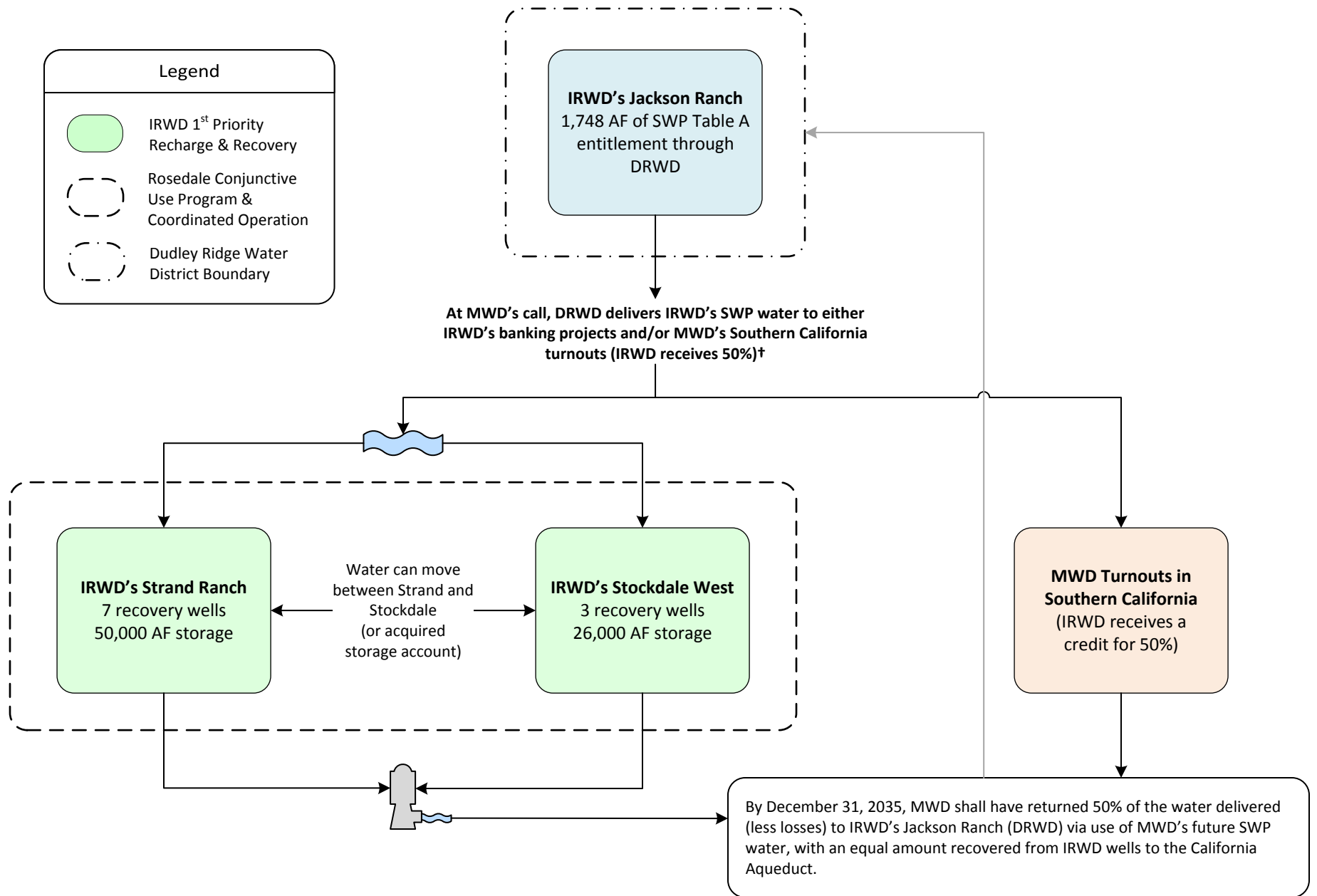
<sup>†</sup>IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31<sup>st</sup> of the 6<sup>th</sup> year following the associated recharge event. IRWD pays for recovery of water returned to BV. Water to be remitted back to BV may remain in storage at Strand Ranch beyond the 6<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	50%	50%
6	50%	50%
7	75%	25%
8	100%	0%
9	100%	0%

# Exhibit "L"

## Dudley Ridge Water District (DRWD) Unbalanced Exchange Program

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



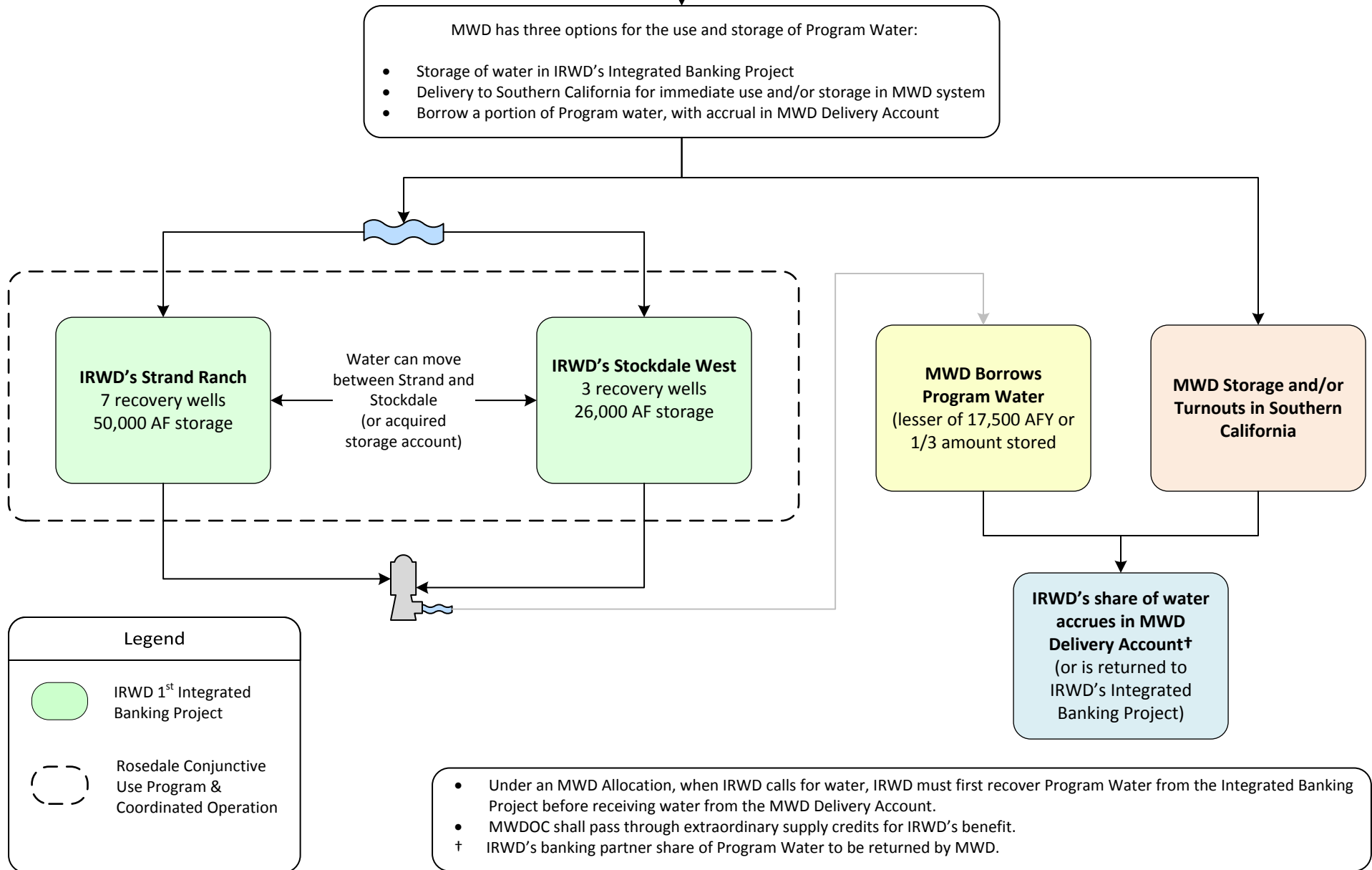
†Consistent with IRWD-MWD coordinated operating agreement.

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# Exhibit "M"

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

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



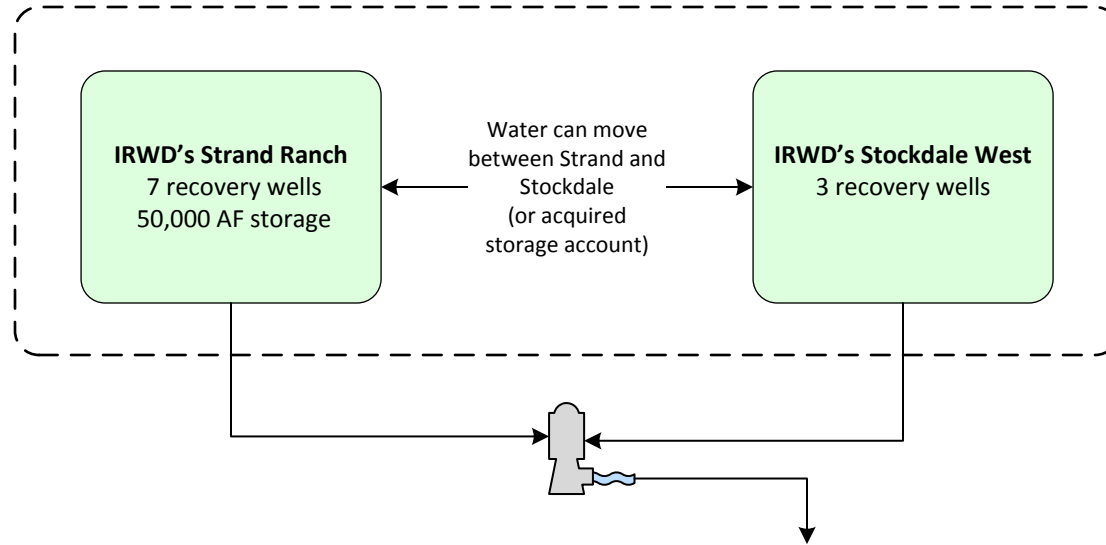
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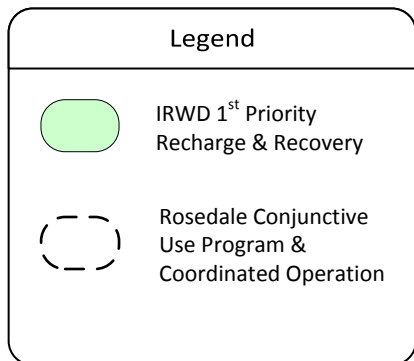
# Exhibit "N"

## Agreement for Conveyance of Water Between MWD, MWDOC, and IRWD (Wheeling Agreement)

### Template for future agreements



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



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

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# Exhibit "O"

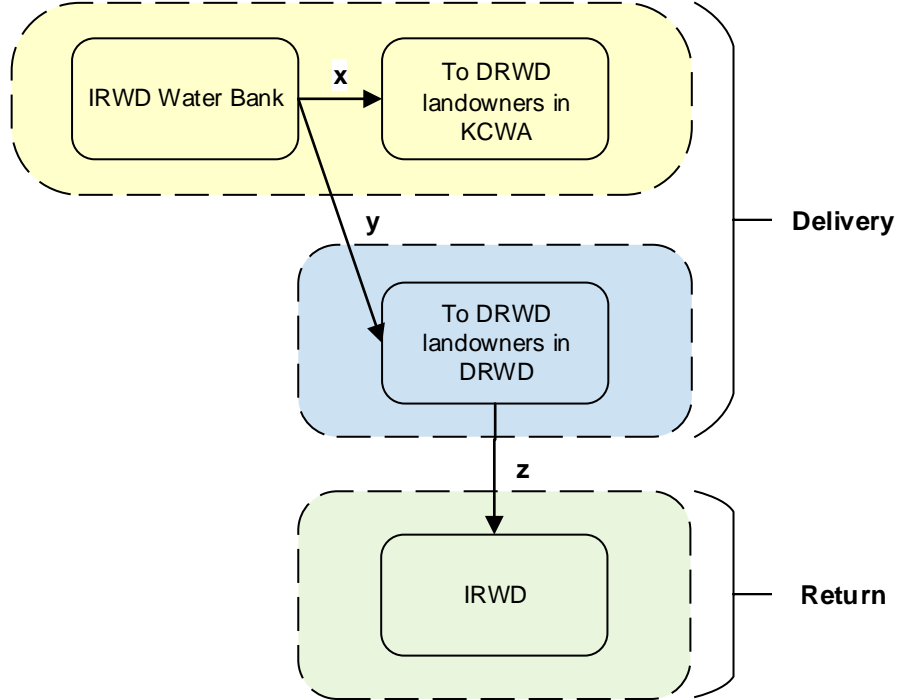
## Dudley Ridge Water District Long Term 1-for-1 Water Exchange Program Effective 5/31/2017 through 11/4/2035

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

---

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

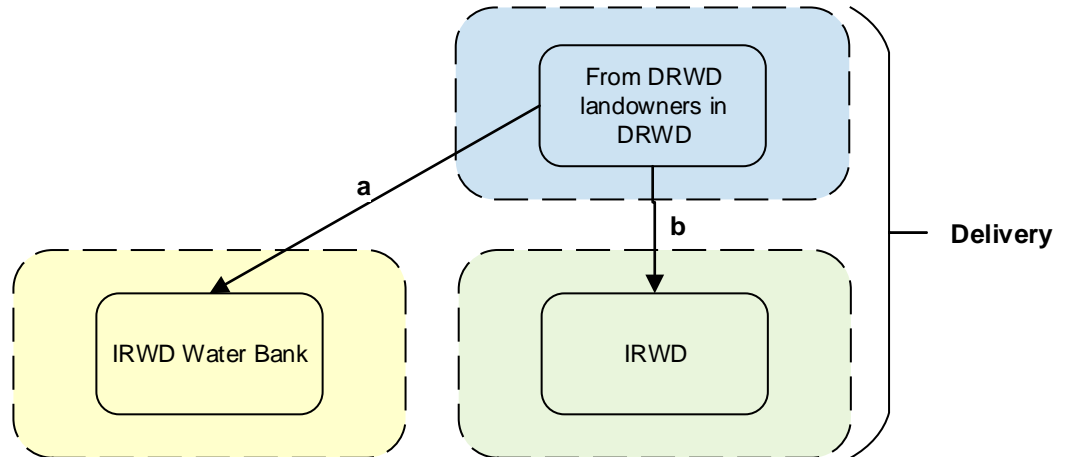
Per Section 4.1.3, z can be delivered to IRWD via in-ground transfer to IRWD, SWP delivery to IRWD banking facilities, or SWP delivery to MWDSC



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

---

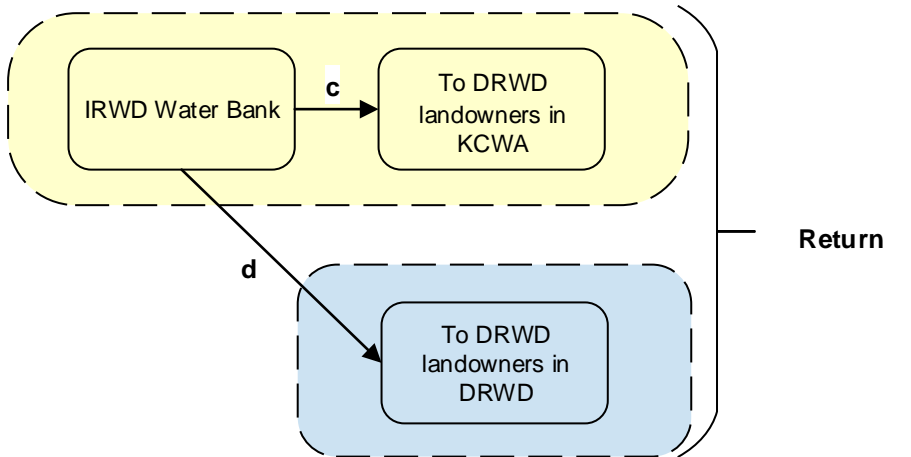
$a + b = c + d$   
(less applicable losses, if any)




**Legend**

---

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



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December 8, 2021  
Prepared by: K. Welch  
Submitted by: F. Sanchez / P. Weghorst  
Approved by: Paul A. Cook 

## SUPPLY RELIABILITY PROGRAMS COMMITTEE

### UPDATE ON SITES RESERVOIR PROJECT AND RELATED HYDROLOGIC MODELING

#### SUMMARY:

IRWD is currently participating in the planning and environmental review of the Sites Reservoir Project (Sites Project) corresponding to 1,000 acre-feet (AF) of annual release capacity and 6,234 AF of storage capacity in the project. This capacity would allow IRWD to establish a regulated average annual water supply from the reservoir of approximately 1,000 acre-feet per year (AFY) for IRWD's Water Bank and the Kern Fan Groundwater Storage Project. At the Committee meeting, staff will provide an update on the Project Financing Action Plan and review preliminary modeling results depicting how much water from the Sites Project can be delivered to IRWD and other participants located south of the Sacramento-San Joaquin River Delta (the Delta). Staff will also provide an overview of an agreement for sharing in the cost of the modeling work.

#### BACKGROUND:

The proposed Sites Reservoir Project will provide 1.5 million AF of off-stream storage in the Sacramento Valley that would capture and store stormwater flows from the Sacramento River after all other water rights and regulatory requirements are met. A map showing the project location is provided as Exhibit "A". The stored water would be used to benefit California communities, farms, and businesses. The water would also be used for environmental purposes consistent with the California Water Commission's Water Storage and Investment Program (WSIP) requirements. The Sites Reservoir Project expects to receive \$836 million in WSIP funding and up to 25% of capital funding from the federal government through the Water Infrastructure Improvements for the Nation (WIIN) Act.

#### IRWD and the Sites Project:

In December 2020, the IRWD Board approved the District's participation in the planning and environmental review of the Sites Reservoir Project corresponding to 1,000 AF of release capacity and 6,234 AF of storage capacity in the project. As a participant in the project, IRWD is a member of the Reservoir Committee and participates in all of the project meetings and workshops. IRWD's share of the funding for the current work plan is \$208,500, which continues through December 31, 2021. The current work plan includes planning and environmental review work associated with completing WSIP grant eligibility requirements by the January 1, 2022, deadline. In November 2021, the Sites Reservoir Authority released a Draft Environmental Impact Report / Environmental Impact Statement for the project. The Authority is expected to complete a water rights application by December 31, 2021. The current work plan includes the preparation of a Project Plan of Finance, which is described below.

## Supply Reliability Programs Committee: Update on Sites Reservoir Project and Related Hydrologic Modeling

December 8, 2021

Page 2

During this planning period, IRWD engaged MBK Engineers to perform hydrologic modeling to determine the potential yield from the project considering the ability to cycle additional water through IRWD's storage capacity in Sites Reservoir and considering losses that would occur as water is delivered across the Delta both with and without additional conveyance capabilities. This modeling work is also described below.

### Sites Reservoir Draft Project Plan of Finance:

On October 15, 2021, IRWD staff participated in a Sites Joint Reservoir Committee and Authority Board Financing Plan Workshop where the proposed Sites Reservoir Project Draft Plan of Finance was reviewed with the participants. The Plan of Finance includes two options: 1) participating in group financing, or 2) "paying-as-you-go" (pay-go). For all participants, there will be terms and mechanisms in place related to ensuring the Authority has sufficient funding to meet its obligations. If a participant is unable to pay its upcoming debt service, the first step is for the participant to sell water, lease storage, or sell storage in the Project. If a participant defaults, the Authority would take control of the participant's entitlements in the project. Under a payment default, other Sites participants can volunteer to take over the participants obligation in exchange for entitlement. If there are no interested Sites participants, then outside entities can assume the obligations in exchange for entitlement. If no entities are interested, then a liquidity reserve would be enacted where participants would pay based on participation levels while receiving a proportional entitlement in the Project. IRWD's share of the liquidity reserve, if needed, is expected to be 0.604% and not likely exceed \$23,000 per year. In return, IRWD would receive a proportional share of release and storage capacity in the project, which IRWD could hold or market to third-party entities.

### Preliminary Hydrologic Modeling Results:

In October, MBK Engineers provided IRWD staff with preliminary CalSim II modeling results depicting the potential range of water supply benefits that IRWD and other south-of-Delta participants would receive from the project. The results consider the ability to cycle additional water through IRWD's storage capacity in Sites Reservoir and losses that would occur as water is conveyed across the Delta both with and without additional conveyance capabilities. Staff will review the preliminary results of MBK's modeling work for alternative flow scenarios at the Committee meeting. Staff will also update the Committee on the expected cost of water from the Sites Project taking into consideration the preliminary modeling results.

### *Cost Sharing Agreement for Hydrologic Modeling:*

In July 2021, IRWD entered into an agreement with MBK Engineers to perform the hydrologic modeling described above. The modeling evaluates increased conveyance capacity across the Delta, which would allow for potential increased yield from the project and reduced carriage losses to IRWD and other south-of-Delta participants. The cost of this work was \$58,150 to be split among seven participants. Participants that are expected to cost share the modeling work with IRWD include Metropolitan Water District, Alameda County Flood Control and Water Conservation District Zone 7 Water Agency, Wheeler Ridge-Maricopa Water Storage District, San Bernardino Valley Municipal Water District, Santa Clarita Valley Water Agency, and San

Supply Reliability Programs Committee: Update on Sites Reservoir Project and Related Hydrologic Modeling

December 8, 2021

Page 3

Gorgonio Pass Water Agency. Additional south-of-Delta participants are also considering sharing in the costs for the modeling work. Currently, IRWD's cost share would be approximately \$8,307, which would be reduced if additional agencies participate. Staff has worked with IRWD's special legal counsel to prepare that cost sharing agreement, which is provided as Exhibit "B".

Next Steps:

Staff will continue to refine the yield and cost of water supply estimated from the Sites Project based on the hydrologic modeling results. In January 2022, staff expects to present to the Committee and Board a final Project Plan of Finance along with an Amendment No. 3 work plan and budget for IRWD's continued participation in the Sites Reservoir Project.

FISCAL IMPACTS:

IRWD's share of the hydrologic modeling described above is expected to be \$8,307 or less depending on the level of participation in the cost sharing agreement for this work. These costs are included under Project 11746 in the FY 2021-23 Capital Budget.

ENVIRONMENTAL COMPLIANCE:

The Sites Project Authority issued a draft [Environmental Impact Report/Environmental Impact Study](#) for the Sites Reservoir Project on November 12, 2021.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

Exhibit "A" – Location Map of the Sites Reservoir Project

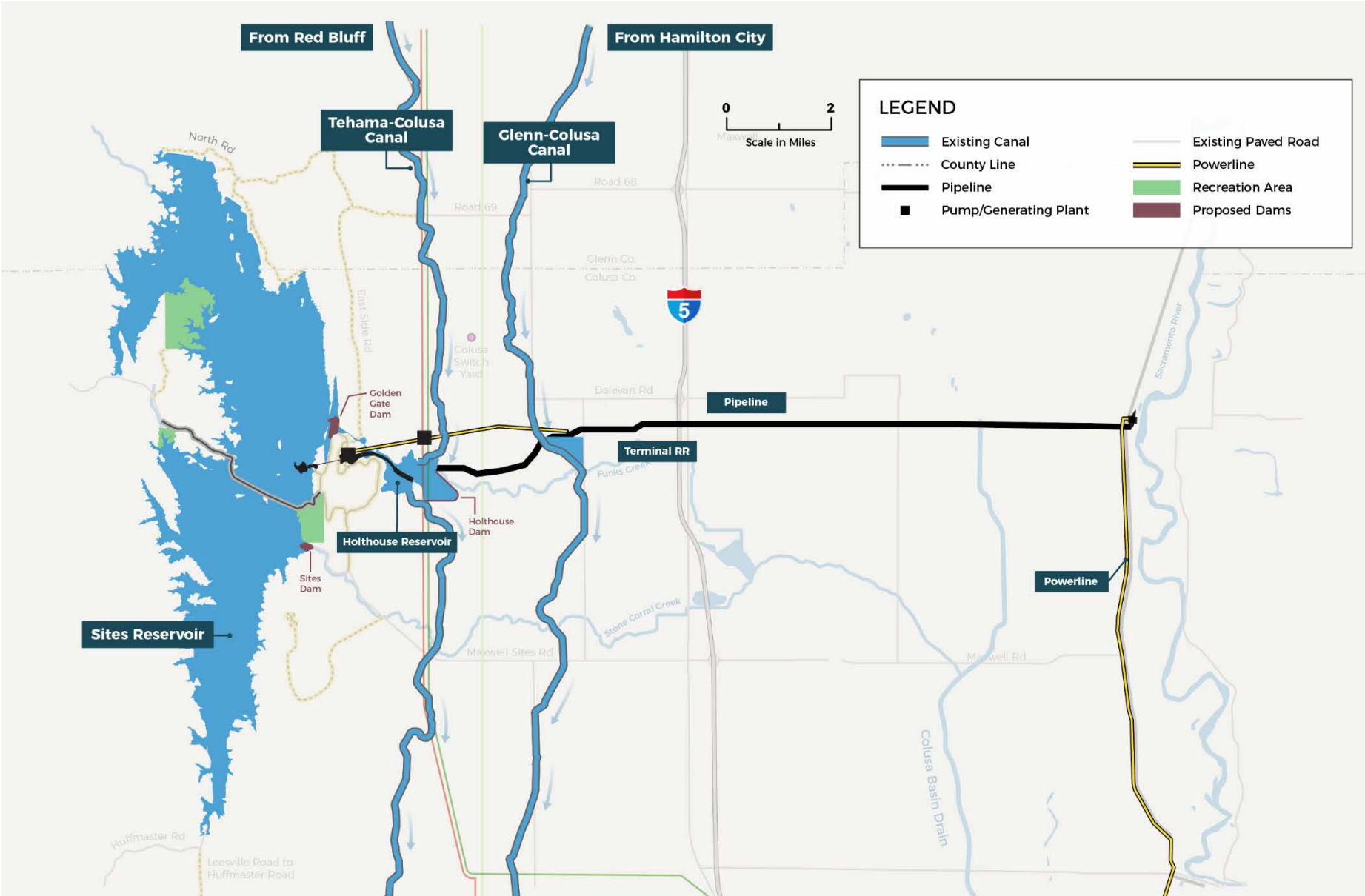
Exhibit "B" – Cost Sharing Agreement for South-of-Delta Modeling

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# Exhibit "A"

## Sites Reservoir Location Map



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# EXHIBIT "B"

## COST SHARING AGREEMENT (South-of-Delta Modeling)

This South-of-Delta Modeling Cost Sharing Agreement ("**Agreement**") is dated \_\_\_\_\_ XX, 2021, ("**Effective Date**") and is between IRVINE RANCH WATER DISTRICT, a California Water District ("**IRWD**"), METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a California public corporation ("**MWD**"), ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT ZONE 7 WATER AGENCY, a California public entity ("**Zone 7**"), WHEELER RIDGE-MARICOPA WATER STORAGE DISTRICT, a California public entity ("**Wheeler**"), SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT, a municipal water district ("**SBVMWD**"), SANTA CLARITA VALLEY WATER AGENCY, a California public entity ("**SCVWA**"), and SAN GORGONIO PASS WATER AGENCY, a California public entity ("**SGPWA**"). Each are referred to individually as a "**Party**," and collectively as the "**Parties**."

A. The Sites Joint Powers Authority ("**Sites JPA**") is planning on building and operating the Sites Reservoir, a proposed water storage facility in the State of California that will help with statewide operational effectiveness of the State Water Project and Central Valley Project. The Parties are interested in hiring a consultant to provide modeling work to determine how much water from Sites Reservoir can be moved through a hypothetical conveyance facility across that San Joaquin-Sacramento River Delta ("**Conveyance Project**").

B. MBK Engineers ("**MBK**") has proposed to perform technical modeling and related support to assist the Parties in understanding the potential range of water supply benefits that the Sites Reservoir may provide based on assumptions regarding Sites Reservoir operations and use of Conveyance Project infrastructure (the "**Modeling Work**"). The Modeling Work is anticipated to be complete by December 12, 2021, for an estimated not-to-exceed amount of Fifty-Eight Thousand One Hundred Fifty Dollars (\$58,150).

C. The Parties have a mutual interest in understanding the water supply benefits of Sites Reservoir both with and without a Conveyance Project, and intend by this Agreement to provide the framework under which they will share costs for the Modeling Work.

The Parties therefore agree as follows:

1. Contract for Modeling Work. On behalf of all of the Parties, IRWD serve as the contracting agency and will enter into an agreement with MBK to perform the Modeling Work. IRWD shall promptly pay MBK all amounts due, and at the conclusion of the Modeling Work, or by December 31, 2021, whichever comes first, IRWD shall invoice each of the Parties (including any additional parties) for their proportional share of the costs of the Modeling Work (as further described in Section 4, below).

2. Scope of Modeling Work. The Modeling Work will evaluate potential synergies of the Sites Reservoir with a Conveyance Project. MBK will develop a post-processing spreadsheet model, based on the currently available CalSim II model developed by the Sites JPA. The post-processing model will be used to evaluate potential evaluations of for the Conveyance Project. The work will be performed on a time and materials basis for an estimated not-to-exceed

amount of Fifty-Eight Thousand One Hundred Fifty Dollars (\$58,150). Any additional Modeling Work performed by MBK is expressly contemplated here and subject to the cost-sharing provisions below.

3. Additional Parties. In addition to the Parties listed above, additional parties may be added to this Agreement, subject to all of the covenants, terms, and conditions of the Agreement. Additional parties may join this Agreement at any time prior to completion of the Modeling Work upon invitation by one or more of the original Parties, by duly executing the signature page and delivering an electronic version to all then-current Parties. Additional parties will be treated as original parties to this Agreement and equally share in the total cost of the Modeling Work, as described in Section 4, Cost Sharing.

4. Cost Sharing. The Parties shall share the total cost of the Modeling Work. Wheeler agrees to pay up to a maximum of \$8,800 for its share and all other Parties shall share equally the remaining cost of the Modeling Work. Each Party's proportional share will be determined by taking the final invoiced amount from MBK, and dividing that amount by the number of Parties at the conclusion of the Modeling Work. At the conclusion of the Modeling Work, or by December 31, 2021, whichever comes first, IRWD will invoice each Party an equal share of the total cost of the Modeling Work. Each Party shall pay IRWD its equal share within 30 days of receiving the invoice.

5. Meetings. Any Party may participate in meetings with MBK to review interim and final results of the modeling study. IRWD will schedule group meetings to facilitate review of the study. As a group, the Parties will meet at least twice to review the modeling study results.

6. Indemnity. Each Party shall indemnify, defend, and hold the other Parties, and their officers, agents, and employees harmless from any expense, liability, injury, loss, damage or expense to persons or property (collectively, "**Claims**") which may arise or may be claimed to have arisen as a result of this Agreement. Each Party's indemnity and defense obligations will not apply to any portion of any Claims determined by a court of competent jurisdiction to have been proximately caused by the gross negligence or willful misconduct of another Party, its officers, agents, or employees.

7. Withdrawal. Any Party may withdraw from this Agreement upon 30 days' notice to the other Parties; however the payment obligations of that Party will survive and not be extinguished by that withdrawal.

8. Warranty of Authority. Each person executing this Agreement in a representative capacity represents and warrants that he or she is authorized to execute this Agreement on behalf of and to bind the Party on whose behalf he or she executes the Agreement.

9. Construction. This Agreement will be construed as it were jointly prepared by the Parties.

10. No Third Party Beneficiaries. This Agreement is not for the benefit of any person or entity other than the Parties.

11. Modification. This Agreement may not be modified by any of the Parties by oral representation made before or after the execution of this Agreement. All modifications must be in writing and signed by the Parties or their successors in interest at the time of modification.

12. Further Documents. The Parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement.

13. Governing Law. This Agreement is entered into and will be construed and interpreted in accordance with the laws of the State of California.

14. Execution of Agreement. This Agreement may be executed in multiple counterparts. The signature page of this Agreement may be executed by way of a manual or electronic or digital signature. Delivery of an executed counterpart of a signature page by electronic transmission will be effective.

The Parties are signing this Agreement to be effective as of the Effective Date.

**METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA**

**IRVINE RANCH WATER DISTRICT**

By: \_\_\_\_\_  
[Name]  
[Title]

By: \_\_\_\_\_  
Paul A. Cook  
General Manager

APPROVED AS TO FORM:  
[Law Firm]

APPROVED AS TO FORM:  
Hanson Bridgett, LLP

By: \_\_\_\_\_  
[MWD Counsel]

By: \_\_\_\_\_  
IRWD Counsel

**ALAMEDA COUNTY FLOOD  
CONTROL AND WATER  
CONSERVATION DISTRICT ZONE 7  
WATER AGENCY**

**WHEELER RIDGE-MARICOPA  
WATER STORAGE DISTRICT**

By: \_\_\_\_\_  
[Name]  
[Title]

By: \_\_\_\_\_  
[Name]  
[Title]

APPROVED AS TO FORM:  
[Law Firm]

APPROVED AS TO FORM:  
[Law Firm]

By: \_\_\_\_\_  
Zone 7 Counsel

By: \_\_\_\_\_  
Wheeler Counsel

*(Signatures Continued on Next Page)*

**SAN BERNARDINO VALLEY  
MUNICIPAL WATER DISTRICT**

**SANTA CLARITA VALLEY  
WATER AGENCY**

By: \_\_\_\_\_  
[Name]  
[Title]

By: \_\_\_\_\_  
[Name]  
[Title]

APPROVED AS TO FORM:  
[Law Firm]

APPROVED AS TO FORM:  
[Law Firm]

By: \_\_\_\_\_  
SBVMWD Counsel

By: \_\_\_\_\_  
SCVWA Counsel

**SAN GORGONIO PASS WATER AGENCY**

By: \_\_\_\_\_  
[Name]  
[Title]

APPROVED AS TO FORM:  
[Law Firm]

By: \_\_\_\_\_  
SGPWA Counsel