# AGENDA IRVINE RANCH WATER DISTRICT SUPPLY RELIABILITY PROGRAMS COMMITTEE THURSDAY, AUGUST 17, 2023

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

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

Via Web: <u>https://irwd.webex.com/irwd/j.php?MTID=mbba8c62df820b4264a862a0d7b1c64cc</u> Meeting Number (Access Code): 2495 626 6661 Meeting Password: 7XBrUyye8J2

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

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

# CALL TO ORDER 1:30 p.m.

<u>ATTENDANCE</u>	Committee Chair: Douglas Reinhar Member: Peer Swan	t
<u>ALSO PRESENT</u>	Paul CookCheryl ClaryKent MorrisKellie WelchRobert Huang	Paul Weghorst      Fiona Sanchez      Christine Compton      Natalie Palacio      Marina Lindsay

# PUBLIC COMMENT NOTICE

If you wish to address the Committee on any item, please submit a request to speak via the "chat" feature available when joining the meeting virtually. Remarks are limited to three minutes per speaker on each subject. Public comments are limited to three minutes per speaker on each subject. You may also submit a public comment in advance of the meeting by emailing comments@irwd.com before 5:00 p.m. on Wednesday, August 16, 2023.

# COMMUNICATIONS

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

# **INFORMATION**

5. <u>WATER BANKING PROJECT FACILITIES, CAPACITIES, OPERATIONS</u> AND PROGRAMS – LINDSAY / WELCH / SANCHEZ / WEGHORST

Recommendation: Receive and file.

6. <u>PILOT WATER MANAGEMENT PROGRAM AGREEMENT BETWEEN</u> <u>IRWD AND HOMER LLC – AMENDMENT NO. – PALACIO / WELCH /</u> <u>SANCHEZ / WEGHORST</u>

Recommendation: That the Board authorize the General Manager to execute an Amendment to the Water Management Pilot Program Letter Agreement with Homer LLC based on the revised terms presented.

# **OTHER BUSINESS**

- 7. Directors' Comments
- 8. 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.

August 17, 2023 Prepared by: M. Lindsay / K. Welch Submitted by: F. Sanchez / P. Weghorst Approved by: Paul A. Cook

## SUPPLY RELIABILITY PROGRAMS COMMITTEE

## WATER BANKING PROJECT FACILITIES, CAPACITIES, OPERATIONS, AND PROGRAMS

### SUMMARY:

Staff has prepared information related to IRWD's water banking facilities, capacities, operations, and exchange programs. The information is regularly updated to reflect changes in the status of IRWD's projects, programs, and operations. At the Committee meeting, staff will review this information and provide an update on IRWD's actual and forecasted monthly recharge operations for 2023.

### **BACKGROUND:**

Staff has prepared reference materials in tabular, map, and schematic formats to describe IRWD's water banking facilities, capacities, operations, storage, and exchange programs. These reference materials are updated regularly to reflect changes in the status of the projects, programs, and operations. The following is an overview of the reference materials as well as monthly recharge operations for calendar year 2023 at the IRWD Water Bank.

### Capacity and Operations Tables:

A table presenting storage, recharge, and recovery capacities of existing and planned IRWD water banking projects, including capacities available to IRWD in the Kern Water Bank, is provided as Exhibit "A". Exhibits "B" and "C" provide an update on water banking recovery and recharge operations, as well as the balance of the water stored in the Kern Water Bank. Exhibit "B" provides before-loss estimates of water recharged and in storage at the water banking projects, and Exhibit "C" provides after-loss estimates of water recharged and in storage at the projects. Changes shown in red on Exhibits "B" and "C" depict the projected delivery of water from:

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

Year 2023 deliveries from Buena Vista are shown on two lines in Exhibit "B" and "C". One for Buena Vista's long-term unbalanced exchange program with IRWD and the second for the 2023 supplemental recharge program. The values reported in Exhibits "B" and "C" include deliveries that were made to the temporary recharge facilities on the West Enos property. Deliveries to the Kern Water Bank have yet to be reported and are expected to be available in early 2024.

Supply Reliability Programs Committee: Water Banking Project Facilities, Capacities, Operations, and Programs August 17, 2023 Page 2

# Summary of Programs:

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

Exhibit "E" graphically depicts how storage of State Water Project (SWP) and non-SWP water has changed annually in the Strand and Stockdale Integrated Banking Projects. Exhibit "E" has been revised to depict the balance of water owed to IRWD by Dudley Ridge. The table provided as Exhibit "F" shows how capacities in the water banking projects have been dedicated to IRWD's existing and proposed exchange programs.

# Project Maps:

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

## Program Agreement Diagrams:

Schematic diagrams have been prepared that depict IRWD water banking and exchange programs with Rosedale-Rio Bravo Water Storage District, Buena Vista, Dudley Ridge, Metropolitan and AVEK. These diagrams are provided as Exhibits "J", "K", "L", "M", "N", "O", and "P" as described in the List of Exhibits. The second page of Exhibit K was updated to reflect the 2023 supplemental recharge program. Exhibit "P" is a new exhibit that depicts IRWD's long-term unbalanced exchange program with AVEK.

# Cost of Water Table:

A table presenting a summary of the costs of water from each of IRWD's unbalanced exchange partnerships through year 2021 is provided as Exhibit "Q". The table lists each of IRWD's unbalanced exchange partnerships and presents information related to the period over which water was acquired, water type, IRWD's share of water, and various cost components as well as the total cost of water delivered to IRWD's service area. Cost components include fixed and variable operating costs, estimated future IRWD recovery costs, the 2023 Metropolitan Full Service Untreated Tier-1 Rate, and a capital cost of water. The variable costs include an

Supply Reliability Programs Committee: Water Banking Project Facilities, Capacities, Operations, and Programs August 17, 2023 Page 3

administrative fee issued by the Kern County Water Agency for staff time related to processing Transaction Request Forms. The costs of water are presented on a dollar per acre-foot basis.

## IRWD's Coordinated Agreement with Metropolitan:

An overview of IRWD's Coordinated Operating, Water Storage, Exchange, and Delivery Agreement with Metropolitan and Municipal Water District of Orange County (Coordinated Agreement) is provided as Exhibit "R". The benefits to IRWD are foundational to the success of IRWD's water banking project and programs.

### 2023 Actual and Forecasted Water Recharge Activities:

Exhibit "S" depicts actual and forecasted recharge operations for 2023. IRWD's annual contractual recharge limit of 17,500 AF on the Strand Ranch was reached in June. IRWD deliveries continue to the Stockdale West at a rate of 40 cfs, or approximately 80 AF per day. Water deliveries to the temporary recharge facilities on the West Enos property are currently estimated at a rate of 30 cfs, or approximately 60 AF per day, for Rosedale and IRWD. Half of this capacity is available for the benefit of IRWD with approximately 30 AF per day being recharged on the West Enos property.

Water deliveries to IRWD from Dudley Ridge satisfy return obligations associated with Dudley Ridge's prior use of non-SWP water from IRWD's Water Bank consistent with the 1-for-1 long term exchange program that is depicted in Exhibit "O." IRWD Water Bank deliveries from Buena Vista consist of Kern River water that was stored by exchange in the SWP. These deliveries are made pursuant to the long-term 2-for-1 exchange program between IRWD and Buena Vista depicted in Exhibit "K" as well as the 2023 supplemental recharge program.

Cross Valley Capacity (CVC) constraints have not limited IRWD's ability to accept deliveries to both the Stockdale West and West Enos facilities. Should constraints occur, Buena Vista has CVC capacity that it will use to continue making deliveries to the IRWD Water Bank. Dudley Ridge may be able to secure CVC capacity should it be necessary.

Deliveries for AVEK and CCWA are shown in Exhibit "S" starting in August, subject to the availability of CVC Capacity and execution of required agreements with the California Department of Water Resources. As shown in Exhibit "S", through the end of August, staff estimates that 33,511 AF will have been delivered for recharge with 21,605 AF dedicated to IRWD.

## Water Supply Conditions:

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

Supply Reliability Programs Committee: Water Banking Project Facilities, Capacities, Operations, and Programs August 17, 2023 Page 4

## FISCAL IMPACTS:

None.

## **ENVIRONMENTAL COMPLIANCE:**

Not applicable.

### **RECOMMENDATION:**

Receive and file.

## LIST OF EXHIBITS:

- Exhibit "A" Recharge, Storage and Recovery Capacities of Current and Anticipated Water Banking Projects
- Exhibit "B" Water Banking Storage, Recharge, and Recovery Operations before Losses
- Exhibit "C" Water Banking Storage, Recharge, and Recovery Operations after Losses
- Exhibit "D" Status of IRWD Purchase and Exchange Programs
- Exhibit "E" Historic Water Storage in Strand and Stockdale Projects
- Exhibit "F" Dedicated Capacities of Current Water Banking Projects
- Exhibit "G" Map of Water Banking Project Wells and Pipelines
- Exhibit "H" Map of Water Banking Recharge Basins and Turnout Facilities
- Exhibit "I" Map of Water Banking Recharge Rates
- Exhibit "J" Diagram of IRWD-Rosedale Water Banking and Exchange Program Agreements
- Exhibit "K" Diagram of Long-term Water Exchange Program with Buena Vista Water Storage District and Diagram of One-year Program to Augment Recharge Using Stockdale West Recharge Facilities with Buena Vista Water Storage District
- Exhibit "L" Diagram of Unbalanced Exchange Program Diagram with Dudley Ridge
- Exhibit "M" Diagram of Coordinated Operating, Water Storage, Exchange, and Delivery Agreement with Metropolitan
- Exhibit "N" Diagram of Template Wheeling Agreement with Metropolitan
- Exhibit "O" Diagram of Dudley Ridge One-for-One Exchange
- Exhibit "P" Diagram of Long-term Water Exchange Program with Antelope Valley East Kern
- Exhibit "Q" Cost of Water Tables
- Exhibit "R" Summary of IRWD's Coordinated Operating, Water Storage, Exchange and Delivery Agreement with Metropolitan and MWDOC
- Exhibit "S" Actual and Forecasted 2023 Recharge Operations

## Exhibit "A"

#### TABLE 1 Current and Anticipated Water Banking Projects Recharge, Storage and Recovery Capacities August 17, 2023

	-	RSHIP AND LL INFO		ALLOCA	TED CAPACI	TY (AF)			Y RECOVERY ONS (CFS)	-	Y RECOVERY ONS (CFS)
WATER BANKING PROJECT	IRWD OWNED	WELLS EXISTING	TOTAL STORAGE CAPACITY	ANNUAL RECHARGE 1 <sup>ST</sup> PRIORITY	ANNUAL RECHARGE 2 <sup>ND</sup> PRIORITY	ANNUAL RECOVERY 1 <sup>ST</sup> PRIORITY	ANNUAL RECOVERY 2 <sup>ND</sup> PRIORITY	RECOVERY CAPACITY AS PLANNED <sup>1</sup>	RECOVERY CAPACITY (Average Daily Production 1/1/2021 - 7/31/2022)	RECOVERY CAPACITY AS PLANNED	RECOVERY CAPACITY CURRENT CONDITIONS
Strand Ranch	Yes	7	50,000	17,500	-	17,500	-	40.0	20.5	-	-
Stockdale West	Yes	3	26,000	27,100	-	11,250	-	15.0	11.6	-	-
Stockdale East	No	2	-	-	19,000	-	7,500	-	-	10.0	9.0
IRWD Acquired Storage Account <sup>2</sup>	No	-	50,000	-	-	-	-	-	-	-	-
Drought Relief Project Wells <sup>2</sup>	No	3	-	-	-	-	-	15.0	16.5	-	-
Kern Water Bank Storage Account <sup>4</sup>	No	-	9,495	3,200	-	1,520	<5,000	-	-	-	-
TOTALS		15	135,495	47,800	19,000	30,270	12,500	70.0	48.6	10.0	9.0
Partner Capacities	3		38,000	22,300	9,500	10,850	0	35.5	25.0	-	-
IRWD Capacities (does not include Kern \	Water Bank c	apacities)	88,000	22,300	9,500	17,900	7,500	34.5	25.0	-	-
IRWD's	recovery <b>d</b>	uring 6 mont	h partner rec	overy period	(AF)			12,420	9,000	-	-
IRWD's	recovery a	<b>after</b> 6 montl	n partner reco	overy 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)8.610.2								10.2	-	-
	Strand Ranch monthy recharge amount assuming 0.3 ft/day average recharge rate (AF) Stockdale West monthy recharge amount assuming 0.3 ft/day average recharge rate (AF)								4,5 2,3		

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

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

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

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

# Exhibit "B"

#### TABLE 2

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

August 17, 2023

				WATER BANKING ENT	ITY		
			BUENA VISTA	CENTRAL COAST	ANTELOPE VALLEY-EAST	DUDLEY RIDGE WATER	TOTAL BY WATER TYPE
TRANSACTIONS	IR	WD	(BVWSD)	(CCWA)	KERN (AVEK)	DISTRICT (DRWD) <sup>3</sup>	AND STORAGE
	SWP <sup>1</sup>	NON-SWP <sup>2</sup>	NON-SWP	SWP	SWP	SWP	LOCATION
				ING WATER IN STORAG		-	
Total Kern Water Bank <sup>4</sup>	-	3,848	-	-	-	-	3,848
Total MWD System	8,062	-	-	-	-	-	8,062
Total Kern County	5,234	14,416	-	-	-	-	19,650
Total DRWD 1-for-1 Long Term Exchange Credit <sup>5</sup>	11,000	-	-	-	-	-	11,000
TOTAL STORED WATER (1/1/2022)	24,296	18,264	-	-		-	42,560
			(RECOV	ERY) AND RECHARGE I	N 2022 (AF)		
KWB Recovery for use on Jackson Ranch <sup>6</sup>	-	(84)	-	-	-	-	(84)
2022 SWP Allocation (5%)	44	-	-	-	-	43	87
2019 Reserve Water	76	225	225	-	-	-	526
Kern River Water	-	(5,000)	-	-	-	-	(5,000)
DRWD 1-for-1 Long Term Exchange Credit	5,500	-	-	-	-	-	5,500
Recovery of Banked SWP Water for MWD	(3,927)	-	-	-	-	-	(3,927)
MWD Credit for SWP Water	3,927	-	-	-	-	-	3,927
TOTAL 2022 TRANSACTIONS	5,620	(4,859)	225	-		43	1,029
Total Kern Water Bank <sup>9</sup>	-	3,764	-	-	-	-	3,764
Total MWD System	12,033	-	-	-	-	43	12,076
Total Kern County	1,383	9,641	225	-	-	-	11,249
Total DRWD 1-for-1 Long Term Exchange Credit	16,500	-	-	-	-	-	16,500
TOTAL STORED WATER (1/1/2023)	29,916	13,405	225	-		43	43,589
			(RECOV	ERY) AND RECHARGE II	N 2023 (AF)		
KWB Recovery for use on Jackson Ranch <sup>6</sup> Est.	-	(235)	-	-	-	-	(235)
2023 SWP Allocation (100%) <sup>3</sup>	875	-	-	-	-	874	1,749
BV Long Term Program Kern River Water Est.	-	8,750	8,750	-	-	-	17,500
BV 2023 Recharge Kern River Water Est.	-	791	790	-	-	-	1,581
2023 SWP - CCWA Short Term Exchange	225	-	-	225	-	-	450
2023 SWP - AVEK Long Term Exchnge Est.	503	-	-	-	502	-	1,005
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	9,699	-	-	-	-	-	9,699
TOTAL ESTIMATED 2023 TRANSACTIONS	11,302	9,306	9,540	225	502	874	31,749
			ESTIMA	TED WATER IN STORAG	GE 2023 (AF)		
Total Kern Water Bank	-	3,529		-	-	-	3,529
Total MWD System	12,033	-	-	-	-	43	12,076
Total Kern County	12,685	19,182	9,765	225	502	874	43,233
Total DRWD 1-for-1 Long Term Exchange Credit	6,801	-	-	-	-	-	6,801
TOTAL ESTIMATED STORED WATER TO DATE	31,519	22,711	9,765	225	502	917	65,639

NOTES: MWD = Metropolitan Water District of Southern California.

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

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

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

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

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

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

# Exhibit "C"

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

August 17, 2023

			WAT	TER BANKING ENTITY			
					ANTELOPE VALLEY-EAST	DUDLEY RIDGE WATER	TOTAL BY WATER
TRANSACTIONS	IRW	/D	BUENA VISTA (BVWSD)	CENTRAL COAST (CCWA)	KERN (AVEK)	DISTRICT (DRWD) <sup>3</sup>	TYPE AND STORAGE
	SWP <sup>1</sup>	NON-SWP <sup>2</sup>	NON-SWP	SWP	SWP	SWP	LOCATION
			BEGINNING V	WATER IN STORAGE 2022	(AF)	•	•
Total Kern Water Bank <sup>4</sup>	-	3,848	-	-	-	-	3,848
Total MWD System	8,062	-	-	-	-	-	8,062
Total Kern County	4,199	10,492	-	-	-	-	14,691
Total DRWD 1-for-1 Long Term Exchange Credit <sup>5</sup>	10,000		-	-	-	-	10,000
TOTAL STORED WATER (1/1/2022)	22,261	14,340	-	-		-	36,601
			(RECOVERY)	AND RECHARGE IN 2022	(AF)		
KWB Recovery for use on Jackson Ranch <sup>6</sup>	-	(84)	-	-	-	-	(84)
2022 SWP Allocation (5%)	44	-	-	-	-	43	87
2019 Reserve Water	72	213	225	-	-	-	510
Kern River Water	-	(5,000)	-	-	-	-	(5,000)
DRWD 1-for-1 Long Term Exchange Credit	5,000	-	-	-	-	-	5,000
Recovery of Banked SWP Water for MWD	(3,927)	-	-	-	-	-	(3,927)
MWD Credit for SWP Water	3,927	-	-	-	-	-	3,927
TOTAL 2022 TRANSACTIONS	5,116	(4,871)	225	-		43	513
Total Kern Water Bank	-	3,764	-	-	-	-	3,764
Total MWD System	12,033	-	-	-	-	43	12,076
Total Kern County	344	5,705	225	-	-	-	6,274
Total DRWD 1-for-1 Long Term Exchange Credit	15,000	-	-	-	-	-	15,000
TOTAL STORED WATER (1/1/2023)	27,377	9,469	225	-		43	37,114
			(RECOVERY)	AND RECHARGE IN 2023	(AF)	•	
KWB Recovery for use on Jackson Ranch <sup>6</sup> Est.	-	(235)	-	-	-	-	(235)
2023 SWP Allocation (100%) <sup>3</sup>	750	-	-	-	-	749	1,499
BV Long Term Program Kern River Water Est.	-	7,501	7,896	-	-	-	15,397
BV 2023 Recharge Kern River Water Est.	-	678	713	-	-		1,391
2023 SWP - CCWA Short Term Exchange	193	-	-	193	-		386
2023 SWP - AVEK Long Term Exchnge Est.	431	-	-	-	430		861
DRWD 1-for-1 Long Term Exchange (Recharge) Est.	8,315	-	-	-	-	-	8,315
TOTAL ESTIMATED 2023 TRANSACTIONS	9,689	7,944	8,609	193	430	749	27,614
ESTIMATED	WATER IN STORAG	GE 2023 (AF)					
Total Kern Water Bank	-	3,529	-	-	-	-	3,529
Total MWD System	12,033	-	-	-	-	43	12,076
Total Kern County	10,033	13,884	8,834	193	430	749	34,123
Total DRWD 1-for-1 Long Term Exchange Credit	6,685	-	-	-	-	-	6,685
TOTAL ESTIMATED STORED WATER TO DATE	28,751	17,413	8,834	193	430	792	56,413

NOTES: Water in storage has been adjusted to account for losses. IRWD's water stored in

County is adjusted 15% for losses (5% for out of county loss, 6% surface loss, and 4% reserve loss); Water stored for-BVWSD in Kern County is adjusted 10% (6% for surface loss and 4% for reserve loss); no losses for water directly delivered to MWD system. MWD = Metropolitan Water District of Southern California.

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

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

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

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

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

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

# Exhibit "D"

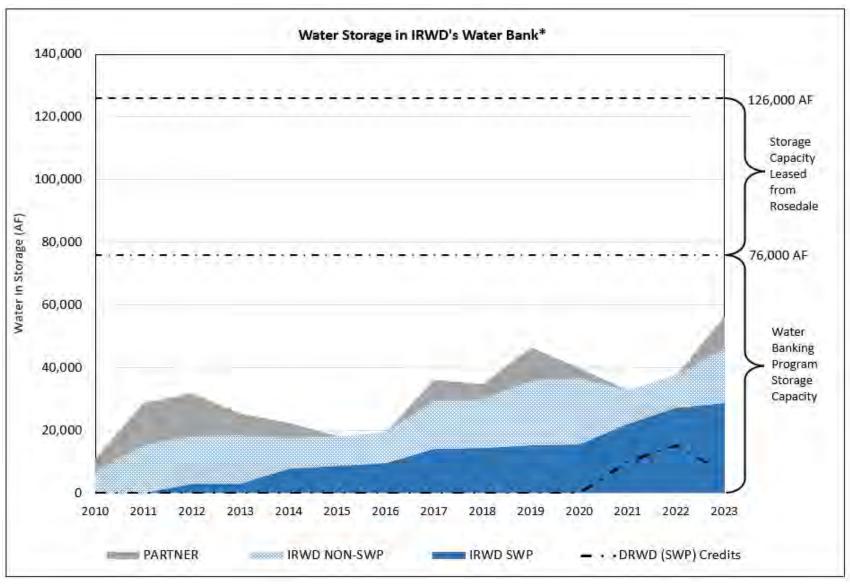
TABLE 4
Status of IRWD Purchase and Exchange Programs (AFTER LOSSES)
August 17, 2023

f					Augu	ist 17, 2023										
	PARTNER WATER IRWD WATER															
		YEAR AGREEMENT			PARTNER	PARTNER	IRWD			RWD BALANO	E			EXPORTABI	ITY	
PARTNER	EXCHANGE RATIO	EXECUTED	ТҮРЕ	WATER TYPE	SHARE (AF)	BALANCE (AF)	SHARE (AF)	IN MWD SYSTEM (AF)	STORED IN Strand and Stockdale	KERN (AF) Kern Fan (W.Enos)	OWED BY DUDLEY RIDGE WD	TOTAL (AF)	EXPORTABLE TO IRWD (AF)	NON- EXPORTABLE (AF)	FOR USE ON JACKSON RANCH (DRWD)	SELLABLE (Y/N)
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
	2-for-1	2010	Pilot	Kern River	4,108		3,903									Yes
Buena Vista Water Storage District <sup>1</sup>	2-for-1	2011	Long-Term	Kern River	29,369	8,121	27,900		10,803			10,803		10,803		res
Antelope Valley East Kern Water Agency	2-for-1	2011	Pilot	SWP Table A	2,229		2,337	2,337				2,337	2,337			No
Carpinteria Valley Water District	2-for-1	2011	Pilot	SWP Table A	624		655	655				655	655			No
		2012	CINIDA O	SWP Table A	1,876		1,876	1,876				1,876	1,876			Yes
Dudley Ridge Water District (SWPAO #13012)	2-for-1	2013	SWPAO	SWP Article 21	1,553		1,554	1,554				1,554	1,554			Yes
Metropolitan Water District <sup>2</sup>	1-for-1	2014	Short-Term	SWP Table A	NA	NA	4,000	4,000				4,000	4,000			No
Dudley Ridge Water District (SWPAO #17030)	2-for-1	2018	SWPAO	SWP Table A	1,803	790	1,875	1,055	819			1,875	1,875		790	Yes
Central Coast Water Authority (SWPAO #17001)	2-for-1	2017	Short-Term	SWP Table A	258		258	258				258	258			No
Dudley Ridge Water District <sup>3</sup> (SWPAO #19001)	1-for-1	2017	Long-Term	SWP Table A			8,315		8,091	224		8,315	15 000			No
Dudley Ridge water District (SWPAO #19001)	1-101-1	2017	Long-Term	Credit			6,685				6,685	6,685	15,000			No
Central Coast Water Authority (SWPAO #19031)	2-for-1	2019	Short-Term	SWP Table A	298		323	298	25			323	323			No
Buena Vista Water Storage District <sup>1</sup>	2-for-1	2023	Short-Term	Kern River	713	713	679		416	263		679		679		Yes
Central Coast Water Authority (SWPAO #23012)	2-for-1	2023	Short-Term	SWP Table A	193	193	193		193			193	193			No
Antelope Valley East Kern Water Agency (SWPAO #23024)	2-for-1	2023	Long-Term	SWP Table A	431	431	431		214	217		431	431			No
				Total:	42,395	8,911	62,773	12,033	22,391	704	6,685	41,334	27,877	13,456	790	NA

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

<sup>2</sup> Source of water was Buena Vista Water Storage District Kern River high flow water.
 <sup>3</sup> To account for the SWP water that will be returned to IRWD, the amount of water owed is shown as a credit. The total net of losses is 15,000 AF.

Exhibit "E"



\*After losses

# Exhibit "F"

### TABLE 5

IRWD Dedicated Water Banking Capacities for Existing and Proposed Exchange Programs

August 17, 2023

## STORAGE CAPACITY

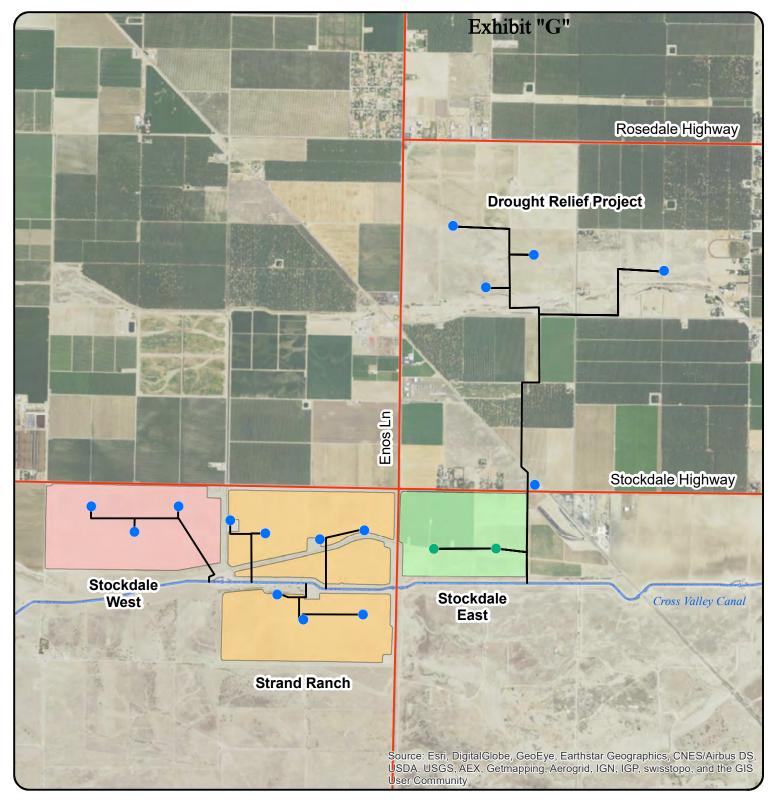
Program	Dedicated Storage Capacity Strand Ranch (AF)	Dedicated Storage Capacity Stockdale West (AF)	Dedicated Storage Capacity Leased Storage Account (AF)	Kern Water Bank Storage Capacity (AF)
Total Capacity	50,000	26,000	50,000	9,495
BVWSD	40,000	-	-	-
DRWD	10,000	-	-	-
AVEK	-	20,000	-	-
Total Dedicated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

### **RECHARGE CAPACITY**

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

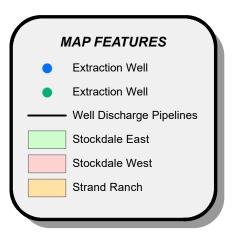
### **RECOVERY CAPACITY**

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

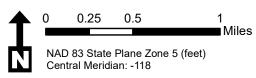


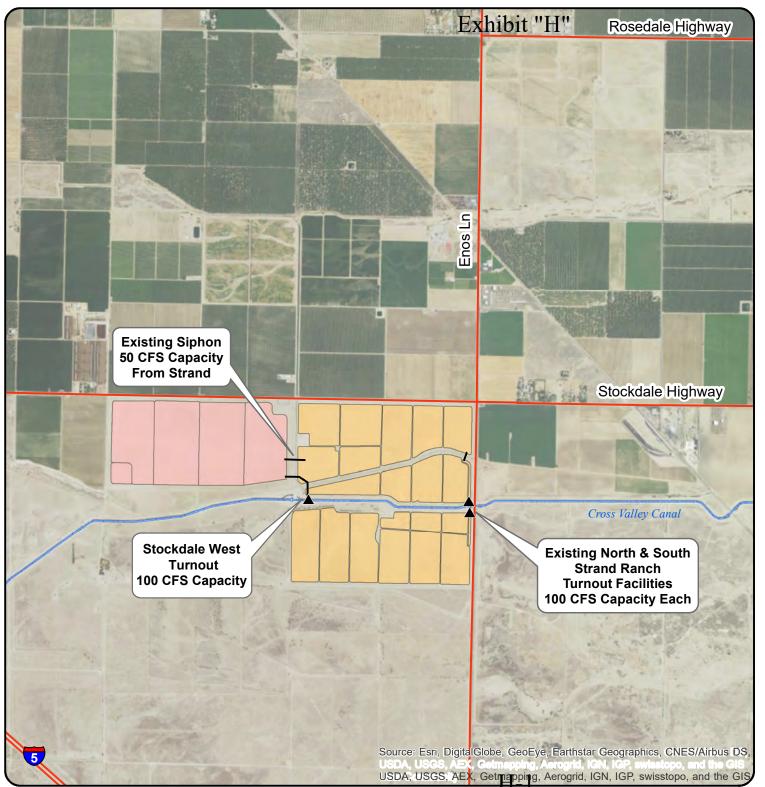


# Location Map: IRWD Water Banking Projects Wells and Turnin Pipelines



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







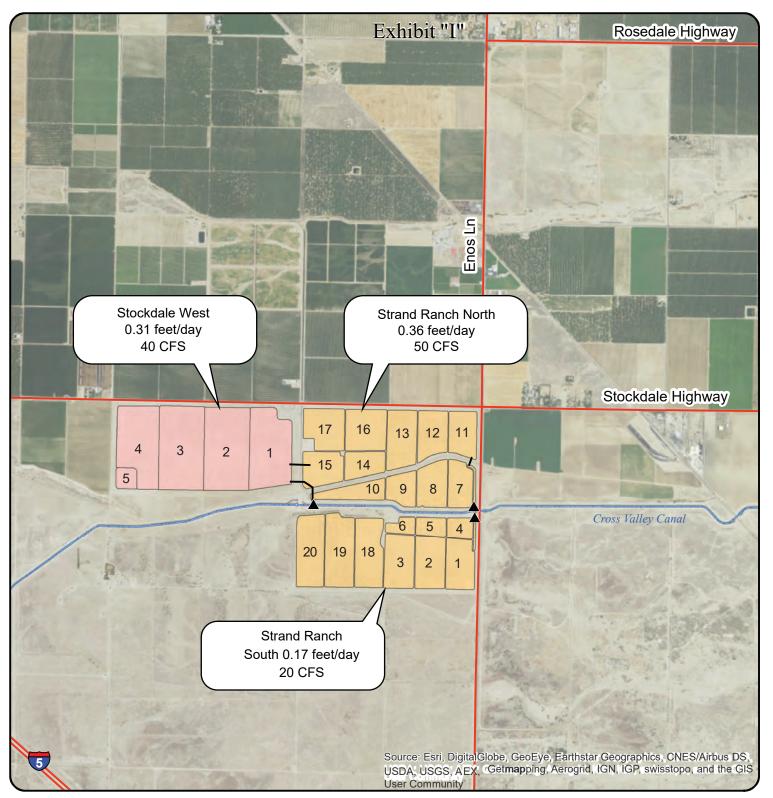
Location Map: IRWD Water Banking Projects Recharge Basins &Turnout Facilities

MAF	MAP FEATURES							
	Turnouts							
	Stockdale West							
	Strand Ranch							

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

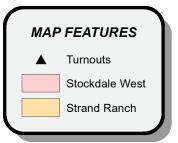
0	0.25	0.5	1
	33 State Pla al Meridian:	ane Zone 5 (fe : -118	eet) Miles

User Community

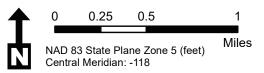


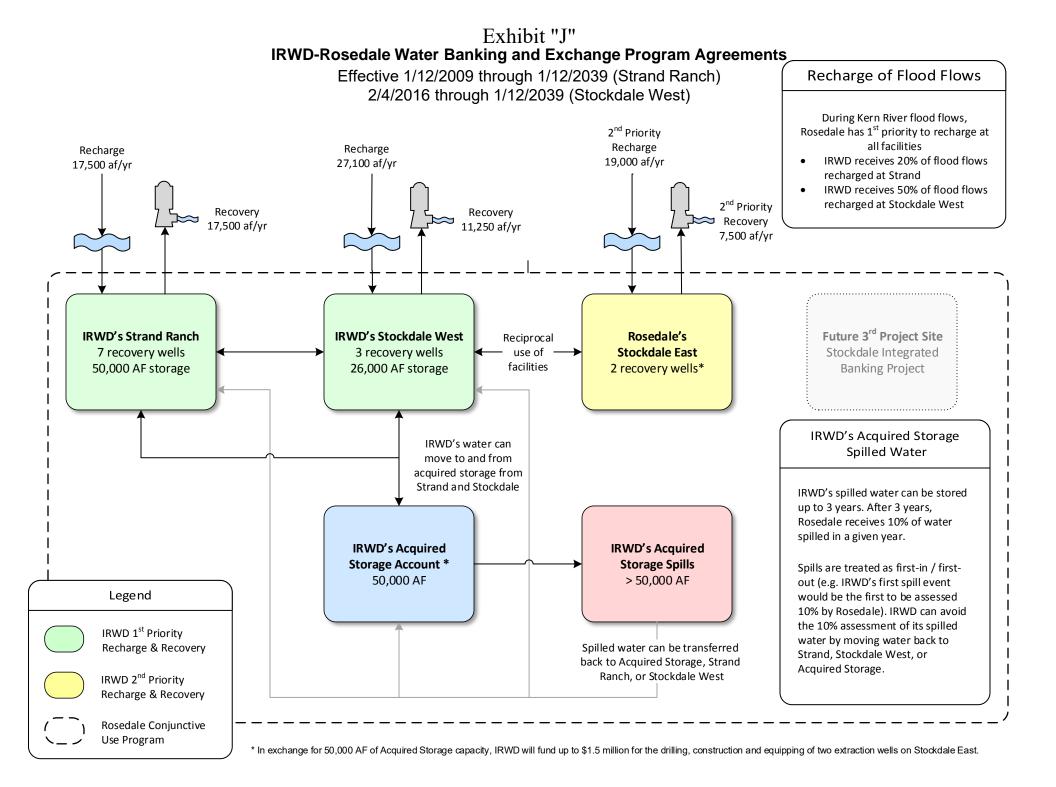


Location Map: IRWD Water Banking Projects Recharge Rates

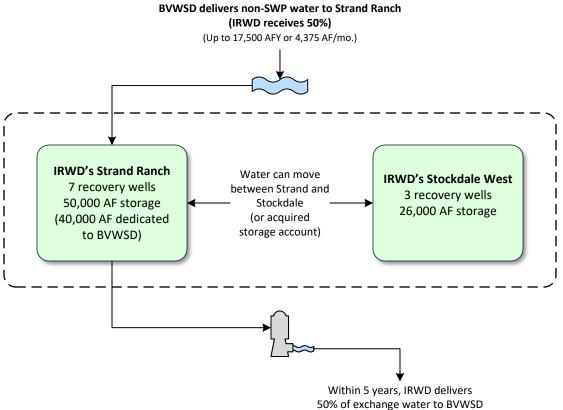


This figure shows the location of recharge basins and their associated recharge rates as of August 2, 2023.

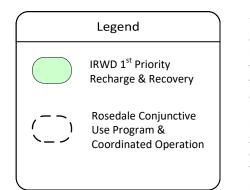




# Exhibit "K" Buena Vista Water Storage District Long Term Water Exchange Program Effective 1/1/2011 through 1/12/2039



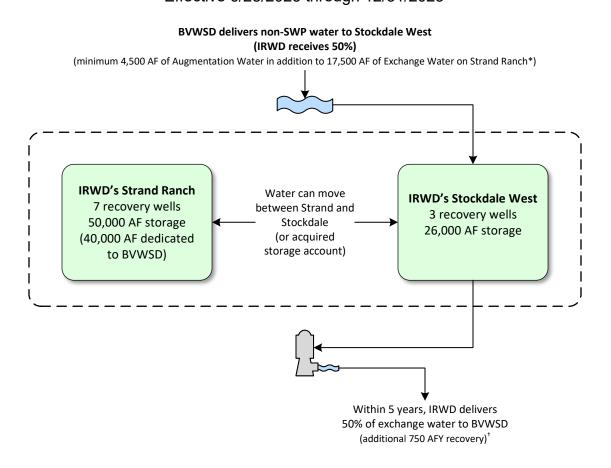
(no more than 6,667 AFY or 1,667 AF/mo.) $^{\dagger}$ 



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

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

# Buena Vista Water Storage District One-Year Program to Augment Recharge Using Stockdale West Recharge Facilities Effective 6/28/2023 through 12/31/2023



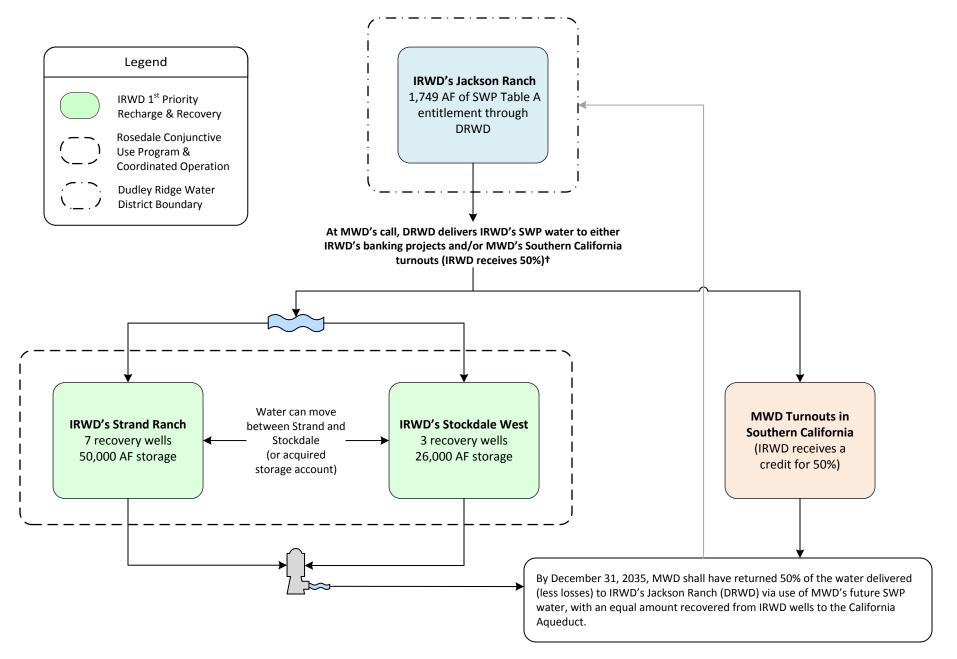
Legend		
	IRWD 1 <sup>st</sup> Priority Recharge & Recovery	
( )	Rosedale Conjunctive Use Program & Coordinated Operation	

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

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

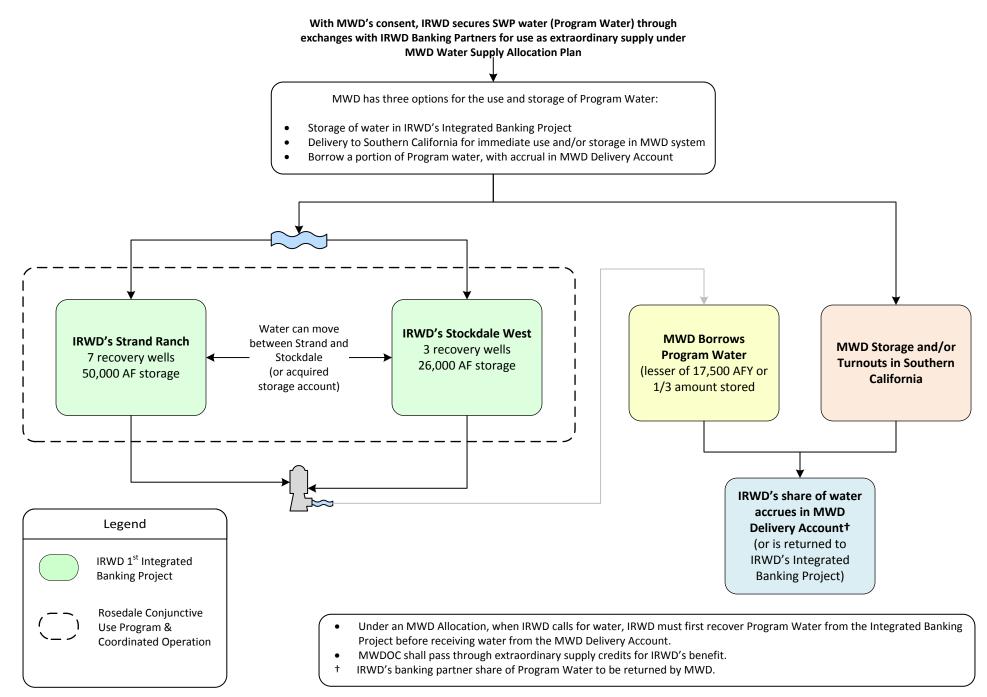
Year Following Recharge Event	Percent Transferred to IRWD	Percent Returned to BV During or Before Indicated Year
1	50%	50%
2	50%	50%
3	50%	50%
4	50%	50%
5	60%	40%
6	70%	30%
7	80%	20%
8	90%	10%
9	100%	0%

Exhibit "L" Dudley Ridge Water District (DRWD) Unbalanced Exchange Program Up to 12,240 AF delivered from 6/7/2018 through 12/31/2027



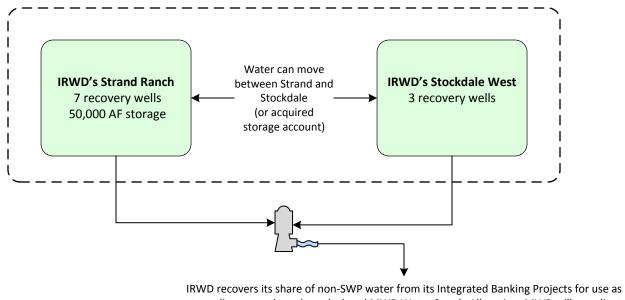
# Exhibit "M"

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

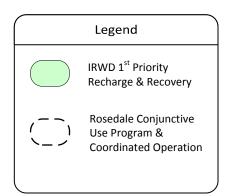


# Exhibit "N"

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



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.\*

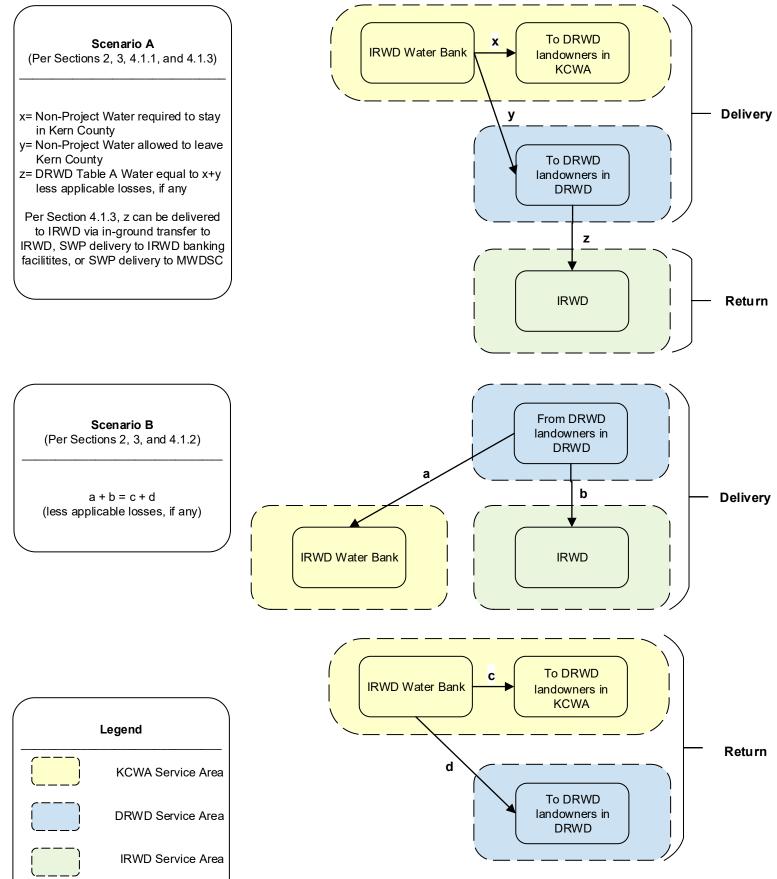


\*The recovered water must be used within IRWD's service area. IRWD to pay MWD wheeling charges, including system access rate, water stewardship rate, and treatment surcharge (if applicable), for each acre foot of recovered water wheeled by MWD. IRWD will pay the actual costs of power incurred by MWD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

# Exhibit "O"

# Dudley Ridge Water District Long Term 1-for-1 Water Exchange Program

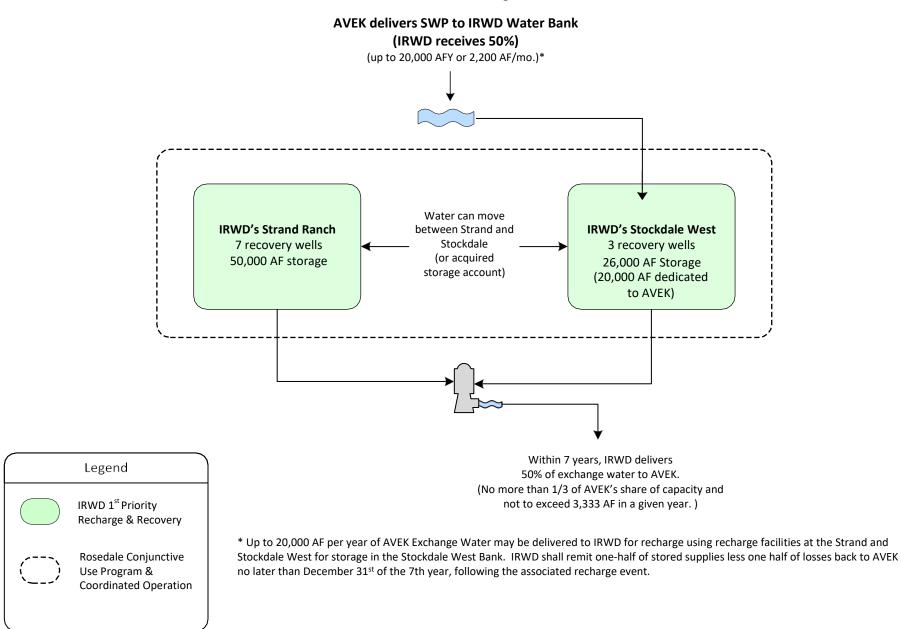
Effective 5/31/2017 through 11/4/2035



## Exhibit "P"

### Antelope Valley-East Kern Water Agency (AVEK) Long Term Water Exchange Program

Effective 12/21/2018 through 12/31/2035



## Exhibit "Q"

#### TABLE 6 IRWD Water Banking Program Costs of Water Summary

April 20, 2023

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

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

<sup>2</sup> 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)

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

<sup>4</sup> Capital component does not include land costs.

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

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

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

## Exhibit "R"

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

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

## Summary of Benefits to IRWD:

- 1. IRWD benefits from all State Water Project (SWP) water IRWD secures; Metropolitan's borrowing of this water is temporary.
- 2. On behalf of IRWD, Metropolitan uses its SWP exchange and conveyance capacities to move IRWD's water for banking.
- 3. IRWD can "store" water in Metropolitan's system as a credit, freeing up space in IRWD's Water Bank with the water stored closer to the IRWD service area.
- 4. IRWD does not incur conveyance or evaporation losses on its water that is conveyed in Metropolitan's system and stored in Metropolitan's reservoirs.
- 5. IRWD avoids groundwater recovery (pumping) costs when Metropolitan issues a credit for IRWD's SWP supplies in Southern California (currently \$122/AF<sup>1</sup>).
- IRWD pays Metropolitan's melded system power rate currently \$167/AF, not DWR's current power costs of \$395/AF<sup>2</sup> (\$228/AF savings).
- 7. Deliveries are on-demand to IRWD at its service connections in Orange County, which are not subject to lower priorities for wheeling.
- 8. Metropolitan pays all SWP costs, including variable OMP&R supply costs, associated with SWP water secured by IRWD<sup>3</sup>.
- IRWD pays Metropolitan's Full-Service Tier-1 Untreated Rate, which is currently \$799/AF, for deliveries at its service connections allowing IRWD to avoid higher Metropolitan wheeling charges currently estimated at \$856/AF<sup>4</sup>.
- 10. IRWD only pays once for supply at the current Tier-1 Supply Rate of \$243/AF.
- 11. Deliveries to IRWD's service area qualify as Extraordinary Supply during a Water Supply Allocation, allowing IRWD to avoid Metropolitan's Allocation Surcharge of between \$1,480/AF and \$2,960/AF.
- 12. IRWD increases local water supply reliability for its ratepayers.

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

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

<sup>&</sup>lt;sup>3</sup> Does not include fixed costs paid by IRWD's unbalanced exchange partners. In 2014 and 2017, Metropolitan's SWP costs were \$1,097/AF and \$359/AF, respectively.

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

Summary of IRWD's Coordinated Operating, Water Storage, Exchange and Delivery Agreement with Metropolitan and MWDOC February 14, 2023 Page 2 of 2

### Summary of Benefits to MWD:

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

# Exhibit "S"

#### IRWD 2023 Recharge Operations

August 17, 2023

#### **Actual and Forecasted Amounts:**

										Expected
	Central	IRWD			IRWD				Expected	Recharge
	Coast	Table A	BV	DRWD 1:1	Article 21	AVEK	Total		Recharge	Rate
Month	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	Status	(AF)	(CFS)
March	-	1,312	-	-	-	-	1,312	prelim	1,312	200
April	-	437	7,000	4,026	-	-	11,463	prelim	11,463	193
May	-	-	6,069	2,628	-	-	8,697	prelim	8,697	141
June	-	-	4,431	1,815	-	-	6,246	prelim	6,246	102
West Enos (June)	-	-	351	-	-	-	351	prelim	351	7.7
July	-	-	769	769	-	-	1,537	prelim	1,537	25
West Enos (July)	-	-	261	261	-	-	523	prelim	523	9
	-	1,749	18,881	9,499	-	-	30,129		30,129	
August	450	-	200	200	-	1,610	2,460		2,460	40
West Enos (Aug)	-	-	-	-	-	922	922		922	15
	450	1,749	19,081	9,699	-	2,532	33,511		3,382	55
September	-	-	-	-	-	1,785	1,785		1,785	30
West Enos (Sept)	-	-	-	-	-	1,071	1,071		1,071	18
	450	1,749	19,081	9,699	-	5,388	36,367		2,856	48
October	-	-	-	-	-	1,845	1,845		1,845	30
West Enos (Oct)	-	-	-	-	-	1,107	1,107		1,107	18
	450	1,749	19,081	9,699	-	8,339	39,319		2,951	48
November	-	-	690	301	205	589	1,785		1,785	30
West Enos (Nov)	-	-	-	-	-	1,071	1,071		1,071	18
	450	1,749	19,771	10,000	205	10,000	42,175		2,856	48
December	-	-	1,122	-	723	-	1,845		1,845	30
West Enos (Dec)	-	-	1,107	-	-	-	1,107		1,107	18
	450	1,749	22,000	10,000	928	10,000	45,126		2,951	48
Recharge goal	450	1,749	17,500	10,000	8,000	10,000	47,699			
Additional BV			4,500							

August 17, 2023 Prepared by: N. Palacio / K. Welch Submitted by: F. Sanchez / P. Weghorst Approved by: Paul A. Cook

#### SUPPLY RELIABILITY PROGRAMS COMMITTEE

#### PILOT WATER MANAGEMENT PROGRAM AGREEMENT BETWEEN IRWD AND HOMER LLC – AMENDMENT NO. 1

#### SUMMARY:

On March 13, 2023, the Board authorized an agreement with Homer LLC for a mutually beneficial Pilot Water Management Program. The Pilot Program would allow IRWD to utilize Cross Valley Canal (CVC) capacity available from Homer in exchange for IRWD providing Homer an equal amount of recharge capacity in the IRWD Water Bank. The term of the program ended on May 31, 2023, due to delays in securing approval of Article 21 water deliveries.

Staff expects that CVC capacity may become restricted for IRWD's use in the coming months. Staff has prepared revised terms amending the Letter Agreement with Homer to allow for the capacity exchange to be available at IRWD's discretion through the end of 2023. Staff recommends that the Board authorize the General Manager to execute Amendment No.1 to the Pilot Water Management Program Letter Agreement with Homer based on the revised terms presented below.

#### BACKGROUND:

Homer owns land within the Berrenda Mesa Water District with the right to use State Water Project (SWP) water. Homer has the right to 217 cubic feet per second (cfs) of CVC capacity in Kern County, which exceeds Homer's needs. IRWD has the right to 4.87 cfs of CVC conveyance capacity and relies on Rosedale-Rio Bravo Water Storage District to deliver IRWD and its partners water in the CVC using Rosedale's unused CVC capacity. In wet years, Rosedale may not have excess capacity to convey IRWD's water in the CVC.

On March 13, 2023, the Board authorized the General Manager to execute a Letter Agreement with Homer that would allow Homer to deliver up to 2,500 AF of SWP Article 21 water into IRWD's Water Bank through May 2023. In exchange, IRWD would have access to Homer's CVC capacity to deliver an equal amount of its Article 21 water available through Dudley Ridge Water District. IRWD would utilize Homer's CVC capacity during periods when IRWD would otherwise not be able to deliver its water to the IRWD Water Bank. The Pilot Program agreement was executed on March 14 but was not implemented due to delays in approval for Article 21 water deliveries.

#### Need to Extend Pilot Program:

Staff expects that CVC capacity may become restricted for IRWD's use in the coming months. Having access to Homer's CVC capacity would be beneficial to IRWD should access to the CVC become limited. Staff has worked with Homer to develop revised terms for the Pilot Supply Reliability Programs Committee: Pilot Water Management Program Agreement between IRWD and Homer LLC – Amendment No. 1 August 17, 2023 Page 2

Program that would extend the capacity exchange program at IRWD's discretion. The revised terms with changes from the March 13 version shown as redlines are provided as Exhibit "A". A clean version of the terms is presented in Exhibit "B".

#### Overview of Revised Terms:

The revised terms to the Letter Agreement with Homer would provide for the delivery of up to 8,000 AF of IRWD water supplies to the IRWD Water Bank using Homer's CVC capacity through December 2023. In exchange, Homer would be able to recharge an equal amount of its water in the IRWD Water Bank in 2024, subject to actual recharge rates and other scheduled IRWD program deliveries. The capacity exchange would be triggered when IRWD calls for the use of Homer's CVC capacity and Homer has secured approval for IRWD's use of its CVC capacity. The term of the Program would be extended to December 31, 2027, to allow for the return of Homer's water.

Staff recommends that the Board authorize the General Manager to execute an Amendment to the Pilot Program Letter Agreement based on the revised terms presented in Exhibit "B".

#### FISCAL IMPACTS:

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

#### ENVIRONMENTAL COMPLIANCE:

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

### **RECOMMENDATION:**

That the Board authorize the General Manager to execute Amendment No. 1 to the Water Management Pilot Program Letter Agreement with Homer LLC based on the revised terms presented.

Supply Reliability Programs Committee: Pilot Water Management Program Agreement between IRWD and Homer LLC – Amendment No. 1 August 17, 2023 Page 2

LIST OF EXHIBITS:

- Exhibit "A" Terms for a Pilot Water Management Program Agreement between IRWD and Homer LLC – Amendment 1, Redline Version
- Exhibit "B" Terms for a Pilot Water Management Program Agreement between IRWD and Homer LLC – Amendment 1, Clean Version

## EXHIBIT "A"

### DRAFT

## Amended Terms for a Pilot Water Management Program Between Irvine Ranch Water District and Homer LLC (March 13August 17, 2023)

Parties	The Irvine Ranch Water District (IRWD) and Homer LLC (Homer)
Existing Water Banking Facilities and Capacities	The IRWD Water Bank, located in Kern County, is owned by IRWD and operated by Rosedale-Rio Bravo Water Storage District (Rosedale). IRWD holds first priority rights to the use of the recharge and recovery facilities within the IRWD Water Bank and at least 200 cubic feet per second (cfs) of turnout capacity available on the Cross Valley Canal (CVC). IRWD's first priority recharge rights may be superseded when the Kern River Watermaster offers water to all takers willing to sign a notice/order or when Kern River water is offered to the California Aqueduct/Kern River Intertie or when it is expected to be delivered out-of-county.
	Homer has the right to the use of at least 200 cfs of CVC Capacity held by the Lower- Tule River Irrigation District & Pixley Irrigation District (LTRID&PID).
	IRWD and Homer plan to implement a Pilot Water Management Program whereby Homer will-would utilize Homer's CVC capacity to deliver Homer's Article 21 State Water Project (SWP) water to the IRWD Water Bank (Exchange Water). Exchange Water would be returned to Homer as described below (Return Water). The implementation of the program would occur upon execution of a Pilot Water Management Program Agreement.
	In exchange for IRWD <u>agreeing to</u> regulat <u>eing</u> Homer's supplies <u>-</u> ,-IRWD would be compensated with access to Homer's CVC capacity to deliver to the IRWD Water Bank <u>any water supplies secured by</u> IRWD (IRWD Water) as described below. Article 21 water secured from Dudley Ridge Water District (DRWD) that IRWD would not otherwise be able to deliver to the IRWD Water Bank. The implementation of the Pilot Water Management Program would be triggered when IRWD calls, and Homer gets all approvals needed, for IRWD's use of Homer's CVC capacity.
Purpose Description	Subject to IRWD's recharge limits or other recharge deliveries, it is expected that the delivery of IRWD <u>Water</u> 's and Homer's Article 21 water using Homer's CVC Capacity would will occur in through the end 2023 the same total amounts between March through May 2023 and will not exceed the Exchange IRWD Water amounts described below. After the delivery of IRWD Water and subject to actual recharge rates and IRWD's scheduling of deliveries for other programs, Homer would in 2024 be able to deliver an amount of water to the IRWD Water Bank equal to the amount IRWD Water recharge rates cannot accommodate recharge of all Homer's Exchange Water in 2024, Homer would be able to recharge the remaining water in 2025.
	The program will be available upon execution of an Amendment to Pilot Water Management Program Agreement (Amendment). Homer will secure approvals for IRWD's use of Homer's CVC capacity in accordance with Kern County Water Agency (KCWA) Coordination below.
Term	The term of the Program would be through December 31, <u>2027</u> <del>2026</del> , <u>subject to the</u> implementation of the Program being triggered as described above.

Exchange Water	Water secured by Homer and delivered to the IRWD Water Bank. Exchange Water would be limited to the amount of IRWD Water previously delivered to the IRWD Water Bank by IRWD using Homer's CVC capacity. Homer's recharged water (Exchange Water) includes will be up to 2,500 acre feet (AF) of Homer's Article 21 water to be delivered to the IRWD Water Bank in March through May 2023. Up to 2,500 AF of IRWD's Article 21 water shall also be delivered to the IRWD Water Bank during the same period for IRWD's benefit. The Parties will coordinate to ensure that equal amounts of water are delivered into storage.
IRWD Water	Water secured by IRWD and delivered to the IRWD Water Bank using Homer's CVC capacity. IRWD Water deliveries would be limited to 8,000 AF.
Return Water	Within three years from delivery of Exchange Water to the IRWD Water Bank, <u>As</u> <u>described below</u> , Homer will either transfer out its stored water <u>less losses</u> or IRWD shall return all of Homer's Exchange Water to Homer, less losses (Return Water). For every one acre-foot of Homer's Exchange Water delivered to the IRWD Water Bank, IRWD shall return 0.85 AF of Return Water to accommodate losses as described below.
Delivery of Return Water	By the end of the term of the Pilot Water Management Program Agreement, all Return Water shall be delivered to Homer either by (1) in-ground transfer(s) to the Rosedale, Pioneer or Berrenda Mesa banking projects (Homer's Banking Projects), and/or by (2) IRWD utilizing its recovery capacity in the IRWD Water Bank. Homer shall obtain all approvals for delivery by in-ground transfer(s) to Homer's Banking Projects. If delivery is by well recovery, IRWD shall utilize its recovery capacity, after all other IRWD water banking and exchange program needs have been met including IRWD's own. No later than May 1 of each year of during the term of this agreement, Homer shall provide IRWD with a schedule requesting delivery for Return Water in that year. Return Water would be recovered and delivered at an annual rate of not more than one-third of the total amount <u>of Exchange Water</u> delivered into storage by Homer, after losses. The Parties will cooperate in scheduling the Return Water deliveries with deliveries associated with other IRWD banking and exchange programs.
Quality	The quality of Exchange Water delivered to the IRWD Water Bank and Return 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.
Delivery Points	The Point of Delivery for the Exchange Water and IRWD Water under this program shall be at an IRWD Water Bank Turnout on the CVC or any other location available to Rosedale. The Point of Delivery for the Return Water shall be at an IRWD Water Bank Turn-in to the CVC. Point of Delivery for Return Water transferred in-ground would be a designated Homer Banking Project. Homer shall coordinate with Kern County Water Agency (KCWA) for the conveyance of its Exchange Water and Return Water utilizing its the CVC capacity. If needed, Homer shall coordinate any required approval with the Department of Water Resources (DWR), KCWA and any other necessary agency for delivery of Homer's Exchange Water and Return Water.

Losses	Water banking losses shall be <u>applied to the shared equally between IRWD Water</u> and Homer <u>'s Exchange Water</u> (estimated to be 15%). Homer and IRWD each may incur additional conveyance losses of 1% to 2% in the CVC for conveyance of each Party's water, as measured and assessed by KCWA.
	Homer shall pay all costs associated with the use of the LTRID&PID CVC capacity, and IRWD will reimburse Homer for the CVC electricity costs to deliver IRWD's <u>WwaterArticle 21</u> to the IRWD Water Bank Turnouts at the CVC.
Recharge Costs	IRWD shall pay all costs assessed to IRWD by Rosedale for recharging both Homer's <u>Exchange Water</u> and the IRWD's <u>W</u> water at the IRWD Water Bank. Homer would reimburse IRWD for <del>50 percent of these</del> costs paid by IRWD for the recharge of <u>Homer's Exchange Water</u> . Payment of these costs would be paid upon completion of recharge of Homer's Exchange Water. Costs are assessed by Rosedale consistent with that certain Water Banking and Exchange Program Agreement between Rosedale and IRWD dated January 13, 2009. These estimated costs may include Rosedale's administrative charge of about \$3 per acre-foot (AF), third party wheeling charges assessed by KCWA of \$5 per AF (a minimum of \$7,500), <del>and operations and maintenance (O&amp;M)</del> costs of about \$15 per AF, and applicable fixed and variable O&Mrelated IRWD Water Bank costs of about \$3 per AF, <u>andas well as any other</u> costs assessed by Rosedale to IRWD for the recharge of Homer's Exchange Water. IRWD and Homer would each be responsible for paying the KCWA transaction request fees of \$3,000 for delivery of their respective shares of the Exchange Water and IRWD Water when such water is scheduled for deliveryed into storage.
Recovery Costs	IRWD and Homer would each be responsible for actual costs of recovery for each Party'stheir own respective Exchange Water and IRWD -share of the wWater either through well pumping or by exchange as assessed by Rosedale. Recovery costs associated with extraction are estimated at \$1226 per AF and are comprised of average groundwater pumping costs of \$115 per AF, Rosedale's administrative charge of about \$3 per AF, and applicable fixed and variable O&M Water Bank costs of about \$4 per AF. Homer would reimburse IRWD for its share of these costs upon delivery of Return Water to Homer. Each party will also be responsible for paying the KCWA transaction request fee of \$3,000 when their share of recovered water is scheduled for delivered recovery.
	IRWD and Homer would <u>each be responsible for their proportional share of share</u> equally any costs assessed by Rosedale under its Long-Term Operations Plan for implementing provisions to prevent impacts from recovery operations. It is expected that banking projects, such as the IRWD Water Bank, may be required to contribute \$2.00 per AF for recovered water to a fund, which may be used to meet mitigation obligations.
	Homer shall be responsible for any costs assessed for an in-ground transfer of Return Water to a Homer Banking Project.
SWP Variable OMP&R Costs	IRWD and Homer will each pay the DWR Variable Operation, Maintenance, Power, and Replacement (OMP&R) charges estimated at \$30 per AF associated with the delivery to the IRWD-POD Water Bank of each Partyof Exchange Water for Homer or of IRWD Water for IRWD when such water is's_Exchange W_State Water Project (SWP) water from the Delta-to IRWD POD. For delivery of Return Water to Homer, Homer will pay any associated DWR Variable OMP&R charges. Each party will pay their own conveyance costs, including operations, maintenance, power and replacement costs, associated with delivery of any non-SWP water supply.

Agency Coordination	IRWD and Homer would cooperate with DWR and KCWA in preparing all necessary agreements and approvals to facilitate the Program. IRWD and Homer shall each be responsible for their own costs associated with such coordination. <u>Homer would be responsible for securing all approvals in Kern County for IRWD's use of Homer's CVC capacity.</u> Homer will use best efforts to secure such approvals within 15 days of IRWD's call on the use of Homer's CVC Capacity.
Environmental Compliance	Both parties shall comply with the California Environmental Quality Act (CEQA) and cooperate with one another with respect to CEQA compliance that may be required by the DWR for the proposed Program. IRWD has already conducted environmental review under CEQA for the Strand and Stockdale Integrated Banking Projects that takes into consideration the delivery, storage and recovery of SWP and non-SWP water. Rosedale certified and IRWD approved the CEQA documents for the Strand and Stockdale Integrated Banking Projects. Corresponding Notices of Determination were filed by both Rosedale and IRWD. Both IRWD and Homer shall each be responsible for any other environmental review or permitting necessary to implement the Program within their own respective service areas. <u>Homer shall be</u> <u>responsible for any necessary environmental review for Homer's delivery of Homer's Exchange Water to and from the IRWD Water Bank.</u>
Water Rights	It is expressly agreed, understood, and acknowledged by IRWD and Homer that any recharge or recovery of water for Homer or the transfer of Return Water to a Homer Banking Project will not result in or be considered a sale or transfer of Homer's or IRWD's contractual rights to 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 this Pilot Water Management Program Agreement, obtaining necessary approvals, and the like.
Option	Upon completion of the delivery and recharge of each Party's respective 2,500 AF of Article 21 water, the Parties can mutually agree to <u>each</u> deliver, using Homer's CVC's capacity, up to another 2,500 of SWP water or non-SWP water to the IRWD Water Bank by the end of calendar year 202 <u>4</u> 3. Non-SWP water types would be limited to those evaluated in the Environmental Compliance described above. All the terms listed above would apply to these additional deliveries of water. Execution of the option would occur through an amendment to the Pilot Water Management Program Agreement.

## EXHIBIT "B"

### DRAFT

## Amended Terms for a Pilot Water Management Program Between Irvine Ranch Water District and Homer LLC (August 17, 2023)

Parties	The Irvine Ranch Water District (IRWD) and Homer LLC (Homer)
Existing Water Banking Facilities and Capacities	The IRWD Water Bank, located in Kern County, is owned by IRWD and operated by Rosedale-Rio Bravo Water Storage District (Rosedale). IRWD holds first priority rights to the use of the recharge and recovery facilities within the IRWD Water Bank and at least 200 cubic feet per second (cfs) of turnout capacity available on the Cross Valley Canal (CVC). IRWD's first priority recharge rights may be superseded when the Kern River Watermaster offers water to all takers willing to sign a notice/order or when Kern River water is offered to the California Aqueduct/Kern River Intertie or when it is expected to be delivered out-of-county.
	Homer has the right to the use of at least 200 cfs of CVC Capacity held by the Lower- Tule River Irrigation District & Pixley Irrigation District (LTRID&PID).
Description	<ul> <li>IRWD and Homer plan to implement a Pilot Water Management Program whereby Homer would utilize Homer's CVC capacity to deliver Homer's water to the IRWD Water Bank (Exchange Water). Exchange Water would be returned to Homer as described below (Return Water). In exchange for IRWD agreeing to regulate Homer's supplies, IRWD would be compensated with access to Homer's CVC capacity to deliver to the IRWD Water Bank any water supplies secured by IRWD (IRWD Water) as described below. The implementation of the Pilot Water Management Program would be triggered when IRWD calls, and Homer gets all approvals needed, for IRWD's use of Homer's CVC capacity.</li> <li>Subject to IRWD's recharge limits or other recharge deliveries, it is expected that the delivery of IRWD Water using Homer's CVC Capacity will occur through the end 2023 and will not exceed the IRWD Water amounts described below. After the delivery of IRWD Water and subject to actual recharge rates and IRWD's scheduling of deliveries for other programs, Homer would in 2024 be able to deliver an amount of water to the IRWD Water Bank equal to the amount IRWD Water recharged by IRWD in 2023 using Homer's CVC capacity. If IRWD Water Bank recharge rates cannot accommodate recharge of all Homer's Exchange Water in 2024, Homer would be able to recharge the remaining water in 2025.</li> <li>The program will be available upon execution of an Amendment to Pilot Water Management Program Agreement (Amendment). Homer will secure approvals for IRWD's use of Homer's CVC capacity in accordance with Kern County Water Agency (KCWA) Coordination below.</li> </ul>
Term	The term of the Program would be through December 31, 2027, subject to the implementation of the Program being triggered as described above.
Exchange Water	Water secured by Homer and delivered to the IRWD Water Bank. Exchange Water would be limited to the amount of IRWD Water previously delivered to the IRWD Water Bank by IRWD using Homer's CVC capacity.
IRWD Water	Water secured by IRWD and delivered to the IRWD Water Bank using Homer's CVC capacity. IRWD Water deliveries would be limited to 8,000 AF.

Return Water	As described below, Homer will either transfer out its stored water less losses or IRWD shall return all of Homer's Exchange Water to Homer less losses (Return Water). For every one acre-foot of Homer's Exchange Water delivered to the IRWD Water Bank, IRWD shall return 0.85 AF of Return Water to accommodate losses as described below.
Delivery of Return Water	By the end of the term of the Pilot Water Management Program Agreement, all Return Water shall be delivered to Homer either by (1) in-ground transfer(s) to the Rosedale, Pioneer or Berrenda Mesa banking projects (Homer's Banking Projects), and/or by (2) IRWD utilizing its recovery capacity in the IRWD Water Bank. Homer shall obtain all approvals for delivery by in-ground transfer(s) to Homer's Banking Projects. If delivery is by well recovery, IRWD shall utilize its recovery capacity after all other IRWD water banking and exchange program needs have been met including IRWD's own. No later than May 1 of each year during the term of this agreement, Homer shall provide IRWD with a schedule requesting delivery for Return Water in that year. Return Water would be recovered and delivered at an annual rate of not more than one-third of the total amount of Exchange Water delivered into storage by Homer, after losses. The Parties will cooperate in scheduling the Return Water deliveries with deliveries associated with other IRWD banking and exchange programs.
Quality	The quality of Exchange Water delivered to the IRWD Water Bank and Return 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.
Delivery Points	The Point of Delivery for the Exchange Water and IRWD Water under this program shall be at an IRWD Water Bank Turnout on the CVC or any other location available to Rosedale. The Point of Delivery for the Return Water shall be at an IRWD Water Bank Turn-in to the CVC. Point of Delivery for Return Water transferred in-ground would be a designated Homer Banking Project. Homer shall coordinate with KCWA for the conveyance of its Exchange Water and Return Water utilizing its CVC capacity. If needed, Homer shall coordinate any required approval with the Department of Water Resources (DWR), KCWA and any other necessary agency for delivery of Homer's Exchange Water and Return Water.
Losses	Water banking losses shall be applied to the IRWD Water and Homer's Exchange Water (estimated to be 15%). Homer and IRWD each may incur additional conveyance losses of 1% to 2% in the CVC for conveyance of each Party's water, as measured and assessed by KCWA.

Recharge Costs	Homer shall pay all costs associated with the use of the LTRID&PID CVC capacity, and IRWD will reimburse Homer for the CVC electricity costs to deliver IRWD Water to the IRWD Water Bank Turnouts at the CVC. IRWD shall pay all costs assessed to IRWD by Rosedale for recharging both Homer's Exchange Water and the IRWD Water at the IRWD Water Bank. Homer would reimburse IRWD for costs paid by IRWD for the recharge of Homer's Exchange Water. Payment of these costs would be paid upon completion of recharge of Homer's Exchange Water. Costs are assessed by Rosedale consistent with that certain Water Banking and Exchange Program Agreement between Rosedale and IRWD dated January 13, 2009. These estimated costs may include Rosedale's administrative charge of about \$3 per acre-foot (AF), third party wheeling charges assessed by KCWA of \$5 per AF (a minimum of \$7,500), operations and maintenance (O&M) costs of about \$15 per AF, and applicable fixed and variable O&M-related IRWD Water Bank costs of about \$3 per AF, as well as any other costs assessed by Rosedale to IRWD for the recharge of Homer's Exchange Water. IRWD and Homer would each be responsible for paying the KCWA transaction request fees of \$3,000 for delivery of their respective Exchange Water and IRWD Water when such water is scheduled for delivery into storage.
Recovery Costs	<ul> <li>IRWD and Homer would each be responsible for actual costs of recovery for their own respective Exchange Water and IRWD Water either through well pumping or by exchange as assessed by Rosedale. Recovery costs associated with extraction are estimated at \$122 per AF and are comprised of average groundwater pumping costs of \$115 per AF, Rosedale's administrative charge of about \$3 per AF, and applicable fixed and variable O&amp;M Water Bank costs of about \$4 per AF. Homer would reimburse IRWD for its costs upon delivery of Return Water to Homer. Each party will also be responsible for paying the KCWA transaction request fee of \$3,000 when their water is scheduled for recovery.</li> <li>IRWD and Homer would each be responsible for their proportional share of any costs assessed by Rosedale under its Long-Term Operations Plan for implementing provisions to prevent impacts from recovery operations. It is expected that banking projects, such as the IRWD Water Bank, may be required to contribute \$2.00 per AF for recovered water to a fund, which may be used to meet mitigation obligations. Homer shall be responsible for any costs assessed for an in-ground transfer of Return Water to a Homer Banking Project.</li> </ul>
SWP Variable OMP&R Costs	IRWD and Homer will each pay the DWR Variable Operation, Maintenance, Power, and Replacement (OMP&R) charges estimated at \$30 per AF associated with the delivery to the IRWD Water Bank of Exchange Water for Homer or of IRWD Water for IRWD when such water is State Water Project (SWP) water from the Delta. For delivery of Return Water to Homer, Homer will pay any associated DWR Variable OMP&R charges. Each party will pay their own conveyance costs, including operations, maintenance, power and replacement costs, associated with delivery of any non-SWP water supply.
Agency Coordination	IRWD and Homer would cooperate with DWR and KCWA in preparing all necessary agreements and approvals to facilitate the Program. IRWD and Homer shall each be responsible for their own costs associated with such coordination. Homer would be responsible for securing all approvals in Kern County for IRWD's use of Homer's CVC capacity. Homer will use best efforts to secure such approvals within 15 days of IRWD's call on the use of Homer's CVC Capacity.

Environmental Compliance	Both parties shall comply with the California Environmental Quality Act (CEQA) and cooperate with one another with respect to CEQA compliance that may be required by the DWR for the proposed Program. IRWD has already conducted environmental review under CEQA for the Strand and Stockdale Integrated Banking Projects that takes into consideration the delivery, storage and recovery of SWP and non-SWP water. Rosedale certified and IRWD approved the CEQA documents for the Strand and Stockdale Integrated Banking Projects. Corresponding Notices of Determination were filed by both Rosedale and IRWD. Both IRWD and Homer shall each be responsible for any other environmental review or permitting necessary to implement the Program within their own respective service areas. Homer shall be responsible for any necessary environmental review for Homer's delivery of Homer's Exchange Water to and from the IRWD Water Bank.
Water Rights	It is expressly agreed, understood, and acknowledged by IRWD and Homer that any recharge or recovery of water for Homer or the transfer of Return Water to a Homer Banking Project will not result in or be considered a sale or transfer of Homer's or IRWD's contractual rights to water or a sale or transfer of IRWD's ownership in the IRWD Water Bank.
General Expenses	Each Party would be responsible for its own fees and expenses arising out of the negotiation and execution of this Pilot Water Management Program Agreement, obtaining necessary approvals, and the like.