
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. UPDATE ON IRWD WATER BANK COSTS OF WATER – PALACIO / WELCH / SANCHEZ / WEGHORST

Recommendation: Receive and file.

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

Recommendation: Receive and file.

ACTION

8. TERMS FOR SHORT-TERM AND LONG-TERM WATER BANKING PROGRAMS WITH SANTA CLARITA VALLEY WATER AGENCY – WELCH / SANCHEZ / WEGHORST

Recommendation: That the Board authorize the General Manager to develop and execute a Short-term Drought Relief and Transfer Program Agreement and a Long-term Unbalanced Exchange Program Agreement between IRWD and Santa Clarita Valley Water Agency based on the terms presented.

ACTION - Continued

9. TERMS FOR LETTER AGREEMENT TO ALLOW METROPOLITAN WATER DISTRICT TO BORROW WATER – WELCH / SANCHEZ / WEGHORST – WELCH / SANCHEZ / WEGHORST

Recommendation: That the Board authorize the General Manager to execute a letter agreement, based on the proposed terms, allowing Metropolitan Water District to borrow 3,927 acre-feet of State Water Project water stored in the IRWD Water Bank and closing out the 2014 Exchange Agreement between IRWD and Metropolitan.


OTHER BUSINESS

10. Directors' Comments

11. 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.

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November 18, 2021
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 the proposed Kern Fan Groundwater Storage Project.

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 a column that provides totals for each water type and storage location.

Changes shown in red on Exhibits "B" and "C" show the estimated recovery of 10,000 acre-feet (AF) of IRWD's non-State Water Project (SWP) water delivered to Wonderful Orchards inside Kern County as part of the Dudley Ridge Water District Long-Term 1-for-1 Water Exchange Program. Recovery under this Water Exchange Program is complete for 2021.

Accounting of Water Sold to Dudley Ridge:

The Kern County Water Agency (KCWA) approved the recovery of 3,672 AF of IRWD's banked SWP water to Dudley Ridge Water District landowners as part of a current sales program with Dudley Ridge. Since 2015, IRWD has taken delivery of 7,344 AF (before losses) of SWP through Dudley Ridge on a 2-for-1 exchange basis. KCWA approved 50% of this water, or 3,672 AF, to be recovered and returned to Dudley Ridge consistent with existing agreements with the California Department of Water Resources. The other half is retained for use in IRWD's service area.

The 3,672 AF approved by KCWA did not account for water banking losses. When accounting for stored water, IRWD and Rosedale-Rio Bravo Water Storage District deduct the applicable losses at the time water is delivered into storage. Losses apply to both IRWD's share of the water that can be exported to IRWD's service area and the water that must be returned for use within Dudley Ridge's service area.

After applicable losses of 439 AF, the share of Dudley Ridge water that needed to be returned for use within Dudley Ridge's service area is 3,233 AF. Since IRWD delivered and sold to Dudley Ridge the gross amount of 3,672 AF that was allowed by KCWA, the difference of 439 AF needs to be accounted for. Staff worked with Rosedale to deduct the 439 AF from IRWD's Article 21 water acquired from Semitropic Water Storage District (Semitropic) in 2008. The 2,842 AF (net of losses) acquired from Semitropic is water that is expected to be used in Kern County and not exported. After deducting 439 AF from the water sold to Dudley Ridge, a balance of 2,403 AF remains of the Semitropic Article 21 water. Recovery of 3,233 AF from the 'DRWD SWP' column and 439 AF from the 'IRWD NON-SWP' column is shown on Exhibits "B" and "C".

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 into 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.

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, 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.

Kern Fan Project Update:

Recently, staff met with the California Water Commission (CWC) and its consultants to discuss information needed for the Kern Fan Groundwater Storage Project Feasibility Report to fully substantiate a CWC finding that the project is cost effective and technically feasible. It was concluded that additional analyses are necessary to demonstrate additional water supply benefits for the project. Staff is working with consultants at MBK Engineers and M.Cubed to provide the necessary technical and updated economic analyses. Staff will provide the CWC an update to the Feasibility Report by November 22. At the Committee meeting, staff will provide an overview of the additional analyses that are being performed to demonstrate additional water supply benefits for the project. The overall project feasibility will be reviewed by the CWC at its meeting in December.

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

Exhibit "A"

TABLE 1
Current and Anticipated Water Banking Projects
Recharge, Storage and Recovery Capacities
 November 18, 2021

WATER BANKING PROJECT	OWNERSHIP AND WELL INFO			ALLOCATED CAPACITY (AF)					1 st PRIORITY RECOVERY CONDITIONS (CFS)		2 nd PRIORITY RECOVERY CONDITIONS (CFS)	
	IRWD OWNED	WELLS EXISTING	WELLS PROPOSED OR UNDER CONST.	TOTAL STORAGE CAPACITY	ANNUAL RECHARGE 1 ST PRIORITY	ANNUAL RECHARGE 2 ND PRIORITY	ANNUAL RECOVERY 1 ST PRIORITY	ANNUAL RECOVERY 2 ND PRIORITY	RECOVERY CAPACITY AS PLANNED ¹	ESTIMATED RECOVERY CAPACITY (APR. 2019 CONDITIONS) ²	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	-
IRWD Acquired Storage Account ³	No	-	-	50,000	-	-	-	-	-	-	-	-
Drought Relief Project Wells ³	No	3	-	-	-	-	-	-	15.0	15.0	-	-
Kern Water Bank Storage Account ⁵	No	-	-	9,495	3,200	-	6,330	-	-	-	-	-
TOTALS		13	2	135,495	47,800	19,000	35,080	7,500	70.0	70.0	10.0	0.0
Partner Capacities ⁴				38,000	22,300	9,500	10,850	0	35.5	25.0	-	-
IRWD Capacities				88,000	22,300	9,500	17,900	7,500	34.5	25.0	-	-
IRWD's recovery <i>during</i> 6 month partner recovery period (AF)									12,420	9,000	-	-
IRWD's recovery <i>after</i> 6 month partner recovery period (AF)									5,480	6,733	-	-
TOTALS (AF)									17,900	15,733	-	-
Number of months needed to recover IRWD's total AF after partners' recovery (Assumes IRWD has use of total recovery capacity after partners' recovery)									8.6	10.2	-	-
Strand Ranch monthly recharge amount assuming 0.3 ft/day average recharge rate (AF)											4,518	
Stockdale West monthly recharge amount assuming 0.3 ft/day average recharge rate (AF)											2,331	

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

² SUP-1 is currently down

³ IRWD has use of Acquired Storage and Drought Relief Project wells until January 12, 2039, unless the term of the agreement is extended.

⁴ One half of storage capacity at Stockdale West and Strand Ranch will be allocated for partners.

⁵ 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. Not included in storage capacity, recharge, and recovery totals to match IRWD's Water Banking Policy Position Paper.

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Exhibit "B"

TABLE 2

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

November 18, 2021

TRANSACTIONS	WATER BANKING ENTITY					TOTAL BY WATER TYPE AND STORAGE LOCATION
	IRWD		BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	DUDLEY RIDGE WATER DISTRICT (DRWD) ³	
	SWP ¹	NON-SWP ²	NON-SWP	SWP	SWP	
BEGINNING WATER IN STORAGE 2020 (AF)						
Total Kern Water Bank (estimated)	-	4,683	-	-	-	4,683
Total MWD System ⁴	8,027	-	-	-	296	8,322
Total Kern County	4,929	24,596	11,177	636	3,491	44,828
TOTAL STORED WATER (1/1/2020)	12,955	29,279	11,177	636	3,786	57,833
(RECOVERY) AND RECHARGE IN 2020 (AF)						
MWD Water to Jackson Ranch ⁵	-	-	-	-	(96)	(96)
2020 SWP Allocation (20%) ³	175	-	-	-	175	350
Kern River Water	-	-	(7,500)	-	-	(7,500)
SWP Table A	-	-	-	-	-	-
2017 Reserve Water	106	258	258	11	95	728
TOTAL 2020 TRANSACTIONS	281	258	(7,242)	11	174	(6,518)
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
TOTAL STORED WATER (1/1/2021)	13,236	24,855	3,935	647	3,960	46,632
(RECOVERY) AND RECHARGE IN 2021 (AF)						
MWD Water to Jackson Ranch (estimated)	-	-	-	-	-	-
Kern Water Bank Deliveries	-	-	-	-	-	-
2021 SWP Allocation (5%) ^{3,6}	35	-	-	-	35	70
Kern River Water (estimated)	-	(10,000)	(2,681)	-	-	(12,681)
SWP Water Sale to DRWD Landowners (estimated)⁷	-	(439)	-	-	(3,233)	(3,672)
DRWD 1-for-1 Long Term Exchange Credit (estimated)⁸	10,000	-	-	-	-	10,000
TOTAL ESTIMATED 2021 TRANSACTIONS	10,035	(10,439)	(2,681)	-	(3,198)	(6,283)
ESTIMATED WATER IN STORAGE 2021 (AF)						
Total Kern Water Bank	-	4,683	-	-	-	4,683
Total MWD System	8,062	-	-	-	235	8,296
Total Kern County	5,210	14,416	1,254	647	528	22,053
Total DRWD 1-for-1 Long Term Exchange Credit	10,000	-	-	-	-	10,000
TOTAL ESTIMATED STORED WATER TO DATE	23,271	19,099	1,254	647	762	45,032

NOTES:

-MWD = Metropolitan Water District of Southern California.

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

² IRWD's Non-SWP total includes 2,842 AF, net of losses, of Kern County Water Agency Article 21 Water.

³ DRWD water supply will be returned by MWD or IRWD's Strand Ranch to IRWD's Jackson Ranch. 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

⁴ 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.

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

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

⁷ 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.

⁸ 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

November 18, 2021

TRANSACTIONS	WATER BANKING ENTITY					TOTAL BY WATER TYPE AND STORAGE LOCATION
	IRWD		BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	DUDLEY RIDGE WATER DISTRICT (DRWD) ³	
	SWP ¹	NON-SWP ²	NON-SWP	SWP	SWP	
BEGINNING WATER IN STORAGE 2020 (AF)						
Total Kern Water Bank	-	4,215	-	-	-	4,215
Total MWD System ⁴	8,027	-	-	-	296	8,322
Total Kern County	3,926	20,685	9,923	545	2,992	38,072
TOTAL STORED WATER (1/1/2020)	11,953	24,900	9,923	545	3,288	50,609
(RECOVERY) AND RECHARGE IN 2020 (AF)						
MWD Water to Jackson Ranch ⁵	-	-	-	-	(96)	(96)
2020 SWP Allocation (20%) ³	150	-	-	-	150	300
Kern River Water	-	-	(7,500)	-	-	(7,500)
SWP Table A	-	-	-	-	-	-
2017 Reserve Water	101	245	258	10	90	705
TOTAL 2020 TRANSACTIONS	251	245	(7,242)	10	144	(6,591)
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
TOTAL STORED WATER (1/1/2021)	12,204	25,145	2,681	556	3,432	44,018
(RECOVERY) AND RECHARGE IN 2021 (AF)						
MWD Water to Jackson Ranch (estimated)	-	-	-	-	-	-
Kern Water Bank Deliveries	-	-	-	-	-	-
2021 SWP Allocation (5%) ^{3, 7}	35	-	-	-	35	70
Kern River Water (estimated)	-	(10,000)	(2,681)	-	-	(12,681)
SWP Water Sale to DRWD Landowners (estimated) ⁸	-	(439)	-	-	(3,233)	(3,672)
DRWD 1-for-1 Long Term Exchange Credit (estimated) ⁹	10,000	-	-	-	-	10,000
TOTAL ESTIMATED 2021 TRANSACTIONS⁶	10,035	(10,439)	(2,681)	-	(3,198)	(6,283)
ESTIMATED WATER IN STORAGE 2021 (AF)						
Total Kern Water Bank	-	4,215	-	-	-	4,215
Total MWD System	8,062	-	-	-	235	8,296
Total Kern County	4,177	10,492	0	556	(0)	15,224
Total DRWD 1-for-1 Long Term Exchange Credit	10,000	-	-	-	-	10,000
TOTAL ESTIMATED STORED WATER TO DATE	22,239	14,706	0	556	235	37,736

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.

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

² IRWD's Non-SWP total includes 2,842 AF of Kern County Water Agency Article 21 Water.

³ DRWD water supply will be returned by MWD or IRWD's Strand Ranch to IRWD's Jackson Ranch. 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.

⁴ 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.

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

⁶ 2021 transactions may be adjusted for conveyance losses in CVC.

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

⁸ 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.

⁹ 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"

Status of IRWD Purchase and Exchange Programs (AFTER LOSSES)

September 16, 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 ¹	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 ² (SWPAO #13012)	2-for-1	2013	SWPAO	SWP Table A	1,876	200	1,876	1,174	703		1,876	1,876		200	Yes
				SWP Article 21	1,553	-	1,554		1,554		1,554	1,554		-	Yes
Metropolitan Water District ³	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	35	1,011	35	976		1,011	1,011		35	Yes
Central Coast Water Agency	2-for-1	2017	Short-Term	SWP Table A	258	258	258		258		258	258			No
Dudley Ridge Water District ⁴	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	298			No
Total:					33,482	791	39,170	8,062	14,670	10,000	32,731	21,989	10,742	235	

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

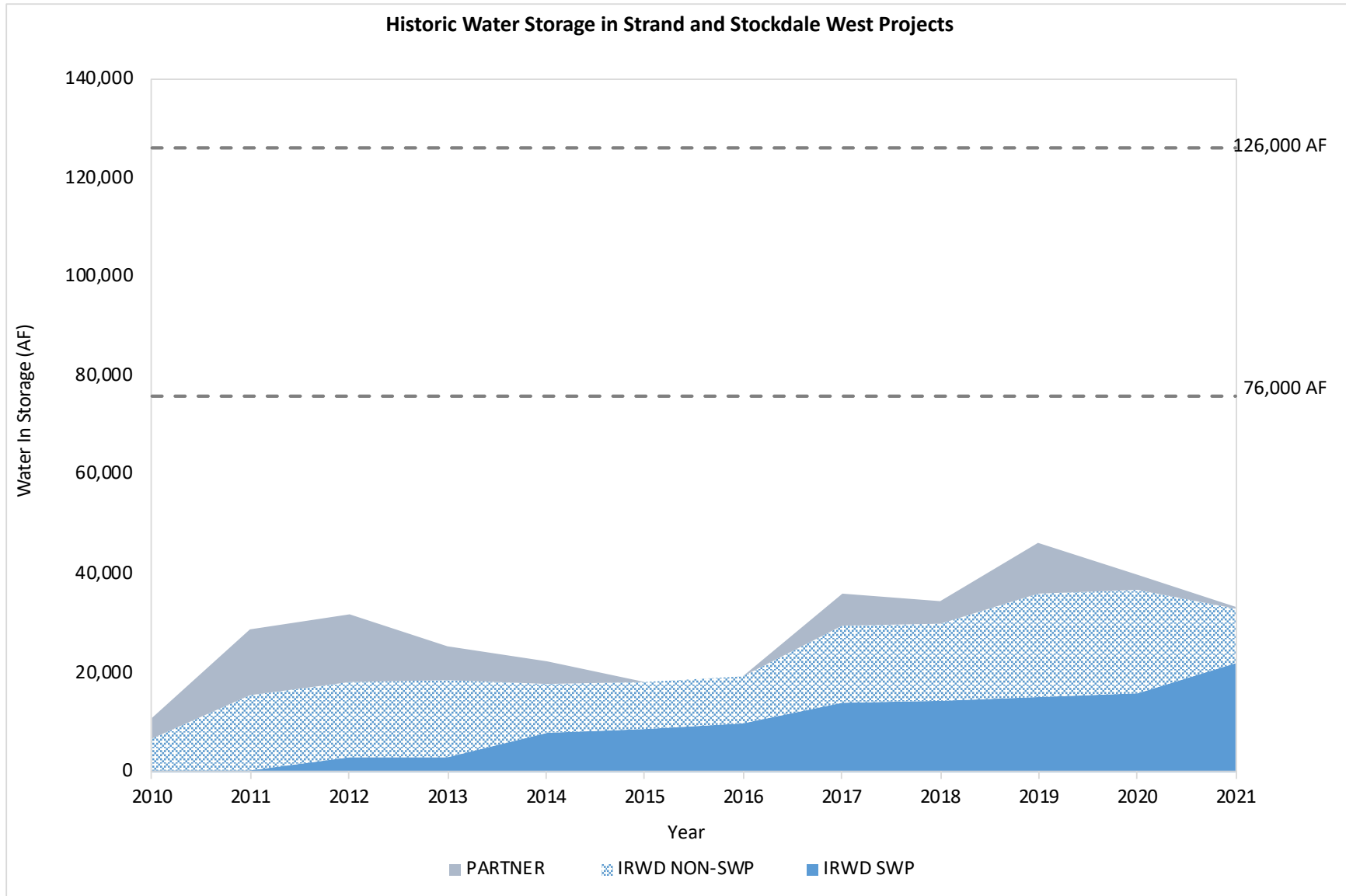
² Only the portion of water stored for use on Jackson Ranch in DRWD is sellable.

³ Source of water was Buena Vista Water Storage District Kern River high flow water.

⁴ 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
November 18, 2021

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	-	-
CVWD	-	5,000	-	-
Total Dedicated	50,000	25,000	-	-
Total Remaining	-	1,000	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	-	-
CVWD	-	5,000	-	-
Total Dedicated	17,500	25,000	-	-
Total Remaining	-	2,100	-	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	-	6,330
BVWSD	6,667	-	-	-
DRWD	-	-	-	-
AVEK	-	3,333	-	-
CVWD	-	833	-	-
IRWD	10,833	7,084	-	6,330
Total Dedicated	17,500	11,250	-	6,330
Total Remaining	-	-	-	-

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Exhibit "G"

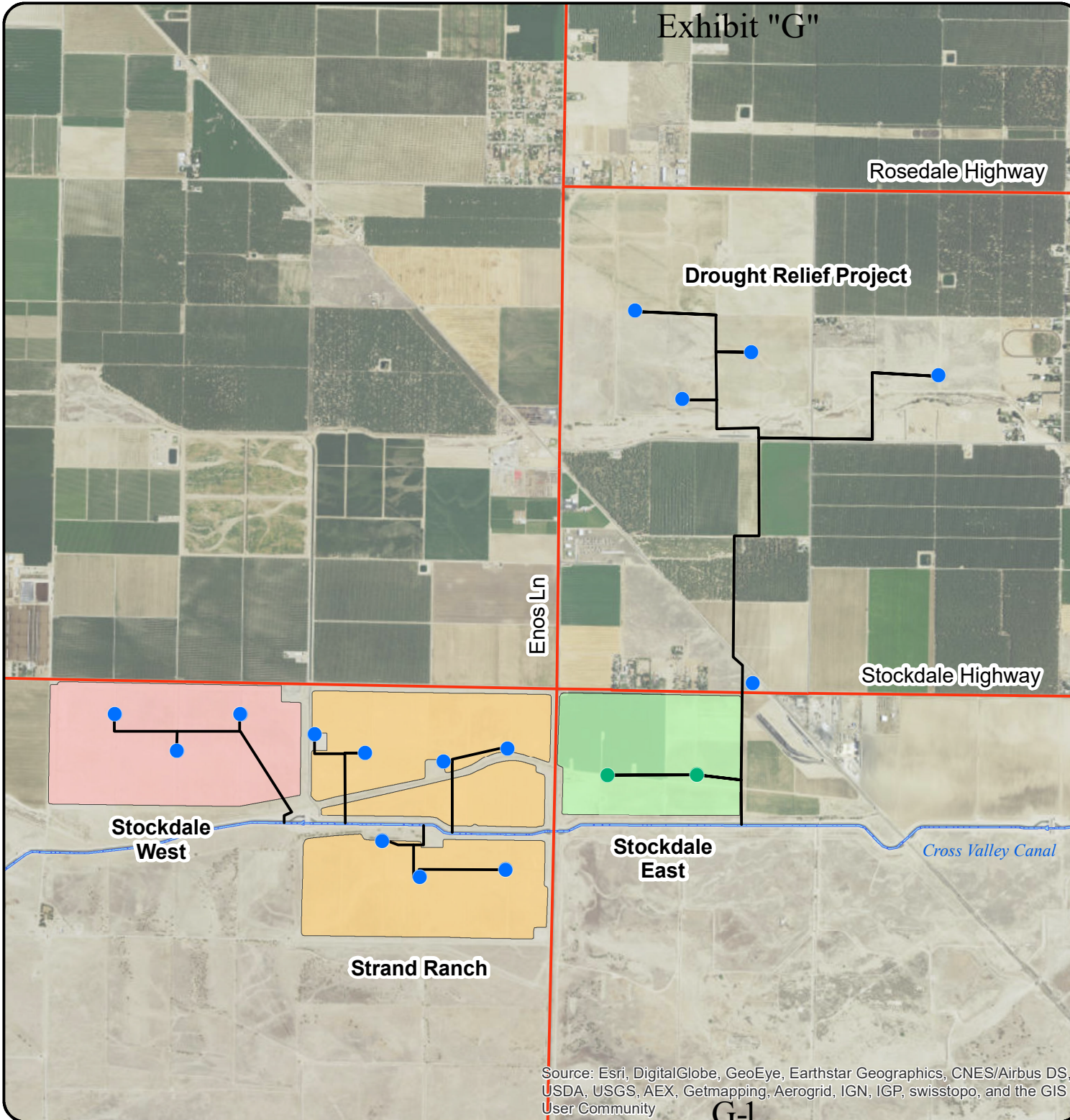


Location Map: IRWD Water Banking Projects Wells and Turnin Pipelines

MAP FEATURES

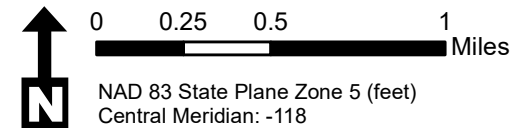
- Extraction Well
- Extraction Well
- Well Discharge Pipelines
- Stockdale East
- Stockdale West
- Strand Ranch

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

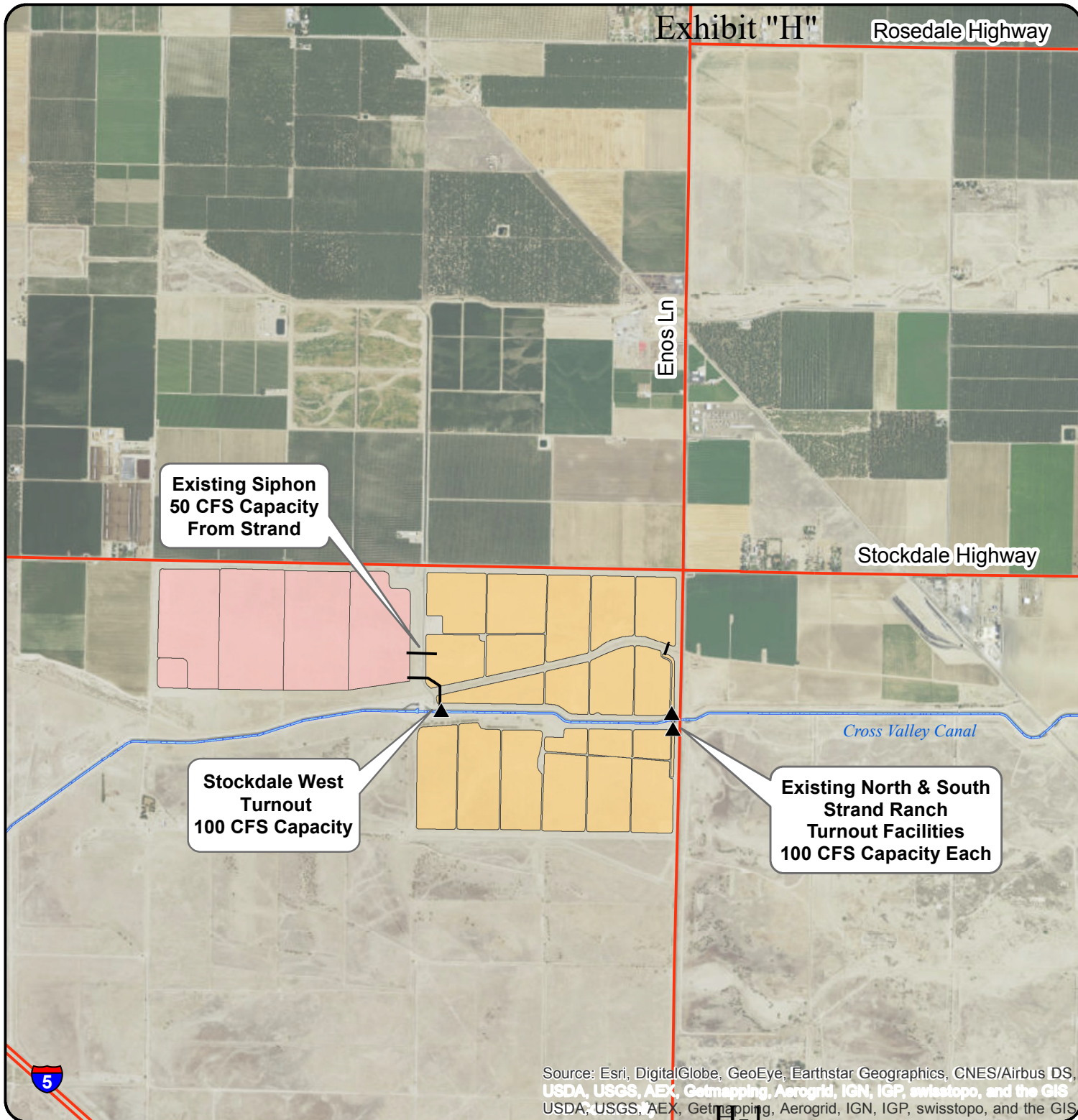
G-1



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



**Existing Siphon
50 CFS Capacity
From Strand**

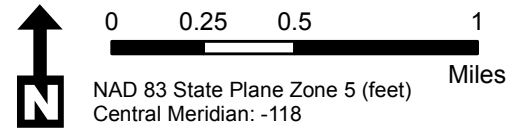
**Stockdale West
Turnout
100 CFS Capacity**

**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

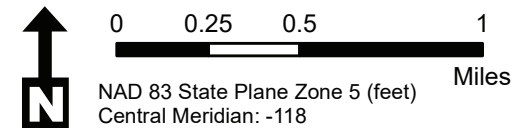
Strand Ranch North
0.29 feet/day
40 CFS

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.



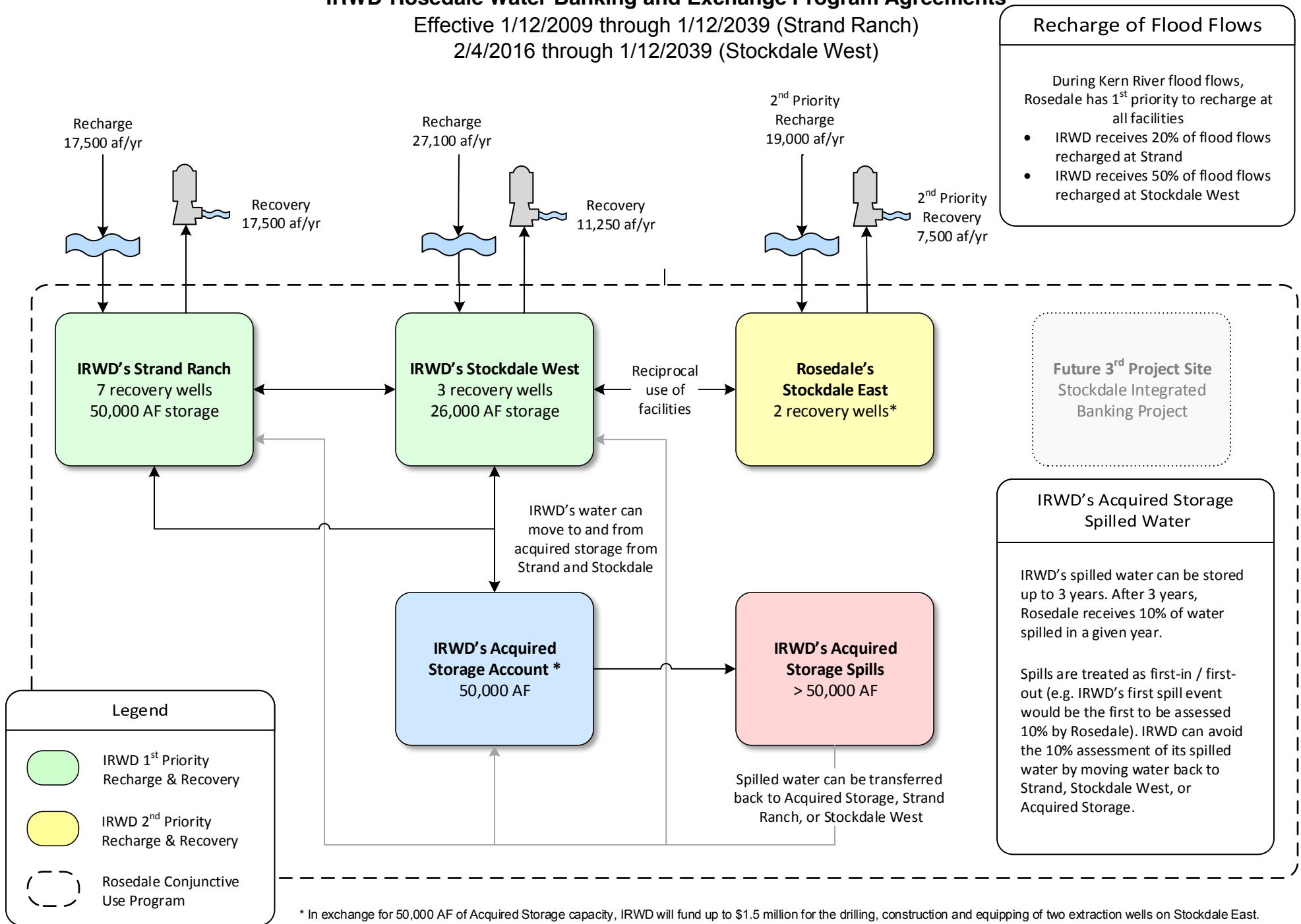
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Exhibit "J"

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)



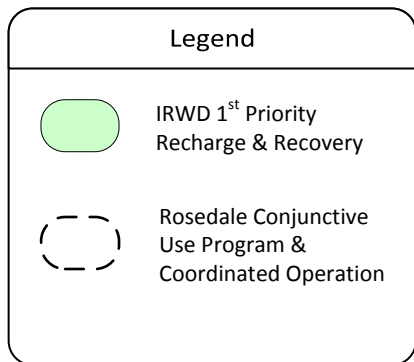
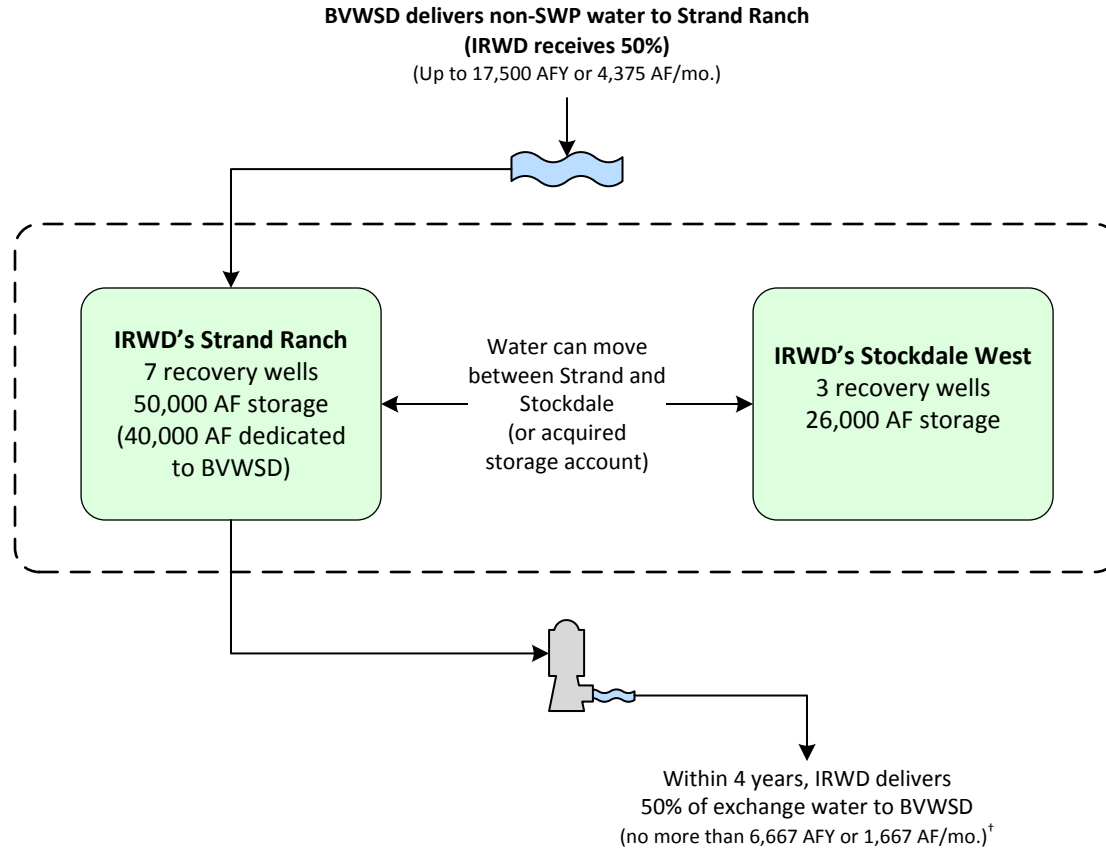
* In exchange for 50,000 AF of Acquired Storage capacity, IRWD will fund up to \$1.5 million for the drilling, construction and equipping of two extraction wells on Stockdale East.

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Exhibit "K"

Buena Vista Water Storage District Long Term Water Exchange Program

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

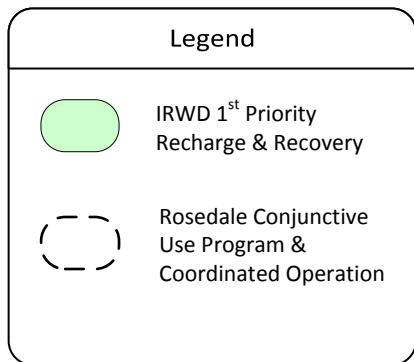
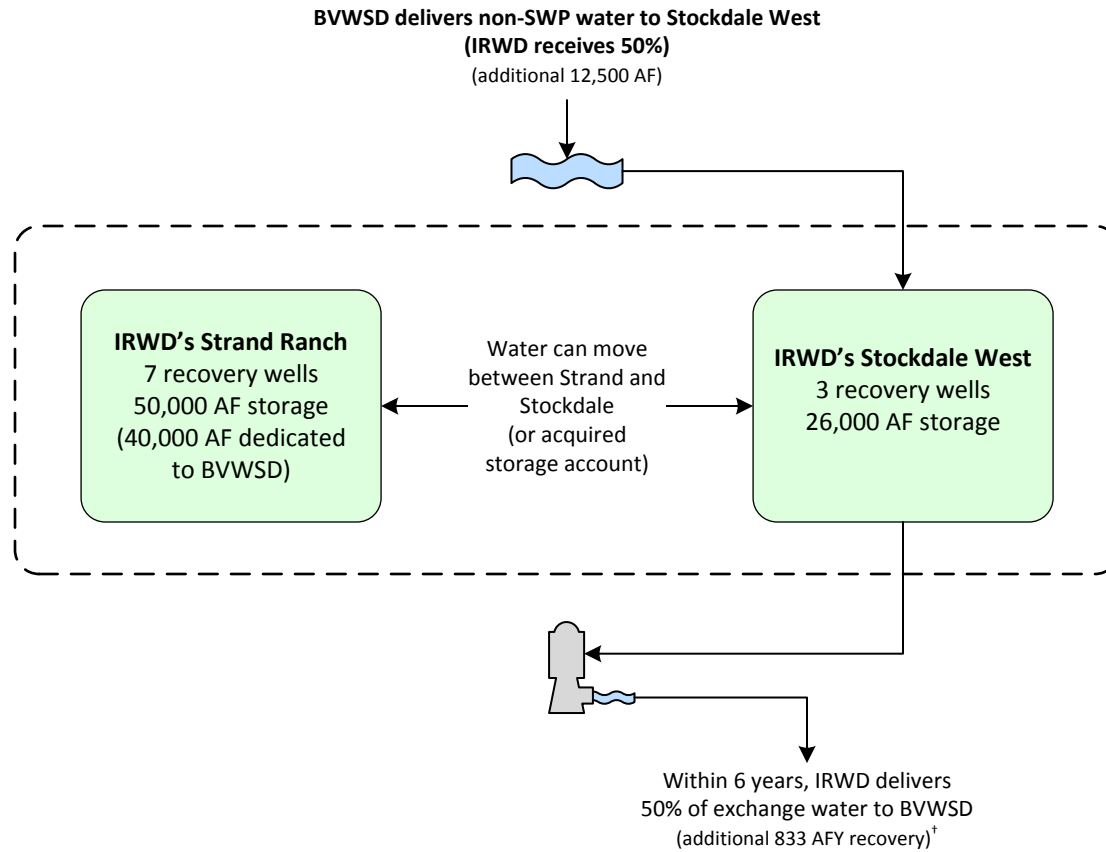


[†]IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31st of the 4th year following the associated recharge event. IRWD pays for recovery of water returned to BV. Water to be remitted back to BV may remain in storage at Strand Ranch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

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

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

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



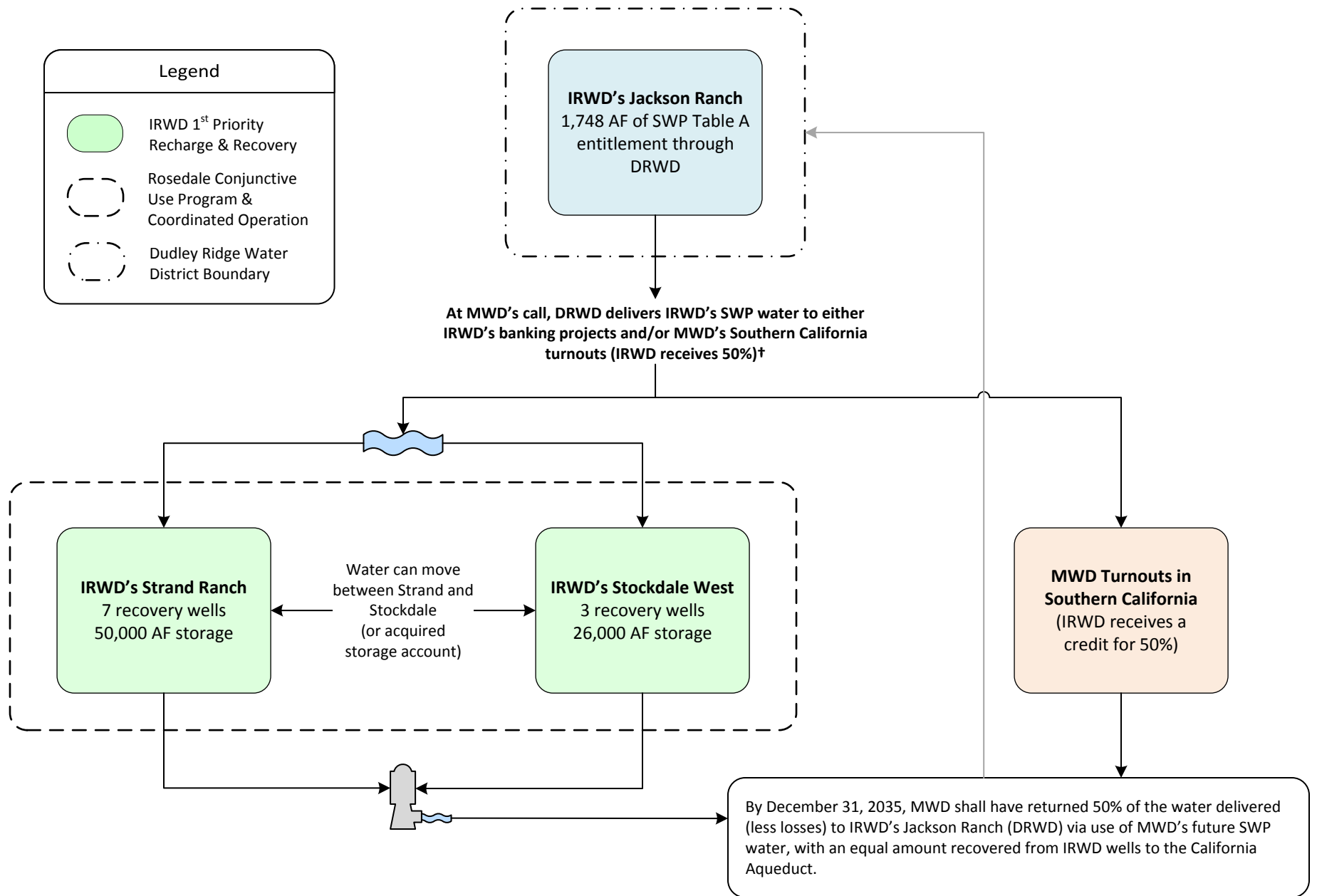
†IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31st of the 6th year following the associated recharge event. IRWD pays for recovery of water returned to BV. Water to be remitted back to BV may remain in storage at Strand Ranch beyond the 6th 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



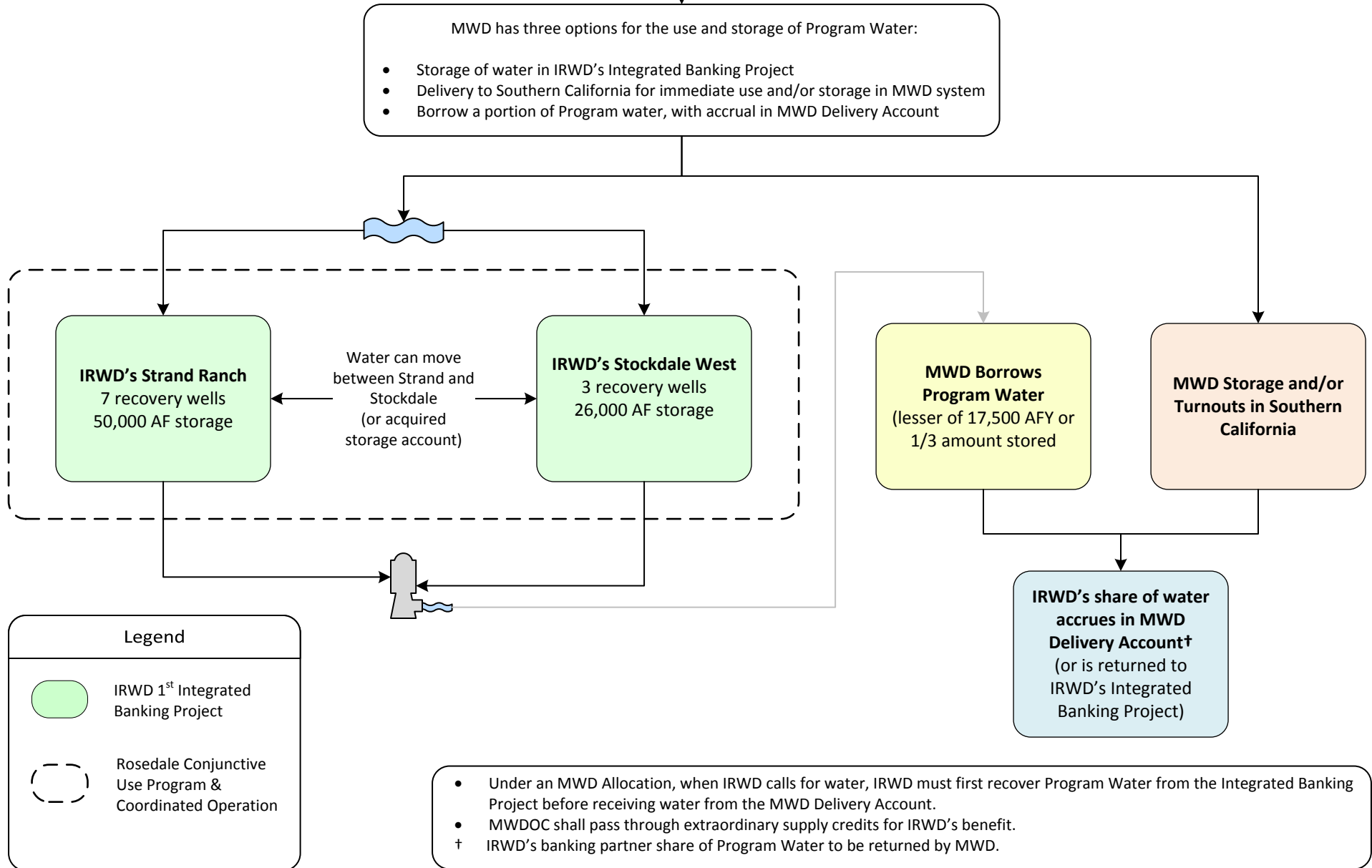
†Consistent with IRWD-MWD coordinated operating agreement.

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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

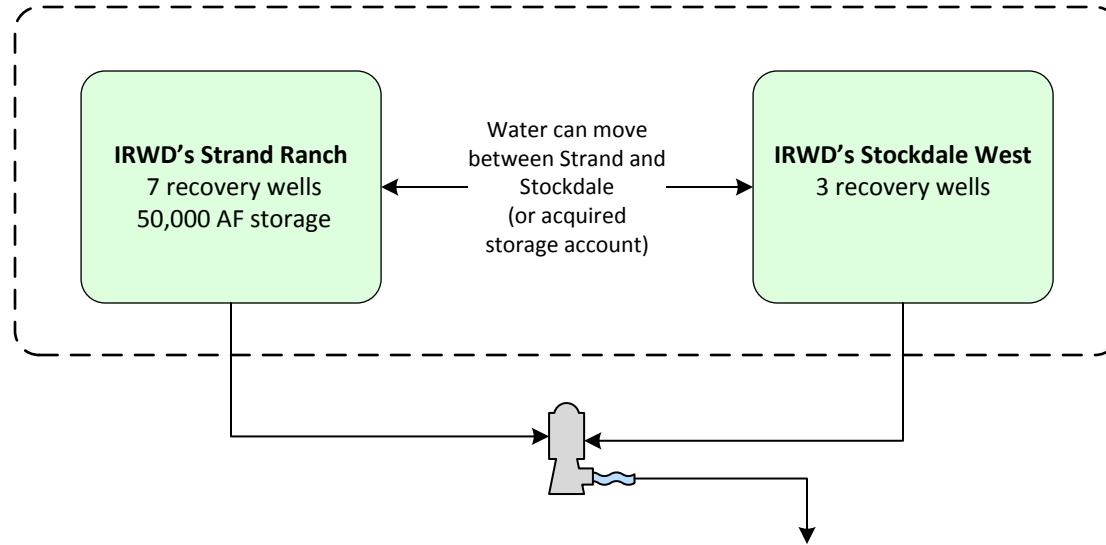


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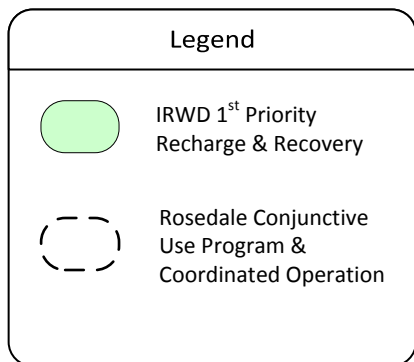
Exhibit "N"

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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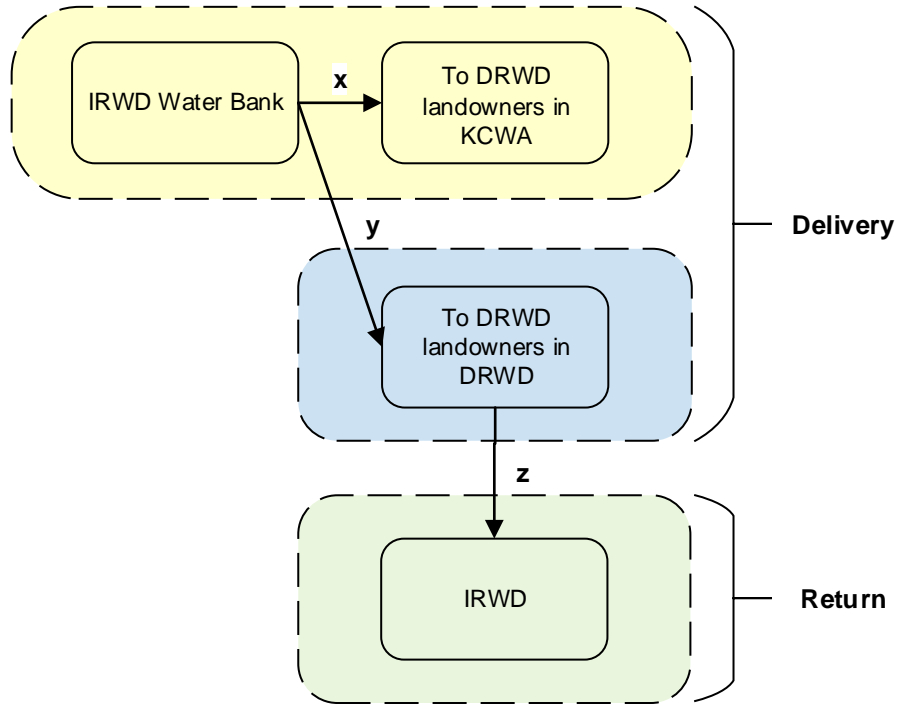
Exhibit "O"

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)

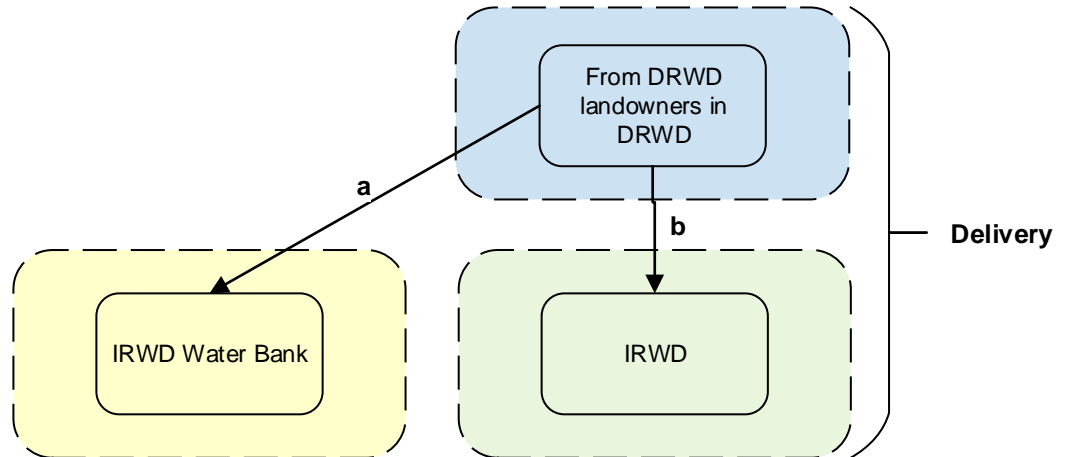
x= Non-Project Water required to stay in Kern County
 y= Non-Project Water allowed to leave Kern County
 z= DRWD Table A Water equal to x+y less applicable losses, if any

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



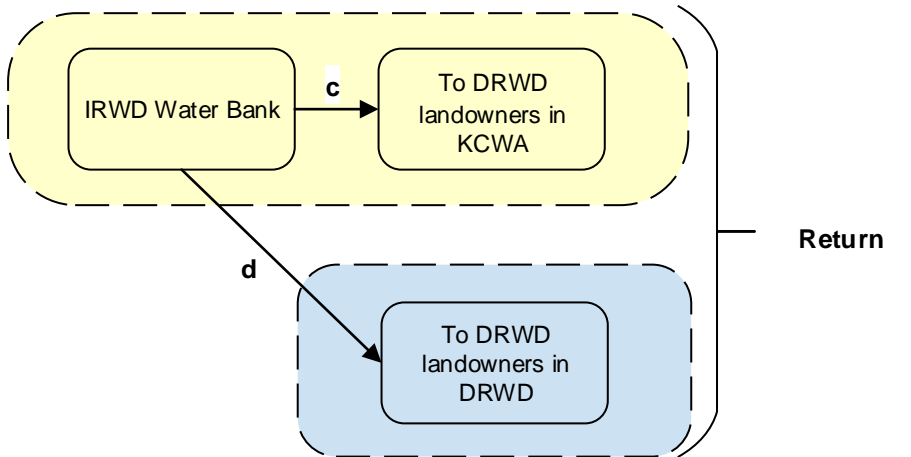
Scenario B
(Per Sections 2, 3, and 4.1.2)

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




Legend

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



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November 18, 2021
Prepared by: N. Palacio / K. Welch
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook 

SUPPLY RELIABILITY PROGRAMS COMMITTEE

UPDATE ON IRWD WATER BANK COSTS OF WATER

SUMMARY:

Staff has prepared an update on the costs of water in storage at the Strand and Stockdale West Integrated Banking Projects (IRWD Water Bank). Following is an overview of the cost components that make up the total cost of water to IRWD's service area for each of the District's water banking exchange programs.

BACKGROUND:

Since 2010, IRWD has implemented exchange programs with other agencies that have resulted in water being recharged at the IRWD Water Bank. IRWD has acquired water through 2-for-1 unbalanced exchange programs with the following water districts:

- Buena Vista Water Storage District;
- Central Coast Water Authority (CCWA);
- Antelope Valley-East Kern Water Agency (AVEK); and
- Dudley Ridge Water District

The programs with CCWA, AVEK and Dudley Ridge have provided IRWD access to State Water Project (SWP) water in accordance with contracts held with the California Department of Water Resources (DWR) and consistent with IRWD's Coordinated Operating, Water Storage, Exchange and Delivery Agreement (Coordinated Agreement) with Metropolitan Water District. The program with Buena Vista has provided IRWD access to high-flow Kern River available through Buena Vista's pre-1914 water rights. Water acquired through these unbalanced exchange partnerships, apart from Kern River water purchased in 2019, have not included a commodity cost of water. Costs incurred by IRWD related to these supplies include fixed and variable operations, maintenances and other costs associated with the recharge and recovery of water. These cost components for IRWD's exchange programs and the resulting total cost of water delivered to IRWD's service area are described below.

Cost of Water in IRWD's Service Area:

A table presenting a summary of the costs of water from each of IRWD's unbalanced exchange partnerships is provided as Exhibit "A". 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, 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 2021 Metropolitan Full Service Treated Tier-1 Rate and a capital cost of water. The costs of water are presented on a dollar per acre-foot basis. The total

cost of water delivered to IRWD's service area for IRWD's exchange programs ranges from \$1,462 per acre-foot to \$1,814 per acre-foot. The current Metropolitan allocation surcharge rates that IRWD's water banking supplies are designed to avoid currently ranges from \$2,584 per acre-foot to \$4,064 per acre-foot.

At the Committee meeting, staff will review how the cost of water was determined for each unbalanced exchange program.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

None.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

Exhibit "A" – IRWD Water Bank Program Costs of Water Summary

EXHIBIT "A"

IRWD Water Banking Program Costs of Water Summary

Program Partner	Time Period	Water Type	IRWD Amount (AF)	Variable costs ² (\$/AF) (A)	Fixed Cost Component ³ (\$/AF) (B)	Fixed & Variable (\$/AF) (C)	Estimated Cost for Recovery of Water (\$/AF) (D)	2021 MWD Tier 1 Treated Rate (\$/AF) (E)	Cost of Water in IRWD Service Area (\$/AF) (F)	Capital Component ⁴ (\$/AF) (G)	All in Cost of Water (\$/AF) (H)
						A+B			C+D+E		F+G
Buena Vista	2010-2015	Kern River	12,832	\$ 75.98	\$ 48.36	\$ 124.34	\$ 100.00	\$ 1,104.00	\$ 1,328.34	\$ 210.00	\$1,538.34
Buena Vista ¹	2017-2021	Kern River	11,256	\$ 158.77	\$ 48.36	\$ 207.13	\$ 100.00	\$ 1,104.00	\$ 1,411.13	\$ 210.00	\$1,621.13
AVEK	2012-2014	SWP Table A	2,337	\$ 11.70	\$ 48.36	\$ 60.06	\$ 100.00	\$ 1,104.00	\$ 1,264.06	\$ 210.00	\$1,474.06
Carpinteria	2010-2015	SWP Table A	905	\$ 27.04	\$ 48.36	\$ 75.40	\$ 100.00	\$ 1,104.00	\$ 1,279.40	\$ 210.00	\$1,489.40
Central Coast	2017-2021	SWP Table A	556	\$ 30.34	\$ 48.36	\$ 78.70	\$ 100.00	\$ 1,104.00	\$ 1,282.70	\$ 210.00	\$1,492.70
DRWD	2014-2021	SWP Table A	5,163	\$ 351.66	\$ 48.36	\$ 400.02	\$ 100.00	\$ 1,104.00	\$ 1,604.02	\$ 210.00	\$1,814.02
DRWD	2017	SWP Article 21	3,107	\$ -	\$ 48.36	\$ 48.36	\$ 100.00	\$ 1,104.00	\$ 1,252.36	\$ 210.00	\$1,462.36

¹ Variable cost for 2019 includes commodity charge of \$110/AF.

² Variable Costs include Rosedale variable operating costs, Rosedale administration fees, CVC pumping, operating and stand-by fees, and KCWA fees. (Net of partner payments to IRWD for their share of water)

³ Fixed costs include Rosedale fixed operating costs, property taxes, PG&E standby costs, GSP fees, CVC expansion costs and other minor fix costs.

⁴ Capital component does not include land costs.

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November 18, 2021
Prepared by: K. Welch
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook *P.A.C.*

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 (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 by 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 Act.

Irvine Ranch Water District Participation in the Site 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. Sites Reservoir Authority staff is working to complete a project Draft Environmental Impact Report and water rights application by the end of December 2021. The current work plan includes the preparation of a Project Plan of Finance which is described below.

During this planning period, staff has 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, 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 takes 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 and while receiving a proportional entitlement in the Project. IRWD's share of the liquidity reserve, if needed, is expected to be 0.604%.

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 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 is \$58,150, which would be split among six participants. Participants that are expected to cost share the modeling work with IRWD include Metropolitan Water District of Southern California, Alameda County Flood Control and Water Conservation District Zone 7 Water Agency, Wheeler Ridge-Maricopa Water Storage District, San Bernardino Valley Municipal Water District and Santa Clarita Valley Water Agency. Several other south of Delta participants are also considering

participating in cost sharing the modeling work. Currently IRWD's cost share would be approximately \$9,870, which would be reduced if additional agencies decide to participate. Staff has worked with IRWD's special legal counsel to prepare that cost sharing agreement, which is provided as Exhibit "B". Execution of the agreement is within the limits of existing staff authorities.

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. By March 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 \$9,870 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.

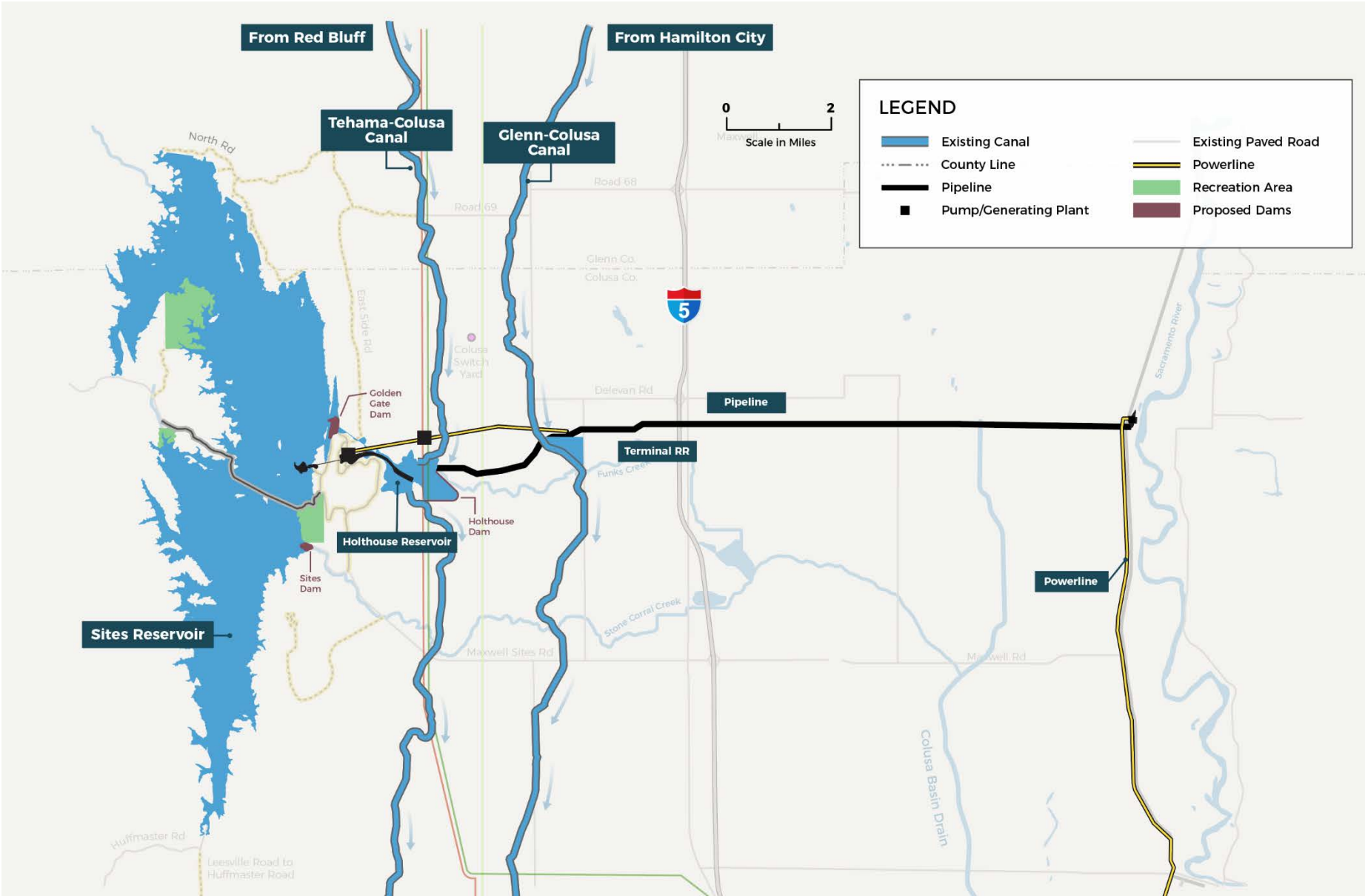
LIST OF EXHIBITS:

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**"), and SANTA CLARITA VALLEY WATER AGENCY, a California public entity ("**SCVWA**"). 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**

By: _____
[Name]
[Title]

APPROVED AS TO FORM:
[Law Firm]

By: _____
[MWD Counsel]

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

By: _____
[Name]
[Title]

APPROVED AS TO FORM:
[Law Firm]

By: _____
Zone 7 Counsel

IRVINE RANCH WATER DISTRICT

By: _____
Paul A. Cook
General Manager

APPROVED AS TO FORM:
Hanson Bridgett, LLP

By: _____
IRWD Counsel

**WHEELER RIDGE-MARICOPA
WATER STORAGE DISTRICT**

By: _____
[Name]
[Title]

APPROVED AS TO FORM:
[Law Firm]

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]

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By: _____
SBVMWD Counsel

By: _____
SCVWA Counsel

November 18, 2021
Prepared by: K. Welch
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook



SUPPLY RELIABILITY PROGRAMS COMMITTEE

TERMS FOR SHORT-TERM AND LONG-TERM WATER BANKING PROGRAMS WITH SANTA CLARITA VALLEY WATER AGENCY

SUMMARY:

In October 2021, staff met with the Santa Clarita Valley Water Agency to discuss implementing a mutually beneficial Short-term Drought Relief and Transfer Program (Short-term Program) and a Long-term Unbalanced Exchange Program (Long-Term Program). The Short-Term Program would involve IRWD using its recovery capacity in the Strand and Stockdale Integrated Banking Projects (IRWD Water Bank) to provide drought relief to Santa Clarita by recovering Santa Clarita's banked State Water Project (SWP) water stored in a separate Rosedale-Rio Bravo Water Storage District program. This water would be provided in exchange for the future transfer of an equivalent amount of SWP water from Santa Clarita to IRWD. The proposed Long-term Program would allow Santa Clarita to deliver future SWP water into storage in the IRWD Water Bank on a 2-for-1 unbalanced exchange basis. Staff recommends the Board authorize the General Manager to execute a Short-term Drought Relief and Transfer Program Agreement and a Long-term Unbalanced Exchange Program Agreement between IRWD and Santa Clarita Valley Water Agency based on the terms presented below.

BACKGROUND:

Santa Clarita is an SWP Contractor that has SWP Table A supplies in excess of its demands and is a participant in a water banking program implemented in partnership with Rosedale (Rosedale Program). Santa Clarita has a water storage account in the Rosedale Program and has stored SWP water and other water supplies in the account to supplement Santa Clarita's water supplies during drought or shortage conditions.

In October 2021, staff met with Santa Clarita to discuss implementing a Short-term Program that could provide drought relief to Santa Clarita and a future water supply for the IRWD Water Bank. Also discussed was the potential for a Long-term Program that would allow Santa Clarita to deliver SWP water into storage at the IRWD Water Bank on a 2-for-1 basis. Staff has developed draft terms for a proposed Short- and Long-term Programs with Santa Clarita as described below.

Overview of Short-term Program:

Santa Clarita anticipates the need for the recovery and delivery of additional banked water from its Rosedale Program in 2022 and 2023. IRWD and Santa Clarita would implement a Short-term Program whereby IRWD would provide Santa Clarita drought relief by utilizing available recovery capacity within the IRWD Water Bank to recover up to 10,000 AF of Santa Clarita's water that is banked in the Rosedale Program. When the final SWP allocation is 45% or greater, Santa Clarita would transfer an equal amount of its future SWP Table A water to Metropolitan

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Water District. Metropolitan would accept this water, on IRWD's behalf, consistent with IRWD's Coordinated Operating and Exchange Agreement with Metropolitan. IRWD would recover up to 5,000 AF in 2022 and up to 5,000 AF in 2023 for delivery to Santa Clarita.

At the Committee meeting, staff will review the terms of the proposed Short-term Program, which are provided as Exhibit "A". Staff recommends the Board authorize the General Manager to execute a Short-term Program agreement with Santa Clarita based on the terms presented in Exhibit "A".

Overview of Long-term Program:

The proposed terms for the Long-term Program would allow Santa Clarita to deliver SWP water for recharge at the IRWD Water Bank on a 2-for-1 basis. Santa Clarita would be allowed to deliver water into storage multiple times between now and 2035. The total amount of storage dedicated to the Long-term Program would be 30,000 AF with 15,000 AF available for Santa Clarita. IRWD would return one-half of the water, less a proportional share of losses, to Santa Clarita by the end of the seventh full year after each associated recharge event. The other half of the water would be deemed transferred to IRWD. Terms for the proposed Long-term Program are provided in Exhibit "B".

Sufficient Capacities Exist:

Sufficient storage capacity exists in the IRWD Water Bank to accommodate a 30,000 AF Long-term Program with Santa Clarita. The Long-term Program recovery and recharge capacity needs would be accommodated by utilizing unused capacities currently dedicated to the long-term exchange programs with Antelope Valley-East Kern Water Agency and Buena Vista Water Storage District. Staff recommends the Board authorize the General Manager to execute a Long-term Program agreement with Santa Clarita based on the terms presented in Exhibit "B".

FISCAL IMPACTS:

Under the Short-term Program, Santa Clarita will pay all costs to recover water from the IRWD Water Bank. If the future transfer water is delivered to the IRWD Water Bank, then IRWD would pay the costs to recharge this water. Under the proposed Long-term Program, IRWD and Santa Clarita would each pay the recharge and recovery costs associated with each agency's share of water.

ENVIRONMENTAL COMPLIANCE:

Final Environmental Impact Reports for the Strand Ranch and Stockdale Integrated Banking Project were prepared, certified, and approved in compliance with the California Environmental Quality Act (CEQA) of 1970 as amended, codified at California Public Resources Code Sections 21000 et. seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. Rosedale, as lead agency, filed Notices of Determination for both the Strand Ranch and Stockdale Integrated Banking Projects with the County of Kern. IRWD, as a responsible agency, filed Notices of Determination with the County of Orange and with the County of Kern.

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RECOMMENDATION:

That the Board authorize the General Manager to develop and execute a Short-term Drought Relief and Transfer Program Agreement and a Long-term Unbalanced Exchange Program Agreement between IRWD and Santa Clarita Valley Water Agency based on the terms presented.

LIST OF EXHIBITS:

Exhibit "A" – Draft Terms for a Short-term Drought Relief and Transfer Program Between Irvine Ranch Water District and Santa Clarita Valley Water Agency

Exhibit "B" – Draft Terms for a Long-term Unbalanced Exchange Program Between Irvine Ranch Water District and Santa Clarita Valley Water Agency

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EXHIBIT “A”

DRAFT – Proposed Terms for a Short-Term Drought Relief and Transfer Program
Between Irvine Ranch Water District and Santa Clarita Valley Water Agency
November 11, 2021

Parties	The Irvine Ranch Water District (IRWD) and the Santa Clarita Valley Water Agency (SCVWA)
Existing Water Banking Programs	<p>The IRWD Water Bank, located in Kern County, is owned by IRWD and operated by Rosedale-Rio Bravo Water Storage District. IRWD holds first priority rights to the use of the recovery facilities within the IRWD Water Bank.</p> <p>SCVWA is a participant in a water banking program developed by Rosedale (the Rosedale Program) where SCVWA has stored State Water Project (SWP) water.</p>
Purpose	IRWD and SCVWA to implement a Short Term Recovery and Transfer Program (Short-Term Program) through which IRWD provides SCVWA with drought relief assistance by utilizing available recovery capacity within the IRWD Water Bank to recover a portion of SCVWA SWP water banked in the Rosedale Program. In exchange for providing this drought relief, SCVWA would transfer an equal amount of its future SWP Table A water to Metropolitan, on IRWD’s behalf, when the final SWP allocation is 45% or greater.
Term	The term of the Program would be through December 31, 2026.
Quantity	Up to 5,000 acre-feet (AF) of SCVWA’s SWP water stored in the Rosedale Program would be recovered in 2022 and up to 5,000 AF would be recovered in 2023.
Recovered Water	Recovered Water shall be the water that IRWD recovers for SCVWA from the Rosedale Program utilizing capacity within the IRWD Water Bank. IRWD shall make every effort to have recovery capacity available for SCVWA to recover up to 5,000 AF in 2022 and up to 5,000 AF in 2023 during the months of June, July, August and September of each year.
Transfer Water	Transfer Water shall be equal to the cumulative AF amounts recovered by SCVWA in 2022 and 2023 utilizing the IRWD Water Bank recovery capacity. Transfer Water shall be delivered to Metropolitan, on IRWD’s behalf, from SCVWA’s future approved SWP Table A water when the final SWP allocation is 45% or greater. All Transfer Water would be delivered no later than the end of 2026. Metropolitan, at its discretion, may direct the Transfer Water to be delivered to either the IRWD Water Bank or to Southern California. SCVWA shall cooperate with IRWD and Metropolitan in scheduling the Transfer Water deliveries, which would be subject to available recharge capacity in the IRWD Water Bank. The delivery of Transfer Water would be subject to provisions of IRWD’s Coordinated Operating, Water Storage, Exchange and Delivery Agreement with Metropolitan and the MWDOC (Coordinated Agreement).
Quality	The quality of Recovered Water and Transfer Water will be limited as follows: if and to the extent that either party delivers water to and into the California Aqueduct, the quality of water shall meet the water quality standards established by DWR for pump-in to the California Aqueduct.

Proposed Terms for a Short-Term Drought Relief and Transfer Program
 Between Irvine Ranch Water District and Santa Clarita Valley Water Agency
 November 9, 2021

Delivery Points	The Recovered Water shall be extracted utilizing capacities in the IRWD Water Bank and conveyed to the Cross Valley Canal (CVC) and to the pump-in location at Reach 12E of the California Aqueduct. SCVWA shall coordinate with DWR for delivery of Recovered Water to the SCVWA requested point of delivery (SCVWA POD) in the California Aqueduct. SCVWA shall deliver Transfer Water from its future SWP Table A allocation to either the IRWD point of delivery (IRWD POD), which will be the IRWD Water Bank turnouts on the CVC, or as directed by Metropolitan.
Losses	SCVWA assumes the banking losses of the Recovered Water. The Transfer Water shall be equal to the amount of water recovered by SCVWA utilizing IRWD Water Bank recovery capacity, and IRWD will incur the banking losses if Metropolitan decides to take delivery of the Transfer Water at the IRWD Water Bank. SCVWA and IRWD each may incur additional conveyance losses of 1% to 2% in the CVC for conveyance, as measured and assessed by Kern County Water Agency (KCWA).
Recovered Water Costs	SCVWA shall pay any costs assessed by Rosedale for the extraction of Recovered Water utilizing capacities within the IRWD Water Bank including costs associated with groundwater pumping, administrative costs, other associated O&M costs, applicable costs of CVC pumping and use of CVC capacity. SCVWA may be responsible for any costs assessed by Rosedale under its Long Term Operations Plan for implementing provisions to prevent impacts from operations. It is expected that banking projects, such as the IRWD Water Bank, may be required to contribute \$2.00 per AF for recovered water to a fund, which may be used to meet mitigation obligations.
Transfer Water Costs	<p>SCVWA shall pay all fixed SWP costs associated with making Transfer Water available for delivery to the IRWD POD or as directed by Metropolitan. IRWD shall pay the costs assessed by Rosedale for the recharge of the Transfer Water consistent with that certain Water Banking and Exchange Program Agreement between Rosedale and IRWD dated January 13, 2009. These estimated costs may include Rosedale’s administrative charge, applicable fixed and variable O&M water bank costs. IRWD shall be responsible for all recovery costs associated with its future use of the Transfer Water.</p> <p>An agreement is expected to be required among the DWR, Metropolitan, SCVWA and KCWA for the delivery of Transfer Water to the IRWD Water Bank. IRWD and SCVWA shall share equally in the third party wheeling fee of \$5.00 per AF that may be assessed by KCWA.</p>
SWP Variable OMP&R Costs	For delivery of Recovered Water to SCVWA, SCVWA will pay all DWR Variable OMP&R charges from Reach 12E to the SCVWA POD in the California Aqueduct. For delivery of Transfer Water, Metropolitan will pay all DWR Variable OMP&R charges in accordance with the Coordinated Agreement.
Agency Coordination	IRWD and SCVWA would cooperate with DWR, KCWA and Metropolitan in preparing all necessary agreements to facilitate the Program. IRWD and SCVWA shall each be responsible for their own costs associated with such coordination.
Environmental Compliance	Both parties shall comply with California Environmental Quality Act (CEQA) and cooperate with one another with respect to CEQA compliance that may be required by the DWR for the proposed Program. IRWD has already conducted environmental review under CEQA for the Strand and Stockdale Integrated Banking Projects that

Proposed Terms for a Short-Term Drought Relief and Transfer Program
 Between Irvine Ranch Water District and Santa Clarita Valley Water Agency
 November 9, 2021

	takes into consideration the delivery, storage and recovery of SWP water. Rosedale certified and IRWD approved the CEQA documents for the Strand and Stockdale Integrated Banking Projects. Corresponding Notices of Determination were filed by both Rosedale and IRWD. Both IRWD and SCVWA shall each be responsible for any other environmental review or permitting necessary to implement the Program within their own respective service areas.
Water Rights	It is expressly agreed, understood, and acknowledged by IRWD and SCVWA that any recovery of water for SCVWA or the transfer of SWP Water to the IRWD Water Bank by SCVWA will not result in or be considered a sale or transfer of SCVWA's contractual rights to SWP water or a sale or transfer of IRWD's ownership in the IRWD Water Bank.
General Expenses	Each Party would be responsible for its own fees and expenses arising out of the negotiation and execution of the Program Agreement, obtaining necessary approvals, and the like.

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EXHIBIT “B”

DRAFT - Proposed Terms for a Long-Term Unbalanced Exchange Program
Between Irvine Ranch Water District and Santa Clarita Valley Water Agency
November 9, 2021

Parties	Irvine Ranch Water District (IRWD); and the Santa Clarita Valley Water Agency (SCVWA)
Purpose	IRWD and SCVWA would implement a Long-Term Unbalanced Exchange Program (Exchange Program) that would allow SCVWA to deliver State Water Project (SWP) water into storage at IRWD’s Strand and Stockdale Integrated Banking Projects (IRWD Water Bank) on a 2-for-1 basis. All recharge and recovery facilities at the IRWD Water Bank could be used to deliver water in and out of storage at the Water Bank.
Term	The Exchange Program would end on December 31, 2035.
Storage Capacity	Up to 30,000 AF of storage capacity in the IRWD Water Bank would be dedicated to the Exchange Program. The maximum account balance to be allocated for the storage of SCVWA’s share of the water stored in the IRWD Water Bank would be 15,000 AF. IRWD at its sole discretion could increase the total storage capacity allocated to the Exchange Program with a proportional increase in SCVWA’s maximum account balance. IRWD could also reduce the total storage capacity and maximum account balance allocated to SCVWA should SCVWA not exercise its ability to deliver water into storage at the IRWD Water Bank.
Exchange Water	SCVWA will supply SWP water to the IRWD Water Bank available to SCVWA through its SWP Contract with the Department of Water Resources (DWR). One-half of the Exchange Water delivered into storage would be deemed transferred to IRWD. Recharge capacity to accept the Exchange Water would be subject to scheduling and availability considering IRWD’s other exchange programs.
Return Water	<p>Water shall be returned, when requested by SCVWA, at an annual rate of no more than one-third of the maximum account balance allocated to SCVWA, after losses and not to exceed 5,000 AF per year, subject to scheduling and availability of wells considering IRWD’s other exchange programs and the need to recover water for itself. IRWD could allow SCVWA to recover more water in a year, should IRWD determine that the use of additional recovery capacity by SCVWA would not infringe on IRWD’s ability to recover water for itself and/or IRWD’s other partners.</p> <p>SCVWA’s share of the water recharged and stored may not remain in storage beyond the end of the seventh calendar year after the delivery of water into storage in the IRWD Water Bank. For example, if 10,000 AF of water (after losses) is delivered by SCVWA into storage in year 1, then SCVWA’s 5,000 AF share must be returned by the end of year 8. If another 10,000 AF of water (after losses) is delivered by SCVWA into storage in year 3, then SCVWA’s 5,000 AF share must be returned by the end of Year 10.</p>


Proposed Terms for a Long-Term Unbalanced Exchange Program
 Between Irvine Ranch Water District and Santa Clarita Valley Water Agency
 November 9, 2021

Losses	Water Banking losses shall be shared equally between IRWD and SCVWA (between 11 and 15%). SCVWA and IRWD each may incur additional conveyance losses of 1% to 2% in the Cross Valley Canal (CVC) for conveyance of each agencies share of the water, as measured and assessed by Kern County Water Agency.
Recharge Costs	IRWD and SCVWA would each be responsible for one-half of all costs assessed to IRWD by Rosedale-Rio Bravo Water Storage District (Rosedale) for recharging water at the Water Bank. These costs may include Rosedale’s administrative charge, charges assessed by the Kern County Water Agency (KCWA), Cross Valley Canal (CVC) Standby, applicable CVC pumping and O&M costs, and applicable fixed and variable O&M Water Bank costs.
SWP Fixed and Variable Costs	<p>IRWD and SCVWA would each be responsible for one-half of all SWP related variable costs incurred with making the Exchange Water available for recharge at the IRWD Water Bank.</p> <p>SCVWA shall pay all fixed SWP costs associated with making the water available for recharge, including water that will be allocated to IRWD.</p>
Recovery Costs	<p>IRWD and SCVWA would each be responsible for actual costs of recovery for each agency’s respective share of the water either through well pumping or by exchange. These costs may include Rosedale’s administrative charge, charges assessed by the KCWA, CVC Standby, O&M, and applicable CVC pumping costs, and applicable fixed and variable O&M Water Bank costs.</p> <p>SCVWA will pay all conveyance costs in the Aqueduct associated with the delivery of recovered water to SCVWA’s service area or other SCVWA delivery points.</p> <p>IRWD and SCVWA would each share any costs assessed by Rosedale under its Long Term Operations Plan for implementing provisions of the MOUs to prevent impacts from operations. It is expected that banking projects, such as the Water Bank, will be required to contribute \$2.00/AF for recovered water to a fund, which may be used to meet mitigation obligations.</p>
Agency Coordination	IRWD and SCVWA would cooperate with DWR and Metropolitan Water District of Southern California in preparing all necessary agreements to facilitate the Exchange Program.
Environmental Compliance	Both parties shall comply with California Environmental Quality Act (CEQA) and cooperate with one another with respect to CEQA compliance that may be required by the DWR for the proposed Exchange Program. IRWD has conducted environmental review under CEQA for the Strand and Stockdale Integrated Banking Projects that takes into consideration the delivery, storage and recovery of SWP water. Rosedale certified and IRWD and approved the CEQA documents for the Strand and Stockdale Integrated Banking Projects. IRWD and SCVWA will share equally any additional costs associated with environmental review or permitting deemed necessary for delivering SCVWA water into storage. Both IRWD and SCVWA shall each be responsible for any other environmental review or permitting necessary to implement the Exchange Program within their own respective service areas.

Proposed Terms for a Long-Term Unbalanced Exchange Program
Between Irvine Ranch Water District and Santa Clarita Valley Water Agency
November 9, 2021

General Expenses	Each Party would be responsible for its own fees and expenses arising out of the negotiation and execution of the Exchange Program Agreement, obtaining necessary approvals and the like.
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November 18, 2021
Prepared by: K. Welch
Submitted by: F. Sanchez / P. Weghorst
Approved by: Paul A. Cook 

SUPPLY RELIABILITY PROGRAMS COMMITTEE

TERMS FOR LETTER AGREEMENT TO ALLOW METROPOLITAN WATER DISTRICT TO BORROW WATER

SUMMARY:

Due to ongoing drought conditions and reduced State Water Project (SWP) allocations, Metropolitan Water District has requested to borrow the remaining SWP supplies stored in the IRWD Water Bank. IRWD's Coordinated Operating, Water Storage, Exchange and Delivery Agreement (Coordinated Agreement) with Metropolitan allows Metropolitan to borrow SWP supplies under certain conditions. Staff has prepared terms for a proposed letter agreement that would waive specific terms in the Coordinated Agreement to allow Metropolitan to borrow IRWD's SWP supplies in 2022. In exchange, IRWD would receive an immediate credit for an equivalent amount of water in Metropolitan's storage facilities in Southern California. The terms include provisions that will close out the 2014 exchange between IRWD and Metropolitan resulting in IRWD receiving additional credits for water. Staff recommends the Board authorize the General Manager to execute a letter agreement based on the proposed terms.

BACKGROUND:

In April 2011, Metropolitan, Municipal Water District of Orange County (MWDOC) and IRWD executed the Coordinated Agreement, which facilitates IRWD's ability to secure SWP supplies for use within its service area. Consistent with this agreement, all SWP supplies acquired by IRWD, with Metropolitan's consent, are stored in Metropolitan's name on behalf of IRWD. The Coordinated Agreement allows Metropolitan to borrow SWP water stored in the IRWD Water Bank, subject to certain restrictions.

In 2022, Metropolitan anticipates constraints in making water deliveries to its member agencies located in the portions of its service area predominantly dependent on SWP supplies. To help meet its SWP delivery obligations, Metropolitan has requested to borrow IRWD's remaining stored SWP supplies.

Borrowing Allowed by the Coordinated Agreement:

Per the Coordinated Agreement, Metropolitan's borrowing of water shall not reduce IRWD's remaining balance of water in storage to below 17,500 acre-feet (AF). Currently, IRWD has 10,492 AF of non-SWP water and 4,177 AF of SWP water totaling 14,669 AF stored in the IRWD Water Bank. Of the 4,177 AF of SWP water, 250 AF must remain in Kern County, which leaves the remaining 3,927 AF of SWP water available for Metropolitan to borrow. Since IRWD's total water in storage is less than 17,500 AF, Metropolitan's borrowing of the 3,927 AF would require a letter agreement providing IRWD's written consent to waive the 17,500 AF limitation.

Terms for Letter Agreement with Metropolitan:

Staff has prepared terms for a letter agreement that would waive terms in the Coordinated Agreement to allow Metropolitan to borrow IRWD's SWP supplies in 2022. The letter agreement would also include provisions to close out the 2014 exchange agreement between IRWD and Metropolitan by issuing IRWD a credit for water already in Metropolitan's Southern California storage facilities. The proposed terms for a letter agreement between IRWD and Metropolitan are included as Exhibit "A".

Metropolitan Borrowing of SWP Supplies:

The proposed letter agreement would include the following one-time waivers of requirements or conditions in the Coordinated Agreement facilitating Metropolitan's borrowing of SWP water from IRWD:

- IRWD will waive the requirement that Metropolitan cannot reduce the amount stored in IRWD's Water Bank to less than 17,500 AF;
- In the same year, Metropolitan will issue a credit to IRWD for water stored in Southern California that is equal to the amount borrowed by Metropolitan; and
- In consideration of IRWD's drought relief assistance, Metropolitan will waive IRWD's reimbursement of the recovery costs incurred by Metropolitan for the borrowed water.

Close Out 2014 Exchange Agreement:

In 2014, IRWD and Metropolitan implemented an exchange agreement (referred to as the 2014 Exchange Agreement) whereby IRWD recovered 4,000 AF of its non-SWP water supplies which were delivered by Metropolitan to Arvin Edison Water Storage District inside Kern County. In exchange, Metropolitan is required to return an equal amount of water to either the IRWD Water Bank or to another location within 10 years. The return water has not yet been delivered to IRWD. The best way to close out the 2014 Exchange Agreement is to account for the return water as *Program Water* under the Coordinated Agreement and for Metropolitan to issue a credit to IRWD for 4,000 AF of water in Southern California. Accordingly, the proposed letter agreement will also incorporate terms for closing out the 2014 Exchange Agreement between IRWD and Metropolitan.

Under the 2014 Exchange Agreement, if Metropolitan returns the water to a location other than the IRWD Water Bank, IRWD is required to reimburse Metropolitan for the costs incurred by Metropolitan to extract and deliver the water to Arvin Edison. Since IRWD will receive a credit for 4,000 AF in Southern California, IRWD shall reimburse Metropolitan for the costs previously invoiced by IRWD in the amount of \$327,911.44. By taking this water as a credit in the Metropolitan storage system, IRWD will avoid additional banking losses and future recharge and recovery costs.

Benefits to IRWD:

Allowing Metropolitan to borrow IRWD's remaining SWP water and closing out of the 2014 Exchange Agreement will result in IRWD receiving a credit for 7,927 AF of water in Metropolitan's Southern California storage facilities. These credits will benefit IRWD by diversifying IRWD's storage programs and by allowing IRWD to avoid banking costs and banking losses in Kern County.

Staff recommends the Board authorize the General Manager to execute a letter agreement based on the proposed terms provided in Exhibit "A".

FISCAL IMPACTS:

IRWD will pay the current Metropolitan Tier 1 rate when IRWD calls on the 7,927 AF to be provided as a credit in Metropolitan's storage system in Southern California. Metropolitan will pay all recovery and delivery costs associated with its borrowing of the water. Pursuant to the 2014 Exchange Agreement between IRWD and Metropolitan, IRWD will reimburse Metropolitan for the \$327,911.44 in costs Metropolitan incurred when it recovered the water from the IRWD Water Bank.

ENVIRONMENTAL COMPLIANCE:

Final Environmental Impact Reports for the Strand Ranch and Stockdale Integrated Banking Project were prepared, certified, and approved in compliance with the California Environmental Quality Act (CEQA) of 1970 as amended, codified at California Public Resources Code Sections 21000 et. seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. Rosedale-Rio Bravo Water Storage District, as lead agency, filed Notices of Determination for both the Strand Ranch and Stockdale Integrated Banking Projects with the County of Kern. IRWD, as a responsible agency, filed Notices of Determination with the County of Orange and with the County of Kern.

RECOMMENDATION:

That the Board authorize the General Manager to execute a letter agreement, based on the proposed terms, allowing Metropolitan Water District to borrow 3,927 acre-feet of State Water Project water stored in the IRWD Water Bank and closing out the 2014 Exchange Agreement between IRWD and Metropolitan.

LIST OF EXHIBITS:

Exhibit "A" – Draft Terms for Letter Agreement Between Irvine Ranch Water District and Metropolitan Water District of Southern California

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Exhibit “A”

DRAFT

Terms for Letter Agreement Between Irvine Ranch Water District and Metropolitan Water District of Southern California (November 11, 2021)

The Irvine Ranch Water District (IRWD) and the Metropolitan Water District of Southern California (Metropolitan) wish to enter into a Letter Agreement which will provide certain waivers to requirements in the Coordinated Operating, Water Storage, Exchange and Delivery Agreement (Coordinated Agreement), among Metropolitan, Municipal Water District of Orange County (MWDOC) and IRWD, dated April 21, 2011. The Letter Agreement shall also include provisions for completing an exchange and closing out the “Agreement For Exchange of Water Between the Metropolitan Water District of Southern California and Irvine Ranch Water District” dated June 30, 2014 (2014 Exchange Agreement). Following are proposed terms for the Letter Agreement.

1. Metropolitan desires to secure additional State Water Project (SWP) supplies in 2022 to deliver to its member agencies that are only able to receive SWP water. In order to assist Metropolitan in acquiring additional SWP supplies in 2022, proposed waivers shall be made to contract requirements in the following sections in the Coordinated Agreement:

- a. Section 3.4 (c) Metropolitan Borrowing of Water.

IRWD agrees to waive the requirement and limitation that Metropolitan shall not borrow more than the lesser of 17,500 acre feet or one-third of the aggregate amount of water held in the Metropolitan Delivery Account and the limitation of not reducing IRWD’s water in storage to below 17,500 AF. IRWD agrees to allow Metropolitan to borrow up to 3,927 AF from its SWP stored supplies in 2022.

- b. Section 3.6 Reduction of Metropolitan Delivery Account Balance by Delivery of Program Water to Integrated Banking Project.

Metropolitan agrees to issue an immediate credit for an equal amount of Metropolitan’s borrowed water up to 3,927 AF in 2022. This credit shall not be reduced or replaced by Metropolitan delivering future SWP Table A water to the IRWD Water Bank.

- c. Section 6.1 (c) Recovery From Integrated Banking Project.

In consideration of IRWD’s support in providing needed drought relief assistance, Metropolitan agrees to waive IRWD’s reimbursement to Metropolitan for the applicable costs that will be incurred by Metropolitan in 2022 to recover up to 3,927 AF of borrowed water.

- d. Consistent with the Coordinated Agreement, the borrowing of the water would be second in priority to IRWD and its other exchange partners’ recovery requirements and subject to the actual physical limitations of the recovery facilities.

2. IRWD and Metropolitan implemented the 2014 Exchange Agreement whereby IRWD recovered and delivered 4,000 AF of its non-SWP water supplies, on behalf of Metropolitan, to Arvin Edison Water Storage District in Kern County to satisfy an obligation for Metropolitan. In exchange, within ten years, Metropolitan would return an equal amount of water to either the IRWD Water Bank or to another location. This return water has not yet been delivered to the IRWD.
 - a. IRWD and Metropolitan agree that Metropolitan shall issue a credit for this water to IRWD according to Section 3.5 of the Coordinated Agreement. This credit shall not be reduced or replaced by Metropolitan delivering future SWP water to the IRWD Water Bank.
 - b. Per the Exchange Agreement, if Metropolitan returns the water to a location other than the IRWD Water Bank, then IRWD shall reimburse Metropolitan for the costs incurred by Metropolitan to extract and deliver the water. Since IRWD will receive a credit for this water under the Coordinated Agreement, IRWD shall reimburse Metropolitan for the costs previously invoiced by IRWD in the amount of \$327,911.44.
 - c. Metropolitan shall notify IRWD of the issued credit for 4,000 AF of water under the Coordinated Agreement, which will effectively close out the 2014 Exchange Agreement.