

AGENDA  
IRVINE RANCH WATER DISTRICT  
SUPPLY RELIABILITY PROGRAMS COMMITTEE  
THURSDAY, JANUARY 20, 2022

*Due to COVID-19, this meeting will be conducted as teleconference pursuant to the provisions of Government Code Section 54953(e).*

Participation by members of the Committee will be from remote locations. Public access and participation will only be available telephonically/electronically.

To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online via Webex using the link and information below:

Via Web: <https://irwd.webex.com/irwd/j.php?MTID=mbfab00b5ba9052c5813b5a0abe597f56>

Meeting Number (Access Code): 2497 039 7296

Meeting Password: YWuKgpPA438

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

**PLEASE NOTE:** Participants joining the meeting will be placed into the Webex lobby when the Committee enters closed session. Participants who remain in the “lobby” will automatically be returned to the open session of the Committee once the closed session has concluded.

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     3:00 p.m.

ATTENDANCE     Committee Chair: Douglas Reinhart     \_\_\_\_\_  
Member: Peer Swan     \_\_\_\_\_

|                     |                 |       |                   |       |
|---------------------|-----------------|-------|-------------------|-------|
| <u>ALSO PRESENT</u> | Paul Cook       | _____ | Paul Weghorst     | _____ |
|                     | Rob Jacobson    | _____ | Fiona Sanchez     | _____ |
|                     | Kellie Welch    | _____ | Christine Compton | _____ |
|                     | Natalie Palacio | _____ | Jo Ann Corey      | _____ |
|                     | Marina Lindsay  | _____ | _____             | _____ |
|                     | _____           | _____ | _____             | _____ |

PUBLIC COMMENT NOTICE

If you wish to address the Committee on any item, please submit a request to speak via the “chat” feature available when joining the meeting virtually. Remarks are limited to three minutes per speaker on each subject. Public comments are limited to three minutes per speaker on each subject. You may also submit a public comment in advance of the meeting by emailing [comments@irwd.com](mailto:comments@irwd.com) before 9:00 a.m. on Thursday, January 20, 2022.

**ALL VOTES SHALL BE TAKEN BY A ROLL CALL VOTE.**

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## REMOTE MEETING DETERMINATION

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1. AB 361 FINDING FOR A REMOTE MEETING

Recommendation: That the Committee find that it is holding the meeting pursuant to Government Code Section 54954(e)(1)(A) during the proclaimed COVID-19 state of emergency and that state and/or local officials have recommended measures to promote social distancing.

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## COMMUNICATIONS

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2. Notes: Weghorst

3. Public Comments

4. 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.

5. Determine which items may be approved without discussion.

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## INFORMATION

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

Recommendation: Receive and file.

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## ACTION

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7. DRAFT TERMS FOR WATER STORAGE AND TRANSFER PILOT  
PROGRAM WITH MOJAVE WATER AGENCY – WELCH / SANCHEZ /  
WEGHORST

Recommendation: That the Board authorize the General Manager to develop and execute a Water Storage and Transfer Pilot Program Agreement between IRWD and Mojave Water Agency based on the terms presented.

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## OTHER BUSINESS

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8. Directors' Comments
9. Adjourn

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Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the above-named Committee in connection with a matter subject to discussion or consideration at an open meeting of the Committee are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Committee less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Committee Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available electronically via the Webex meeting noted. Upon request, the District will provide for written agenda materials in appropriate alternative formats, and reasonable disability-related modification or accommodation to enable individuals with disabilities to participate in and provide comments at public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, or alternative format requested at least two days before the meeting. Requests should be emailed to [comments@irwd.com](mailto:comments@irwd.com). Requests made by mail must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility.

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January 20, 2022

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. Included is an update on the components that make up the total cost of water to IRWD's service area for each of the District's water banking exchange programs. At the Committee meeting, staff will review this information and provide an update on efforts to secure additional water for recharge at IRWD's water banking projects.

#### BACKGROUND:

To facilitate discussion with the Committee, staff has prepared reference materials in tabular, map and schematic formats to describe IRWD's water banking facilities, capacities, operations, storage and exchange programs. The reference materials are updated regularly to reflect changes in the status of the projects, programs and operations. The following is an overview of the reference materials.

#### Capacity and Operations Tables:

A table presenting storage, recharge and recovery capacities of existing and planned IRWD water banking projects, including capacities available to IRWD in the Kern Water Bank, is provided as Exhibit "A". Exhibits "B" and "C" provide an update on water banking recovery and recharge operations, as well as the balance of the water stored in the Kern Water Bank. Exhibit "B" provides before-loss estimates of water recharged at the water banking projects, and Exhibit "C" provides after-loss estimates of water recharged at the projects. Both Exhibits "B" and "C" include columns that provide totals for each water type and storage location.

Changes shown in red on Exhibits "B" and "C" show the recovery of 388 AF of water from IRWD's participation in the Kern Water Bank for use on the Jackson Ranch by lessee Adeo Farms. The changes also show the recovery of 3,000 AF of banked State Water Project (SWP) water that Metropolitan Water District is borrowing consistent with the terms of a recent letter agreement. In accordance with the letter agreement, IRWD will receive a credit for an equivalent amount of water in southern California that can be called on as extraordinary supply. The 3,000 AF is the estimated amount to be recovered by the of January. Another 927 AF of water is expected to be recovered for Metropolitan in February.

### Summary of Programs:

A table presenting a summary of IRWD's water purchase and exchange programs is presented as Exhibit "D". The table lists each purchase and exchange program that IRWD has entered and presents information related to the type of exchange, year executed, agreement type and water type. IRWD and partner shares are listed and show the total amount of water included in each program. The balances listed for IRWD and its partners show the amount of water remaining in storage, with IRWD's balances specifying whether the water is stored in Metropolitan's system, Kern County or owed to IRWD by Dudley Ridge Water District. The table has been changed to reflect the recovery of 3,000 AF of water borrowed by Metropolitan and the corresponding credit for water stored in Metropolitan's system in southern California. 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-Rio Bravo Water Storage District, Buena Vista Water Storage District, Dudley Ridge and Metropolitan. These diagrams are provided as Exhibits "J", "K", "L", "M", "N" and "O", as described in the List of Exhibits.

### Cost of Water Table:

A table presenting a summary of the costs of water from each of IRWD's unbalanced exchange partnerships is provided as Exhibit "P". 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 2022 Metropolitan Full Service Untreated Tier-1 Rate and a capital cost of water. The costs of water are presented on a dollar per acre-foot basis. The cost of water will be updated periodically and presented to the Committee.

Other Program Opportunities:

IRWD has been pursuing additional opportunities to secure water for recharge. At the Committee meeting, staff will provide an update on efforts to establish new water banking programs with other entities. In addition, Tom Harder from Thomas Harder and Company will be available at the meeting to discuss the development of a scope of work to evaluate opportunities for a pilot project to increase recharge rates at IRWD's Water Bank.

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 "P" – Cost of Water Table

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# Exhibit "A"

TABLE 1

## Current and Anticipated Water Banking Projects Recharge, Storage and Recovery Capacities January 20, 2022

| WATER BANKING PROJECT   | OWNERSHIP AND WELL INFO |                | ALLOCATED CAPACITY (AF) |  |  |  |  | 1 <sup>st</sup> PRIORITY RECOVERY CONDITIONS (CFS) |  | 2 <sup>nd</sup> PRIORITY RECOVERY CONDITIONS (CFS) |                                      |
|---|-------------------------|----------------|-------------------------|--|--|--|--|--|--|--|--------------------------------------|
|   | IRWD OWNED              | WELLS EXISTING | TOTAL STORAGE CAPACITY  | ANNUAL RECHARGE 1 <sup>ST</sup> PRIORITY | ANNUAL RECHARGE 2 <sup>ND</sup> PRIORITY | ANNUAL RECOVERY 1 <sup>ST</sup> PRIORITY | ANNUAL RECOVERY 2 <sup>ND</sup> PRIORITY | RECOVERY CAPACITY AS PLANNED <sup>1</sup>          | ESTIMATED RECOVERY CAPACITY (JAN. 2022 CONDITIONS) | RECOVERY CAPACITY AS PLANNED                       | RECOVERY CAPACITY CURRENT CONDITIONS |
| Strand Ranch  | Yes                     | 7              | 50,000                  | 17,500                                   | -  | 17,500                                   | -  | 40.0   | 19.4   | -  | -                                    |
| Stockdale West  | Yes                     | 3              | 26,000                  | 27,100                                   | -  | 11,250                                   | -  | 15.0   | 12.0   | -  | -                                    |
| Stockdale East  | No                      | 2              | -                       | -  | 19,000                                   | -  | 7,500                                    | -  | -  | 10.0   | 9.0                                  |
| IRWD Acquired Storage Account <sup>2</sup>  | No                      | -              | 50,000                  | -  | -  | -  | -  | -  | -  | -  | -                                    |
| Drought Relief Project Wells <sup>2</sup>   | No                      | 3              | -                       | -  | -  | -  | -  | 15.0   | 16.5   | -  | -                                    |
| Kern Water Bank Storage Account <sup>4</sup>  | No                      | -              | 9,495                   | 3,200                                    | -  | 1,520                                    | <5,000                                   | -  | -  | -  | -                                    |
| <b>TOTALS</b>   |                         | <b>15</b>      | 135,495                 | 47,800                                   | 19,000                                   | 30,270                                   | 12,500                                   | 70.0   | 47.9   | 10.0   | 9.0                                  |
| Partner Capacities <sup>3</sup>   |                         |                | 38,000                  | 22,300                                   | 9,500                                    | 10,850                                   | 0  | 35.5   | 25.0   | -  | -                                    |
| IRWD Capacities (does not include Kern Water Bank capacities)   |                         |                | 88,000                  | 22,300                                   | 9,500                                    | 17,900                                   | 7,500                                    | 34.5   | 25.0   | -  | -                                    |
| IRWD's recovery <i>during</i> 6 month partner recovery period (AF)  |                         |                |                         |  |  |  |  | 12,420   | 9,000  | -  | -                                    |
| IRWD's recovery <i>after</i> 6 month partner recovery period (AF)   |                         |                |                         |  |  |  |  | 5,480  | 6,733  | -  | -                                    |
| <b>TOTALS (AF)</b>  |                         |                |                         |  |  |  |  | 17,900   | 15,733   | -  | -                                    |
| Number of months needed to recover IRWD's total AF after partners' recovery<br>(Assumes IRWD has use of total recovery capacity after partners' recovery) |                         |                |                         |  |  |  |  | 8.6  | 10.2   | -  | -                                    |
| Strand Ranch monthly recharge amount assuming 0.3 ft/day average recharge rate (AF)   |                         |                |                         |  |  |  |  |  |  | 4,518  |                                      |
| Stockdale West monthly recharge amount assuming 0.3 ft/day average recharge rate (AF)   |                         |                |                         |  |  |  |  |  |  | 2,331  |                                      |

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

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

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

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

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# Exhibit "B"

TABLE 2

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

January 20, 2022

| TRANSACTIONS  | WATER BANKING ENTITY |                      |                     |                      |  | TOTAL BY WATER TYPE<br>AND STORAGE<br>LOCATION |
|---|----------------------|----------------------|---------------------|----------------------|--|--|
|   | IRWD                 |                      | BUENA VISTA (BVWSD) | CENTRAL COAST (CCWA) | DUDLEY RIDGE WATER<br>DISTRICT (DRWD) <sup>3</sup> |  |
|   | SWP <sup>1</sup>     | NON-SWP <sup>2</sup> | NON-SWP             | SWP                  | SWP  |  |
| BEGINNING WATER IN STORAGE 2021 (AF)                |                      |                      |                     |                      |  |  |
| Total Kern Water Bank (estimated)                   | -                    | 4,683                | -                   | -                    | -  | 4,683  |
| Total MWD System <sup>4</sup>                       | 8,027                | -                    | -                   | -                    | 200  | 8,227  |
| Total Kern County                                   | 5,210                | 24,855               | 3,935               | 647                  | 3,761  | 38,408   |
| TOTAL STORED WATER (1/1/2021)                       | 13,237               | 29,538               | 3,935               | 647                  | 3,961  | 51,318   |
| (RECOVERY) AND RECHARGE IN 2021 (AF)                |                      |                      |                     |                      |  |  |
| KWB Recovery for use on Jackson Ranch               | -                    | (388)                | -                   | -                    | -  | (388)  |
| SWP Table A   | -                    | -                    | -                   | (556)                | -  | (556)  |
| 2021 SWP Allocation (5 %) <sup>3, 6</sup>           | 35                   | -                    | -                   | -                    | 35   | 70   |
| Kern River Water                                    | -                    | (10,000)             | (2,681)             | -                    | -  | (12,681)                                       |
| SWP Water Sale to DRWD Landowners <sup>7</sup>      | -                    | (439)                | -                   | -                    | (3,468)  | (3,907)  |
| DRWD 1-for-1 Long Term Exchange Credit <sup>8</sup> | 10,000               | -                    | -                   | -                    | -  | 10,000   |
| TOTAL 2021 TRANSACTIONS                             | 10,035               | (10,827)             | (2,681)             | (556)                | (3,433)  | (7,462)  |
| Total Kern Water Bank                               | -                    | 4,295                | -                   | -                    | -  | 4,295  |
| Total MWD System                                    | 8,062                | -                    | -                   | -                    | -  | 8,062  |
| Total Kern County                                   | 5,210                | 14,416               | -                   | -                    | -  | 19,626   |
| Total DRWD 1-for-1 Long Term Exchange Credit        | 10,000               | -                    | -                   | -                    | -  | 10,000   |
| TOTAL STORED WATER (1/1/2022)                       | 23,272               | 18,711               | -                   | -                    | -  | 41,983   |
| (RECOVERY) AND RECHARGE IN 2022 (AF)                |                      |                      |                     |                      |  |  |
| Water to Jackson Ranch                              | -                    | -                    | -                   | -                    | -  | -  |
| 2022 SWP Allocation (0 %)                           | -                    | -                    | -                   | -                    | -  | -  |
| Recovery of Banked SWP Water for MWD (estimated)    | (3,000)              | -                    | -                   | -                    | -  | (3,000)  |
| MWD Credit for SWP Water (estimated)                | 3,000                | -                    | -                   | -                    | -  | 3,000  |
| TOTAL ESTIMATED 2022 TRANSACTIONS                   | -                    | -                    | -                   | -                    | -  | -  |
| ESTIMATED WATER IN STORAGE 2022 (AF)                |                      |                      |                     |                      |  |  |
| Total Kern Water Bank                               | -                    | 4,295                | -                   | -                    | -  | 4,295  |
| Total MWD System                                    | 11,062               | -                    | -                   | -                    | -  | 11,062   |
| Total Kern County                                   | 2,210                | 14,416               | -                   | -                    | -  | 16,626   |
| Total DRWD 1-for-1 Long Term Exchange Credit        | 10,000               | -                    | -                   | -                    | -  | 10,000   |
| TOTAL ESTIMATED STORED WATER TO DATE                | 23,272               | 18,711               | -                   | -                    | -  | 41,983   |

## NOTES:

-MWD = Metropolitan Water District of Southern California.

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

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

<sup>3</sup> DRWD water supply will be returned by MWD or IRWD's Strand Ranch to IRWD's Jackson Ranch. IRWD's 2013-2016 SWP allocation amounts are stored in the MWD system. IRWD's 2017 through 2020 SWP allocation water is stored in Kern County. Half of IRWD's 2021 SWP allocation is stored in the MWD system, the other half was delivered to DRWD as part of the SWP Water Sale to DRWD landowners

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

<sup>5</sup> Water recovered from IRWD's Kern Water Bank account for use on Jackson Ranch.

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

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

<sup>8</sup> Per the DRWD Long-Term 1-for-1 Exchange Program, Non-SWP water delivered to DRWD landowners will be returned to IRWD as SWP water at a later date. To account for the SWP water that will be returned at a later date, the amount of water owed will be shown as a credit.

Note: This page is intentionally left blank.



# Exhibit "C"

**TABLE 3**  
**IRWD's Water Banking Storage, Recharge and Recovery Operations - AFTER LOSSES**  
January 20, 2022

| TRANSACTIONS  | WATER BANKING ENTITY |                      |                     |                      |  | TOTAL BY WATER TYPE<br>AND STORAGE<br>LOCATION |
|---|----------------------|----------------------|---------------------|----------------------|--|--|
|   | IRWD                 |                      | BUENA VISTA (BVWSD) | CENTRAL COAST (CCWA) | DUDLEY RIDGE WATER<br>DISTRICT (DRWD) <sup>3</sup> |  |
|   | SWP <sup>1</sup>     | NON-SWP <sup>2</sup> | NON-SWP             | SWP                  | SWP  |  |
| BEGINNING WATER IN STORAGE 2021 (AF)                |                      |                      |                     |                      |  |  |
| Total Kern Water Bank                               | -                    | 4,215                | -                   | -                    | -  | 4,215  |
| Total MWD System <sup>4</sup>                       | 8,027                | -                    | -                   | -                    | 200  | 8,227  |
| Total Kern County                                   | 4,177                | 20,931               | 2,681               | 556                  | 3,233  | 31,578   |
| TOTAL STORED WATER (1/1/2021)                       | 12,204               | 25,146               | 2,681               | 556                  | 3,433  | 44,019   |
| (RECOVERY) AND RECHARGE IN 2021 (AF)                |                      |                      |                     |                      |  |  |
| KWB Recovery for use on Jackson Ranch <sup>5</sup>  | -                    | (388)                | -                   | -                    | -  | (388)  |
| SWP Table A   | -                    | -                    | -                   | (556)                | -  | (556)  |
| 2021 SWP Allocation (5%) <sup>3, 6</sup>            | 35                   | -                    | -                   | -                    | 35   | 70   |
| Kern River Water                                    | -                    | (10,000)             | (2,681)             | -                    | -  | (12,681)                                       |
| SWP Water Sale to DRWD Landowners <sup>7</sup>      | -                    | (439)                | -                   | -                    | (3,468)  | (3,907)  |
| DRWD 1-for-1 Long Term Exchange Credit <sup>8</sup> | 10,000               | -                    | -                   | -                    | -  | 10,000   |
| TOTAL 2021 TRANSACTIONS                             | 10,035               | (10,827)             | (2,681)             | (556)                | (3,433)  | (7,462)  |
| Total Kern Water Bank                               | -                    | 3,827                | -                   | -                    | -  | 3,827  |
| Total MWD System                                    | 8,062                | -                    | -                   | -                    | -  | 8,062  |
| Total Kern County                                   | 4,177                | 10,492               | -                   | -                    | -  | 14,669   |
| Total DRWD 1-for-1 Long Term Exchange Credit        | 10,000               | -                    | -                   | -                    | -  | 10,000   |
| TOTAL STORED WATER (1/1/2022)                       | 22,239               | 14,319               | -                   | -                    | -  | 36,557   |
| (RECOVERY) AND RECHARGE IN 2022 (AF)                |                      |                      |                     |                      |  |  |
| Water to Jackson Ranch                              | -                    | -                    | -                   | -                    | -  | -  |
| 2022 SWP Allocation (0 %)                           | -                    | -                    | -                   | -                    | -  | -  |
| Recovery of Banked SWP Water for MWD (estimated)    | (3,000)              | -                    | -                   | -                    | -  | (3,000)  |
| MWD Credit for SWP Water (estimated)                | 3,000                | -                    | -                   | -                    | -  | 3,000  |
| TOTAL ESTIMATED 2022 TRANSACTIONS                   | -                    | -                    | -                   | -                    | -  | -  |
| ESTIMATED WATER IN STORAGE 2022 (AF)                |                      |                      |                     |                      |  |  |
| Total Kern Water Bank                               | -                    | 3,827                | -                   | -                    | -  | 3,827  |
| Total MWD System                                    | 11,062               | -                    | -                   | -                    | -  | 11,062   |
| Total Kern County                                   | 1,177                | 10,492               | -                   | -                    | -  | 11,669   |
| Total DRWD 1-for-1 Long Term Exchange Credit        | 10,000               | -                    | -                   | -                    | -  | 10,000   |
| TOTAL ESTIMATED STORED WATER TO DATE                | 22,239               | 14,319               | -                   | -                    | -  | 36,557   |

**NOTES:**

-Water in storage has been adjusted to account for losses. IRWD's water stored in Kern County is adjusted 15% for losses (5% for out of county loss, 6% surface loss, and 4% reserve loss); Water stored for-BVWSD in Kern County is adjusted 10% (6% for surface loss and 4% for reserve loss); KWB losses are 10%; no losses for water directly delivered to MWD system.

-MWD = Metropolitan Water District of Southern California.

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

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

<sup>3</sup> DRWD water supply will be returned by MWD or IRWD's Strand Ranch to IRWD's Jackson Ranch. IRWD's 2013-2016 SWP allocation amounts are stored in the MWD system. IRWD's 2017 through 2020 SWP allocation water is stored in Kern County. Half of IRWD's 2021 SWP allocation is stored in the MWD system, the other half was delivered to DRWD as part of the SWP Water Sale to DRWD landowners, therefore no losses are taken on the water.

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

<sup>5</sup> Water recovered from IRWD's Kern Water Bank account for use on Jackson Ranch.

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

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

<sup>8</sup> Per the DRWD Long-Term 1-for-1 Exchange Program, Non-SWP water delivered to DRWD landowners will be returned to IRWD as SWP water at a later date. To account for the SWP water that will be returned at a later date, the amount of water owed will be shown as a credit.

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# Exhibit "D"

TABLE 4

## Status of IRWD Purchase and Exchange Programs (AFTER LOSSES)

January 20, 2022

| PARTNER  | EXCHANGE RATIO | YEAR EXECUTED | AGREEMENT TYPE | WATER TYPE     | PARTNER WATER      |                      | IRWD WATER      |                    |                     |                         |               |                         |                     |                                 |                |
|--|----------------|---------------|----------------|----------------|--------------------|----------------------|-----------------|--------------------|---------------------|-------------------------|---------------|-------------------------|---------------------|---------------------------------|----------------|
|  |                |               |                |                | PARTNER SHARE (AF) | PARTNER BALANCE (AF) | IRWD SHARE (AF) | IRWD BALANCE       |                     |                         |               | EXPORTABILITY           |                     |                                 | SELLABLE (Y/N) |
|  |                |               |                |                |                    |                      |                 | IN MWD SYSTEM (AF) | STORED IN KERN (AF) | OWED BY DUDLEY RIDGE WD | TOTAL (AF)    | EXPORTABLE TO IRWD (AF) | NON-EXPORTABLE (AF) | FOR USE ON JACKSON RANCH (DRWD) |                |
| Semitropic Water Storage District                          | NA             | 2008          | Purchase       | SWP Article 21 | NA                 | NA                   | 2,842           |                    | 2,403               |                         | 2,403         |                         | 2,403               |                                 | Yes            |
| Carpinteria Valley Water District                          | 2-for-1        | 2008          | Short-Term     | SWP Table A    | 277                |                      | 250             |                    | 250                 |                         | 250           |                         | 250                 |                                 | Yes            |
| Buena Vista Water Storage District <sup>1</sup>            | 2-for-1        | 2010          | Pilot          | Kern River     | 4,108              |                      | 3,903           |                    |                     |                         |               |                         |                     |                                 | Yes            |
|  | 2-for-1        | 2011          | Long-Term      | Kern River     | 21,248             |                      | 20,186          |                    | 8,089               |                         | 8,089         |                         | 8,089               |                                 |                |
| Antelope Valley East Kern Water Agency                     | 2-for-1        | 2011          | Pilot          | SWP Table A    | 2,229              |                      | 2,337           | 2,337              | -                   |                         | 2,337         | 2,337                   |                     |                                 | No             |
| Carpinteria Valley Water District                          | 2-for-1        | 2011          | Pilot          | SWP Table A    | 624                |                      | 655             | 655                | -                   |                         | 655           | 655                     |                     |                                 | No             |
| Dudley Ridge Water District <sup>2</sup><br>(SWPAO #13012) | 2-for-1        | 2013          | SWPAO          | SWP Table A    | 1,876              | -                    | 1,876           | 1,876              | -                   |                         | 1,876         | 1,876                   |                     | -                               | Yes            |
|  |                |               |                | SWP Article 21 | 1,553              | -                    | 1,554           | 1,554              | -                   |                         | -             | -                       |                     | -                               | Yes            |
| Metropolitan Water District <sup>3</sup>                   | 1-for-1        | 2014          | Short-Term     | SWP Table A    | NA                 | NA                   | 4,000           | 4,000              |                     |                         | 4,000         | 4,000                   |                     |                                 | No             |
| Dudley Ridge Water District<br>(SWPAO #17030)              | 2-for-1        | 2018          | SWPAO          | SWP Table A    | 1,011              | -                    | 1,011           | 83                 | 928                 |                         | 1,011         | 1,011                   |                     | -                               | Yes            |
| Central Coast Water Agency                                 | 2-for-1        | 2017          | Short-Term     | SWP Table A    | 258                | -                    | 258             | 258                | -                   |                         | 258           | 258                     |                     |                                 | No             |
| Dudley Ridge Water District <sup>4</sup>                   | 1-for-1        | 2017          | Long-Term      | SWP Table A    |                    |                      |                 |                    |                     | 10,000                  | 10,000        | 10,000                  |                     |                                 | No             |
| Central Coast Water Agency                                 | 2-for-1        | 2019          | Short-Term     | SWP Table A    | 298                | -                    | 298             | 298                | -                   |                         | 298           | 298                     |                     |                                 | No             |
| <b>Total:</b>  |                |               |                |                | <b>33,482</b>      | <b>-</b>             | <b>39,170</b>   | <b>11,061</b>      | <b>11,670</b>       | <b>10,000</b>           | <b>31,177</b> | <b>20,435</b>           | <b>10,742</b>       | <b>-</b>                        |                |

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

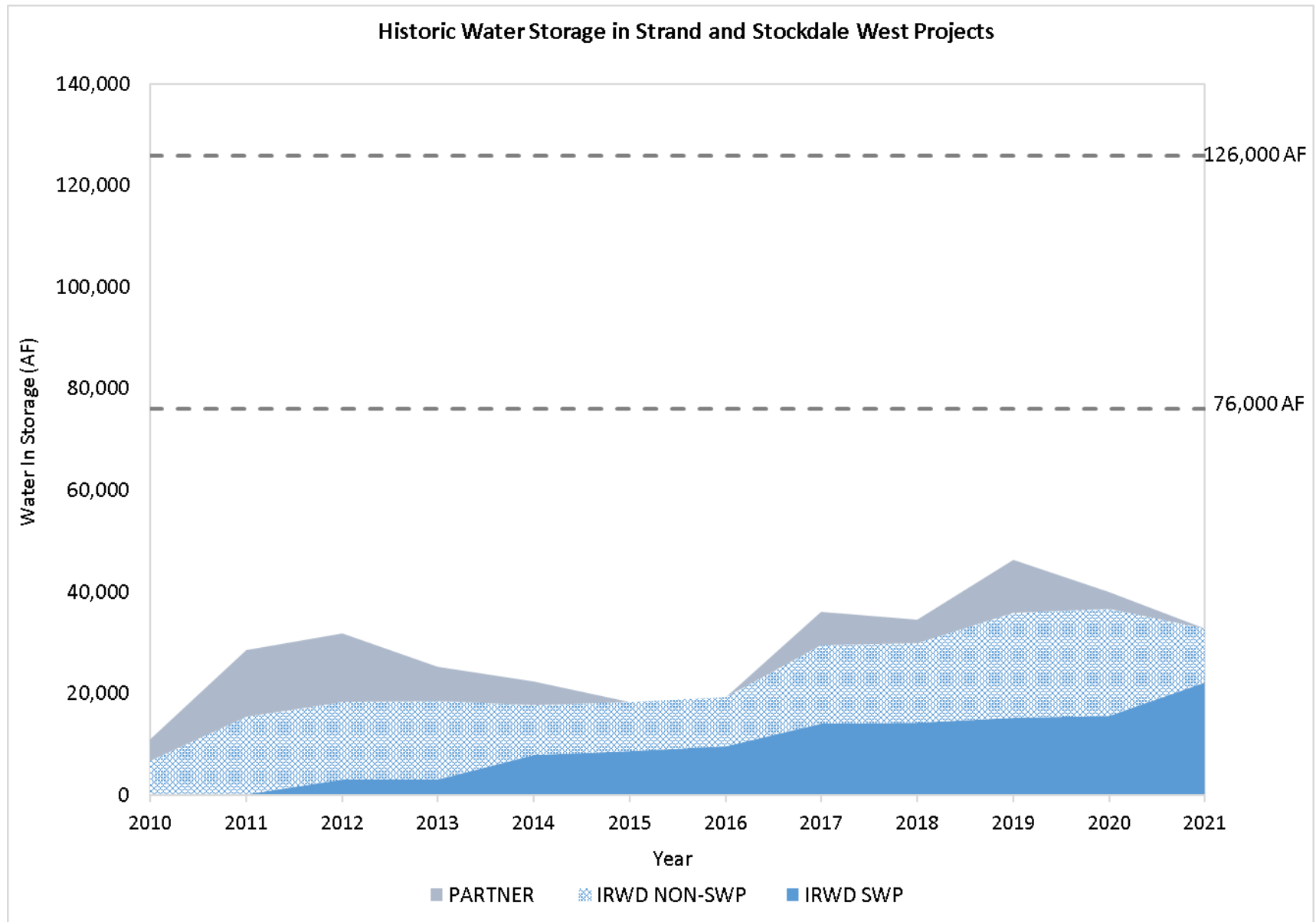
<sup>2</sup> Only the portion of water stored for use on Jackson Ranch in DRWD is sellable.

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

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

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## Exhibit “E”



\*After losses

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# Exhibit "F"

**TABLE 5**  
**IRWD Dedicated Water Banking Capacities for Existing and Proposed Exchange**  
**Programs**  
January 20, 2022

| <b>Program</b>  | <b>Dedicated Storage Capacity Strand Ranch (AF)</b> | <b>STORAGE CAPACITY Dedicated Storage Capacity Stockdale West (AF)</b> | <b>Dedicated Storage Capacity Leased Storage Account (AF)</b> | <b>Kern Water Bank Storage Capacity (AF)</b> |
|-----------------|---|--|---|--|
| 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

| <b>Program</b>  | <b>Dedicated Recharge Capacity Strand Ranch (AF)</b> | <b>Dedicated Recharge Capacity Stockdale West (AF)</b> | <b>Dedicated Recharge Capacity Leased Storage Account (AF)</b> | <b>Kern Water Bank Recharge Capacity (AF)</b> |
|-----------------|--|--|--|---|
| 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

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

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# Exhibit "G"



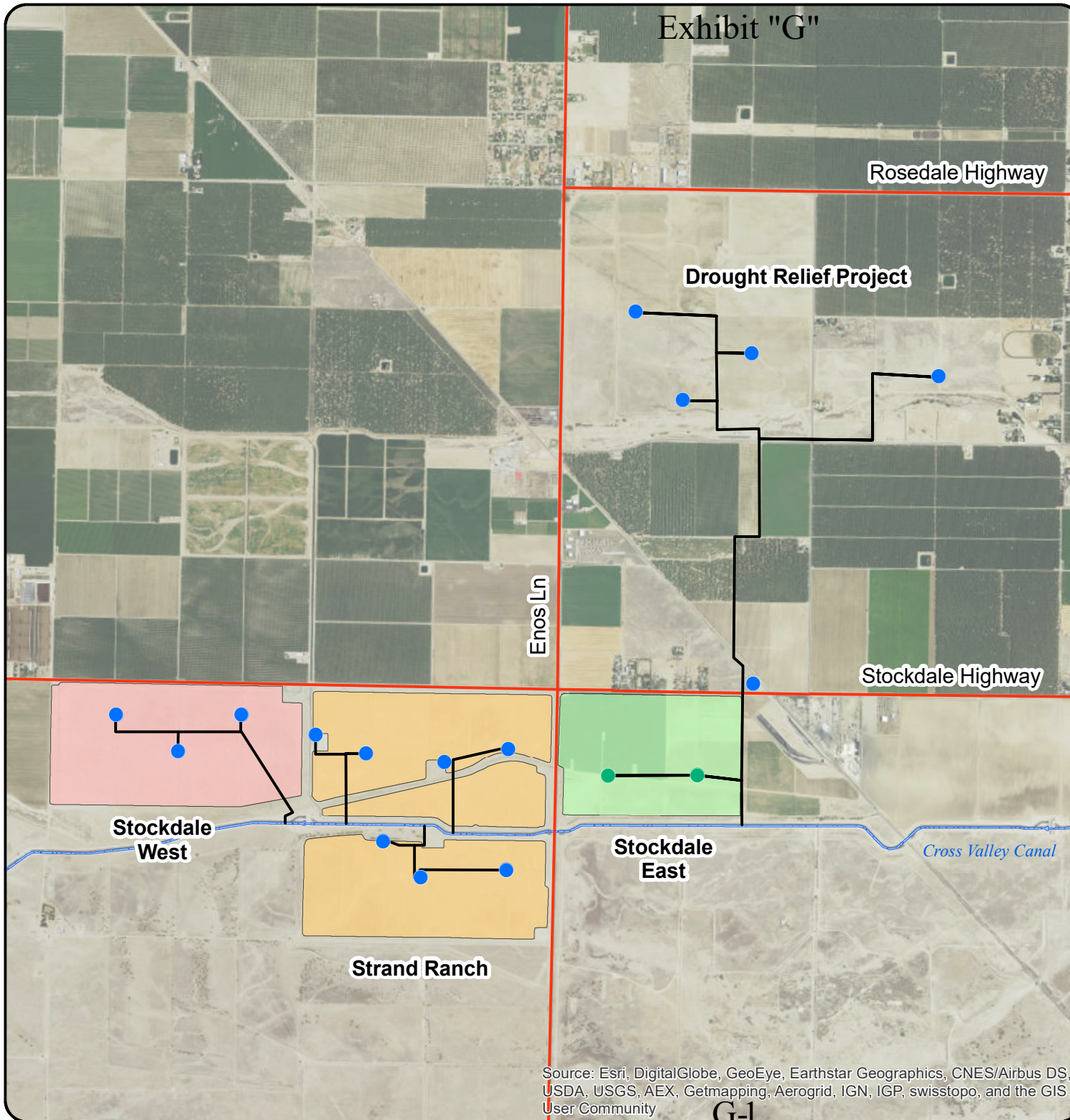
Irvine Ranch  
WATER DISTRICT

## 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



0 0.25 0.5 1 Miles

NAD 83 State Plane Zone 5 (feet)  
Central Meridian: -118

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# Exhibit "H"

Rosedale Highway



Irvine Ranch  
WATER DISTRICT

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

### MAP FEATURES

- ▲ Turnouts
- Stockdale West
- Strand Ranch

This figure shows the location of  
recharge basins, pipelines and  
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

Cross Valley Canal

Enos Ln

Stockdale Highway

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

User Community



0 0.25 0.5 1  
Miles

NAD 83 State Plane Zone 5 (feet)  
Central Meridian: -118

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# Exhibit "I"

Rosedale Highway



## 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

Stockdale Highway

Cross Valley Canal

Strand Ranch South  
0.13 feet/day  
15 CFS

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



0 0.25 0.5 1  
Miles

NAD 83 State Plane Zone 5 (feet)  
Central Meridian: -118

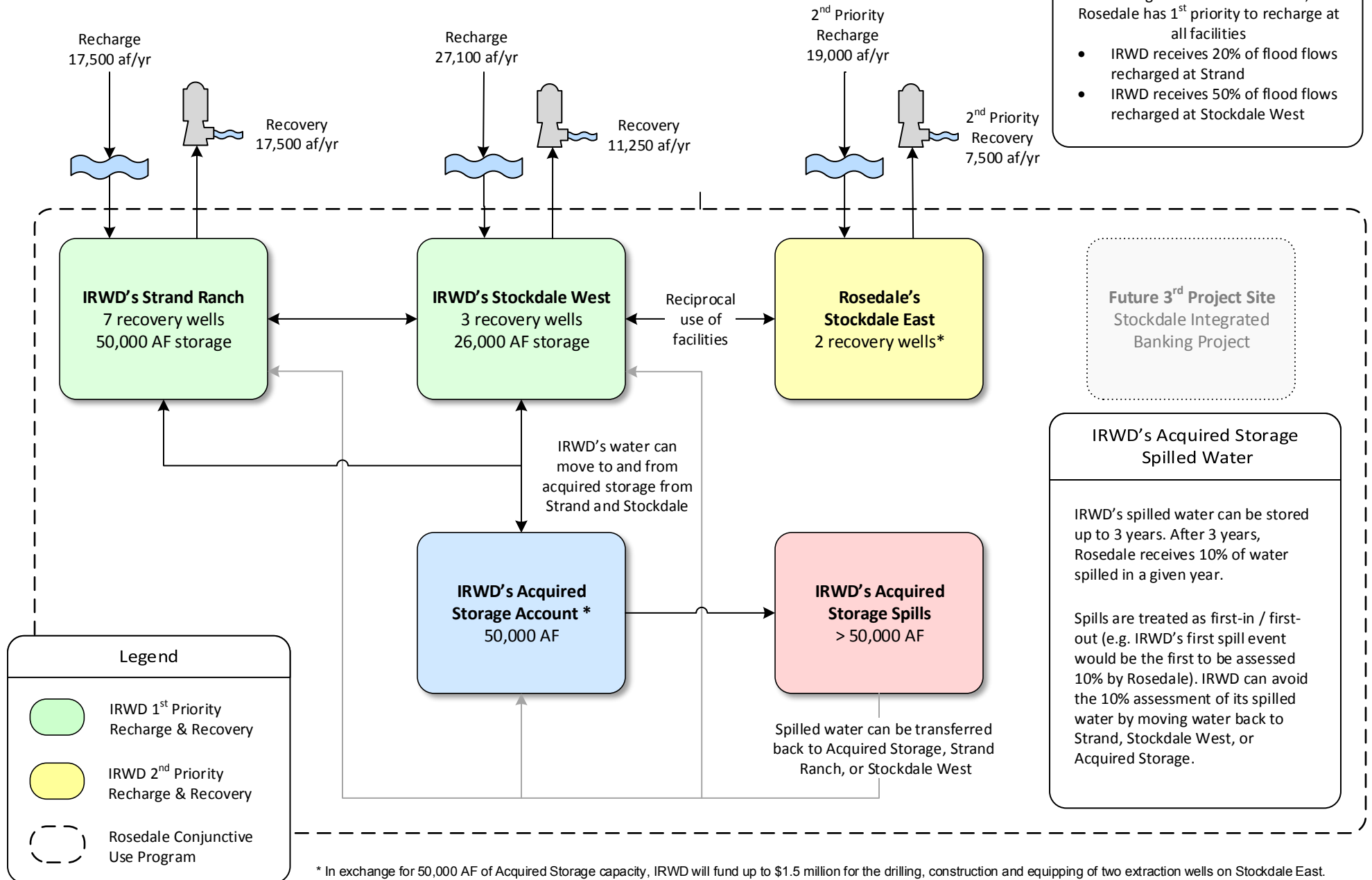
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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# Exhibit "J"

## IRWD-Rosedale Water Banking and Exchange Program Agreements

Effective 1/12/2009 through 1/12/2039 (Strand Ranch)  
2/4/2016 through 1/12/2039 (Stockdale West)



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

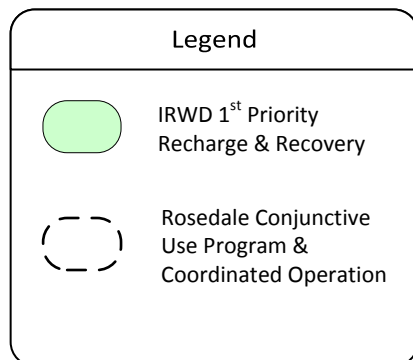
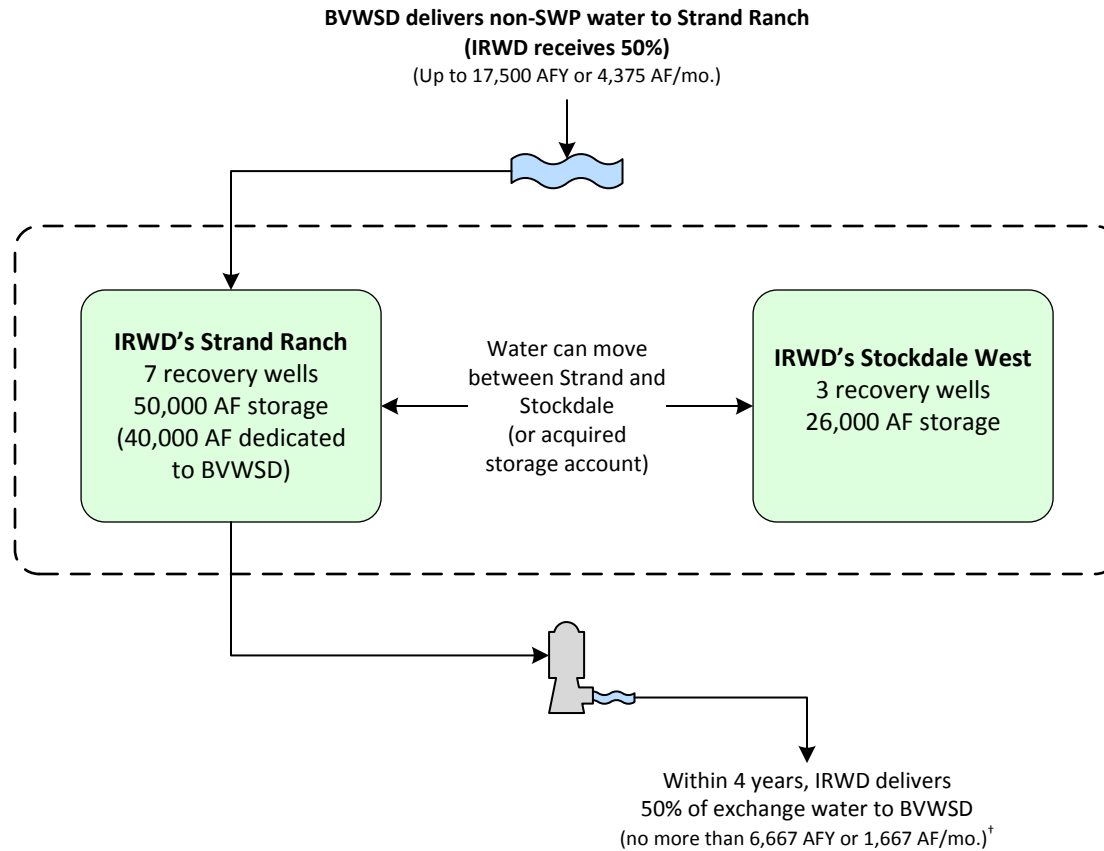
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# Exhibit "K"

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

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

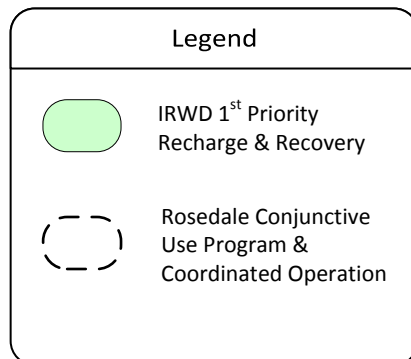
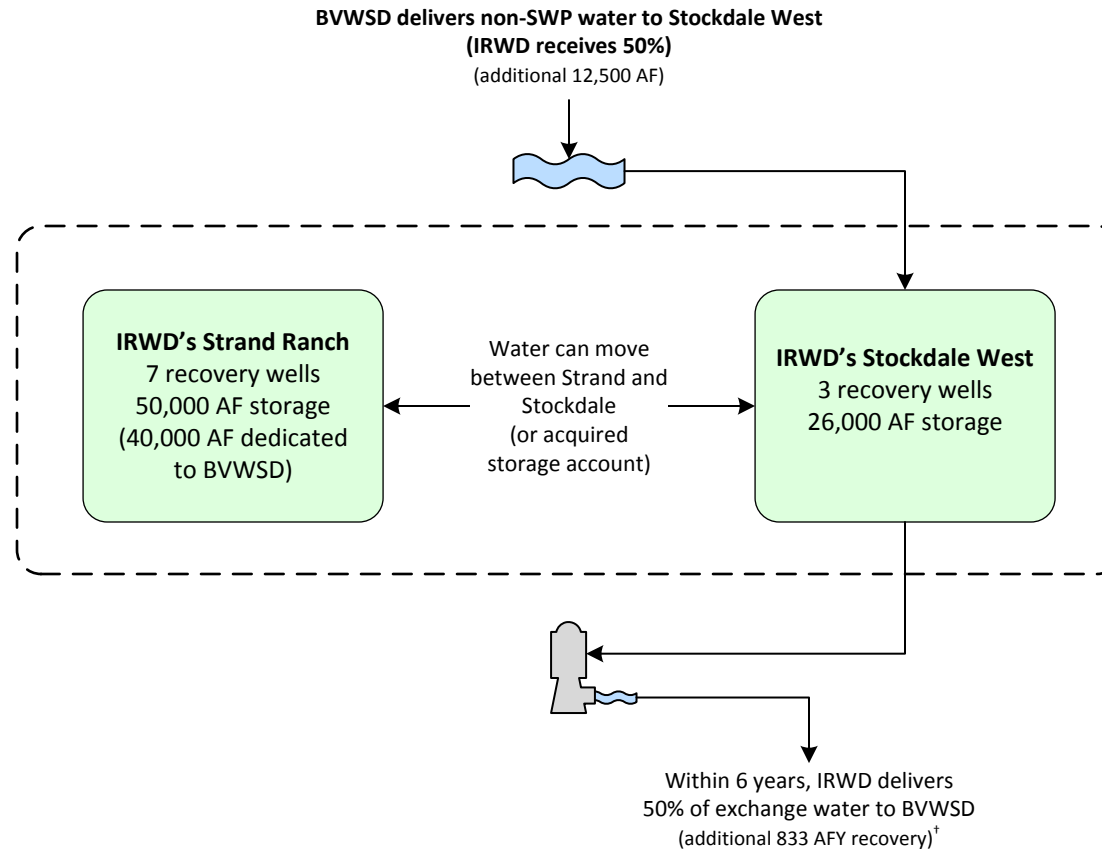


<sup>†</sup>IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31<sup>st</sup> of the 4<sup>th</sup> year following the associated recharge event. IRWD pays for recovery of water returned to BV. Water to be remitted back to BV may remain 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 4/1/2017 through 3/30/2018



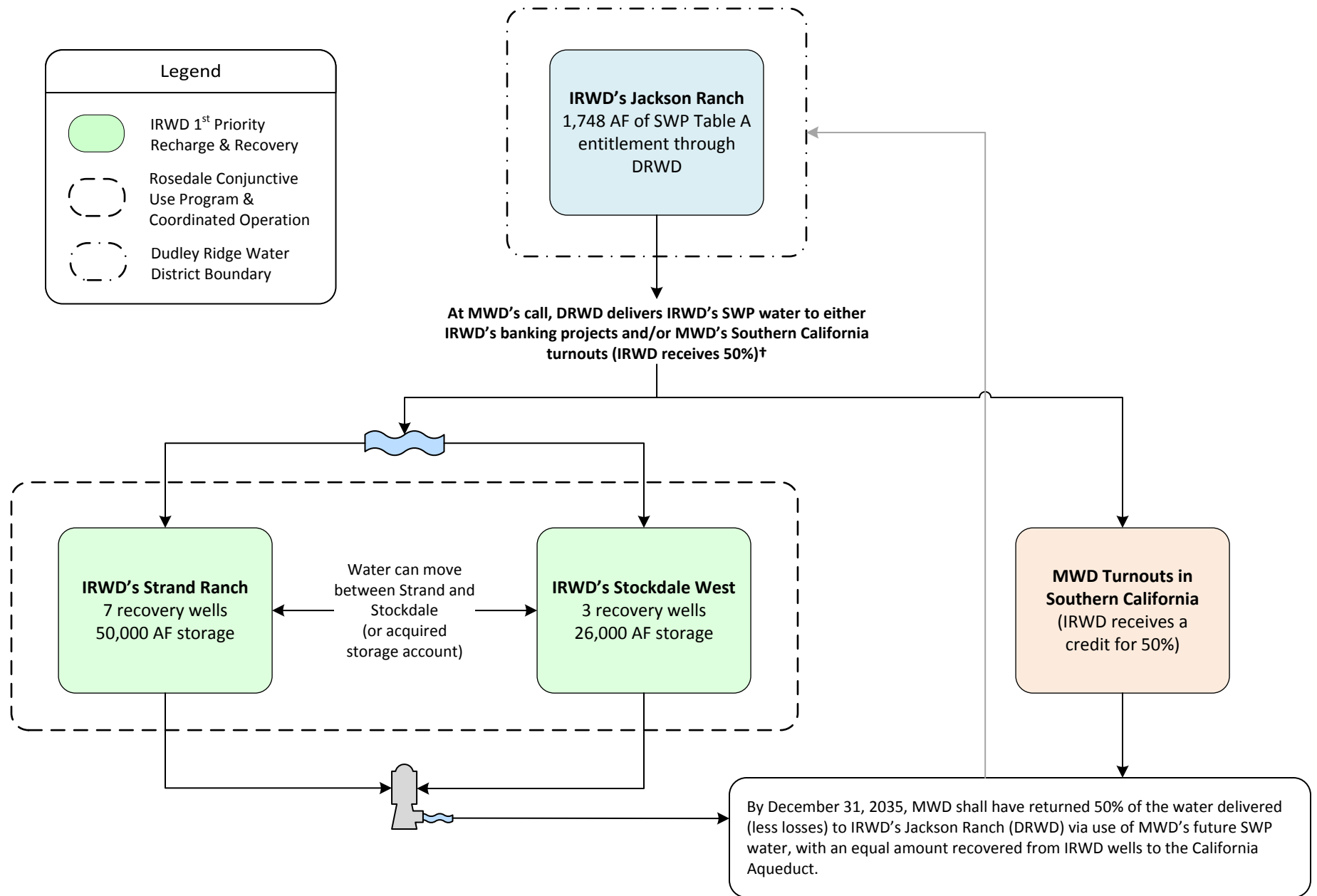
<sup>†</sup>IRWD shall remit one-half of the exchanged supply less one-half of reasonable losses back to BV no later than December 31<sup>st</sup> of the 6<sup>th</sup> year following the associated recharge event. IRWD pays for recovery of water returned to BV. Water to be remitted back to BV may remain in storage at Strand Ranch beyond the 6<sup>th</sup> year, in exchange for a greater percent being transferred to IRWD as compensation per the table shown to the right:

| Year Following Recharge Event | Percent Transferred to IRWD | Percent Returned to BV During or Before Indicated Year |
|-------------------------------|-----------------------------|--|
| 1                             | 50%                         | 50%  |
| 2                             | 50%                         | 50%  |
| 3                             | 50%                         | 50%  |
| 4                             | 50%                         | 50%  |
| 5                             | 50%                         | 50%  |
| 6                             | 50%                         | 50%  |
| 7                             | 75%                         | 25%  |
| 8                             | 100%                        | 0%   |
| 9                             | 100%                        | 0%   |

# Exhibit "L"

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

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



†Consistent with IRWD-MWD coordinated operating agreement.

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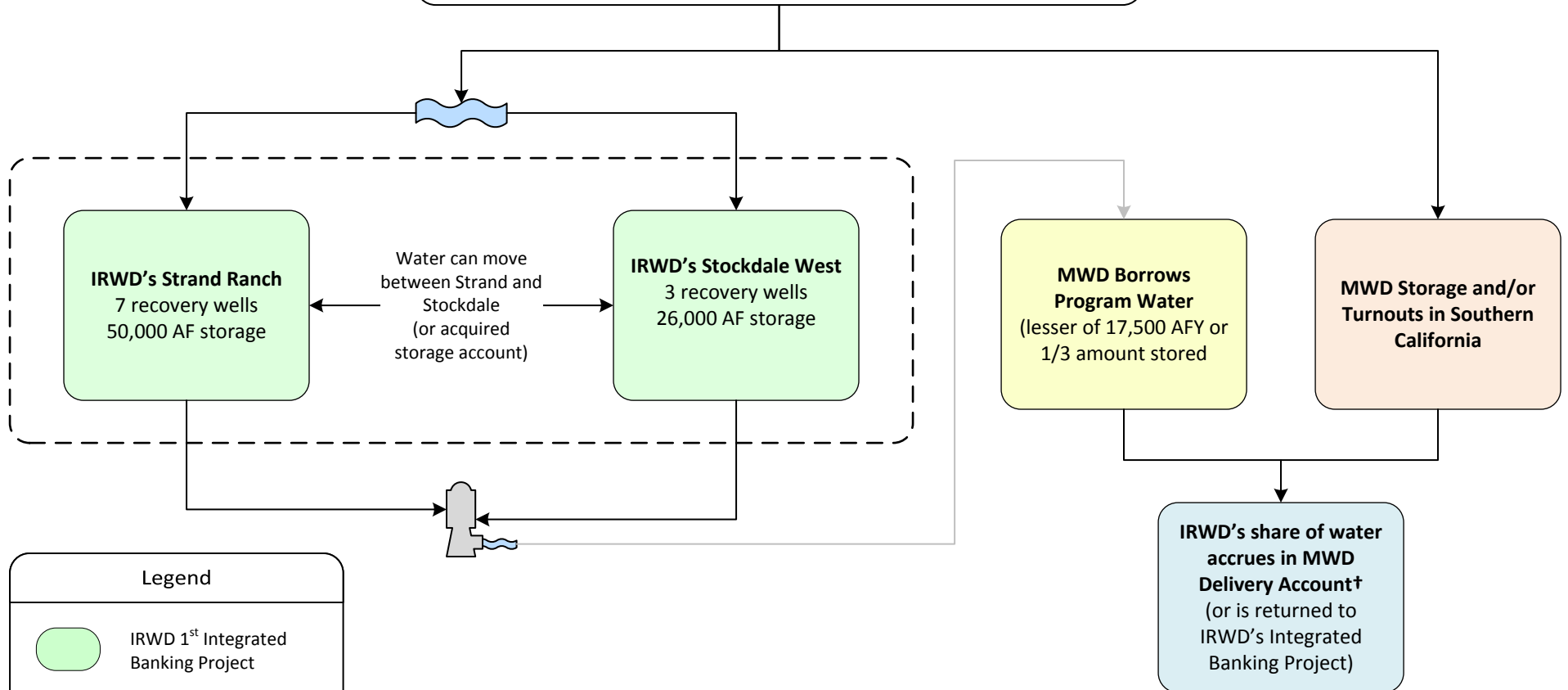
# Exhibit "M"

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

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

MWD has three options for the use and storage of Program Water:

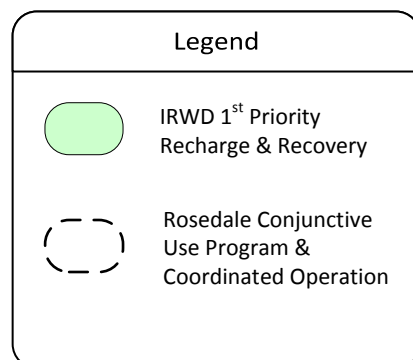
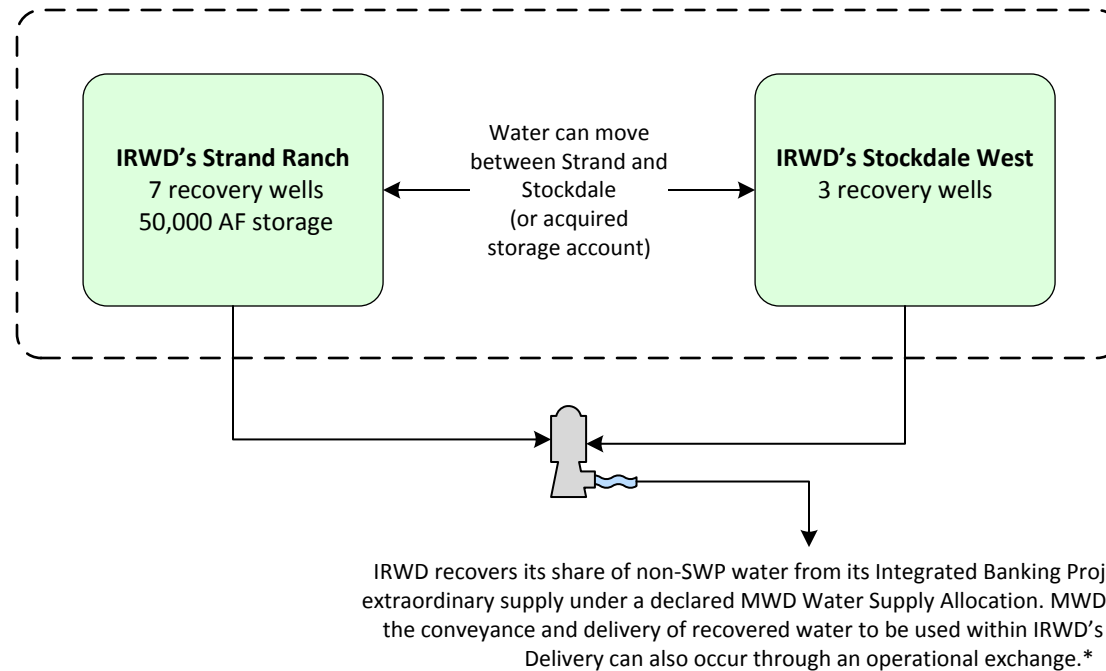
- Storage of water in IRWD's Integrated Banking Project
- Delivery to Southern California for immediate use and/or storage in MWD system
- Borrow a portion of Program water, with accrual in MWD Delivery Account



- Under an MWD Allocation, when IRWD calls for water, IRWD must first recover Program Water from the Integrated Banking Project before receiving water from the MWD Delivery Account.
- MWDOC shall pass through extraordinary supply credits for IRWD's benefit.
- † IRWD's banking partner share of Program Water to be returned by MWD.

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**Exhibit "N"**  
**Agreement for Conveyance of Water Between MWD, MWDOC, and IRWD (Wheeling Agreement)**  
Template for future agreements



\*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"

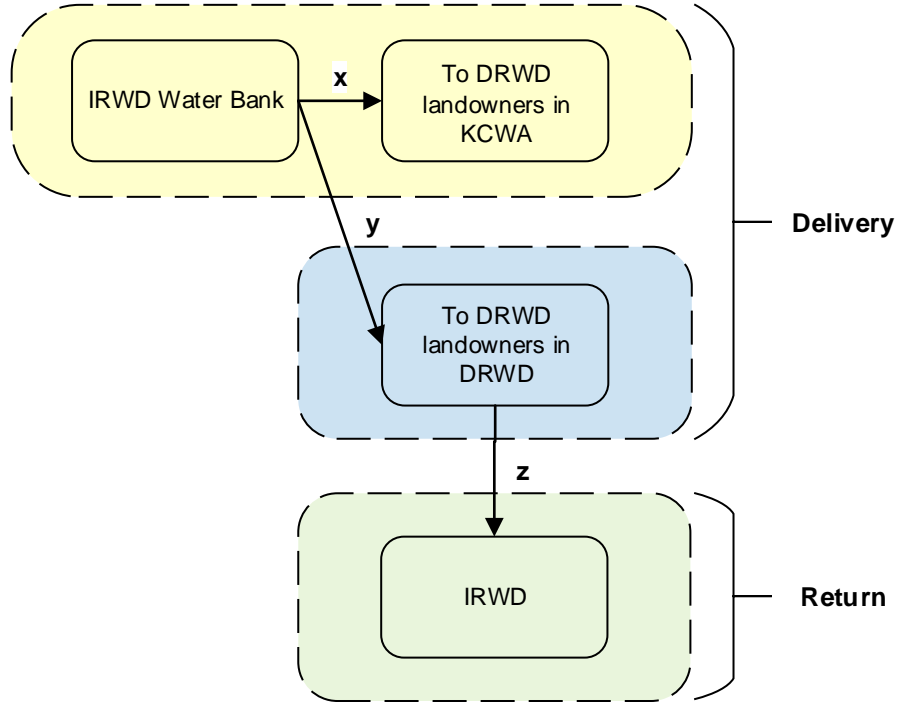
## Dudley Ridge Water District Long Term 1-for-1 Water Exchange Program Effective 5/31/2017 through 11/4/2035

### 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

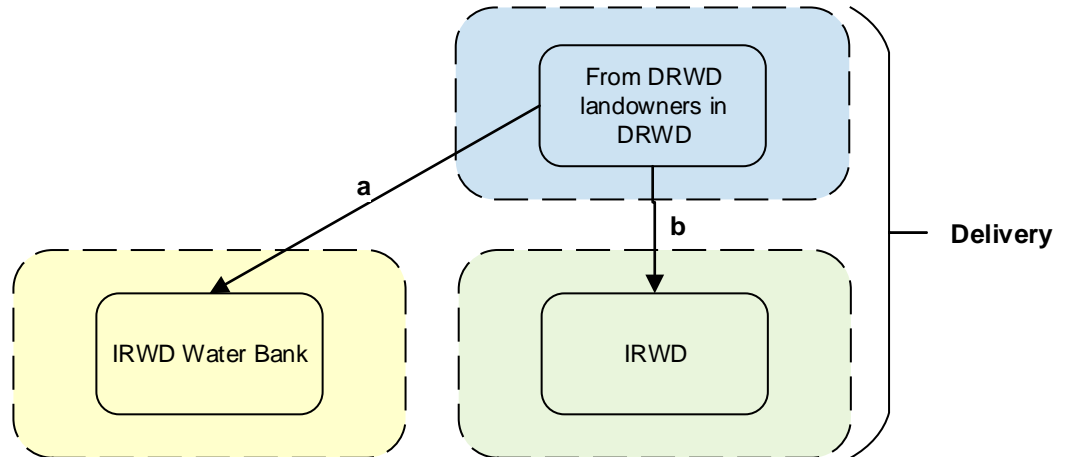
Per Section 4.1.3, z can be delivered to IRWD via in-ground transfer to IRWD, SWP delivery to IRWD banking facilities, or SWP delivery to MWDSC



### Scenario B

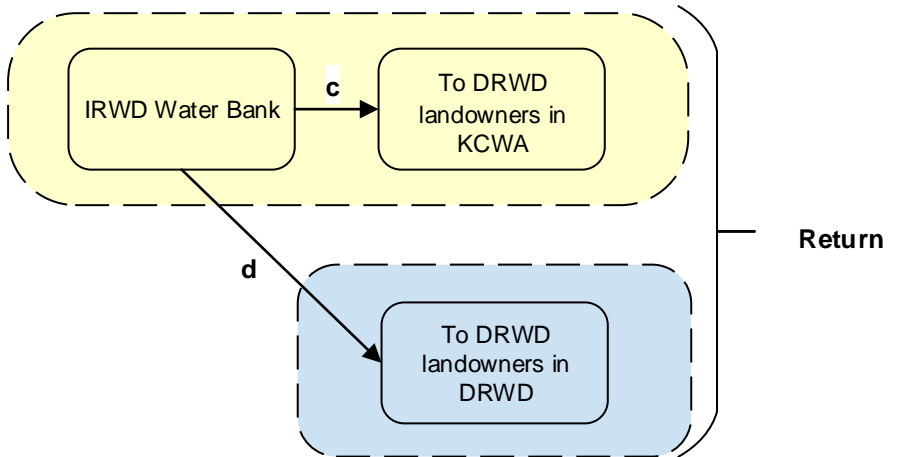
(Per Sections 2, 3, and 4.1.2)

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



### Legend

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



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# Exhibit "P"

TABLE 6

## IRWD Water Banking Program Costs of Water Summary

January 20, 2022

| Program Partner          | Time Period | Water Type     | IRWD Amount (AF) | Variable costs <sup>2</sup> (\$/AF)<br>(A) | Fixed Cost Component <sup>3</sup> (\$/AF)<br>(B) | Fixed & Variable (\$/AF)<br>(C) | Capital Component <sup>4</sup> (\$/AF)<br>(D) | Cost of Water (\$/AF)<br>(E) | Estimated Recovery of Water (\$/AF)<br>(F) | 2022 MWD Tier 1 Untreated Rate <sup>5</sup> (\$/AF)<br>(G) | Cost of Water in IRWD Service Area (\$/AF)<br>(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                    | \$ 100.00                                  | \$ 799.00  | \$ 1,213.34                                       |
| Buena Vista <sup>1</sup> | 2017-2021   | Kern River     | 11,256           | \$ 158.77                                  | \$ 48.36   | \$ 207.13                       | \$ 190.00                                     | \$ 397.13                    | \$ 100.00                                  | \$ 799.00  | \$ 1,296.13                                       |
| AVEK                     | 2012-2014   | SWP Table A    | 2,337            | \$ 11.70                                   | \$ 48.36   | \$ 60.06                        | \$ 190.00                                     | \$ 250.06                    | \$ 100.00                                  | \$ 799.00  | \$ 1,149.06                                       |
| Carpinteria              | 2010-2015   | SWP Table A    | 905              | \$ 27.04                                   | \$ 48.36   | \$ 75.40                        | \$ 190.00                                     | \$ 265.40                    | \$ 100.00                                  | \$ 799.00  | \$ 1,164.40                                       |
| Central Coast            | 2017-2021   | SWP Table A    | 556              | \$ 30.34                                   | \$ 48.36   | \$ 78.70                        | \$ 190.00                                     | \$ 268.70                    | \$ 100.00                                  | \$ 799.00  | \$ 1,167.70                                       |
| DRWD                     | 2014-2021   | SWP Table A    | 5,163            | \$ 346.66                                  | \$ 48.36   | \$ 395.02                       | \$ 190.00                                     | \$ 585.02                    | \$ 100.00                                  | \$ 799.00  | \$ 1,484.02                                       |
| DRWD                     | 2017        | SWP Article 21 | 3,107            | \$ -                                       | \$ 48.36   | \$ 48.36                        | \$ 190.00                                     | \$ 238.36                    | \$ 100.00                                  | \$ 799.00  | \$ 1,137.36                                       |

36,156

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

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January 20, 2022  
Prepared by: K. Welch  
Submitted by: F. Sanchez / P. Weghorst  
Approved by: Paul A. Cook 

## SUPPLY RELIABILITY PROGRAMS COMMITTEE

### DRAFT TERMS FOR WATER STORAGE AND TRANSFER PILOT PROGRAM WITH MOJAVE WATER AGENCY

#### SUMMARY:

In December 2021, staff met with the Mojave Water Agency to discuss implementing a mutually beneficial water storage and transfer pilot program. As a follow-up to the meeting, staff has prepared draft terms for a pilot program that would allow Mojave to deliver portions of its excess State Water Project (SWP) water into storage at the Strand and Stockdale Integrated Banking Projects (IRWD Water Bank) and then transfer one-half of the water to IRWD. The proposed pilot program would provide a water supply to IRWD, with a minimum delivery commitment from Mojave. The program would provide Mojave with flexibility in managing its water supplies.

At the Committee meeting, staff will review the proposed terms for the pilot program. Staff recommends the Board authorize the General Manager to develop and execute a Pilot Program Agreement between IRWD and Mojave Water Agency based on the terms presented below.

#### BACKGROUND:

Mojave Water Agency is a SWP Contractor that currently has Table A water supplies in excess of demands. These supplies also exceed Mojave's water banking capacities that were developed through its Mojave Basin Conjunctive Use Program. In December 2021, staff met with Mojave to discuss implementing a mutually beneficial pilot program that would allow Mojave to deliver excess SWP water into storage at the IRWD Water Bank, with Mojave transferring one-half of the water to IRWD. Mojave's main objective of implementing such a program is to store its share of the water to be recovered later and transferred to another SWP Contractor consistent with the amendments to the SWP Contract that went into effect in February 2021. The SWP contract amendments provide additional water management tools related to transfers and exchanges that provide increased flexibility in managing SWP supplies.

#### Proposed Pilot Program Terms:

As a follow-up to the December 2021 meeting with Mojave, staff prepared draft terms for implementation of a Water Storage and Transfer Pilot Program between IRWD and Mojave. The pilot program would allow Mojave to deliver its SWP supplies to IRWD's Water Bank for storage with Mojave transferring one-half of the water to IRWD. Since the water source would be SWP supplies, the California Department of Water Resources (DWR) will need to approve the program and prepare the appropriate point of delivery and transfer agreements. The transfer of SWP water will also require an SWP Contractor willing to act on IRWD's behalf. The proposed terms for this pilot program, which are a slight variation from IRWD's traditional unbalanced exchange programs, are provided as Exhibit "A".

The proposed terms would allow Mojave, at its discretion, to deliver up to 20,000 acre-feet (AF) of SWP Table A water to IRWD's water bank through the end of 2030. Mojave would have the ability to deliver up to 7,000 AF per year for recharge on a first-priority basis. (The IRWD Water Bank currently has an unobligated annual recharge capacity of 7,100 AF per year.) Any additional deliveries in the same year would be subject to Buena Vista Water Storage District and/or Antelope Valley – East Kern Water Agency opting to not deliver water into the IRWD Water Bank in the same year. Mojave would be required to deliver a minimum of 13,000 AF over the course of the pilot program.

When requested by Mojave, IRWD would recover Mojave's share of the stored water using IRWD's first priority rights to the use of IRWD Water Bank wells. The recovery of Mojave's water would be at a rate not to exceed 3,250 AF per year. (IRWD's annual recovery capacity in the IRWD Water Bank is currently 17,900 AF per year.) This would allow Mojave to recover its share of the minimum delivery requirement within two years. Mojave could request to recover more water should IRWD determine that capacity is available. The requirement for Mojave to deliver a minimum of 13,000 AF of water into storage equitably offsets the first priority recovery commitments to Mojave. Staff believes that with IRWD already having some extraordinary supply water stored in the Metropolitan system, IRWD's need for first-priority recovery capacity is reduced in the short-term.

#### FISCAL IMPACTS:

IRWD and Mojave shall each be responsible for their share of water banking costs including the costs associated with recharging water and the costs of recovering water using IRWD's Water Bank wells. Mojave would pay for all fixed SWP costs associated with making the water available for recharge, including the water that will be transferred to IRWD.

#### 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 develop and execute a Water Storage and Transfer Pilot Program Agreement between IRWD and Mojave Water Agency based on the terms presented.

**LIST OF EXHIBITS:**

Exhibit “A” – Proposed Draft Terms for a Storage and Transfer Pilot Program between Irvine  
Ranch Water District and Mojave Water Agency

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## EXHIBIT “A”

DRAFT

### Proposed Terms for a Water Banking Storage and Transfer Pilot Program Between Irvine Ranch Water District and Mojave Water Agency

January 20, 2022

|                           |  |
|---------------------------|--|
| <b>Parties</b>            | The Irvine Ranch Water District (IRWD) and the Mojave Water Agency (Mojave)  |
| <b>Description</b>        | IRWD and Mojave would implement a Water Banking Storage and Transfer Pilot Program (Pilot Program) that would allow Mojave to schedule and deliver its State Water Project (SWP) water into storage at IRWD’s Strand and Stockdale Integrated Banking Projects (IRWD Water Bank) and one-half of the water would then be transferred to IRWD. Recharge and recovery facilities available at both the Strand Ranch and Stockdale Integrated Banking Projects could be used to deliver water in and out of storage at the IRWD Water Bank.                                 |
| <b>Term</b>               | The Pilot Program will operate through 2035.   |
| <b>Storage Capacity</b>   | Up to 20,000 acre-feet (AF) of storage capacity in the IRWD Water Bank and associated leased storage capacity will be dedicated to the Pilot Program. The maximum account balance to be allocated for the storage of Mojave’s share of the water stored in the IRWD Water Bank would be 10,000 AF.   |
| <b>Water into Storage</b> | Mojave will schedule and deliver a minimum of 13,000 AF and up to a maximum of 20,000 AF of its SWP water to the IRWD Water Bank by the end of 2030. On an annual basis, Mojave may deliver up to 7,000 AF of water for recharge at the IRWD Water Bank on a first priority basis. After the first 7,000 AF in a year, any further deliveries will be on a second priority basis to water deliveries associated with other IRWD programs. Mojave will transfer one-half of the water delivered into storage to a SWP Contractor willing to act on IRWD’s behalf.         |
| <b>Recovered Water</b>    | <p>Mojave’s share of water in storage shall be recovered on a first priority basis using IRWD’s Water Bank Wells, when requested by Mojave, at an annual rate not to exceed 3,250 AF per year. IRWD could allow Mojave to recover more water in a year should IRWD determine that the use of additional recovery capacity by Mojave would not infringe on IRWD’s ability to recover water for itself and/or IRWD’s other partners.</p> <p>All of Mojave’s water shall be recovered from the IRWD Water Bank before the end of the term of the Pilot Program in 2035.</p> |
| <b>Losses</b>             | Water banking losses shall be shared equally between IRWD and Mojave (between 11 and 15%). Mojave and IRWD each may incur additional conveyance losses of approximately 2% in the Cross Valley Canal (CVC) for conveyance of each agency’s share of the water, as measured and assessed by Kern County Water Agency (KCWA).  |

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| <b>Recharge Costs</b>               | IRWD and Mojave 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 IRWD Water Bank. These costs may include Rosedale's administrative charges, charges assessed by the KCWA, Cross Valley Canal (CVC) Standby, applicable CVC pumping and O&M costs, and applicable fixed and variable O&M Water Bank costs.  |
| <b>SWP Fixed and Variable Costs</b> | <p>IRWD and Mojave would each share in all SWP-related variable costs incurred with making the SWP Water available for recharge at the IRWD Water Bank.</p> <p>Mojave shall pay all fixed SWP costs associated with making the water available for recharge, including water that will be transferred to IRWD.</p>  |
| <b>Recovery Costs</b>               | <p>IRWD and Mojave would each be responsible for actual costs of recovery for their 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&amp;M, and applicable CVC pumping costs, and applicable fixed and variable O&amp;M Water Bank costs.</p> <p>Mojave will pay all conveyance costs in the Aqueduct associated with the delivery of recovered water to Mojave's service area or other delivery points as determined by Mojave.</p> <p>IRWD and Mojave 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 IRWD Water Bank, will be required to contribute \$2.00 per AF for recovered water to a fund, which may be used to meet mitigation obligations.</p>                                   |
| <b>Agency Coordination</b>          | IRWD and Mojave would cooperate with DWR, KCWA, and a SWP contractor willing to act on behalf of IRWD in preparing all necessary agreements to facilitate the Pilot Program.  |
| <b>Environmental Compliance</b>     | 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 Pilot 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 water. Rosedale certified and IRWD and approved the CEQA documents for the Strand and Stockdale Integrated Banking Projects. Corresponding Notices of Determinations were filed by both Rosedale and IRWD. IRWD and Mojave will share equally any additional costs associated with environmental review or permitting deemed necessary for delivering Mojave water into storage (however, none are expected). Both IRWD and Mojave shall each be responsible for any other environmental review or permitting necessary to implement the Pilot Program within their own respective service areas. |
| <b>General Expenses</b>             | Each Party would be responsible for its own fees and expenses arising out of the negotiation and execution of the Pilot Program Agreement, obtaining necessary approvals, and the like.   |