DUDLEY RIDGE
WATER DISTRICT

2025 Agricultural Water Management Plan

Prepared Pursuant to Water Code Section 10826
and Executive Order B-29-15

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Abbreviations & Acronyms List

Abbreviation	Definition
AB	Assembly Bill
ACWA	Association of California Water Agencies
AF	Acre-feet
APEP	Advanced Pumping Efficiency Program
AWMP	Agricultural Water Management Plan
BMWD	Berrenda Mesa Water District
BMSG	Berrenda Mesa Spreading Grounds
BVWSD	Buena Vista Water Storage District
BWSD	Belridge Water Storage District
cfs	Cubic feet per second
CIMIS	California Irrigation Management Information System
CV-SALTS	Central Valley Salinity Alternatives for Long-Term Sustainability
CVP	Central Valley Project
DRWD	Dudley Ridge Water District
DWR	Department of Water Resources
EC	Electrical Conductivity
ETo	Reference Evapotranspiration
ETc	Crop Evapotranspiration
EWMP	Efficient Water Management Practice
gpm	Gallons per minute
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HDPE	High-density polyethylene
ILRP	Irrigated Lands Regulatory Program
ITRC	Irrigation Training & Research Center
JPA	Joint Powers Authority
KCWA	Kern County Water Agency
LHWD	Lost Hills Water District
LOC	Level of Concern
Abbreviation	**Definition**
MAF	Million Acre-Feet
NRCS	Natural Resource Conservation Service
NWKRCD	North West Kern Resource Conservation District
O&M	Operations and Maintenance
P&P	Provost & Pritchard Engineering Group
PG&E	Pacific Gas and Electric
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SGMA	Sustainable Groundwater Management Act
SWC	State Water Contractors, Inc.

SWP	State Water Project
TDS	Total Dissolved Solids
TWUE	Total Water Use Efficiency
USDA	United States Department of Agriculture
WDWA	Westside District Water Authority
WWA	Westside Water Authority
WWQC	Westside Water Quality Coalition

1. Introduction

This Agricultural Water Management Plan (AWMP) for the year 2025 was prepared by the Westside Water Authority (WWA) on behalf of the Dudley Ridge Water District (District) to comply with the requirements of the 2018 Water Conservation Legislation (AB 1668 and SB 606). Past water management efforts undertaken by the District are itemized below.

1.1 Previous Water Management Activities

In 1983, the Department of Water Resources (DWR) prepared a report for the District titled "Final Draft-Recommended Water Management Plan for Dudley Ridge Water District, A Service Area of the State Water Project". The 1983 report was one of several prepared to assist State and local agencies in the efficient use of existing water supplies.

In 1987, the District updated and expanded the previous plan as an effort to improve water management practices and provide a basis for developing water conservation projects, recognizing the decreasing ability for the State Water Project (SWP or Project) to meet project demands. The 1987 plan was titled "Water Management Plan for Dudley Ridge Water District".

In 1992, the District prepared and adopted the "Dudley Ridge Water District 1992 Water Management Plan" in fulfillment of the requirements of AB 1658 (the Agricultural Water Management Planning Act of 1986).

In 2005, the District prepared and submitted the "2005 Agricultural Water Management Plan" in compliance with AB 3616 (the Agricultural Water Suppliers Efficient Water Management Practices Act of 1990), in accordance with the January 1, 1999 Memorandum of Understanding Regarding Efficient Water Management Practices by Agricultural Water Suppliers in California. The 2005 report concluded that the District had fully implemented all the critical Efficient Water Management Practices (EWMP) and the applicable conditional EWMPs.

In 2015, an update was made to the 2012 AWMP to incorporate the requirements from the Governor's April 1, 2015 Executive Order (B-29-15) to include in the AWMP a detailed drought management plan in addition to quantification of water supplies and demands for the 2013, 2014, and 2015 years to the extent data is available. The update also included information that identified areas to improve the efficiency of water use within the districts across California and to continue to evaluate the District's water management practices. The 2015 update also considered past and future water management strategies to increase the reliability of water deliveries to the District.

The Westside Water Authority (WWA or Authority) was officially formed in April of 2020 to aid in the joint management of operations, contracts, administration, and water transactions for the Belridge Water Storage District, Berrenda Mesa Water District, Lost

Hills Water District, and the Dudley Ridge Water District. Although WWA manages aspects of the districts, the four districts submitted individual AWMPs in 2020. These AWMPs were written in response to the 2018 Water Conservation Legislation (AB 1668 and SB 606), which updates the 2009 Water Management Planning Act to better address issues related to agricultural water management and evaluation. Furthermore, they provided updated information regarding water management practices in the districts.

Like the 2020 Plan, the 2025 iteration of the Plan was prepared by WWA using the guidance of the 2025 Agricultural Water Management Plan Guidebook developed and released by the DWR.

1.2 Coordination Activities

1.2.1 Notification of AWMP Preparation

The AWMP was prepared in cooperation with public entities including the Belridge Water Storage District, Berrenda Mesa Water District, Lost Hills Water District, and Westside District Water Authority Groundwater Sustainability Agency (WDWA GSA). **Table 1** summarizes all agencies and parties that were notified regarding the coordination, adoption, and submission of the AWMP.

DRWD solicited public input by inviting oral and written comments prior to and during a public hearing on March 23rd, 2026. No comments were received during the public hearing.

Table 1. Summary of Coordination, Adoption, and Submittal Activities for DRWD

Potential Interested Parties	**Notified of Plan Preparation**	**Requested Copy of Draft *(Optional)***	**Commented on Draft/Action Taken by Supplier *(Optional)***	**Notified of Public Meetings**	**Attended Public Meetings *(Optional)***	**Copy of Adopted Plan/ Amendment Sent**
Belridge Water Storage District	X			X		
Berrenda Mesa Water District	X			X		
California State Library						X
Department of Water Resources						X
Kettleman City	X			X		
Kings County	X			X		X
Lost Hills Water District	X			X		
Southwest Kings GSA	X			X		
The Corcoran Journal	X			X		
Tulare Lake Basin Water Storage District	X			X		
Westlands Water District	X			X		
Website						Plan to post by May 1, 2026

1.2.2 Public Participation

DRWD provided notice of public meeting to approve and adopt the AWMP in the Corcoran Journal on March 5 and 12, 2026 (**Appendix A & B**). This notice included the notification of

preparation and the notification of the date of the public meetings to be held to review and consider adopting the AWMP.

1.3 AWMP Adoption, Submittal, and Availability

1.3.1 AWMP Adoption

The District is submitting the AWMP included in this document in accordance with AB 1668 and SB 606 requirements and which has been adopted by the Board of Directors on March 23rd, 2026. Resolution of the Plan Adoption by the Board is included in **Appendix C**.

1.3.2 AWMP Submittal

Copies of the finalized AWMP have been sent to the following agencies:

1) DWR
2) Kings County
3) California State Library

1.3.3 AWMP Availability

The AWMP will be posted on the District's web site on or before April 1, 2026 and can be viewed in the following link: http://www.dudleyridgewd.org.

1.4 AWMP Implementation

Plan implementation began with Board adoption on March 23rd, 2026 will continue until the next update. Further details on water use efficiency implementation schedule and documentation are described in Sections 7 and 8.

2. Agricultural Water Supply & Service Area

2.1 Physical Characteristics

2.1.1 History and Size of Service Area

The District was formed on September 26, 1962, and organized on January 26, 1963, pursuant to Division 13 of the California Water Code, for the purpose of providing irrigation water from the State Water Project (SWP) to land within the district.

Since 1991, as a result of a zero SWP allocation to the District that year, the District has operated without any employees. Prior to that time, the District employed one ditchtender to oversee field operations. Currently, these field duties and other duties to manage and operate the District are performed in part by contracted services (part-time ditchtender and a management consultant) and in part by various farm operators themselves, private contractors retained by the District, or WWA staff.

The District's primary water source is imported surface water supplies from the SWP (**Figure 1**); the District does not use local groundwater due to its low yields and poor quality. In addition to the SWP supplies, water has been made available through programs for water regulation and storage in off-site groundwater basins and from purchases, transfers, and balanced and unbalanced exchanges from other water agencies. The District's surface water supply is comprised of (1) SWP Table A contract amount of 41,350 acre-feet (AF), (2) other SWP water including Article 21 and occasional annual or multi-year transfers or exchanges with other SWP contractors, and (3) as available, Dry Year Transfer Program water (defined later in this document) and non-Project water obtained outside the District and delivered to the District or to its banking/exchange programs. In drier years, the District's supply is heavily supplemented by banked water recovered from groundwater storage programs in which the District is participating; in average to wet years, the supply is mostly or exclusively from surface water sources.

The land use within the District is agricultural; the District's boundaries do not encompass any incorporated or unincorporated communities. Through a number of annexations over the years, the District has expanded in size from the original 29,330 acres to its current size of 38,017 acres and approximately 16,000 acres are currently farmed (**Table 2**).

The District does not anticipate any changes to its service area at this time.

Table 2. Water Supplier History and Size

District	DRWD
Date of Formation	26-Sep-62
Source of Water	Applicable sources
Local Surface Water	
Local Groundwater	Limited
Wholesaler	State Water Project (SWP)
USBR	
SWP	Via California Aqueduct
Service Area Gross Acreage	38,017 acres
Irrigated Acreage	16,515 acres

2.1.2 Location of the service area and water management facilities

DRWD is located in southern Kings County on the western edge of the San Joaquin Valley. The District lies south of Kettleman City and is bounded on the northeast by the Tulare Lake Basin Water Storage District, on the south by the Kings-Kern County line and LHWD, and generally on the west by the Governor Edmund G. Brown California Aqueduct (Aqueduct). Interstate 5 traverses the District in a northwest-southeast direction (**Figure 2**).

DRWD delivers water from the Aqueduct through five delivery structures ("turnouts"). From each turnout, water is delivered to landowners through District owned concrete-lined canals and/or underground pipelines to metered farm turnouts.

The District owns approximately 12 miles of concrete-lined distribution canals and 10 miles of pipelines. In addition to the distribution canals and pipelines, the District owns a terminal reservoir to capture operational spills, whereby the final field deliveries can be made directly from the reservoir. While this reservoir was historically used, privately owned storage reservoirs have since been constructed that supplant its operation. The District does not own or operate any subsurface drainage facilities. Shallow groundwater conditions experience prior to the late 1980s have long since been alleviated by extensive landowner conversions to low-volume irrigation systems. The only surface water drainage facilities controlled by the District are pipelines installed to carry local runoff under District canals. Similar drainage pipelines and structures are owned and operated by the State of California to protect the Aqueduct and Interstate 5 from flooding. **Figure 3**[1] provides an overview of the District's facilities.

Landowners are required by the District to maintain applied water on their land. Privately operated tailwater/spill recovery systems are in place to accomplish this element of water management.

Operational Constraints

Daily operations of the SWP can result in constraints to the efficient operation of the District's delivery system.

- ***Aqueduct water level variability:*** Automated Aqueduct turnouts DR1, DR2 and DR3 can open or close as water levels in the Aqueduct fluctuate, to maintain consistent downstream deliveries. Turnouts DR1-A and DR1-B are siphons that operate on the difference in elevation (head) between the Aqueduct and the turnout discharge; downstream deliveries are highly dependent on Aqueduct levels.

  As an example, Aqueduct levels at DR1-A can fluctuate between elevations 312.2 feet and 310.5 feet above mean sea level. At the higher level, the maximum flow rate through the turnout is 32 cubic feet per second (cfs); at the lower level the maximum flow rate drops to 17 cfs. To the extent possible, DWR operations personnel respond to District requests to meet water demands by raising Aqueduct levels to minimize delivery constraints due to water level variability.

- ***Moss/weed buildup:*** From late spring through fall the Aqueduct, which functions more like a series of connected reservoirs than a flowing canal, tends to experience

[1] An overview of SWP facilities can be found here: SWP Facilities

a buildup of moss, algae, and aquatic weed growth. These weeds can lead to blockages at the intakes of the turnouts and reductions in delivery capacity throughout the distribution system.

To combat this problem, the District installed traveling water screens at turnouts DR2 and along Canal 3-S from turnout DR3. These screens mechanically remove moss and weeds prior to the intakes to the turnouts. The District's other turnouts utilize stationary grates (DR1) and downstream intake pipe orientations (DR1-A and DR1-B) to minimize weed uptake, but this has proven inadequate due to the amount of seasonal moss and weeds in the Aqueduct. Since 2021, the District has repaired or replaced three water screens.

Additionally, the District must also use herbicide applications to supplement its weed control strategies. Beginning as early as May and continuing through October, the District contracts with local chemical companies for regular applications of herbicides to control weed growth. In practice, the District spends tens of thousands of dollars annually on weed control and water users regularly must manually or mechanically remove debris to prevent damage and capacity constraints to their irrigation systems.

- ***Aqueduct capacity/peaking constraints:*** When Aqueduct capacity becomes oversubscribed by other SWP contractors, agricultural contractors can be limited by contract (under Article 12b of the Water Supply Contract) to delivering a maximum of 18% of their annual Table A contract amount in any given month—this equates to a maximum delivery to the District of 7,443 AF (~125 cfs) in any given month, and it is anticipated that this constraint could cause delivery shortfalls in the future. In 2003, the District was awarded a Proposition 204 (the Safe, Clean, Reliable, Water Supply Act) grant to evaluate the development of off-stream surface reservoirs to among other purposes, store water to be made available for delivery during the peak months—none of the sites evaluated proved to be cost-effective.

2.1.3 Terrain and soil

A small portion of DRWD is located on the shore of the historic Tulare Lake, however, most of the District is on smooth, gently sloping alluvial fans extending eastward from the Kettleman Hills. Elevations range from approximately 190 to 350 feet above sea level. The slope varies from 15 feet per mile in the southeast part of the District to slightly more than 60 feet per mile in the northwest. Over shorter distances, near the apex of some more recent alluvial fans, there are slopes of about 4 percent and the break from the fans to the lakebed is very steep. In contrast, most of the District has slopes of less than 25 feet per mile.

The United States Department of Agriculture, Natural Resource Conservation Service (NRCS) issued a soil survey of Kings county in 1986. This detailed soil survey included the area encompassed by the District. A general soils map of the District taken from the NRCS soil survey is shown in **Figure 4**.

In addition, **Table 3** provides the general characteristics of the major soil types within the District. The dominant soil types within DRWD are the Panoche loam, the Milham sandy loam, the Wasco sandy loam, the Garces loam, and the Westhaven loam. These soils are predominantly formed in alluvium derived from sedimentary and granitic rock, and are primarily well drained, which makes them conducive for agricultural activities.

Land use within DRWD consists of primarily agricultural land. Approximately 16,515 acres are in agricultural production with the most common crops being pistachios, almonds, grapes, and pomegranates. There are no intensified urban areas within DRWD.

Table 3. Soil Characteristics				
Map Symbol	**Soil Name**	**% of District**	**Hydrologic Soil Group**	**Drainage Class**
102	Avenal loam, 0 to 5% slopes	<1	C	Well drained
105	Cantua coarse sandy loam, 5 to 15% slopes	<1	A	Somewhat excessively drained
109	Delgado sandy loam, 5 to 15% slopes	<1	D	Somewhat excessively drained
112	Excelsior sandy loam	<1	C	Moderately well drained
113	Garces loam	10.9	D	Well drained
124	Homeland fine sandy loam, partially drained	<1	B/D	Poorly drained
125	Houser fine sandy loam, drained	1.2	D	Somewhat poorly drained
126	Houser clay, partially drained	<1	D	Somewhat poorly drained
127	Kettleman loam, 5 to 15% slopes	1.3	D	Well drained
131	Kimberlina fine sandy loam, sandy substratum	2.7	A	Well drained
139	Lethent clay loam	3	D	Moderately well drained
144	Milham sandy loam, silty substratum	12.1	C	Well drained
150	Panoche loam, 0 to 2% slopes	20.5	C	Well drained
151	Calflax clay loam, saline-sodic, 0 to 2% slopes	9.1	C	Well drained
154	Pits and Dumps	<1	-	-
155	Rambla loamy sand, drained	7.4	D	Moderately well drained
162	Sandridge loamy fine sand	2.1	B/D	Somewhat excessively drained
165	Twisselman silty clay	2.3	C	Well drained
166	Twisselman silty clay, saline-alkali	<1	C	Well drained
174	Wasco sandy loam, 0 to 5% slopes	11.2	A	Well drained
175	Westcamp loam, partially drained	3.2	D	Somewhat poorly drained
176	Westhaven loam, 0 to 2% slopes	4.7	C	Moderately well drained
177	Westhaven loam, 2 to 5% slopes	2.4	C	Moderately well drained
178	Westhaven clay loam, saline-alkali, 0 to 2% slopes	3.3	C	Moderately well drained
181	Water	<1	-	-
237	Twisselman clay, saline-alkali, 0 to 2% slopes	<1	D	Well drained

2.1.4 Climate

The District's service area is characterized by a Mediterranean-type climate with dry, hot summers and mild, semi-arid winters with little rainfall and normally low humidity. To provide an overview of the local climate, relevant climate data was pulled from the closest California Irrigation Management Information System (CIMIS) station—#146 Belridge[2]. While this approach is generalized, it provides a good summary of the conditions within the District.

As reported by CIMIS, the average daily maximum temperature in the District ranges from 80 to 97 degrees Fahrenheit in the dry season (May to October), and from 59 to 76 degrees in the wet season (November to April). The area is classified as a hot desert where precipitation is less than half of the potential evaporation. The rainy season typically occurs from November to April, experiencing a monthly average of 0.95 inches between 2005 to 2024. Average annual precipitation across this period was 6.51 inches, with a minimum value of 1.61 inches in 2013 and a maximum of 21.94 in 2019. The rainfall is sufficient for grazing purposes, but not sufficient for intensive agricultural purposes.

The growing season runs from May through October, although various crops are grown year-round. Reference evapotranspiration during the 20-year period ranged from a low of 52.38 in 2011 to a high of 63.32 inches per year in 2022, with an average of 57.91 inches per year. The length of the growing season (frost-free period) is about nine months, or around 250 days per year that are available for growing most agricultural crops. The crops must be sustained by irrigation during the hot, dry summers. **Tables 4 and 5** contain additional climatology data for the representative period.

[2] More information on the California Irrigation Management System can be found online at: CIMIS

Table 4. Summary Climate Characteristics	
CIMIS Station #146 - Belridge, 2005-2024	
Climate Characteristic	**Value**
Average Annual Evapotranspiration (inches)	57.91
Average Monthly Evapotranspiration (inches)	4.83
Average Annual Precipitation (inches)	6.51
Average Monthly Precipitation (inches)	0.54
Annual Minimum Total Precipitation (inches) – 2013	1.61
Annual Maximum Total Precipitation (inches)* – 2019	21.94
Average Annual Minimum Temperature (°F)	49.20
Average Annual Maximum Temperature (°F)	78.33
Average Minimum Temperature (°F) (January)	37.07
Average Maximum Temperature (°F) (July)	98.07
Average Minimum Temperature Monthly Range (°F) (November-April)	40.76
Average Maximum Temperature Monthly Range (°F) (May-October)	90.16
Note:	
** Annual minimum and maximum total precipitation correspond to the total annual precipitation for the driest and wettest years, respectively*	

Table 5. Detailed Climate Characteristics				
CIMIS Station #146 - Belridge, 2005-2024				
Month/Time	**Average Precipitation, Inches**	**Average Reference Evapotranspiration (ETo), Inches**	**Average Minimum Temperature, °F**	**Average Maximum Temperature, °F**
January	1.10	1.56	37.07	59.39
February	0.92	2.47	39.87	65.26
March	0.79	4.05	43.17	69.75
April	0.65	5.61	46.95	76.03
May	0.29	7.35	52.49	83.36
June	0.10	8.03	58.82	91.52
July	0.17	8.28	63.75	98.07
August	0.08	7.45	62.24	96.78
September	0.11	5.62	58.19	90.94
October	0.15	3.88	49.99	80.29
November	1.25	2.17	41.11	68.43

Table 5. Detailed Climate Characteristics				
December	0.96	1.44	36.40	59.52
Wet Season* (Nov-Apr)	0.95	2.83	40.76	66.40
Dry Season* (May-Oct)	0.15	6.77	57.58	90.16
Extreme Conditions (if applicable) [e.g., 100-year event]	NA	NA	NA	NA
Wet season is defined for November through April. Dry season is defined for May through October.				
NA = Not applicable				

2.2 Operational characteristics

2.2.1 Operating rules and regulations

The District's water delivery system is classified as a fixed duration-restricted, arranged demand system with deliveries arranged in advance and a normal duration in 24-hour time intervals. By contract with DWR and under the District's Rules and Regulations, daily water requests for a continuous and constant rate are to be made at least 24 hours in advance, with adjustments made at 9:00 a.m. each day. In practice, the District and DWR attempt to accommodate adjusting water deliveries on a day-to-day basis and since 2003 DWR has allowed midday delivery reductions to minimize electrical use during peak periods.

Appendix D provides a copy of the District's Operating Rules and Regulations, adopted on December 12, 2018, which provides a more detailed overview of the District's operating rules and regulations.

2.2.2 Water delivery measurements or calculations

The District has five metered turnouts off the Aqueduct that serve a total of five agricultural water users. Four turnouts serve individual water users exclusively; the remaining turnout (DR2) is shared among three water users. Turnouts are measured daily, and the estimated level of accuracy for these turnouts is ±5%. District staff along with DWR staff maintain their respective infrastructure as needed. Section 7.1.1: Critical EWMPs provides more information on the District's water delivery measurements.

2.2.3 Water rate schedules and billing

Water rates within DRWD are dependent on two cost categories: (1) those associated with the SWP, and (2) those associated with District operations. The former is composed of (1) a fixed cost (e.g., the price of water per acre-foot), and (2) a variable cost (e.g., costs associated with transporting water to the District). The latter is composed of (1) a fixed cost, and (2) a variable cost (**Table 6**).

SWP fixed and variable charges are assessed at a uniform block rate per acre-foot of entitlement, while District operating expenses are allocated to water users based on parcel acreage. Water users are billed in two installments: the first installment, representing 60% of total revenue, is billed on November 15th, and due on December 15th; the second installment, representing the remaining 40%, is billed on May 15th, and due on June 15th.

The District comprises six service areas, which have different variables costs associated with them. These costs reflect various factors such as the maintenance and repair of District infrastructure, energy costs, and the proportionate share of DRWD's Kern Water Bank expenditures.

It is the Board's policy to make year-end adjustments to reflect actual costs incurred for the year. Standby charges and water rate charges used to also be adjusted during the year; however, a new billing process was approved in WY24. Under this new process, staff conduct an annual true-up consisting of additional charges and credits. This process ensures that each water user and landowner is charged their appropriate share of the year's water costs.

Table 6. 2025 DRWD Water Rates

Service Area/Zone	SWP – Fixed ($/AF)	SWP – Variable ($/AF)	District Specific – Fixed ($/acre)	District Specific – Variable ($/AF)
1	$141.55	$22.79	$25.46	$1.93
1-A	$141.55	$22.79	$25.46	$2.34
1-B	$141.55	$22.79	$25.46	$5.37
2-E	$141.55	$22.79	$25.46	$24.39
2-S	$141.55	$22.79	$25.46	$16.06
3	$141.55	$22.79	$25.46	$17.62
4	$141.55	$22.79	$25.46	$2.19
6	$141.55	$22.79	$25.46	-
7	$141.55	$22.79	$25.46	-

2.2.4 Water Shortage Allocation Policy and Drought Management Plan

The District relies on water transfers, supplemental water purchases, and groundwater banking programs as its primary mechanism for enduring periods of drought. Unlike farmers in other areas who can fallow land during periods of drought, farmers in DRWD have permanent plantings (e.g., trees and vines) that require a minimum water supply to keep alive. In water short years these farmers use deficit irrigation (the application of water below full crop-water requirements) to reduce irrigation water use. This can result in reduced crop yields and, if taken to the extreme, no crop yield as well as long-term damage to the crop.

Determining Drought Severity

The District's primary source of water is imported surface water via the SWP. In the fall of each year, DWR operations' staff review current Project storage and projected deliveries through the end of the year and develop allocation projections for the following year based on a range of forecasted hydrology. DWR declares the initial allocation forecast for the following year on December 1st. This allocation is adjusted as the hydrology dictates.

District management maintains a close relationship with DWR operations' staff and uses these projections to determine water supply availability and level of drought severity. These projections are conveyed to District landowners for use in planning their farming operations and estimating supplemental water needs

Water Shortage Allocation

As mentioned, the District is a State Water Contractor and obtains water from the SWP for ultimate delivery to its landowners. As of November 2023, each landowner is entitled to a portion of the District's total Table A allocation as set forth in their respective Water Supply Contract with the District. Currently, the District's annual Table A contract water stands at 41,350 AF. The current water demands of the District's landowners are estimated at approximately 50,000 to 60,000 AF annually. The District can further purchase water through various State and locally operated markets, several of which serve as important supplies for groundwater recharge; however, the availability of these supplies has diminished over time. WWA staff are proactive in securing both short and long-term deals to provide the necessary water needed for landowners to continue their farming operations.

Alternative Water Supplies

When SWP water allocations are reduced, the District is proactive in seeking and securing supplemental water supplies. Since 2009, the District has collaborated in securing additional water with four other agricultural water districts that also rely heavily on the SWP for its water supplies: (1) Belridge Water Storage District, (2) Berrenda Mesa Water District, (3) Lost Hills Water District, and (4) Wheeler Ridge-Maricopa Water Storage District. Due to their common location on the west side of the southern San Joaquin Valley, the five districts are informally referred to as the Westside Districts or Westside 5.

In addition to Westside 5, the District coordinates with neighboring districts where there are common landowners to beneficially use limited water supplies.

Revenues and Expenditures

The majority of the District's expenses are DWR charges that are fixed costs regardless of the amount of water delivered by SWP. As the SWP allocation gets reduced, the actual cost of water to the water users proportionally increases. For example, the District was expected to spend $6.8 million for its 2025 SWP water supply. At 100% allocation, this would equate to approximately $148/AF, but at the 2025 allocation of 50%, the unit charge

rises to over $739/AF. In addition, at lower SWP allocations, demand for supplemental water increases, which results in higher unit costs for water users within that market.

Enforcement Methods of Allocation Policies
DRWD has not had to enforce any wasteful water practices. The price of water to DRWD landowners is among the highest anywhere in the state. Landowners are aware of this and use the water wisely. If necessary, the District would shut off service to any landowner deemed to be wasting water.

3. Quantity of Water Uses

3.1 Agriculture Water Use

The primary use of the applied water within DRWD is to meet the evapotranspiration rates of the planted crops. The overall crop requirement also takes into consideration the leaching requirements (how much water leaches into the soil from the root zone) and the effective precipitation (how much precipitation is used by the crops). For consistency across years, this report makes use of DWR's Statewide Crop Mapping dataset for 2021-2024[3], which utilizes Land IQ satellite imagery for its base dataset. For 2025, to remain as consistent as possible with the previous years, Land IQ data was used to calculate crop estimates. **Table 7** provides estimates for crop water use within the District. The following methodology and related assumptions were used in calculating these estimates:

- Crop evapotranspiration (ETc) was derived from the Irrigation Training & Research Center's (ITRC) ETc Table for Irrigation District Water Balances[4], Zone 16. ETc estimates for 2021 and 2022 utilized Typical Year values from Zone 16, 2023, 2024, and 2025 utilized Wet Year values.
- Satellite imagery tends to over classify fields, leading to an excessive amount of crop categories. To account for staff and budget constraints, a Pareto-style cumulative sum with a 95% threshold was used. This allowed staff to account for over 95% of irrigated acreage in the District without having to use additional resources to account for all the outliers.
- To account for local climate variations and determine whether a year was categorized as "Dry", "Typical", or "Wet", total precipitation was calculated for the years 2000 to 2025, ranked in ascending order from driest to wettest year, divided into three equal bins (0-33%, 33-66%, 66-100%), and assigned a relevant category of "Dry", "Typical", or "Wet".

[3] More information on the DWR State Crop Mapping dataset can be found online at: Statewide Crop Mapping - Dataset - California Natural Resources Agency Open Data.
[4] More information on the ITRC data can be found online at: Cal Poly - ITRC - Evapotranspiration Data

- Where specific crop types were not represented within the ITRC ETc data, a proxy was used instead. These proxies are noted in **Table 7** where applicable.
- Leaching requirements vary significantly by crop, soil type, water salinity, and other factors. For the purposes of these estimates, a leaching requirement of 10 percent of the crop water requirement was assigned District-wide.
- Effective precipitation was calculated using data from CIMIS station #146 Belridge, and using relationships described in the DWR's Effective Precipitation, 1989, MacGillivray and Jones[5].

Calculating the overall crop water requirement in the District is a highly complex task that requires substantial work to be done accurately. Much of the data to calculate crop water requirements can even vary on a field-to-field basis. In addition to the simplified approach to determining leaching requirements for the crops, other sources of error stem from using ETc proxies, using precipitation data from a single station, and any error/assumptions embedded in the equations used. To this end, the values provided below should be understood as *estimates*.

[5] More information on how effective precipitation was calculated can be found on page 31 of the following document: Microsoft Word - CA Report XVII.doc

Table 7. Agricultural Water Needs							
2021 (Typical Year)							
Crop	**Area (acres)**	**ET Crop (ft)**	**Effective Precipitation (ft)**	**Crop Water Requirement (AF)**	**Leaching Percentage (%)**	**Estimated Leaching Requirement (AF)**	**Total Crop Water Requirement (AF)**
Pistachios	9,027	3.19	0.17	27,277	10	2,728	30,005
Almonds	4,678	3.65	0.17	16,253	10	1,625	17,878
Pomegranates	1,952	3.36*	0.17	6,228	10	623	6,851
Grapes	1,239	2.54	0.17	2,937	10	294	3,231
Totals	**16,896**	-	-	**52,696**	-	**5,270**	**57,965**
2022 (Typical Year)							
Crop	**Area (acres)**	**ET Crop (ft)**	**Effective Precipitation (ft)**	**Crop Water Requirement (AF)**	**Leaching Percentage (%)**	**Estimated Leaching Requirement (AF)**	**Total Crop Water Requirement (AF)**
Pistachios	9,027	3.19	0.13	2,760	10	2,761	30,370
Almonds	4,998	3.65	0.13	17,547	10	1,755	19,302
Pomegranates	1,952	3.36*	0.13	6,300	10	630	6,930
Grapes	1,239	2.54	0.13	2,982	10	298	3,281
Totals	**17,216**	-	-	**54,438**	-	**5,444**	**59,882**
2023 (Wet Year)							
Crop	**Area (acres)**	**ET Crop (ft)**	**Effective Precipitation (ft)**	**Crop Water Requirement (AF)**	**Leaching Percentage (%)**	**Estimated Leaching Requirement (AF)**	**Total Crop Water Requirement (AF)**
Pistachios	9,640	3.25	0.68	24,814	10	2,481	27,295
Almonds	2,915	3.37	0.68	7,862	10	786	8,648
Pomegranates	1,952	3.19*	0.68	4,897	10	490	5,387
Grapes	1,239	2.55	0.68	2,315	10	232	2,547
Totals	**15,746**	-	-	**39,888**	-	**3,989**	**43,877**
2024 (Wet Year)							
Crop	**Area (acres)**	**ET Crop (ft)**	**Effective Precipitation (ft)**	**Crop Water Requirement (AF)**	**Leaching Percentage (%)**	**Estimated Leaching Requirement (AF)**	**Total Crop Water Requirement (AF)**
Pistachios	9,640	3.25	0.35	27,924	10	2,792	30,717
Almonds	3,911	3.37	0.35	11,812	10	1,181	12,993
Pomegranates	1,952	3.19*	0.35	5,527	10	553	6,080
Grapes	1,239	2.55	0.35	2,715	10	271	2,986
Totals	**16,742**	-	-	**47,978**	-	**4,798**	**52,776**
2025 (Wet Year)							
Crop	**Area (acres)**	**ET Crop (ft)**	**Effective Precipitation (ft)**	**Crop Water Requirement (AF)**	**Leaching Percentage (%)**	**Estimated Leaching Requirement (AF)**	**Total Crop Water Requirement (AF)**
Pistachios	9,428	3.25	0.03	30,322	10	3,032	33,354
Almonds	3,896	3.37	0.03	13,011	10	1,301	14,313
Pomegranates	1,952	3.19*	0.03	6,151	10	615	6,766
Grapes	1,239	2.55	0.03	3,111	10	311	3,422
Totals	**16,515**	-	-	**52,594**	-	**5,259**	**57,854**
** "Citrus" used as a proxy for Pomegranate's ETc value*							

3.2 Environmental Water Use

DRWD does not provide water for any environmental uses.

3.3 Recreational Water Use

DRWD does not provide water for any recreational use.

3.4 Municipal and Industrial Use

Although there are individually owned and operated domestic systems that provide small quantities of water for farm operations, shop buildings, and farm housing, these are minor and nominal to the operation of the District. DRWD does not provide water for any municipal and industrial uses.

3.5 Groundwater Recharge Use

No groundwater recharge resources within the District are supported by the District's water supplies; however, the District participates in the Kern Water Bank Authority. The project is outside of the District and is located on the Kern River alluvial fan in Kern County.

3.6 Transfer and Exchange Use

The District relies on transfers and exchanges to meet the demands of landowners/water users during dry years.

3.7 Other Water Use

There are no other water uses in the District.

4. Quantity and Quality of the Water Resources of the Agricultural Water Supplier

4.1 Water Supply Quantity

4.1.1 Surface Water Supply

The District's primary water source is surface water supplies from the SWP; the District does not pump local groundwater due to its low yields and poor quality. In addition to the SWP supplies, water has been made available through programs from water stored in off-site groundwater basins and from purchases, transfers, and exchanges with other water agencies. The surface water supply is comprised of SWP Table A contract amount (currently 41,350 AF), other SWP water (including Article 21, Multi-Year Water Pool [no longer available], and Turnback Pool water [no longer available]), and non-Project water obtained outside the District (including, as available, imported landowner water, Dry Year Transfer Program water, Yuba Accord water, and multi-year transfers with Butte County) which are delivered to the District or to its banking/exchange programs. In drier years, the

supply is heavily supplemented by water recovered from groundwater storage programs in which the District participates; in average to wet years, the supply is mostly or exclusively from SWP surface water sources. These water supplies are described below; **Table 8** summarizes water deliveries for the years 2021-2025.

- SWP Table A Contract Amount: This is the maximum amount of SWP water that the District can request each year in accordance with the District's long-term water supply contract. In 2009, the District (on behalf of a landowner in the District) permanently transferred 14,000 AF of its SWP Table A contract amount to Mojave Water Agency. The transfer was in phased amounts, with 7,000 AF transferred in 2010, 3,000 AF transferred in 2015, and the remaining 4,000 AF transferred in 2020. In 2013, the District (on behalf of another landowner in the District) permanently transferred 1,993 AF of its SWP Table A contract amount to Antelope Valley-East Kern Water Agency. The District's current SWP Table A contract amount is 41,350 AF.
- SWP Article 21: This water is made available for delivery on a short-term basis as determined by DWR when SWP water remains available on a real-time basis after operational requirements for Project water deliveries, water quality, and other regulatory requirements have been met. The last time SWP Article 21 water was made available was in 2023.
- Dry Year Transfer Program: This program, borne from the 1991 Drought Water Bank program, was more formally initiated by DWR in 2001 and allows for the purchase of non-Project water north of the Delta (made available through land fallowing, groundwater substitution, and reservoir releases) for delivery to SWP contractors. The program has been used extensively in years when additional transfer capacity exists in the Aqueduct, based on the annual need for additional water by SWP and potentially other water agencies.
- Yuba Accord: This DWR program allows for the purchase of non-Project water north of the Delta (made available through land fallowing, groundwater substitution, and reservoir releases) for delivery to SWP and other water contractors.
- Imported Landowner Water: Some landowners have surface and groundwater supplies available from other local sources that are conveyed to the District instead of being used on other agricultural lands they own. When imported to the District, this allows these landowners more flexibility in meeting demands and reducing the amount of recovery required from banking/exchange programs.

As has occurred in the past, the District intends to continue to engage in these water transfers and exchanges with other SWP contractors and other water agencies throughout the State. Potential single-year or multi-year arrangements with SWP contractors could include water agencies (or their member units) from Plumas County in the north to Metropolitan Water District of Southern California in the south. Potential non-Project (non-SWP) partners include, but are not limited to, water agencies within the Central Valley Project ("CVP") service area (Friant Water Users Authority, San Luis & Delta Mendota Water Authority, and Sacramento Valley contractors), San Joaquin Tributaries Authority,

water right holders of tributaries in the San Joaquin Valley and Sacramento Valley, and non-CVP districts within the Northern California Water Association.

When delivery capacity in the Aqueduct is limited, the water supply contract with DWR can contractually limit the District to a maximum monthly delivery of 18% of the District's Table A amount, or 7,443 AF (~125 cfs). Historically, the District has consistently exceeded the 18% limit during the month of July, with deliveries about 20% of the annual Table A amount; this pattern of demand is typical for agricultural areas on the west side of the San Joaquin Valley. To date, DWR has not had to enforce the 18% limitation on the District.

Over the next five years, it is anticipated that statewide demand for SWP and supplemental water supplies (including Article 21, Dry Year Transfer, and Yuba Accord water) will increase slightly, resulting in smaller delivery allocations and less water being made available for District use, particularly the availability of Article 21 water.

Although the District's only long-term contractual water supply is for SWP water, approximately 5,000 acres in the northeast portion of the District are located within the permitted Place of Use for CVP water, specifically the Consolidated Place of Use (Westside CVP water) and the Friant Place of Use (irrigation only boundary and the irrigation and M&I boundary).

Table 8. Surface Water Supplies

Source	2021	2022	2023	2024	2025	Total
CVP Class 1 Contracts	0	0	0	0	0	**0**
Pre-1914 Rights	37,568	45,874	50,082	33,621	17,358	**184,503**
SWP Water Contract	2,068	2,068	41,350	16,540	20,675	**82,701**
SWP Supplemental Water	6,392	3,547	36,031	5,286	32,449	**83,705**
CVP Supplemental	0	0	0	0	0	**0**
Kern River	0	0	0	0	0	**0**
Banked Water Recharge	0	0	-42,885	-7,768	-22,038	**-72,661**
Banked Water Recovery	17,968	10,434	492	0	0	**28,894**
*Carryover**	*4,743*	*1,868*	*2,530*	*20,675*	*26,011*	***55,827***
Total Supply	**68,739**	**63,791**	**87,630**	**68,354**	**74,455**	**307,142**

**Carryover water represents unused portions of prior-year SWP allocations that may be available for delivery in subsequent years, subject to project operations and hydrologic conditions. Carryover does not increase the District's long-term average water supply but provides limited interannual operational flexibility. To this end, Carryover is included for its importance to mitigate drought conditions but is not included in the Total Supply value.*

4.1.2 Groundwater Supply

There are no district or private agricultural groundwater wells located within the DRWD boundaries; therefore, groundwater is not considered as a part of DRWD's water supply. As mentioned, the District participates in the Kern Water Bank banking project, located outside of the district boundary in the Kern River alluvial fan, to supplement water supplies during dry years. The amount DRWD can recover from both banking projects varies annually depending on demand downstream in the California Aqueduct. In exceptionally dry years, it can be as low as 5,000-10,000 AF. Currently, the District has banked approximately 62,000 AF in this project.

In addition, individual landowners participate in other groundwater banking projects which allow them to supplement their water supplies when needed.

4.1.3 Sustainable Groundwater Management Act (SGMA)

DRWD is located within the Tulare Lake Subbasin (5-022.12) as delineated under California's Groundwater Bulletin 118. The District's compliance under SGMA, passed in 2014, is managed through the Southwest Kings Groundwater Sustainability Agency (SWKGSA).

Groundwater conditions, sustainability objectives, monitoring networks, water budgets, and management actions applicable to lands served by the District are addressed in the Tulare Lake 2022 Groundwater Sustainability Plan (GSP). The District relies on the GSP as the controlling technical and regulatory document for groundwater management within the District. For detailed information regarding DRWD's compliance with SGMA, please reference the Tulare Lake 2022 GSP[6].

4.1.4 Delta Plan Consistency

To demonstrate a measurable reduction in reliance on Delta exports, in compliance with Policy WR P1 in the Delta Reform Act, historical and projected water supplies were analyzed using a consistent baseline and comparative framework. Baseline supplies were defined as the average annual water supplies sourced from the Delta over the 1996-2015 period. This baseline represents long-term observed conditions and serves as the reference point for evaluating changes over time.

To illustrate recent trends, five-year average water supplies were calculated for the reporting periods corresponding to the current and prior AWMPs (2011-2015, 2016-2020, and 2021-2025). These averages reflect operational and hydrologic variability while demonstrating changes in supply composition and reliance on Delta exports over successive planning cycles. Future conditions were evaluated using scenarios from the

[6] A copy of the Tulare Lake 2022 GSP can be found at: https://swkgsa.org/

DWR's *The State Water Project Draft Delivery Capability Report 2025*[7] specifically the 2043 50 percent Level of Concern (LOC) and 2043 95 percent LOC scenarios. To ensure consistency between modeled and observed data, modeled deliveries for the District during the 1996-2015 period were first extracted and compared to observed baseline supplies. These data were then used to develop a scaling factor based on the ratio between modeled and observed deliveries for that baseline period. Once calculated, the scaling factor was applied to the baseline supplies' value to project future supplies to 2043 under the 50 percent LOC and 95 percent LOC conditions.

The results show that the District has continued to reduce reliance on Delta water supplies with a downward trend across the past 30 years (**Figure 6**). For this most recent AWMP update (2021-2025) average Delta supplies were lower than both the 50 percent and 95 percent LOC projections for 2043 (**Table 9**).

Table 9. Comparison of Historic Average Annual Delta Supplies vs. Projected Average Annual Delta Supplies

Value	Baseline Delta Supply (1996-2015)	2020 AWMP Average Delta Supply	2025 AWMP Average Delta Supply	2043 50% LOC Projected Delta Supply	2043 95% LOC Projected Delta Supply
Average Annual Supply (AF)	55,693	40,699	33,281	49,552	43,245
Percent of Baseline Supply	100%	73%	60%	89%	78%
Percent Reduction in Supply	0%	27%	40%	11%	23%

4.1.5 Other Water Supplies

The Districts do not have other water supplies outside those previously outlined.

4.1.6 Drainage from the Water Supplier's Service Area

The land serviced by DRWD does not have issues with subsurface drainage water. There are no on-farm subsurface tile drains within the District.

4.2 Water Supply Quality

4.2.1 Surface Water Supply

DRWD has not had any water quality problems that have limited the use of the SWP water within the Districts. The District does not monitor the surface water quality of its imported water as the water used within the Districts is sourced from the SWP and other agencies

[7] A copy of The State Water Project Draft Delivery Capability Report 2025 can be found online at: State Water Project Delivery Capability Report (DCR) 2025 - Draft DCR 2025 Main Report - California Natural Resources Agency Open Data.

hold responsibility for analyzing this water. The DWR has an on-going monitoring program that analyzes the water within the SWP monthly. This water is sampled at several locations along the Aqueduct and tested for electrical conductivity, standard minerals, selected trace elements, and chemical residue. **Table 10** presents recent water quality data that has been averaged across each year for a selection of representative analytes for the years 2021 through 2025. Where data was insufficient, either due to values falling below the respective analyte's reporting limit, or due to a lack of sampling, "NA" is reported for that year and analyte. These results stem from the Kettleman CK-21 Station (ID: KA017226) upstream of the Districts.

The water quality from the SWP is generally very good for irrigation purposes, but even good quality water often contains some salt. The ET process returns water to the atmosphere but leaves the salt behind in the soil. To avoid damaging buildup of salt in the crop root zone, water more than the crops' ET is required. The amount of excess water needed, known as the leaching requirement, varies with the crop, soil, climate, and quality of the applied water and is used as an indicator of the minimum amount of water needed to flush salt from the root zone.

Table 10. Average Water Quality Measurements

Parameter	Units	2021	2022	2023	2024	2025
Alkalinity (Total)	mg/L as CaCO3	92.8	89.8	63.0	69.3	80.9
Aluminum (Total)	mg/L	79.8	86.6	520	179	97.6
Ammonia (Total)	mg/L as N	NA	NA	NA	NA	NA
Antimony (Total)	mg/L	NA	NA	NA	NA	NA
Arsenic (Total)	mg/L	2.96	2.97	1.95	1.60	1.45
Barium (Total)	mg/L	42.4	40.6	38.5	35.9	34.3
Boron (Dissolved)	mg/L	0.19	0.17	NA	NA	0.14
Bromide (Dissolved)	mg/L	0.28	0.28	NA	NA	0.19
Calcium (Dissolved)	mg/L	23.7	23.9	17.2	18.5	21.5
Chloride (Dissolved)	mg/L	91.4	82.9	38.9	62.4	62.1
Chromium (Total)	mg/L	NA	NA	NA	NA	NA
Conductance (EC)	uS/cm	607	573	561	427	441
Copper (Total)	mg/L	2.74	1.87	2.67	2.15	1.97
Hardness (Dissolved)	mg/L as CACO3	122	120	82	93	105
Iron (Total)	mg/L	91.7	86.1	754	266	179
Magnesium (Dissolved)	mg/L	15.2	14.5	9.17	11.2	12.4
Manganese (Total)	mg/L	31	NA	58	24	10.1
Nickel (Total)	mg/L	1.79	1.67	3.81	NA	1.46
Nitrate + Nitrite (Dissolved)	mg/L as N	NA	NA	0.59	NA	0.87
Organic Carbon (Dissolved)	mg/L as C	3.98	5.41	4.94	3.54	3.65
Organic Carbon (Total)	mg/L as C	3.90	5.48	4.63	3.46	3.65
pH		8.46	8.56	7.78	7.92	7.85
Phosphate, Ortho (Dissolved)	mg/L as P	0.10	NA	0.10	0.10	0.08
Phosphorus (Total)	mg/L	0.11	0.12	0.18	0.11	0.07
Selenium (Total)	mg/L	1.61	NA	NA	NA	NA
Sodium (Dissolved)	mg/L	69.8	65.5	31.6	46.8	46.9
Sulfate (Dissolved)	mg/L	38.7	37.0	34.9	35.4	38.0

Table 10. Average Water Quality Measurements						
Total Dissolved Solids	mg/L	330	314	203	241	256
Zinc (Total)	mg/L	NA	NA	NA	NA	NA

4.2.2 Source Water Quality Monitoring Practices

DRWD's primary water supply comes from the SWP. DWR maintains records of all water diversions, water quality, and storage operations related to the SWP. Operational reports are distributed weekly and monthly to the District and published annually in Bulletin 132. DWR maintains water quality standards for its downstream urban users (Metropolitan Water District of Southern California and Central Coast Water Authority). DWR maintains an automated sampling station at Check 21 (just upstream from the District turnouts) that records electrical conductivity, water temperature, and turbidity daily. Moreover, grab samples are taken monthly. Total Dissolved Solid concentrations in the SWP water provided to the District generally range from 200 to 500 mg/L, which is suitable for agricultural use. **Table 11** provides a summary of the constituents sampled by DWR.

Table 11. Constituents sampled by DWR at the Check-21 Station between 2021-2025		
Constituent	**Units**	**Standard**
Total Alkalinity	mg/L as CaCO3	Std Method 2320 B (Filtered)
Dissolved Aluminum	mg/L	EPA 200.8 (D)
Total Aluminum	mg/L	EPA 200.8 (T)
Dissolved Ammonia	mg/L as N	EPA 350.1 (DWR Modified)
Dissolved Antimony	mg/L	EPA 200.8 (D)
Total Antimony	mg/L	EPA 200.8 (T)
Dissolved Arsenic	mg/L	EPA 200.8 (D)
Total Arsenic	mg/L	EPA 200.8 (T)
Total Barium	mg/L	EPA 200.8 (T)
Dissolved Beryllium	mg/L	EPA 200.8 (D)
Total Beryllium	mg/L	EPA 200.8 (T)
Dissolved Boron	mg/L	EPA 200.7 (D)
Dissolved Bromide	mg/L	EPA 300.0 28d Hold
Dissolved Cadmium	mg/L	EPA 200.8 (D)
Total Cadmium	mg/L	EPA 200.8 (T)
Dissolved Calcium	mg/L	EPA 200.7 (D)
Dissolved Chloride	mg/L	EPA 300.0 28d Hold
Dissolved Chromium	mg/L	EPA 200.8 (D)
Total Chromium	mg/L	EPA 200.8 (T)
Specific Conductance	µS/cm @ 25 °C	Std Method 2510 B (Filtered)
Dissolved Copper	mg/L	EPA 200.8 (D)
Total Copper	mg/L	EPA 200.8 (T)
Dissolved Hardness	mg/L as CaCO3	Std Method 2340 B (D)
Dissolved Iron	mg/L	EPA 200.8 (D)
Total Iron	mg/L	EPA 200.8 (T)
Dissolved Lead	mg/L	EPA 200.8 (D)

Table 11. Constituents sampled by DWR at the Check-21 Station between 2021-2025		
Total Lead	mg/L	EPA 200.8 (T)
Dissolved Magnesium	mg/L	EPA 200.7 (D)
Dissolved Manganese	mg/L	EPA 200.8 (D)
Total Manganese	mg/L	EPA 200.8 (T)
Dissolved Mercury	mg/L	EPA 200.8 (Hg Dissolved)
Dissolved Nickel	mg/L	EPA 200.8 (D)
Total Nickel	mg/L	EPA 200.8 (T)
Dissolved Nitrate	mg/L	EPA 300.0 28d Hold
Dissolved Nitrate + Nitrite	mg/L as N	Std Method 4500-NO3-F (DWR Modified)
Dissolved Organic Carbon	mg/L as C	EPA 415.3 (D)
Total Organic Carbon	mg/L as C	EPA 415.3 (T)
Total Phosphorus	mg/L as P	EPA 365.4 (DWR Modified)
Dissolved Selenium	mg/L	EPA 200.8 (D)
Total Selenium	mg/L	EPA 200.8 (T)
Dissolved Silver	mg/L	EPA 200.8 (D)
Total Silver	mg/L	EPA 200.8 (T)
Dissolved Sodium	mg/L	EPA 200.7 (D)
Total Dissolved Solids	mg/L	Std Method 2540 C
Total Suspended Solids	mg/L	EPA 160.2
Volatile Suspended Solids	mg/L	EPA 160.4
Dissolved Sulfate	mg/L	EPA 300.0 28d Hold
Total Kjeldahl Nitrogen	mg/L as N	EPA 351.2 (DWR Modified)
Dissolved Zinc	mg/L	EPA 200.8 (D)
Total Zinc	mg/L	EPA 200.8 (T)

4.2.3 Groundwater Supply

As mentioned, there are no private groundwater wells within DRWD. No groundwater is used for irrigation, or other water uses.

4.2.4 Other Water Supplies

DRWD relies on surface water exports for its water uses. There are no other water supplies used within the District. Effective precipitation values are estimated later in this document.

4.2.5 Drainage from the Water Supplier's Service Area

DRWD has no drainage water and therefore does not have any drainage reuse projects.

5. Water Accounting and Water Supply Reliability

5.1 Quantifying Inflows

5.1.1 Water Quantities

Table 12 provides information on the surface water supplies to the district from the CA Aqueduct from 2021-2025.

Table 12. Surface Water Supplies (AF)

Source	2021	2022	2023	2024	2025
Pre-1914 Rights	37,568	45,874	50,082	33,621	17,358
SWP Water Contract	2,068	2,068	41,350	16,540	20,675
SWP Supplemental	6,392	3,547	36,031	5,286	32,449
Banked water recovery	17,968	10,434	492	0	0
Total	**63,739**	**63,791**	**87,630**	**68,354**	**74,455**

5.1.2 Other Water Sources Quantities

Effective precipitation is the only additional water source accounted for within the District (**Table 13**). Effective precipitation is calculated using empirically based methods and incorporated directly into the crop consumptive use estimates previously outlined in this document. It is shown here as an additional water source quantity for informational purposes only and is not additive to other water sources to avoid double-counting.

Table 13. Effective Precipitation Summary (AF)

Month	2021		2022		2023		2024		2025	
	Gross (in)	Effective (AF)*	Gross (in)	Effective (AF)*	Gross (in)	Effective (AF)*	Gross (in)	Effective (AF)*	Gross (in)	Effective (AF)*
January	1.37	1,053	0.12	0	2.96	2,942	2.41	2,407	0.38	0
February	0	0	0.2	0	4.95	5,397	3.26	3,522	0.28	0
March	0.43	0	1.2	0	2.03	825	0.87	0	1.26	0
April	0.12	0	0.22	0	0	0	0.78	0	0.44	0
May	0	0	0	0	0.34	0	0.19	0	0	0
June	0	0	0	0	0.8	0	0.71	0	0	0
July	0.07	0	0	0	0.85	0	0.71	0	0	0
August	0	0	0	0	1.37	0	0.04	0	0	0
September	0	0	1.57	0	0.02	0	0.01	0	0.41	0
October	0.73	568	0.31	196	0.1	5	0.06	0	0.73	555
November	0.09	0	0.49	0	0.22	0	0.46	0	3.58	3,888
December	1.54	1,278	2.15	2,125	1.78	1,487	0.34	0	2.04	1,896
Total	**4.35**	**2,899**	**6.26**	**2,321**	**15.42**	**10,656**	**4.25**	**5,929**	**4.61**	**6,340**

Note:
**Effective precipitation was calculated using data from CIMIS station #146 Belridge, and using relationships described in DWR's Effective Precipitation, 1989, MacGillivray and Jones.*

5.2 Quantifying Outflows

Table 14 summarizes all water uses in the District. The primary water use within DRWD is agriculture and demand is split between the crop water requirement and the leaching requirement. In years where water is plentiful, DRWD engages in groundwater banking to hedge against drought and provide a more sustainable water source for its landowners. Groundwater banking values, although not technically a demand, are provided in this table to summarize all outflows over the past 5-year period.

Table 14. Quantify Water Use (AF)					
Water Use	**2021**	**2022**	**2023**	**2024**	**2025**
Crop Water Use					
1. Crop Water Requirement	52,696	54,438	39,888	47,978	52,594
2. Leaching Requirement	5,270	5,444	3,989	4,798	5,259
3. Cultural practices	0	0	0	0	0
Conveyance & Storage System					
4. Conveyance seepage	0	0	0	0	0
5. Conveyance evaporation	0	0	0	0	0
6. Conveyance operational spills	0	0	0	0	0
7. Reservoir evaporation	0	0	0	0	0
8. Reservoir seepage	0	0	0	0	0
Municipal and Industrial					
13. Municipal	0	0	0	0	0
14. Industrial	0	0	0	0	0
Groundwater Banking					
15. Groundwater Banking	0	0	42,855	7,768	22,038
Outside the District					
16. Transfers or Exchanges out of the service area (not included)	0	0	0	0	0
Conjunctive Use					
17. In-District Groundwater recharge	0	0	0	0	0
Other	0	0	0	0	0
Subtotal	**57,966**	**59,882**	**86,732**	**60,544**	**79,891**
Note: ** Recharge outside District boundary is not accounted here.*					

5.3 Overall Water Budget

Table 15 provides a summary of all water supplies in the District over the 5-year period, and **Table 16** provides an overall budget summary comparing water inflows and outflows within DRWD.

Table 15. Quantify Water Supplies (AF)					
Water Supplies	**2021**	**2022**	**2023**	**2024**	**2025**
1. Surface Water	63,996	63,791	87,630	68,354	74,455
2. Groundwater	0	0	0	0	0
Subtotal	**63,996**	**63,791**	**87,630**	**68,354**	**74,455**

Table 16. Budget Summary (AF)					
Water Accounting	**2021**	**2022**	**2023**	**2024**	**2025**
1. Subtotal of Water Supplies	63,996	63,791	87,630	68,354	74,455
2. Subtotal of Water Uses*	57,966	59,882	86,732	60,544	79,891
3. Drain Water Leaving Service Area	-	-	-	-	-
Excess Deep Percolation**	6,030	3,909	898	7,810	-4,436
(Deficit Irrigation)					

**Effective precipitation is incorporated directly into crop consumptive use values, and therefore is not included in the subtotal of water supplies to avoid double counting*
***Calculated from lines 2 and 3 subtracted from line 1*

The District as a whole appears to be efficient with its water supply with the data suggesting an average Total Water Use Efficiency (TWUE) of approximately 96% between 2021 and 2025. Excess deep percolation and TWUE values vary across the years. Discrepancies between crop consumptive use and observed water supplies are due to a variety of factors ranging from using ETc proxies for crop calculations, using precipitation data from a single station, relying on satellite imagery for crop acreage estimates, human error, and more. To this end, as mentioned prior, all results should be understood as *estimates* calculated under the constraints of limited resources.

5.4 Water Supply Reliability

As mentioned, DRWD's uses water from the Kern Water Bank groundwater banking project to supplement SWP supplies, primarily in years of SWP delivery deficiencies. The amount DRWD can recover from the banking projects varies annually depending on total demand, hydrologic conditions, and other factors. Currently, the District has banked approximately 62,000 AF in this project. Additional storage would further increase water supply reliability, either via increased allocations for these projects or through access to other groundwater banking projects located outside the District's boundaries.

Given that most of the water in DRWD is sourced via the SWP, water supply reliability for the District is tied to that of the SWP and is best described in DWR's report: *The State Water Project Draft Delivery Reliability Report 2025* dated December 2025[8].

6. Climate Change

Within the five-year horizon of this Plan, the District is more concerned about the reliability of the SWP water supply than it is about climate change, although it recognizes the two are connected. The potential effects of climate change, which DWR projects to impact both DRWD's service area and result in statewide changes that could affect the SWP and its water supplies in the longer term, are a substantial concern beyond the planning horizon of this Plan.

DWR estimates indicate that California's Sierra Nevada snowpack, which has historically contained about 70% as much water[9], on average, as all the state's reservoirs combined, will experience a 48-65% loss from the historical April 1 average by the end of the century[10]. Much of the precipitation is expected to fall as rain instead of snow during winter and cannot be stored in our current water systems for later use. The climate is also expected to become more variable and extreme, bringing additional, intensified droughts and floods. Thus, the District will need to prepare to adapt to greater variability and severity in weather patterns.

[8] A copy of The State Water Project Draft Delivery Capability Report 2025 can be found online at: State Water Project Delivery Capability Report (DCR) 2025 - Draft DCR 2025 Main Report - California Natural Resources Agency Open Data.
[9] Reported by the Public Policy Institute of California here: California's Snowpack Is the State's Biggest Reservoir—and It's Declining - Public Policy Institute of California
[10] More information on this statistic can be found on DWR's website here: Climate Change and Water

6.1 Potential Climate Change Effects

Within the next 20 years, DWR projects that climate change will affect water supplies, water demand, sea level rise, and the frequency and severity of flood events. The District must consider these projected impacts—many of which are already being observed in California and are evaluated in the most recent SWP Delivery Capability Report prepared by the DWR.

Projected Climate Change Impacts

1. **Water Demand** - Shorter winters, more frequent hot days and warm nights, and a longer irrigation season are expected to increase irrigation demand within the District. These conditions may also intensify competition for limited water supplies among SWP contractors and other users.
2. **Water Supply and Water Quality** - Reduced Sierra Nevada snowpack and earlier spring runoff are projected to decrease the reliability of surface water supplies. Earlier runoff timing may also affect reservoir operations and degrade water quality due to altered flow patterns and higher water temperatures.
3. **Sea Level Rise** - The Sacramento–San Joaquin River Delta, through which the District's SWP supplies are conveyed, is increasingly vulnerable to sea level rise. Rising ocean levels are expected to increase salinity intrusion, place additional stress on Delta levees in low-lying areas, and heighten flood risk. These impacts may reduce the reliability and quality of water exports delivered to the District.
4. **Increased Frequency and Severity of Disasters** - Greater climate variability is expected to increase the frequency and intensity of extreme events, including prolonged droughts and major flood events. These conditions may disrupt water supply reliability, damage infrastructure, and increase operational and emergency response costs.

6.2 Specific Points to Consider

Out of prudence, as the District continues to address near-term periods of water deficiency from the SWP during this planning cycle, it also must incorporate the following climate change impacts projected by DWR in its long-term planning efforts and coordination with DWR and the SWC:

1. **Increased irrigation demand.** Rising temperatures and more variable precipitation patterns are expected to increase crop water demands.
2. **Shifts in cropping patterns.** Some acreage may transition from permanent crops to annual or more flexible crop types in response to changing water availability and economic conditions.
3. **Reduced flexibility due to permanent crops.** Permanent crops, which currently comprise the majority of acreage within the District, are long-term investments that are difficult to fallow or replace. This reduces the District's

ability to adapt quickly to water supply variability and changing climatic conditions.

4. **Increased flood risk.** More intense storm events and warmer winter rainfall are expected to increase flood risk, potentially affecting water supply reliability and damaging State and local water conveyance infrastructure.
5. **Declining snowpack.** Continued warming is projected to significantly reduce Sierra Neva snowpack and cause earlier runoff, resulting in decreased SWP supplies and reduced water availability for snowpack-dependent sources.
6. **Delta vulnerability.** The Sacramento-San Joaquin River Delta is vulnerable to climate change impacts, particularly sea level rise. Higher sea levels may reduce the ability to export water using existing infrastructure, potentially decreasing water deliveries over time.

7. Water Use Efficiency Information

7.1 EWMP Implementation and Reporting

7.1.1 Critical EWMPs

As previously reported, the District, landowners and/or growers have already implemented most of the listed EWMPs. **Table 17** provides a brief summary of the EWMPs that the District has implemented. Details on each EWMP are provided in the section below.

(1) Water Measurement (Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).)

Due to the small number of water users in the District (typically four) and negligible losses in the District's distribution system (estimated to be <0.5%), virtually all water delivered to the District from SWP turnouts is delivered to water users at individual farm turnouts. Minor losses (evaporation, weeping at construction joints, etc.) are charged on a pro rata basis to downstream users so that all water diverted from the Aqueduct is charged to the water users.

DWR calibrates the meters at the SWP turnouts on a regular basis; the Parshall flumes and Venturi tube meters at these locations are considered to be within the accuracy of 2% - 5%. District flowmeter readings are compared monthly to DWR readings and daily against water user orders. District flowmeters are calibrated when damaged meters are repaired or on-going discrepancies with DWR readings are recorded. This procedure provides satisfactory assurances that water is accurately accounted for from the Aqueduct to the water user.

The District considers that it has adequately implemented this EWMP.

(2) Volume-Based Pricing (Adopt a pricing structure for water customers based at least in part on quantity delivered.)

As previously discussed, the District's pricing structure is partially fixed and partially volumetric. SWP fixed costs are charged on a water allotment (Table A) basis, while variable costs are based on volumetric deliveries to each water user. This methodology mirrors the payment structure which DWR uses to charge its contractors. Full (unsubsidized) costs for constructing, maintaining, and operating the SWP are recovered by DWR by charges to all SWP contractors.

More detail on the District's pricing structure can be found in Section 2.2.3: Water rates schedule and billing.

The District considers that it has adequately implemented this EWMP.

7.1.2 Conditional EWMPs

(1) Alternate Land Use (Facilitation of alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including problem drainage.)

The District has no lands with exceptionally high shallow water levels or whose irrigation contributes to on-farm or recognized downstream drainage issues.

No action on this EWMP is required.

(2) Recycled Water Use (Facilitation of use of available recycled water that otherwise would not be used beneficially, meets health and safety criteria, and does not harm crops or soils.)

The Kettleman City wastewater treatment plant is located near the northern tip of the District. The effluent from the plant is reclaimed and already contracted for use by agricultural lands located outside the District. The District has no urban water uses within its boundaries; therefore, no recycled urban wastewater is available.

No action on this EWMP is required.

(3) On-Farm Irrigation Capital Improvements (Facilitate financing of capital improvements for on-farm irrigation systems)

The District has in the past, and will continue to pursue, project financing for District projects that have landowner support. District management is knowledgeable with funding sources available to public agencies and structuring improvement districts, as evidenced by its distribution system improvements, most of which were financed by two DWR administered low-interest loan programs.

On-farm improvements have been financed in the past by landowners by their own means or private lending institutions. The on-farm irrigation systems are all low-volume drip/micro-sprinkler systems that are highly efficient. As future opportunities arise, District management can be expected to inform landowners of state and/or federal programs that could assist local growers with financing on-farm irrigation systems funding (such as funding made available via Proposition 4[11]).

The District considers that it has adequately implemented this EWMP.

(4) Incentive Pricing Structure (Implement an incentive pricing structure that promotes one or more of the following goals: A. "More efficient water use at the farm level such that it reduces waste"; B. "Conjunctive use of groundwater"; D. "Reduction in problem drainage".)

As previously discussed, the District's pricing structure is partially fixed and partially volumetric. SWP fixed costs are charged on a water contract amounts (Table A) basis, while variable costs are based on volumetric deliveries. This methodology mirrors the payment structure which DWR uses to charge its contractors. Full (unsubsidized) costs for constructing, maintaining, and operating the SWP are recovered by DWR by charges to all SWP contractors.

The District considers that it has adequately implemented this EWMP.

(5) Infrastructure Improvements (Expand line or pipe distribution systems, construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage)

All District-owned conveyance facilities are concrete-lined canals or pipes. District staff is proactive in fixing infrastructure issues as they arise, and they work with landowners to best fit their needs.

The District considers that it has adequately implemented this EWMP.

(6) Order/Delivery Flexibility (Increase flexibility in water ordering by, and delivered to, water customers within operational limits)

As mentioned, the District's water delivery system is classified as a fixed duration-restricted arranged demand system with deliveries arranged in advance and a normal duration in 24-hour time intervals. By contract with DWR and under the District's Operating Rules and Regulations (**Appendix D**), daily water requests for a continuous and constant rate are to be made at least 24 hours in advance, with adjustments made at 9:00 a.m. each day. In practice, the District and DWR attempt to accommodate adjusting water deliveries

[11] More information on Proposition 4 can be found at the Legislative Analyst's Office website: The 2025-26 California Spending Plan: Proposition 4

on a day-to-day basis and since 2003, DWR has allowed mid-day delivery reductions to minimize electrical use during peak periods.

The District considers that it has adequately implemented this EWMP.

(7) Supplier Spill and Tailwater Systems (Construct and operate supplier spill and tail-water systems)

Operational spills rarely occur in the District and if spills occur, the water is generally recoverable by a downstream user. Pump failure, power outages or damaged distribution facilities are potential causes for operational spills. However, should a spill occur, the responsible party (generally the water user who had ordered the water) is charged for the water spilled. This provides an on-going incentive to avoid and rapidly report operational spills.

Landowners are required by the District to maintain applied water on their lands: privately operated tailwater/spill recovery systems are in place to accomplish this element of water management, although these needs are minimized by the use of low-volume drip and micro-sprinkler systems on all irrigated lands.

The District considers that it has adequately implemented this EWMP.

(8) Conjunctive Use (Increase planned conjunctive use of surface water and groundwater with the supplier service area)

No opportunities exist for groundwater recharge and conjunctive use within the District. However, the District is a participant in the Kern Water Bank, has a long-term agreement for in-lieu water banking with the Cawelo Water District, and has a water banking agreement with Semitropic Water Storage District. Additionally, the District has a long-term water exchange program with Kern County Water Agency that can be used for other conjunctive use opportunities.

The District relies on transfers and exchanges with these water entities to provide additional flexibility to optimize beneficial use of the water supplies and storage facilities available to the District.

No action on this EWMP is required.

(9) Automated Canal Controls (Automate canal control devices)

District and on-farm canal systems experience minimal fluctuations in flow, primarily due to the uniformity of the Aqueduct deliveries provided by DWR. As only one of the five District turnouts is shared among more than one water user, the opportunities for automation are limited. The other three districts under WWA's purview rely on a

Supervisory Control and Data Acquisition (SCADA) system. If necessary, WWA staff would implement SCADA in DRWD.

No action on this EWMP is required.

(10) Customer Pump Test/Evaluation (Facilitate or promote customer pump testing and evaluation)

As previously discussed, there are no agricultural water users in the District that have groundwater pumps that would require testing.

No action on this EWMP is required.

(11) Water Conservation Coordinator (Designate a water conservation coordinator)

DRWD has designated the General Manager of the Westside Water Authority as water conservation coordinator for the purposes of the Memorandum of Understanding for Agricultural Water Suppliers, and this AWMP.

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DRWD considers that it has adequately implemented this EWMP and will continue to implement it with Justin Rowe serving as water conservation coordinator.

(12) Water Management Services to Customers (Provide for the availability of water management services to water users)

The District staff have assisted water users with the development of water banking programs; exchange and transfer programs; dry-year water purchase programs; the evaluation and facilitation of the construction of new turnouts, concrete-lined canals, and replacement of earthen canals with pipelines; and automated trash racks and provided chemical treatments for more efficient water deliveries. Staff remains available to investigate additional programs as they arise.

The District considers that it has adequately implemented this EWMP.

(13) Identify Institutional Changes (Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional change to allow more flexible water deliveries and storage)

The most significant institution to which the District is subject to outside policies is DWR. The relationship between District staff and DWR staff has always been good. Nevertheless, policy differences arise with respect to water supply and operations of the SWP. Generally, as policy issues arise, they are discussed either directly with DWR or among the State Water Contractors (SWC). Once agreement is reached by the SWC board (usually with input from DWR), DWR management is requested to consider changes in the subject policies.

DWR and SWC policies and issues are reviewed regularly, generally on a case-by-case basis, or via committees with SWC and DWR representation.

During negotiations for what became the Monterey Agreement, a number of policy issues related to the SWC's water service contracts with DWR were reviewed. These included funding mechanisms for development of new SWP facilities as they relate to DWR's funding sources, groundwater storage outside a contractor's service area, reservoir storage flexibility, transport of market water, and other policy issues related to water management, allocations, and financing. The resolution of these policy issues has resulted in improved water management throughout the service areas of those SWP contractors that ultimately signed the Monterey Amendment.

The District and other SWP contractors have and will continue to work with DWR to develop a more efficient process for approving water transfers and exchanges among SWP contractors. It is generally accepted that improvements can be made, particularly related to routine operational transfers (i.e., to/from established banking programs, common landowner transfers, and similar routine transfers/exchanges); the District is optimistic that DWR's approval process will be improved, hopefully for streamlining water transfer programs and providing additional water management tools in the near future.

The District considers the existing arrangement for resolution of policy issues to be generally successful. DWR and SWC policies are debated and resolved as they arise, leading to a workable resolution process.

The District considers that it has adequately implemented this EWMP.

(14) Supplier Pump Improved Efficiency (Evaluate and improve the efficiencies of the supplier's pumps)

The District does not own or operate groundwater or lift pumps; all of the District's supply turnouts are gravity fed from the Aqueduct.

No action on this EWMP is required.

7.2 Summary of EWMP Implementation

Table 17 summarizes the EWMPs implemented and planned and **Table 18** includes estimates of Water Use Efficiency (WUE) Improvements that occurred since adoption of the prior Water Management Plan. In most cases data was not available to allow quantification and the prior Plan's water balance calculations indicated very high overall District WUE had been attained by 2020, with little room for improvement.

The schedule of future and current EWMPs for implementation is highlighted in **Table 19.** Given the District's current WUE estimate of nearly 91%, little improvement is expected over the next 5-10 years. Rather, maintenance of high WUE is the expectation.

Table 17. Report of EWMPs Implemented/Planned
(Water Code §10608.48(d), §10608.48 (e), and §10826 (e))

EWMP No.*	Description of EWMP Implemented	Description of EWMPs Planned
Critical EWMPs		
1	Water Measurement	Continue current practices
2	Volume-Based Pricing	Continue current practices
Conditionally Required EWMPs (locally cost-effective and technically feasible EWMPs)		
1	Alternate Land Use	Continue current practices
2	Recycled Water Use	No plans to implement but will continue to evaluate
3	On-Farm Irrigation Capital Improvements	Continue current practices
4	Incentive Pricing Structure	Continue current practices
5	Infrastructure Improvements	No further improvements planned
6	Order/Delivery Flexibility	Continue current practices
7	Supplier Spill and Tailwater Systems	Operate current systems. No plans for further improvements
8	Conjunctive Use	Continue current practices
9	Automated Canal Controls	No further plans to automate
10	Customer Pump Test/Eval.	Publicize PG&E's program on the District's website
11	Water Conservation Coordinator	Continue current practice
12	Water Management Services to Customers	Continue current practices
13	Identify Institutional Changes	Continue current practices
14	Supplier Pump Improved Efficiency	Continue current practices
Other Optional EWMPs (as applicable)		

Notes:
**EWMP numbers correspond to (Water Code §10608.48(c)*

Table 18. Report of EWMPs Efficiency Improvements (Water Code §10608.48(d), §10608.48 (e), and §10826 (e))			
Corresponding EWMP No.(s)*	**EWMP**	**Estimate of Water Use Efficiency Improvements That Occurred Since Last Report** ***(Quantitative or Descriptive)***	**Estimated Water Use Efficiency Improvements 5 and 10 years in future** ***(Quantitative or Descriptive)***
Critical 1	Water Measurement	No data available to estimate	0%
Critical 2	Volume-Based Pricing	No data available to estimate	0%
Conditional 1	Alternate Land Use	No data available to estimate	0%
Conditional 2	Recycled Water Use	No data available to estimate	0%
Conditional 3	On-Farm Irrigation Capital Improvements	No data available to estimate	0%
Conditional 4	Incentive Pricing Structure	No data available to estimate	No data available to estimate
Conditional 5	Infrastructure Improvements	No data available to estimate	0%
Conditional 6	Order/Delivery Flexibility	No data available to estimate	0%
Conditional 7	Supplier Spill and Tailwater Systems	No data available to estimate	0%
Conditional 8	Conjunctive Use	No data available to estimate	0%
Conditional 9	Automated Canal Controls	No data available to estimate	No data available to estimate
Conditional 10	Customer Pump Test/Eval.	Not applicable (new EWMP)	No data available to estimate
Conditional 11	Water Conservation Coordinator	No data available to estimate	0%
Conditional 12	Water Management Services to Customers	No data available to estimate	No data available to estimate
Conditional 13	Identify Institutional Changes	No data available to estimate	No data available to estimate
Conditional 14	Supplier Pump Improved Efficiency	No data available to estimate	No data available to estimate
Notes: **EWMP numbers correspond to (Water Code §10608.48(c).*			

Table 19. Schedule to Implement EWMPs (Water Code §10608.56 (d))			
EWMP	**Implementation Schedule**	**Finance Plan**	**Budget Allotment**
Critical			
1. Water Measurement	NA	NA	(1)
2. Volume-Based Pricing	NA	NA	(1)
Conditional			
1. Alternate Land Use	Continue as necessary	NA	
2. Recycled Water Use	NA	NA	
3. On-Farm Irrigation Capital Improvements	NA	NA	
4. Incentive Pricing Structure	NA	NA	(1)
5. Infrastructure Improvements	Continue as necessary	NA	(1,2)
6. Order/Delivery Flexibility	NA	NA	(1)
7. Supplier Spill and Tailwater Systems	NA	NA	
8. Conjunctive Use	Continue groundwater banking program as necessary	NA	(1)
9. Automated Canal Controls	NA	NA	
10. Customer Pump Test/Evaluation	NA	NA	
11. Water Conservation Coordinator	NA	NA	(1)
12. Water Management Services to Customers	NA	NA	(1)
13. Identify Institutional Changes	NA	NA	(1)
14. Supplier Pump Improved Efficiency	NA	NA	(1)
Grand Total all EWMPs			

NA = Not Applicable
(1) Budget allocation within District's operation budget
(2) Budget allocation can benefit from grant funding and partnering opportunities

7.3 Documentation for non-implemented EWMPs

The District has considered but rejected two conditional EWMPs. The remainder have either been previously implemented, are continuing to be implemented, or will be implemented. Non-implemented EWMP justification/documentation was described previously and is summarized in **Table 20.**

Table 20. Non-Implemented EWMP Documentation
(Water Code §10608.48(d), §10608.48 (e), and §10826 (e))

		(check one or both)		
EWMP #	**Description**	**Technically Infeasible**	**Not Locally Cost-Effective**	**Justification/Documentation***
2	Recycled Water Use	x	x	Salinity of industrial wastewater exceeds safe re-use limit and treatment is cost prohibitive for customers at this time.
3	On Farm Irrigation Capital Improvements	x		Current on-farm efficiencies (>95%). Any further improvement unlikely with current technology.

Notes:
*Justification/Documentation can include summary cost-benefit analysis or engineering determination with reference to the specific study/agency/engineer responsible for making that determination.

8. Supporting Documentation

8.1 Agricultural Water Measurement Regulation Documentation

The District takes its water deliveries through five metered turnouts off of the California Aqueduct. Turnouts DR1, DR1-A and DR1-B each serve an individual customer and are the points where control of the water is turned over from the District to the water user (known as the “farm-gate”). Turnouts DR2 and DR3 can each serve multiple customers and the points where control of the water is turned over to the water user are discussed below. All water deliveries are scheduled in advance with the District, both duration and flow rate.

8.1.1 Legal Certification and Apportionment Required for Water Measurement

Not applicable. The District has legal access to measure water at the farm-gate.

8.1.2 Engineer Certification and Apportionment Required for Water Measurement

Not applicable. The District measures water at the farm-gate.

8.1.3 Description of Water Measurement Best Professional Practices

Collection of Water Measurement Data

The District takes its water deliveries through five metered turnouts off of the California Aqueduct. Turnouts DR1, DR1-A and DR1-B have totalizing Venturi meters and each turnout serves an individual customer. DR2 and DR3 are metered utilizing Parshall flumes and each turnout can serve multiple customers. These meters record instantaneous flow rates as well as total quantities delivered. Measurements for each of these deliveries are described below.

Turnouts DR1/DR1-A/DR1-B

Water deliveries through turnouts DR1, DR1-A and DR1-B are made directly to individual customers and are recorded daily by DWR. After the end of each month the daily totals are compared with beginning and end of month totalizer readings.

Turnout DR2

Gross water deliveries through turnout DR2 are recorded daily by DWR, and then distributed from a distribution box to four separate conveyance pipelines for delivery as needed to three canals and two pump stations. Deliveries to individual customers are measured as follows:

1. Canal 2-E—a slide gate at the distribution box regulates the amount of water that is conveyed via pipeline to the head end of a canal serving an individual customer. A propeller meter is utilized to confirm discharge rates into the canal.
2. Pump Station—a slide gate at the distribution box regulates the amount of water that is conveyed via pipeline directly to the intake of a metered pump station serving an individual customer. A propeller meter is utilized to confirm discharge rates to the pump station.
3. Canal 2-E1—an ungated pipeline conveys water to a separate distribution box (downstream of the main distribution box) which contains the intake to a metered pump station serving an individual customer. In addition, a slide gate at the downstream distribution box regulates the amount of water that is conveyed via pipeline to the head end of a canal serving an individual customer. A propeller meter is utilized to confirm discharge rates into the canal.
4. Canal 2-S—a slide gate downstream of the distribution box regulates the amount of water that is conveyed via pipeline to the head end of a canal that serves an individual customer. Discharge rates into the canal are calculated by taking the turnout's instantaneous flow rate from DWR's Parshall flume and subtracting the metered canal and pump station readings.

Turnout DR3

Gross water deliveries through turnout DR3 are recorded daily by DWR, and although most of the time deliveries are made to a single customer, water can be diverted to two customers via Canal 3-S. Deliveries to individual customers are measured as follows:

1. Canal 3-S with one customer—gross deliveries through turnout DR3 are recorded daily by DWR. After the end of each month, the daily totals are compared with beginning and end of month totalizer readings.
2. Canal 3-S with two customers—a slide gate on Canal 3-S located downstream of turnout DR3 regulates the amount of water that is conveyed to a lateral serving an individual customer. A permanently installed calibrated staff gauge is utilized to confirm discharge rates into the lateral which is used infrequently; the difference between this flow rate and DWR's metered rate is allocated to the other landowner.

Frequency of Measurements
DWR continuously measures water delivered through each of the five turnouts off of the Aqueduct. District staff measures water delivered to individual customers from Turnouts DR2 and DR3 daily when setting the gates.

Method for Determining Irrigated Acres
The District is planted primarily to permanent crops, and as such, irrigated acreage remains relatively consistent. The District annually collects crop data from the landowners and makes adjustments to the irrigated acreage as needed.

Quality Control and Quality Assurance Procedures
Turnouts DR1, DR1-A, and DR1-B are measured with Venturi meters. Pressure differential across the Venturi is measured with a pressure differential transmitter in inches of water and is converted to a 4-20 ma signal sent to a flow recorder. The accumulative flow from the recorder is retrieved and downloaded by DWR once monthly. At the end of the month the recorder data is downloaded and analyzed, and volume is deducted for meter discrepancies or creep. Regular site visits occur twice a week to verify the meters are operating correctly and monthly to perform meter calibrations and routine maintenance. Routine maintenance consists of clearing Venturi lines and flushing the Venturi piping of silt and air for proper flow calculation.

Turnouts DR2 and DR3 are measured with twelve-foot Parshall flumes. Flow is calculated by measuring the depth of the water in feet and tenths of feet from the stilling well with an acoustic water level probe. The depth reading is then converted to a 4-20 ma signal and sent to a flow recorder. The accumulative flow from the recorder is retrieved and downloaded by DWR once monthly. At the end of the month the recorder data is analyzed, and volume is deducted for meter discrepancies or creep. Routine maintenance of the Parshall flume consists of weekly cleaning of algae from the flume floor and removing silt from the stilling wells. Calibration of the water level measuring devices and flume staff gage occurs once a year.

The District's propeller meters are spot checked daily when setting the gates—the sum of the combined readings is compared with DWR's measured reading, and if there are discrepancies, the faulty meter is sent in for repair.

Records of Aqueduct turnout meter readings, recorder data, meter maintenance and calibrations, and deliveries reports are retained at DWR's operations office and archived to storage after 5 years.

8.1.4 Documentation of Water Measurement Conversion to Volume

Turnouts DR1, DR1-A and DR1-B have totalizing Venturi meters and each turnout serves an individual customer. Flow rates are measured for each customer at turnouts DR2 and DR3 and because they remain constant over a fixed duration, can be converted to daily volume.

8.1.5 Device Corrective Action Plan Required for Water Measurement

The propeller meters are sent in for repairs as required and are calibrated after they are rebuilt. Because there is a mechanical linkage between the propeller and the instantaneous readout/totalizer that tends to wear out prematurely, the District has decided to modify the meters in 2013 by replacing the mechanical linkage with an electronic upgrade. The cost was collected from each of the Service Areas through the maintenance portion of the District's Standby Charge.

8.2 Other Documents (as applicable)

Tables and appendices have been included as needed to support this AWMP document. Additional tables and appendices provide complementary information where needed.

Figure 1. Overview of SWP facilities throughout California

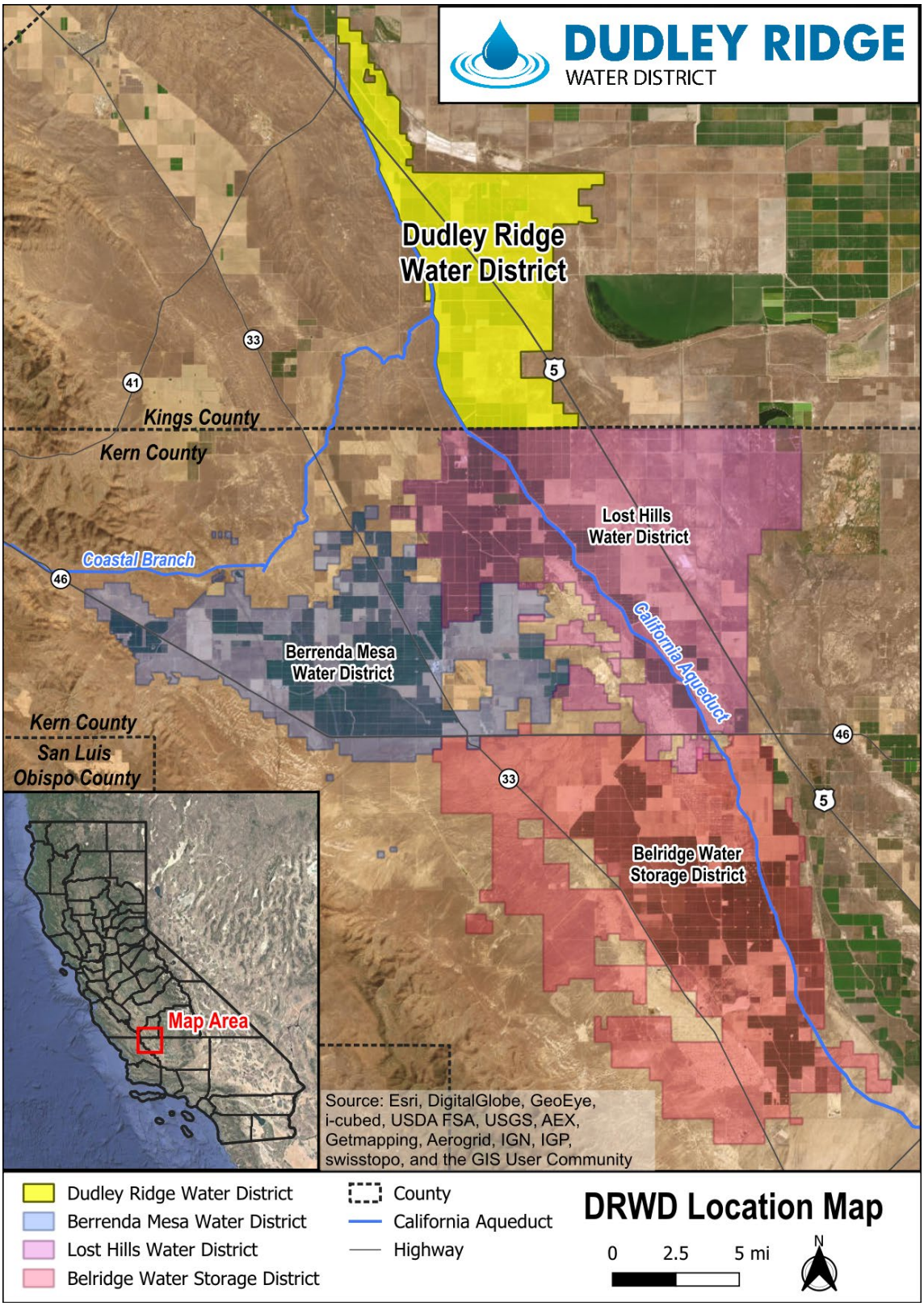

Figure 2. Map of DRWD and adjacent water districts.

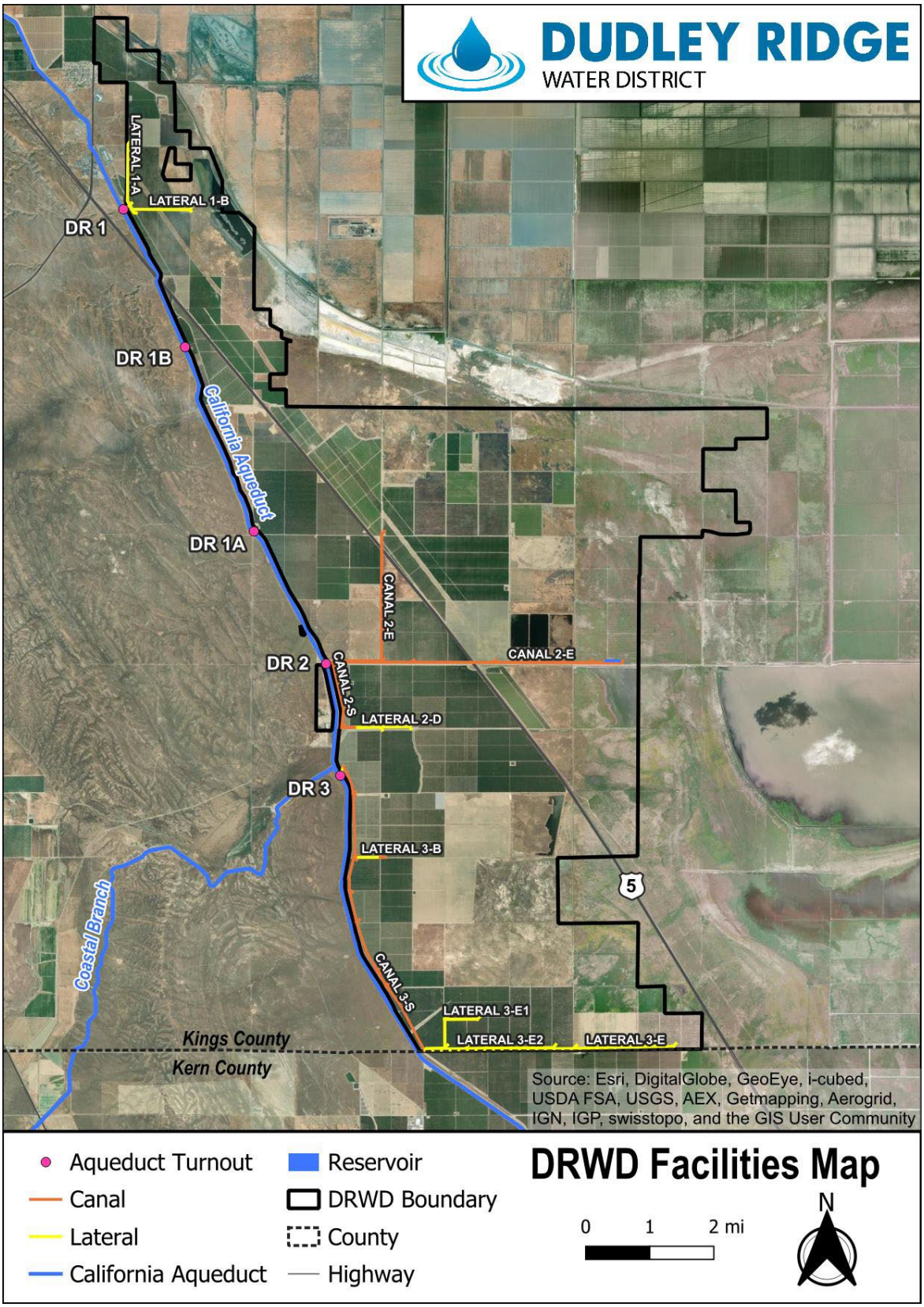

Figure 3. Map of DRWD's facilities.

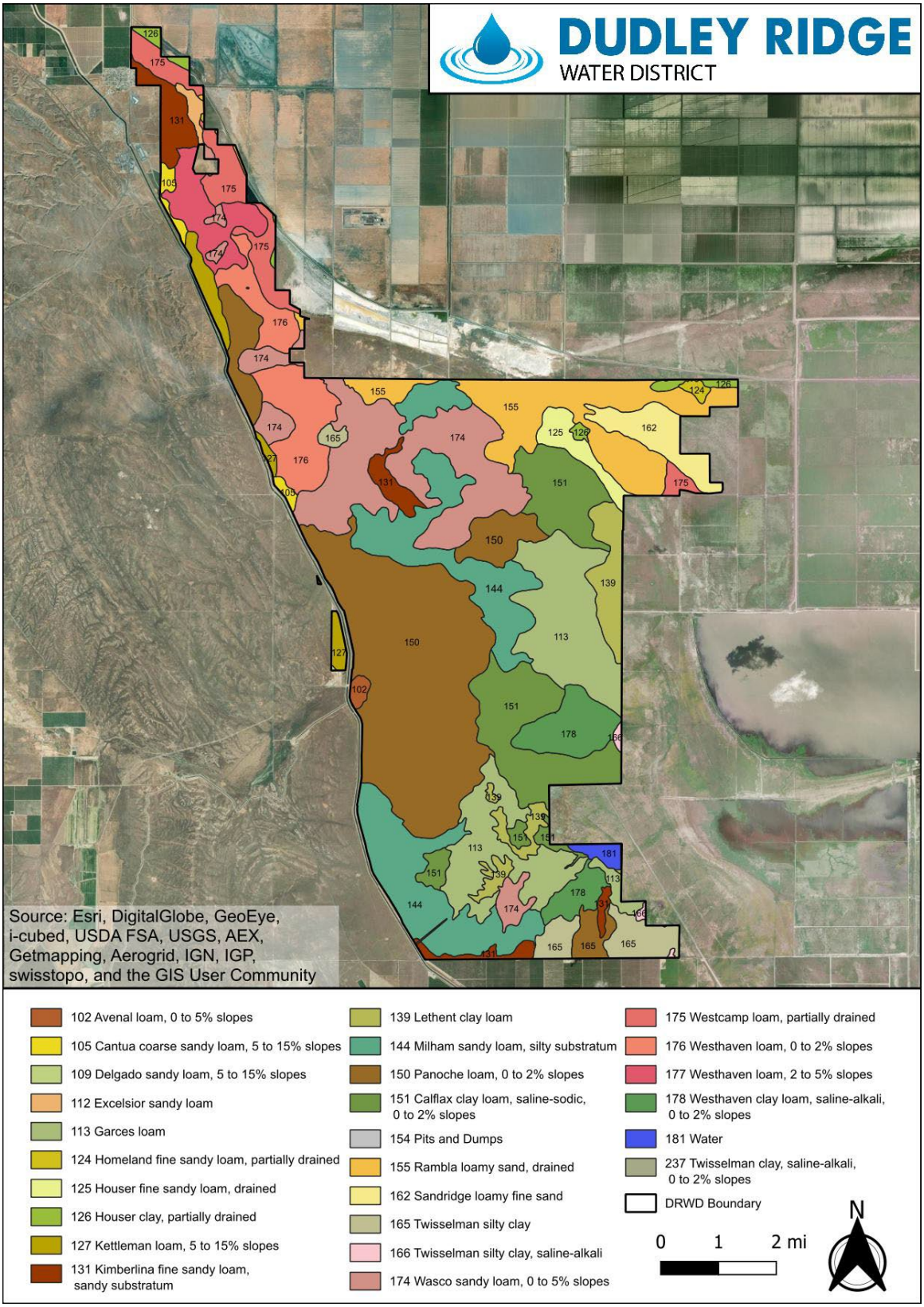

Figure 4. Map of soil types within DRWD.

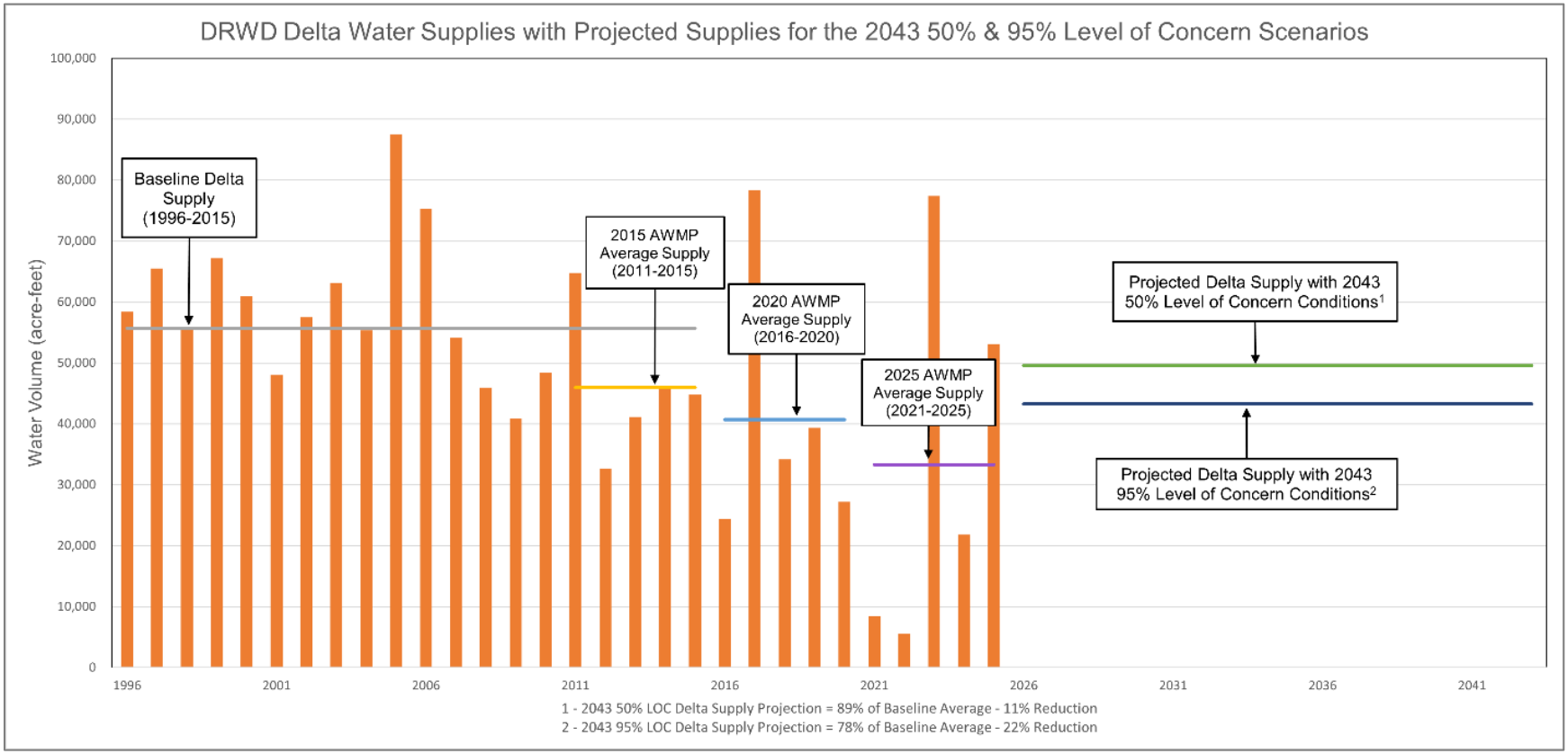

Figure 5. DRWD delta water supplies for the 2043 50% & 95% Level of Concern scenarios.

Appendix A: Email with an attached Notice of Preparation sent to relevant Agencies listed in Table 1 on March 5th, 2026

Good afternoon,

Please be advised that the Dudley Ridge Water District has prepared a draft of its 2025 Agricultural Water Management Plan (the "Plan"). Any person wishing to review a copy of the Plan may request a copy by contacting Trevor Maggart, Senior Regulatory Specialist, at (661) 633-9022.

The District will hold a public hearing regarding the Plan at its regularly scheduled Board meeting located at 8501 Brimhall Road, Suite 202, Bakersfield CA 93312 on March 23, 2026, at 3:00 p.m. After the hearing, the District may adopt the Plan as presented or modified to reflect public comment.

In addition, please find attached the notice of preparation to be posted in the Corcoran Journal for two consecutive weeks on March 5, 2026 and March 12, 2026.

Respectfully,

Trevor Maggart
Senior Regulatory Specialist

Appendix B: Notice of Preparation published in The Corcoran Journal on March 5th, 2026 and sent to relevant agencies

NOTICE OF PREPARATION OF AND HEARING ON

DUDLEY RIDGE WATER DISTRICT

2025 AGRICULTURAL WATER MANAGEMENT PLAN

NOTICE IS HEREBY GIVEN that Dudley Ridge Water District's (the "District") proposed 2025 Agricultural Water Management Plan (the "Plan"), prepared pursuant to Water Code, section 10820 et. seq., is available for public review and comment.

Any person who desires to review the Plan may request a copy by contacting Trevor Maggart, Senior Regulatory Specialist, at (661) 633-9022. In addition, the District will hold a public hearing regarding the Plan as part of its regularly scheduled Board meeting located at 8501 Brimhall Road, Suite 202, Bakersfield CA 93312 on March 23, 2026 at 3:00 p.m. After the hearing, the District may adopt the Plan as presented or modified to reflect public comment.

Trevor Maggart, Senior Regulatory Specialist
Dudley Ridge Water District

Appendix C: Resolution of the Plan adoption by the Board on March 23, 2026

DUDLEY RIDGE WATER DISTRICT

RESOLUTION 2026-02

A RESOLUTION OF THE BOARD OF DIRECTORS OF DUDLEY RIDGE WATER DISTRICT ADOPTING THE 2025 UPDATE TO THE AGRICULTURAL WATER MANAGEMENT PLAN

WHEREAS, pursuant to the Agricultural Water Management Planning Act and the Water Conservation Act of 2009, agricultural water suppliers, such as the Dudley Ridge Water District (the "District"), were required to prepare and adopt an Agricultural Water Management Plan by December 31, 2012; and

WHEREAS, the District prepared and adopted its original Agricultural Water Management Plan (the "Plan") in 2012; and

WHEREAS, agricultural water suppliers are required to update their respective Agricultural Water Management Plans every five years; and

WHEREAS, the District updated its original Plan and adopted its 2015 Plan Update in 2015; and

WHEREAS, the District subsequently updated its 2015 Plan Update and adopted its 2020 Plan Update in 2021; and

WHEREAS, the District must now update its 2020 Plan Update, adopt a 2025 Plan Update, and submit such updated plan to the California Department of Water Resources within 30 days of adoption; and

WHEREAS, the District's proposed 2025 Plan Update is attached hereto and incorporated herein as Exhibit A; and

WHEREAS, in preparing its 2025 Plan Update, the District scheduled and held a public hearing on March 23rd, 2026, to provide the public with an opportunity to offer comments to the District's Board of Directors on the proposed 2025 Plan Update; and

WHEREAS, the District provided notice of such public hearing as follows:

1. By publishing notice in The Corcoran Journal on March 5th, 2026, and March 12th, 2026.

2. By posting a notice in a freely accessible location at the District's Bakersfield office located at 8501 Brimhall Road, Suite 202, Bakersfield, CA 93312 on March 5th, 2026.

3. By sending notices to local government agencies and other interested parties.

WHEREAS, the Board reviewed and considered all public comments received and incorporated those comments into the 2025 Plan Update, as deemed appropriate by the Board; and

WHEREAS, the Board reviewed the 2025 Plan Update and considers its adoption to be in the best interest of the District and its landowners.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Dudley Ridge Water District as follows:

1. The Board of Directors of the Dudley Ridge Water District hereby adopt the 2025 Plan Update.

2. The General Manager, or designee, is hereby authorized and directed to prepare and submit the approved 2025 Update to the Agricultural Water Management Plan to the California Department of Water Resources.

_____

Kimberly Brown, Board President

Appendix D: Rules and Regulations for the Distribution and Use of Water

RULES AND REGULATIONS
Governing the Use, Distribution,
and Charges for Water Service in
Dudley Ridge Water District

Adopted by the Board of Directors
December 12, 2018

RULES AND REGULATIONS
Governing the Use, Distribution,
and Charges for Water Service in
Dudley Ridge Water District

These Rules and Regulations are adopted pursuant to Section 35423 of the Water Code of the State of California, are intended to assist the Board of Directors in providing economic management to effect orderly, efficient, and equitable distribution and use of water within the District, and may be amended or repealed at any regular meeting of the Board of Directors or at any special meeting called for that purpose.

The Board of Directors requests cooperation of all Landowners and Water Users in compliance with these Rules and Regulations to permit water to be distributed in an orderly manner, so that Water Users can be served with some regularity and receive equivalent benefits from water service.

As used in these Rules and Regulations, the following terms have the meanings set forth:

District's Water Service Area: Those parcels of land within the District which have an allocation for State Water Project ("SWP") Table "A" water for which water from the District has been requested and approved at any time. Land for which a water allocation has been requested and approved in any previous year will be considered inside the District's Water Service Area even if no water has been requested or applied for with respect to that land for the current year. Subordinately annexed lands are excluded from the District's Water Service Area, except subordinately annexed lands which, by virtue of a contract with the District, receive an annual allocation for SWP Table "A" water as the result of an approved transfer.

Table "A" Contract Water: The water provided to the District pursuant to the District's Water Supply Contract with the State of California Department of Water Resources ("DWR") which is allocated to the District and identified on Table "A" of such Water Supply Contract.

Landowner: Any individual or legal entity owning real property within the District.

Water User: Any individual or entity eligible for and properly requesting or applying for water from the District, whether or not such individual or entity is a Landowner.

SWP Fixed Costs: All SWP annual costs imposed on the District by the DWR related to the Districts' Table "A" Water Supply Contract, excluding charges associated with water delivery quantities (i.e., Variable OMP&R and Off-Aqueduct charges) and excluding credits derived from the Agricultural Rate Management Trust Fund.

Rule 1. CONTROL OF DISTRICT FACILITIES

The operation and maintenance of the facilities of the District shall be under the exclusive management and control of the Board of Directors, the Manager, or a duly appointed representative. The District shall have control of all diverting gates, pumps, weirs, and private ditches up to and including the point of measurement, to such extent as may be necessary to regulate and measure the flow of water, but the District shall not assume or incur any liability for the maintenance or repair or privately-owned gates, pumps, weirs, or other appurtenances. No unauthorized person(s) shall interfere with District facilities in any manner, including, but not limited to, the opening, closing, or regulating of any of the District's valves, gates, or turnouts unless so directed by the Board of Directors or the Manager.

Any damage to District facilities or property resulting from such unauthorized action by the Water Users shall be the responsibility of the Water User or Landowner making such use of the property or facilities. If satisfactory repairs are not made promptly by the responsible individuals, the District will make the necessary repairs and appropriately charge the responsible individual.

An emergency condition exists when there is risk of damage to the District's distribution system, life, or property. The District reserves the right to terminate water service to any Water User during an emergency condition.

Rule 2. USE OF DISTRICT FACILITIES

The District owns, operates, and maintains service roads along its canals for access to canal check gates, distribution laterals, and mainline valves. These roads shall not be used by anything but pickup trucks and automotive-type traffic. Landowners and Water Users are requested to refrain from using the service roads during rainy periods when traffic may make the road impassable or damage the roads. In addition to the canal service roads, the District has obtained a right-of-way (easement) for access along each of the District's pipelines and distribution laterals. Access to District facilities on pipelines and laterals is essential. All rights-of-way along District pipelines shall be kept open and free of obstructions, fences, or buildings. Water Users shall also insure that irrigation water or tailwater is not applied or allowed to collect on the District's access roads or rights-of-way.

It is the responsibility of each Water User to prudently manage the water supply received from the District or through District-operated facilities. Water (tailwater, wastewater, drainage, groundwater, and/or filter backwash water) shall be maintained on the Water User's lands and not be discharged to the District's rights-of-way or facilities or to another Landowner's lands without written authorization from the appropriate party (the District and, if appropriate, the affected Landowner(s)). Any and all discharges onto District rights-of-way or facilities must be requested and approved in advance by the District. If the Water User requesting the discharge of water to the District's facilities is the only Water User downstream of said discharge, it is the intent of the District to authorize such requests. Authorization may be revoked by the District if

the District, other Water Users, and/or other Landowners are determined to be adversely impacted by the discharge.

Water Users shall not be allowed to discharge chemicals onto the District's rights-of-way or facilities or onto another Landowner's lands. Water Users' or Landowners' chemical feed systems shall be installed and operated to avoid such discharges.

The facilities of the District distribution system shall not be used for the application of fertilizers, pesticides, or chemicals. All Water Users shall use utmost caution in applying airborne pesticides and chemicals to lands adjacent to the District's canals to ensure that the materials being applied by air do not drift into the canals.

No rubbish, garbage, manure, refuse, waste excavation, or foreign material of any type shall be placed or allowed to be placed in any District canal or along any of the District's rights-of-way.

Failure to comply with this rule shall be sufficient cause for immediate termination of water deliveries until the District is satisfied that adequate measures have been made to remedy the violation. The District's enforcement of this rule and the interruption of water deliveries pursuant hereto shall not result in any liability to the District, its officers, agents, or employees.

Rule 3. ACCESS TO PREMISES OF LANDOWNERS

The authorized agents of the District shall have free access at all times to all lands irrigated from District facilities, and to all canals, laterals, pipelines and ditches, for the purposes of the District.

Rule 4. REQUESTS TO ENTER INTO THE WATER SERVICE AREA

Landowners with lands within the District boundaries, but not currently within the District's Water Service Area, may request to enter into the District's Water Service Area in accordance with the "**Policy for Approving Landowner Requests for Land to Enter the Standby Charge Service Area**" adopted by the Board of Directors on August 13, 1997, or as subsequently amended or restated.

Rule 5. APPLICATIONS FOR WATER

Each acre of land in the District's Water Service Area (excepting those subordinately annexed lands which, by virtue of a contract with the District, receive an annual allocation for SWP Table "A" water as a result of an approved Table "A" transfer) shall be allocated the same quantity of Table "A" Contract Water such that the total is equal to Table "A" Contract Water which is available to the District. Any other water available to the District, including water not needed by Water Users, shall be offered to the other Water Users as it becomes available; if requests for such other water exceed the supply for water available, the water shall be allocated in proportion to the Water Service Area acreage attributed to each requesting Water User, up to the Water User's request.

If a Water User or Landowner acquires additional water through temporary or permanent water transfers, above the water otherwise available to the District through its Water Supply Contract, said Water User or Landowner shall have full use of that water subject to any terms and conditions associated with the additional water.

On or before October 1 of each year, the District shall, on behalf of its Landowners and Water Users, submit in writing to the DWR a preliminary delivery schedule of Table "A" Contract Water based on information available to the District at the time based on the District's full Table "A" amount, previous delivery records, and/or other pertinent information provided by the Landowners and Water Users.

Upon receipt of the District's initial SWP water allocation in December of each year, the District shall notify all Water Users in the Water Service Area of their initial allocation. Following subsequent changes to the SWP water allocation by the DWR, the District shall notify Water Users of such updated information. As the annual SWP Table "A" allocation firms up, the District will coordinate with Water Users to determine the Water Users' water use plans for the current year relating to (a) scheduling the delivery of the water for use within the District, (b) requesting Supplemental Water that may be available to the District (i.e., SWP Article 21 Water, SWP Turnback Pool Water, Dry Year Water Purchase Programs, and similar), (c) releasing all or a portion of their water for purchase by or transfer to other District Water Users, and/or (d) requesting a temporary transfer of water in to or out of the District.

If a Water User has not informed the District of their intentions as described above or has not scheduled all of their water allocation by April 1, the Landowner's water allocation that has not been scheduled for the year ("Unscheduled Water") will be made available for purchase by District Water Users at the SWP fixed cost (based on the current year's budget and the water allocation at the time of the purchase request) prior to April 20. Landowners whose water has been unscheduled and subsequently purchased by other Water Users, shall be reimbursed the SWP fixed cost paid by the purchaser(s).

Any Unscheduled Water remaining after April 20 will be made available for purchase by District Water Users as determined by the Board, which may include implementing options that may be available at the time, including (but not limited to) banking water for use in a future year(s), exchanges with other water districts or Water Users, and/or making water available at a minimal cost, on a first-come basis, to any District Water User that is not delinquent on any District charges. The District shall have no obligation to make any reimbursements to Landowners for Unscheduled Water remaining after May 1.

Rule 6. TRANSFERS OF WATER

Temporary Transfers

Internal transfers between Landowners shall be allowed to meet in-District demands, providing that the transfers do not conflict with the District's Rules and Regulations and District policies. The District must receive written confirmation of the transfer signed by each affected Landowner, and each Landowner shall remain responsible for their respective payments of standby charges, improvement district charges, water toll charges, benefit assessments, and other charges levied by the District.

The District allows for temporary transfers of in to and out of the District under the conditions described in the "**Policy for the Temporary Transfer of Water to or from the Dudley Ridge Water District**" adopted by the Board of Directors on December 8, 2010, or as subsequently amended or restated.

In the case of an exchange to an unrelated party outside of the District, District Landowners shall have the option of "first right-of-refusal" to the water made available at the same terms and conditions offered to the unrelated party. All District charges associated with the water transferred as part of such an exchange outside the District must be paid prior to District authorization to release the transferred water except if the water is transferred to a District-approved banking or exchange program.

Permanent Transfers

The District allows for permanent transfers of Table "A" amounts to a non-District water purveyor under the conditions described in the "**Policy for the Permanent Transfer of SWP Table "A" Water Outside of Dudley Ridge Water District**" adopted by the Board of Directors on April 8, 2009, or as subsequently amended or restated.

Rule 7. SUPPLEMENTAL WATER

In the event the District has opportunities to obtain supplemental water (non-SWP water that is not generally available to all SWP contractors) via District agreements or through a consortium of other water districts (e.g., the five Westside districts collaborating on supplemental water purchases since 2008), District staff will email each Water User requesting the Water User to update their water needs (quantities) and pricing limits (maximum price) for supplemental water. Both District staff and Water Users should continue to maintain periodic informal communications to verify or revise estimated needs (quantities) and pricing limits (maximum price) for supplemental water purchases. District staff will either include or exclude a Water User(s) from pending water acquisitions based on the most recent information available to staff at the time a decision is needed for a specific acquisition. If time allows for Water Users to make a 'yes' or 'no' decision on a pending purchase, District staff will email each Water User's responsible representative for a quick (1-3 days typical) response. If no response is received within the needed timeframe, the default would be to include or exclude a non-responsive Water User based on the most recent information of that Water User's needs (quantities) and

pricing limits (maximum price). Once the District's obligation is made to acquire supplemental water, each Water User is obligated to purchase and pay for their portion of the acquired water unless the Water User is able to transfer that water to another Water User within the District.

Rule 8. WATER USE PRIORITIES

Water Users have the flexibility to use their allocated water supplies for delivery to District lands (including subordinate lands and lands outside the Water Service Area) and/or transfers of water to outside the District (including banking programs, Landowner transfers, and exchanges), subject to these Rules and Regulations. Such allocated water supplies may include Table "A" Contract Water, SWP Article 21 water, SWP Turnback Pool water, supplemental water purchase programs such as dry year water purchases, other water supplies made available by the District, or other supplies acquired by a Landowner or Water User, subject to the terms and restrictions associated with such supplies, if any.

It is the District's intent to maximize the delivery of water that is available to and can be beneficially used by District Water Users. Accordingly, when SWP Carryover Water is available as of January 1 of any given year, the District will temporarily allocate said Carryover Water, to the extent Carryover Water remains available, to all Water Users taking delivery of SWP water, whether within the District or delivered via an approved transfer or exchange outside the District. After all Carryover Water has been used or lost, the District will reallocate an equivalent quantity of the current year's Table "A" Contract Water from Water Users who were temporarily allocated Carryover Water (from another Water User's Carryover Water account) to the Table "A" allocation of the Water Users whose Carryover Water was used by others.

The reallocation process occurs each month that Carryover Water remains in storage and is detailed as follows:

Step 1. Account for carryover participants' individual Carryover Water use.
At the end of each month, water used directly by the carryover participants is subtracted from their Carryover Water amount at the beginning of that month.

Step 2. Allocate water used by non-carryover participants.
Water used by non-carryover participants is proportionally allocated, up to the carryover participants' remaining carryover amount, by the carryover participants' proportionate share of Table "A" allocation.

Step 3. Reallocate remaining water.
If the reallocated amount exceeds an individual carryover participant's remaining carryover, the amount remaining is reallocated again, up to the remaining carryover participants' carryover amount, by the remaining carryover participants' proportionate share of Table "A" allocation. This process continues until all the carryover has been delivered or is displaced in San Luis Reservoir (spills) and is lost.

The following table illustrates the allocation process.

Illustration of Carryover Water Accounting
With Reallocations Based on Table "A" Allocation Percentages

	Water User A	Water User B	Water User C	Other Water Users	Total
Current year allocation, af	19,546	17,823	4,081	1,900	43,350
Percent of Table "A" (among District Water Users)	43.1	39.3	9.0	8.6	100.0
January					
Step 1. Account for Individual Use.					
Carryover from previous year, af	2,000	1,000	500		3,500
Percent of Table "A" (among carryover participants)	47.2	43.0	9.8		100.0
Water use by carryover participants, af	1,000	0	0		1,000
Water User's remaining carryover, af	1,000	1,000	500		2,500
Step 2. Allocate Use by Non-Carryover Participants.					
Table "A" use by non-carryover participants, af				100	100
Reallocation from non-carryover participants, af	47	43	10	(100)	0
Water User's remaining carryover (subject to spill), af	953	957	490		2,400
Water User's remaining allocation (if carryover spills), af	19,593	17,866	4,091	1,800	43,350
February and Beyond.					
Step 1. Account for Individual Use.					
Carryover from previous month, af	953	957	490		2,400
Percent of Table "A" (among carryover participants)	47.2	43.0	9.8		100.0
Water use by carryover participants, af	0	0	450		450
Water User's remaining carryover, af	953	957	40		1,950
Step 2. Allocate Use by Non-Carryover Participants.					
Percent of Table "A" (among carryover participants)	47.2	43.0	9.8		100.0
Table "A" use by non-carryover participants, af				1,000	1,000
Reallocation from non-carryover participants, af	472	430	98	(1,000)	0
Water User's remaining carryover, af	481	527	(58)		950
Water User's remaining allocation, af	20,065	18,296	4,189	2,800	45,350
Step 3. Reallocate Remaining Water.					
Percent of Table "A" (among carryover participants)	52.3	47.7			100.0
Reallocation from non-carryover participants, af	31	28	(58)		0
Water User's remaining carryover (subject to spill), af	451	499	0		950
Water User's remaining allocation (if carryover spills), af	20,095	18,324	4,131	2,800	45,350

Rule 9. REVISIONS OF WATER SCHEDULE

Revisions in the monthly amounts of water to be delivered to any Water User must be submitted to the District on or before the 25th of the month preceding the month in which the water is to be delivered. All such revisions shall be subject to approval of the Manager of the District in accordance with the policies of the Board of Directors then in effect and applicable conditions imposed by DWR.

The monthly total of the water used shall not differ from the approved schedule of such an amount which will result in additional charges to the District as provided in the Water Supply Contract with DWR, except that the District may approve a change in water delivery schedule which may be conditioned upon payment of any added cost.

Rule 10. DAILY WATER ORDERS

All requests for water delivery shall be subject to the approval of the Manager of the District in accordance with applicable conditions imposed by DWR. Daily water orders must be made to the District no later than 8:30 a.m. for the next day's delivery (i.e. 24-hour notice for daily water deliveries), and weekly water schedules must be made to the District by 8:30 a.m. on the Wednesday of each week for the following week's (Thursday through Wednesday) deliveries. Monthly water schedules must be provided to the District as periodically requested. Water may be delivered on shorter notice in emergencies.

If scheduled in accordance with the previous paragraph, turn-on and/or turn-off orders may be scheduled at anytime. Unless other turn-on and/or turn-off orders have been scheduled, water must be used continuously and at a constant rate for each twenty-four hours beginning and ending at 9:00 a.m., except in the case of an emergency or where approved by the Manager.

All shut-off orders must be made to the District no later than twenty-four (24) hours before shut-off is desired. Shorter notice of shut-off is acceptable in emergencies. In the event of an emergency shut off, the District must be notified as soon as possible thereafter.

Except in the case of an emergency, as determined by the Board of Directors, Water Users who turn off water without notice or before shut-off time will be charged for the use of the amount of water requested or applied for and for all costs incurred by the District as the result of the shut-off of water by the Water User, unless, another Water User on the same distribution system has agreed to accept the additional water made available from the unscheduled shut-off.

Rule 11. WATER CHARGES

The District may from time to time establish and levy a standby charge to Landowners and other Water Users in the Water Service Area and for providing for the delivery of that available water. The standby charge, per acre of land in the Water Service Area, may be in an amount up to that needed to pay for District administration and distribution system maintenance, and

any other costs which the Board of Directors may deem necessary for the proper operation of the District.

In the event the Board of Directors determines that an amount should be included in the standby charge to pay costs which are only to benefit a specific area of the District, the District shall be subdivided into distribution system sub-areas so that the standby charges more accurately reflect the costs to the District of each sub-area, and the standby charges for each sub-area may differ accordingly. The standby charges for each sub-area and the payment date and deposits (if any) with respect to standby charges shall be established by the Board of Directors.

The District may from time to time establish and levy an improvement district charge to Landowners in areas served by District funded distribution systems. The improvement district charge, per acre of land in the improvement district area, may be in an amount up to that needed to pay for the annual debt service associated with the construction cost of capital facilities. The improvement district charges and the payment date and deposits (if any) with respect to improvement district charges shall be established by the Board of Directors.

The District may from time to time establish and levy a water toll charge to Landowners and other Water Users for all types and classifications of water made available to Water Users, including without limitation, Table "A" Contract Water. Water toll charges levied per acre-foot of water scheduled for delivery, by the District shall be sufficient to pay the SWP Variable OMP&R and Off-Aqueduct charges to the District and the District's cost of delivery to a Water User of the water subject to a water toll charge. The amount of water toll charges for any water supply made available to Water Users by the District, and the payment date and deposits (if any) with respect to water toll charges, shall be established by the Board of Directors.

The District may annually establish and levy benefit assessments on a per acre basis to all lands in the District. The benefit assessments shall be in an amount up to that needed to pay SWP Fixed Costs and a minimal amount of District administrative costs. The benefit assessment and the payment date(s) shall be established by the Board of Directors.

Rule 12. DELINQUENT CHARGES

In the event any assessments, standby charges, improvement district charges, water toll charges, or other charges for water or services levied by the District become delinquent, the Board of Directors may authorize the officers and employees of the District to take any or all actions permitted by law in order to secure and/or collect such delinquencies. The Board of Directors may also add to the amount of any such delinquency up to the maximum penalty permitted by law, and may charge up to the maximum interest rate permitted by law on any such delinquencies. The Board of Directors may refuse water service to any lands on which assessments or other charges are delinquent and/or unpaid. In the event the Board of Directors elects to commence action in a court of competent jurisdiction in order to collect such

Appendix E: Certified Test Report

Propeller Meter

CERTIFIED TEST REPORT

CUSTOMER: MCCALLS METER SALES SERVICE

MODEL NO: M0306

METER SERIAL NO: 11-04485

CONFIGURATION

METER INSIDE DIAMETER: 6.065

METER OUTSIDE DIAMETER: 6.625

TEST DATE: 6/16/2011

TEST FACILITY: Volumetric

IDEAL TEST CONSTANT: 6738

CALIBRATION DATA

	Tested TC	GPM	Accuracy
1	6741	1257	100.0

CERTIFIED BY: Paul Hobbs DATE: 6/20/2011

This calibration was performed on a gravimetric or volumetric test facility, traceable to the National Institute of Standards and Technology, USA. The estimated flow measurement uncertainty of the calibration facilities are:
Gravimetric +/- 0.15% Volumetric +/- 0.5%

McCROMETER
3255 WEST STETSON AVENUE
HEMET, CA 92545 USA
PHONE (951) 652-6811 / FAX (951) 652-3078
WEB SITE: http://www.mccrometer.com E-MAIL: info@mccrometer.com

11-04485

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