



Public Works
LOS ANGELES COUNTY



PUBLIC DRAFT

**2025 URBAN WATER
MANAGEMENT PLAN
FOR**

**LOS ANGELES COUNTY
WATERWORKS DISTRICT
NO. 40, ANTELOPE
VALLEY**

MAY 2026



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LIST OF ABBREVIATIONS

AB	Assembly Bill
ACS	American Community Survey
AF	Acre-Foot
AFY	Acre-Feet per Year
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
ASR	Aquifer Storage and Recovery
AWWA	American Water Works Association
AVEK	Antelope Valley-East Kern Water Agency
AVIRWM	Antelope Valley Integrated Regional Water Management
AV Watermaster	Antelope Valley Watermaster
BMP	Best Management Practice
CCR	California Code of Regulations
CIMIS	California Irrigation Management Information System
CII	Commercial, Industrial, and Institutional
CWC	California Water Code
DCR	Delivery Capability Report
DMM	Demand Management Measures
DRA	Drought Risk Assessment
DWR	California Department of Water Resources
ET _o	Reference Evapotranspiration
ERP	Emergency Response Plan
GPCD	Gallons per Capita per Day
GPSCD	Gallons per Service Connection per Day
IRWMP	Integrated Regional Water Management Plan
kWh	Kilowatt-hour
LACSD	Los Angeles County Sanitation Districts
LACWD	Los Angeles County Waterworks Districts
LCID	Littlerock Creek Irrigation District
MG	Million Gallons
MOU	Memorandum of Understanding
Metropolitan	Metropolitan Water District of Southern California
PWD	Palmdale Water District
PWS	Public Water System
PRWA	Palmdale Recycled Water Authority
PWCP	Phased Water Conservation Plan
QHWD	Quartz Hill Water District
RCSD	Rosamond Community Services District

RHNA	Regional Housing Needs Assessment
SB X7-7	Senate Bill X7-7 (Water Conservation Act of 2009)
SCAG	Southern California Association of Governments
SGMA	Sustainable Groundwater Management Act
SNIP	South North Intertie Project
SNMP	Salt and Nutrient Management Plan
SWP	State Water Project
TAZ	Traffic Analysis Zone
THM	Trihalomethanes
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
WRP	Water Reclamation Plant
WSCP	Water Shortage Contingency Plan
WUE	Water Use Efficiency

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1. INTRODUCTION

This 2025 Urban Water Management Plan (UWMP) was prepared for the Los Angeles County Waterworks District No. 40 (the District), which encompasses portions of the cities of Lancaster and Palmdale, and the unincorporated communities of Pearblossom, Littlerock, Sun Village, Rock Creek, Northeast Los Angeles County, and Lake Los Angeles. This UWMP includes a description of the water supply sources and projected water use, and a comparison of water supply and water demands during normal, single-dry, and multiple dry years. The District's water conservation program is also described.

The District's UWMP was prepared in accordance with the California Urban Water Management Planning Act of 1983 (Act), as amended, and subsequent revisions, as described in California Water Code (CWC), Division 6, Part 2.6, Sections 10610 through 10656. The Act became part of the CWC with the passage of Assembly Bill (AB) 797 during the 1983–84 regular session of the State of California (State) legislature. The Act has been amended several times over the years. The Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (AF) of water annually to adopt and submit a UWMP every five years to the California Department of Water Resources (DWR). The Act describes the required contents of the UWMP as well as how urban water suppliers should adopt the UWMP.

The remainder of this section provides information on the water system, outlines the UWMP structure, and presents a lay description.

1.1 Plan Structure

The District's UWMP follows the organization outlined in the *Final Guidebook for Urban Water Suppliers* (Guidebook) developed by DWR (2025). The summary below presents the remaining sections in this UWMP. Additionally, table numbering throughout this plan matches the numbering of the tables required by DWR, except in instances where the table label contains a letter (e.g., Table 2-1A). In this case, the letter indicates that the table is not required by DWR but has been added to the UWMP to provide additional tabulated information.

Section 1 provides a discussion on the fundamentals of the UWMP and a lay description.

Section 2 provides the basis for preparing the UWMP.

Section 3 provides a description of the service area, climate, and historical and projected population.

Section 4 presents historical and projected water demands.

Section 5 compares the District's per capita demand with their 2020 per capita demand target.

Section 6 presents the current and projected water supplies.

Section 7 describes water supply reliability.

Section 8 presents the Water Shortage Contingency Plan (WSCP).

Section 9 summarizes demand management measures (DMMs).

Section 10 summarizes the UWMP adoption process.

Section 11 provides a list of references.

Appendices contain relevant supporting documents.

DWR has provided a checklist of the items that must be addressed in each UWMP based upon the Act. This checklist helps identify the plan section where each item has been addressed in the UWMP. The checklist has been completed for this UWMP (Appendix A) and references the sections in this UWMP where specific items can be found.

1.2 Lay Description

As pictured in Figure 3-1, District 40's water service area comprises eight Regions and five Public Water Systems (PWSs), which serve approximately 60,542 customer connections in the cities of Lancaster and Palmdale (PWS No. CA1910070; Regions 4 and 34), the unincorporated communities of Pearblossom, Littlerock, and Sun Village (PWS No. CA1910203; Regions 24, 27, and 33), Northeast Los Angeles County (PWS No. CA1910027; Region 35), Lake Los Angeles (PWS No. CA1910005; Region 38), and Rock Creek (PWS No. CA1910025; Region 39). Regions 4 and 34 account for the vast majority of customer connections (approximately 53,296) and over 90% of the District's demand. The District's system consists of approximately 1,065 miles of water pipes (potable and recycled), 58 wells, 76 reservoirs, and 34 pump stations.

The District purchases potable water supplies from the Antelope Valley-East Kern Water Agency (AVEK), and has coordinated with AVEK during development of this UWMP. AVEK is a State Water Project (SWP) contractor and obtains most of its supplies from the SWP. To supplement its imported water supply, AVEK pumps groundwater from the Antelope Valley Groundwater Basin (DWR Basin Number 6-44) via its production rights or recovery of recharged/stored SWP water from previous years. When permitted, AVEK purchases surplus SWP supplies from the Department of Water Resources (DWR) to recharge local groundwater. This strategy, called "water banking," involves storing excess water in the aquifer during wet years or low-demand periods and recovering it in periods of drought or high demand.

Groundwater wells in the Antelope Valley Groundwater Basin (Basin) are the District's primary source of potable water supplies. Groundwater quantity is generally unaffected by short-term drought conditions. However, the Basin is adjudicated, meaning that the District has a specific allotment of groundwater it can pump each year, which is updated on an annual basis by the Antelope Valley Watermaster. Because the Basin is adjudicated, the UWMP assumes that the same amount of groundwater will be available to the District during all water-year types.

The District uses recycled water for non-potable uses, such as irrigation or to refill lakes. The wastewater treatment system that supplies recycled water to the District is located outside its service area and is operated by the Los Angeles County Sanitation District (LACSD) Nos. 14 and 20, as shown in Figure 6-2.

Historically, agriculture has dominated land use in the Antelope Valley. However, the region has been transitioning to primarily residential and industrial developments. The Antelope Valley is expected to experience significant population growth and development until at least 2050, leading to increased water demands. The region's priorities are to preserve the agricultural economy, meet the growing demands for housing, including affordable housing, and improve

blended land use planning to support water management by including flexible management strategies for climate change. Investments in infrastructure development, including water systems, are critical to supporting these regional priorities.

Based on current planning analyses and AVEK's assessment of SWP availability through 2050, no supply shortages are anticipated under normal, single dry year, or multiple dry year scenarios (as discussed in Section 7). Based on current planning analyses, AVEK has the supply capability to meet expected imported water demands through 2050 under normal water year conditions, single dry-year conditions, and a drought lasting five consecutive years based on projected SWP availability from the Draft 2025 SWP Delivery Capability Report (DWR, 2025). Furthermore, the Drought Risk Assessment (DRA) shows that no single year during the five-year drought period is projected to experience a supply shortage. The District manages an ongoing water conservation program and is committed to implementing water conservation measures for all customer sectors.

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2. PLAN PREPARATION

This section presents the basis for preparing the UWMP, units of measure, coordination efforts, and outreach.

2.1 Basis for Preparing the Plan

Table 2-1 presents the public water system name and number as well as the number of active connections and amount of water supplied in 2025 in acre-feet per year (AFY). The regions as described in the table below are pictured in Figure 3-1.

TABLE 2-1. RETAIL ONLY: PUBLIC WATER SYSTEMS			
Public Water System Number	Public Water System Name	Number of Active Municipal Connections 2025	Volume of Water Supplied in 2025 (AFY)
CA1910070	Los Angeles County Waterworks District No. 40, Region 4 and 34: Lancaster (Lancaster and Desert Highlands)	53,296	39,689
CA1910203	Los Angeles County Waterworks District No. 40, Region 24, 27, 33: Pearblossom, Littlerock, and Sun Village	2,990	2,550
CA1910027	Los Angeles County Waterworks District No. 40, Region 35: Northeast Los Angeles County	239	413
CA1910005	Los Angeles County Waterworks District No. 40, Region 38: Lake Los Angeles	3,651	1,471
CA1910025	Los Angeles County Waterworks District No. 40, Region 39: Rock Creek	366	155
Total		60,542	44,278

The District has selected individual reporting for this UWMP, as identified in Table 2-2, below. This UWMP is reporting on a calendar year basis using acre-feet (AF) as the unit of measure as noted in Table 2-3.

TABLE 2-2. PLAN IDENTIFICATION	
Select Only One	Type of Plan
X	Individual UWMP
	Regional UWMP

TABLE 2-3. SUPPLIER IDENTIFICATION	
Type of Agency (select one or both)	
	Agency is a wholesaler
X	Agency is a retailer
Fiscal or Calendar Year (select one)	
X	UWMP tables are in calendar years
	UWMP tables are in fiscal years
Units of Measure used in UWMP	
Unit	Acre-feet (AF)

2.2 Coordination and Outreach

The Act requires the District to coordinate the preparation of its UWMP with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable. The District has provided water supplier information with the wholesale water supplier listed in Table 2-4, below. The District coordinated this UWMP with other agencies and the community as summarized in Table 2-4A.

TABLE 2-4. RETAIL: WATER SUPPLIER INFORMATION EXCHANGE	
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.	
Wholesaler Water Supplier Name	Antelope Valley-East Kern Water Agency

TABLE 2-4A. COORDINATION WITH APPROPRIATE AGENCIES				
Coordinating Agencies	Was Sent a Copy of the Draft UWMP	Participated in UWMP Preparation	Was Provided with UWMP Projected Water Use	Will be Sent a Final Copy
Antelope Valley-East Kern Water Agency (AVEK)	✓	✓	✓	✓
City of Lancaster	✓	-	-	✓
City of Palmdale	✓	-	-	✓
Los Angeles County Public Works - Sewer Maintenance Division	✓	-	-	✓
Los Angeles County Regional Planning	✓	-	-	✓

TABLE 2-4A. COORDINATION WITH APPROPRIATE AGENCIES				
Coordinating Agencies	Was Sent a Copy of the Draft UWMP	Participated in UWMP Preparation	Was Provided with UWMP Projected Water Use	Will be Sent a Final Copy
Los Angeles County Sanitation District (LACSD) No. 14 and 20	✓	✓	-	✓
Quartz Hill Water District (QHWD)	✓	-	-	✓
Rosamond Community Services District (RCSD)	✓	-	-	✓
Little Rock Creek Irrigation District (LCID)	✓	-	-	✓

3. SYSTEM DESCRIPTION

This section provides a description of the District's service area, its climate, and its historical and projected population. It also presents socioeconomic and land use information.

3.1 Description of Service Area

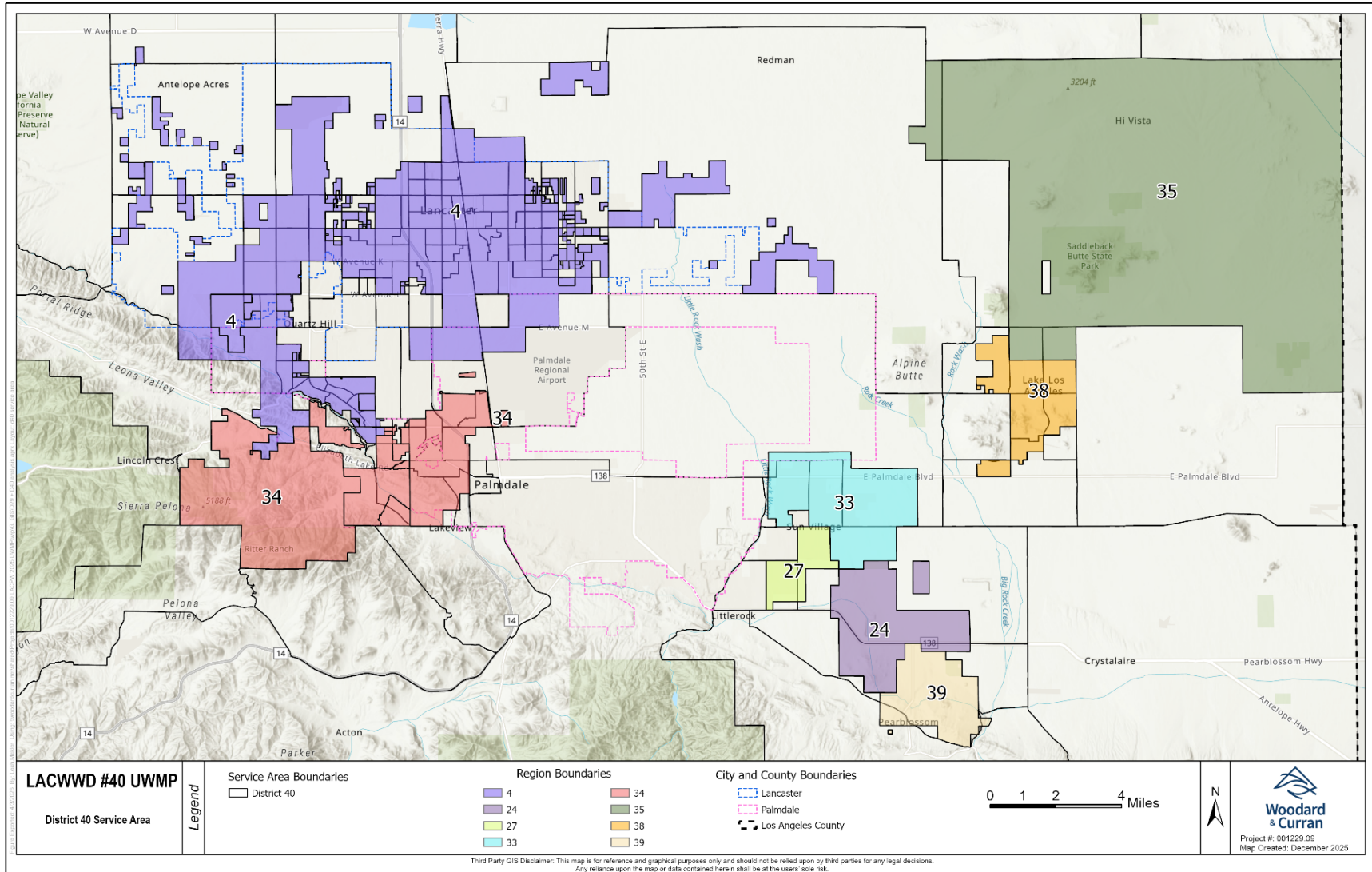
The District was formed on November 2, 1993 in accordance with Division 16, Sections 55000 through 55991 of the CWC to supply water for urban use in areas served by Los Angeles County in the Antelope Valley, and consolidated eight previously separate regions into five public water systems. The District is governed by the Los Angeles County Board of Supervisors, with administration, operation, and maintenance of the District's facilities provided by the Waterworks Division of Los Angeles County Public Works. The District's service area consists of portions of the city of Lancaster (Region 4), portions of the city of Palmdale (Region 34, otherwise referred to as Desert View Highlands), and the unincorporated communities of Pearblossom (Region 24), Littlerock (Region 27), Sun Village (Region 33), Rock Creek (Region 39), Northeast Los Angeles County (Region 35), and Lake Los Angeles (Region 38). Regions 4 and 34 are integrated and operated as one system (PWS CA1910070). Similarly, Regions 24, 27, and 33 are operated collectively as PWS CA1910203, while Regions 35, 38, and 39 are operated separately. These five public water systems collectively make up District 40. The District's service area, broken down by region, is shown in Figure 3-1.

Approximately 90% of the District's customer connections are classified as single-family residential. The remaining 10% of the service area comprises primarily commercial and multi-family residential connections (55% and 27% of remaining connections, respectively), with some institutional connections and a very limited number of industrial connections.

3.2 District Water Facilities

The District's water system consists of approximately 1,065 miles of pipelines, 76 reservoirs, 58 wells, and 34 pump stations and its water sources include groundwater pumped under its adjudicated rights and treated potable water supplied by AVEK. AVEK's water supply consists primarily of imported water from the SWP, supplemented by recovery of banked/stored imported water, and its own adjudicated water rights.

FIGURE 3-1. DISTRICT SERVICE AREA



3.3 Service Area Population

This section presents the estimated 2025 population of the District along with its projected population through 2050. The 2025 estimate is based on 2020 Census block-level data and growth projections from the Southern California Association of Governments (SCAG) (U.S. Census Bureau, 2020; Southern California Association of Governments, 2024). The District’s baseline 2020 population was estimated by weighting the populations of Census blocks by the overlap of their area with the District’s service area. Based on this method, the 2020 service area population was estimated as 232,418.

SCAG population forecasts are available for 2019, 2035, and 2050 by geographical areas known as Tier-2 Traffic Area Zones (TAZ). The same areal weighting method used for the 2020 Census data was applied to the SCAG TAZ to estimate population growth within the service area. The SCAG population estimates for 2019, 2035, and 2050 were used to calculate an annual rate of population change for the periods between 2019-2035 and 2035-2050. The current 2025 population was estimated by applying the 2019-2035 annual rate of population change to the 2020 population estimate, resulting in an estimated population of 235,026.

The projected population from 2030 through 2050 was estimated at five-year intervals using the SCAG-forecasted annual rates of change of 0.23% through 2035 and 0.06% from 2035 to 2050. In total, the service area population is projected to increase by roughly 3.2% between 2025-2050. These population growth projections are modest in comparison to forecasts of development-driven demand, as discussed further in Section 4.3. A summary of the District’s current (2025) and projected population (2030-2050) is provided in Table 3-1.

TABLE 3-1. RETAIL: POPULATION - CURRENT AND PROJECTED						
	2025	2030	2035	2040	2045	2050
Population Served	235,026	237,732	240,535	241,220	241,908	242,601

3.4 Service Area Climate

The Antelope Valley comprises the southwestern portion of the Mojave Desert and ranges in elevation from approximately 2,300 to 3,500 feet above sea level. The Antelope Valley’s high desert ecosystem includes vegetation such as Joshua trees, saltbush, mesquite, sagebrush, and creosote bush. The region’s common fauna includes mule deer, quail, ground squirrels, hawks, and snakes, all well adapted to the Antelope Valley’s high desert climate (California Department of Fish and Wildlife, 2025). The region’s climate is characterized by hot, dry summers and moderately cool winters, and nighttime temperatures can drop significantly from the daily high temperature. Annual precipitation ranges from five to ten inches per year, usually occurring between December and March.

Table 3-1A summarizes the average monthly temperature, rainfall, and evapotranspiration (ETo) from the California Irrigation Management Information System (CIMIS) station in Palmdale (California Department of Water Resources, 2025a). The period of record for the Palmdale station is from 2006-2024.

TABLE 3-1A. MONTHLY AVERAGE CLIMATE DATA SUMMARY^a

Parameter ^b	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Std avg ETo, inches	2.27	3.05	4.85	6.57	8.28	9.17	9.80	8.87	6.41	4.54	2.93	2.02
Avg rainfall, inches	0.96	1.01	1.00	0.24	0.14	0.03	0.06	0.40	0.18	0.19	0.32	0.75
Avg max temp, °F	59.86	62.76	66.72	73.76	80.55	89.91	96.20	95.84	90.22	79.29	68.20	58.63
Avg min temp, °F	29.51	31.54	35.61	40.82	47.98	55.15	62.42	60.47	53.23	42.62	33.01	28.98

a. Period of record is 2006–24 from CIMIS Station 197 Palmdale. Accessed from CIMIS: www.water.ca.gov.

b. °F = degrees Fahrenheit. Avg = Average. Max = Maximum. Min = Minimum. Std = Standard. Temp = Temperature.

3.5 Socioeconomic and Land Use Information

The median household income in the Antelope Valley region was \$95,102 as of 2023. In 2023, the poverty rate in the region was 10.3%. The median residential property value in the area was \$468,200 in 2023 (U.S. Census Bureau, 2020; U.S. Census Bureau, 2024).

Historical land use in the Antelope Valley was dominated by agriculture, though the region is transitioning out of a predominantly agricultural economy. However, the majority of District 40's service area is still rural and agricultural land, and includes open spaces for conservation and recreation, in addition to Federally-owned lands. The remaining land use consists primarily of residential and commercial developments. The Antelope Valley Integrated Regional Water Management Plan reports that resource and land managers in the Antelope Valley region plan to "maintain agricultural land use within Antelope Valley, meet the growing demand of recreational spaces, and improve integrated land use planning (AVIRWM, 2019)". As described in more detail in Section 4.3, there are several planned developments in the District, which include residential, commercial, mixed-use, and industrial land uses.

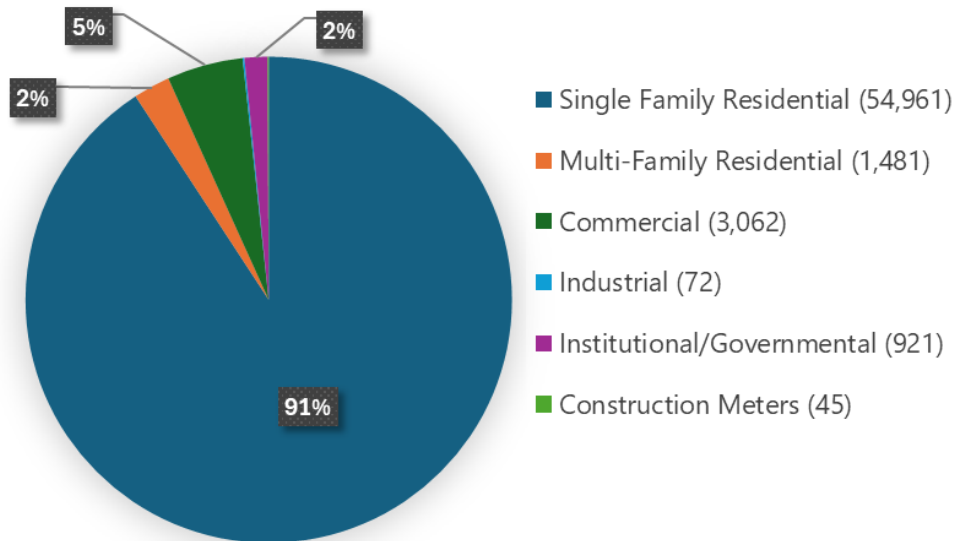
4. SYSTEM WATER USE

This section presents the current and projected retail water demands by sector, distribution system water losses, future passive water savings, and low-income household water use.

4.1 Water Uses by Sector

Projecting the District’s water demands through 2050 requires analysis of water use trends by customer use category. This section provides a breakdown of water use by category, including residential, commercial, industrial, and institutional customers. As of December 2025, the District has approximately 60,542 service connections. Figure 4-1 displays the proportion of service connections by use type for District 40. As shown in the figures, service connections within the District are primarily single-family residences. Actual water use by customer use type for 2025 was calculated using billing and connection data, as shown in Table 4-1.

FIGURE 4-1. SERVICE CONNECTIONS IN DISTRICT 40 BY USE CATEGORY



For this UWMP, water use is categorized into Single and Multi-Family Residential, Commercial, Industrial, Institutional/Governmental, and Losses. Two additional categories include “Other Potable,” representing water use from construction meters (shown in Figure 4-1), and “Other,” which represents estimates of unbilled authorized water use, including firefighting and system maintenance.

Historical potable water use as reported in the District’s 2010, 2015, and 2020 UWMPs can be found in Table 4-1A. Information on past recycled water use can be found in Section 6.4.

Actual potable and non-potable water use by category for 2025 was determined using billing and connection data, as shown in Table 4-1.

TABLE 4-1A. RETAIL: PAST POTABLE WATER DEMANDS BY SECTOR				
Use Type	Additional Description	2010 ^a	2015	2020
Single Family Residential		30,900	23,815	29,191
Multi-Family Residential		3,400	3,594	3,866
Commercial		3,707	6,254	7,167
Industrial		81	63	82
Institutional/Governmental ^b	Includes large landscapes	3,124	2,166	2,544
Other Potable	Includes firefighting, flushing of water mains, and fire flow tests	-	-	266
Other	Includes construction meters	-	38	539
Mixed-Use ^c		2,647	-	-
Non-Urban Residential ^c		1,641	-	-
Losses ^d		-	2,483	2,163
Total		45,500	38,413	44,818

a. Los Angeles County Waterworks Districts published the 2010 UWMP as an Integrated Regional Water Management Plan in partnership with Quartz Hill Water District (LACPW and QHWD, 2011). However, the volumes included reflect only the District's water demands.

b. The 2010 UWMP does not include an institutional/governmental use type but does report water use under "Public Areas."

c. The 2010 UWMP includes the use types "Mixed-Use" and "Non-Urban Residential."

d. The 2010 UWMP does not include an assessment of distribution system water losses.

TABLE 4-1. RETAIL: 2025 ACTUAL TOTAL USES FOR POTABLE AND NON-POTABLE WATER			
Use Category	2025 Actual		
	Additional Description	Level of Treatment When Delivered	Volume (AFY)
Single Family Residential		Potable	27,638
Multi-Family Residential		Potable	4,310
Commercial		Potable	7,398
Industrial		Potable	53
Institutional/Governmental	Includes large landscapes	Potable	3,210
Other^a	Includes firefighting, flushing of water mains, and fire flow tests	Potable	106
Other Potable	Includes construction meters	Potable	169
Landscape^b	At institutional locations	Non-Potable	60
Commercial^b	Grading, dust control, fire suppression	Non-Potable	9
Recreational Impoundment^b	Recreational impoundment at Apollo Park	Non-Potable	192
Other^b	Sewer flushing, street sweeping	Non-Potable	2
Losses^a		Potable	1,394
Total Potable			44,278
Total Non-Potable^b			263
Total			44,541

a. "Other" refers to authorized unbilled water use, estimated using the District's validated 2024 AWWA Water Audit. Distribution system losses were estimated as total supply minus consumption pending validation of the District's 2025 AWWA Water Audit.

b. From Table 6-4.

4.1.1 Residential Sector

Many residential developments are scattered across the District's service area. Regions 4 and 34, which overlap with the cities of Palmdale and Lancaster, have the highest density of single and multi-family housing within the District's service area. A significant amount of residential development is projected within Regions 4 and 34 in the next 25 years. The anticipated demands from developments are summarized in the Water Demand Projections sub-section in Table 4-2A.

The planned developments include several solely residential developments in addition to mixed-use developments which include multi-family housing.

While the majority of water use in the District can be attributed to single family housing, multi-family housing developments are expected to contribute more significantly to total demand in the near future.

4.1.2 Commercial Sector

The District's service area includes a commercial sector, predominantly located within the cities of Palmdale and Lancaster. The District's commercial sector is expected to expand in the next 25 years. Significant commercial and mixed-use development demand increases are anticipated, as summarized in the Water Demand Projections sub-section in Table 4-2A.

4.1.3 Industrial Sector

The service area's industrial sector is dominated by the aerospace industry. Industrial facilities are distributed throughout the District's service area. The District currently services 72 industrial meters, which used 53 AF in 2025. The District's industrial sector is expected to expand in the next 25 years. Industrial development water demands are summarized in the Water Demand Projections sub-section in Table 4-2A.

4.1.4 Institutional/Governmental Sector

The service area's institutional sector includes government buildings, schools, public facilities, and public hospitals.

4.1.5 Irrigation Sector: Landscape

The District's irrigation sector includes golf courses, parks, and landscaping associated with commercial, institutional, and industrial facilities. Some District irrigation systems use recycled water, which is shown in the non-potable "landscape" use category.

4.1.6 Agricultural

The Antelope Valley's agricultural sector is dominated by forage crops such as alfalfa and grains, but a variety of other crops are grown in the region, including fruit trees and root vegetables (County of Los Angeles, 2019). The Antelope Valley is in the process of transitioning away from a predominantly agricultural economy. Thus, agricultural water demand is likely to decrease in the next 25 years. The District does not service any meters specifically associated with agriculture.

4.1.7 Other Water Demands

The District does not sell water to other agencies. Furthermore, the District does not have any water use associated with intrusion barriers, groundwater recharge, or conjunctive use.

4.1.8 Distribution System Water Loss

Distribution system water losses are addressed in Section 4.6.

4.2 Climate Change Effects on Water Use

District 40 is located in a high desert region and experiences high temperatures and extended dry periods. Climate change is anticipated to increase average temperatures and increase the effects of precipitation whiplash, which refers to the phenomenon of extreme dry periods followed by periods of heavy rainfall. Elevated temperatures affect evapotranspiration in plants, which will increase water demands for landscape irrigation in dry periods. While precipitation events are likely to increase in severity and frequency, most storms will occur in winter and early spring and generally not reduce summer irrigation demands. Climate change may induce fluctuations in population and economic growth, uncertain location of growth, uncertain housing stock and density, and changes in outdoor water use patterns, which may further influence demand changes (Sanchez, et al., 2020).

Climate-induced increases in the severity of precipitation events will lead to higher volumes of runoff, which will not benefit landscape plants. Climate change will exacerbate the effects of wildfires in concert with precipitation whiplash, increasing the risk of dangerous flash flooding and debris flow events. These events may damage infrastructure and cause water quality issues, such as high turbidity or excess nutrients (California Water Science Center, 2018).

4.3 Water Demand Projections

The District conducted an analysis to develop water demand projections for its service area from 2030 through 2050 at five-year intervals. Demand projections were based on historical water use, projected per capita water use, anticipated population and employment changes within the District's entire service area, and anticipated specific future developments planned within the District's service area.

As described in Section 3 of this UWMP, the service area baseline 2025 population was estimated for the entire District using population data available from the 2020 Census estimates by Census Block and population and employment projection data available from SCAG by TAZ. The SCAG population projections, presented in Table 3-1 of Section 3, as well as the SCAG employment projections were used to project changes to water demands at five-year intervals between 2025 and 2050. Projected changes were estimated for and applied to each region within the District's service area before being consolidated. The baseline water demands used for each region's forecast are averages from the most recent five-year period of customer billing data by water use category from 2021-2025. This five-year period yielded a reasonable representation of average annual demands given varying hydrologic conditions; for example, decreased demand in 2023 coincided with a wetter year.

To project future residential water demands at five-year intervals between 2030 and 2050 for the single family and multi-family residential use categories, the projected population change between each interval was multiplied by the District's Residential Water Use Objective of 101 gallons per capita per day (GPCD) as defined by the State Water Board (State Water Resources Control Board, 2024).

To project future non-residential water demands at five-year intervals between 2030 and 2050 for the commercial, industrial, and institutional use categories, the projected employment change

between each interval was multiplied by the District's Commercial, Industrial, and Institutional (CII) Water Use Objective of 53 GPCD as defined by the State Water Board. The District's 2025 baseline employment population was estimated based on the U.S. Census Bureau's American Community Survey (ACS) 2023 5-year estimates of employment for the Cities of Palmdale and Lancaster (California Department of Finance, 2024).

Projected water demands from specific developments located within the District's service area were also included in the demand forecast in addition to the SCAG-based population and employment demand projections. The District compiled a list of the anticipated developments, their locations, and their projected water demands by use category from 2025 to 2050. The total demand projections for these anticipated developments are summarized by water use category in Table 4-2A, and were incorporated into the overall water demand forecast based on the following assumptions:

- For all developments, total build-out was assumed to be met by 2050. This represents a planning-level assumption; actual development timing may vary based on market conditions, permitting, and infrastructure availability.
- Development water demands anticipated prior to 2030 were assumed to be included in the SCAG-based population and employment demand projections, and thus were assumed to be already accounted for, with the following exception:
 - Anticipated industrial development demands were added directly to the 2025 baseline because they greatly exceeded the volumes derived from SCAG employment projections.
- Additional water demands projected between 2030 and 2050 were incorporated directly into the demand forecast by water use category, with the following notes:
 - For mixed-use development demands, the number of residential units (single or multi-family) was considered in conjunction with the District's residential water use objective of 101 GPCD. Residential demand was estimated by converting GPCD to annual demand using an average household size of 2.85 persons per household, based on ACS data for Los Angeles County (U.S. Census Bureau, 2024). Actual household size within the District may differ. This planning-level household size assumption was used solely to convert dwelling units to population for development demand projections. Non-residential water use was estimated by subtracting residential demand from the total projected water use, and then allocated based on the reported square footage of anticipated non-residential use categories, such as commercial or institutional.
- Demand projections are district-wide planning-level estimates based on currently anticipated developments and do not constitute a commitment by the District to serve any specific development project.

TABLE 4-2A. ANTICIPATED DEVELOPMENT WATER DEMANDS					
Water Use Category	Projected Development Demands, AFY				
	2030	2035	2040	2045	2050
Single Family Residential	4,534	5,615	6,032	6,450	6,672
Multi-Family Residential	469	832	1,142	1,453	1,763
Commercial	762	1,266	1,771	2,274	2,779
Industrial	4,960	8,418	9,013	9,609	10,204
Institutional/Governmental	649	1,035	1,420	1,806	2,192
District 40 Total Development Demands	11,374	17,166	19,378	21,592	23,610

- a. Demand projections by water use category include estimates of mixed-use demands, based on the assumptions discussed above.
- b. 1,570 AFY of development demands were anticipated to come online in 2025. These demands were assumed to be accounted for in the SCAG-based population and employment forecasts aside from 245 AFY of industrial demands, based on the assumptions discussed above.
- c. Projected development demands are planning-level estimates and do not constitute a commitment by the District to serve any specific development project.

Projected water demands for the “Other Potable” use category were estimated using 5-year average water use by the District’s construction meters and are assumed to remain constant from 2030 through 2050. Water demands for the “Other” use category, which includes firefighting and distribution system maintenance, were projected to be 0.25% of total water use in each projected year, which reflects the proportion of unbilled authorized use reported in the District’s AWWA Water Loss Audits.

Water losses were projected as a percentage of the total projected demand based on the average water losses reported in the District’s 2022-2024 AWWA Water Loss Audits: approximately 4.6% of total potable water supply for Regions 4 and 34, and 5.5% of total potable water supply for Regions 24, 27, 33, 35, 38, and 39. The weighted average of water losses, calculated based on regional water consumption, is 4.7%, and is reflected in the water use projections in . The distribution system water losses in the District are discussed in more detail in Section 4.6.

Table 4-2 summarizes the projected potable water demands by use category for the entire District at five-year intervals from 2030 through 2050. A graphical summary of the projected potable water demands by use category for the entire District is displayed in Figure 4-2.

TABLE 4-2. RETAIL: PROJECTED USE FOR POTABLE AND NON-POTABLE WATER – DISTRICT 40

Use Category	Additional Description	Level of Treatment When Delivered	Projected Water Use (AFY)				
			2030	2035	2040	2045	2050
Single Family Residential		Potable	32,218	33,609	34,102	34,597	34,897
Multi-Family Residential		Potable	4,795	5,166	5,478	5,791	6,103
Commercial		Potable	8,315	8,975	9,507	10,037	10,569
Industrial		Potable	5,023	8,485	9,081	9,678	10,274
Institutional/ Governmental	Includes large landscapes	Potable	3,287	3,722	4,116	4,511	4,906
Other	Includes firefighting, flushing of water mains, and fire flow tests	Potable	134	151	156	162	168
Other Potable	Includes construction meters	Potable	188	188	188	188	188
Landscape ^a	At institutional locations	Non-Potable	250	300	350	400	450
Commercial ^a	Grading, dust control, fire suppression	Non-Potable	50	100	150	200	250
Recreational Impoundment ^a	Recreational impoundment at Apollo Park	Non-Potable	250	250	250	250	250
Other ^a	Sewer flushing, street sweeping	Non-Potable	2	2	2	2	2
Losses		Potable	2,615	2,916	3,028	3,138	3,240
Total Potable			56,575	63,212	65,656	68,102	70,345
Total Non-Potable			552	652	752	852	952
Total			57,127	63,864	66,408	68,954	71,297

a. Estimates of recycled water demands provided by LACSD Nos. 14 and 20.

FIGURE 4-2. ACTUAL & PROJECTED D40 POTABLE DEMANDS BY WATER USE CATEGORY FROM 2025-2050

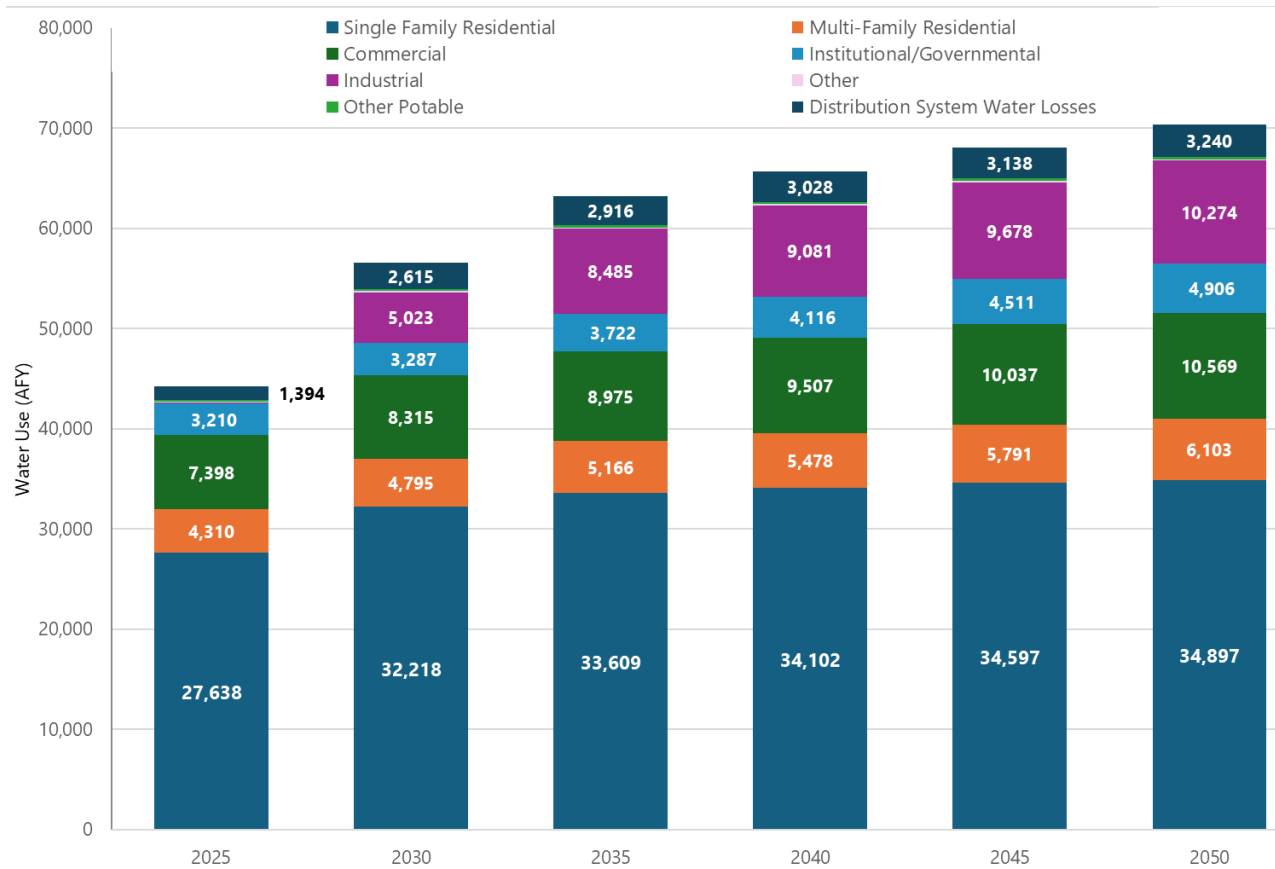


Table 4-2B summarizes the current and projected demands for potable and recycled water use by the District.

	2025	2030	2035	2040	2045	2050
Potable Water Demand	44,278	56,575	63,212	65,656	68,102	70,345
Non-Potable Water Demand ^{a,b}	263	552	652	752	852	952
Total	44,541	57,127	63,864	66,408	68,954	71,297

a. The District's current and anticipated recycled water demands are mainly for landscape irrigation and recreational impoundment. Additionally, small quantities of recycled water are utilized for dust control, fire suppression, sewer flushing, and street sweeping. Use of recycled water for irrigation is expected to increase by 80% between 2025 and 2050.

b. From Table 6-2.

4.4 Future Water Savings

“Passive savings” are water savings that result from implementation of codes, standards, ordinances, and urban planning. These factors decrease customer water use due to appliance and fixture upgrades (i.e., replacing older toilets with low-flow toilets). Passive savings from existing

customers are expected to be minimal. Passive savings from future customers may be significant due to the upcoming developments in the service area but were omitted to maintain conservative demand forecasts. The water demand projections do not include passive savings as noted in Table 4-3 to maintain conservative projections.

TABLE 4-3. RETAIL ONLY: INCLUSION IN WATER USE PROJECTIONS	
Future water savings included? (Y/N)	N
If "Yes" to above, state the section or page number where citations of the codes, ordinances, etc. utilized in demand projections are found.	N/A
Are lower-income residential demands included in projections? (Y/N)	Y

4.5 Water Use for Lower-Income Households

Section 10631.1 of the CWC requires inclusion of projected water use for lower-income single family and multi-family residential households as identified in the housing element of any city or county in the service area of the water purveyor. A lower income household is defined by State of California as a household earning below 80% of the area's median household income (MHI). Projections of water use by lower-income households are meant to assist water purveyors in complying with the requirements of Government Code Section 65589.7, which grants priority for water and sewer services to developments that include affordable housing.

The Regional Housing Needs Assessment (RHNA) assists jurisdictions in updating their general plan's housing element section. The sixth cycle of the RHNA covers the planning period of October 2021 to October 2029. In March 2021, the SCAG adopted its RHNA Allocation Plan for the sixth cycle (SCAG, 2021). The housing elements from the RHNA include low-income housing broken down into three categories: extremely low (less than 30 percent MHI), very low (31% – 50% MHI), and low income (51% – 80% MHI).

The District's service area covers portions of the cities of Lancaster and Palmdale, in addition to rural and unincorporated areas. To account for the District's socioeconomic diversity, the RHNA percentage for all of Los Angeles County was applied to its District's residential water demands (County of Los Angeles, 2022). The County's RHNA percentage for 2021-2029 is 43.7% (28.5% extremely low/very low income and 15.2% low income).

Table 4-3A below provides a breakdown of the projected water needs for low-income single family and multi-family residential households. The projected water demands shown here represent 43.7% of projected water demand for the single family and multi-family residential use categories provided in Table 4-2 above.

	2025	2030	2035	2040	2045	2050
Total Residential Demand	31,948	37,013	38,775	39,580	40,388	41,000
SF Residential Low-Income Household Demand	12,078	14,079	14,687	14,903	15,119	15,250
MF Residential Low-Income Household Demand	1,883	2,095	2,258	2,394	2,531	2,667
Affordable Household Residential Demand	13,961	16,175	16,945	17,296	17,650	17,917

4.6 Distribution System Water Losses

Water loss audits were prepared for the District using the American Water Works Association (AWWA) Water Loss Audit Worksheet. The water audit is an accounting exercise that tracks all sources and uses of water within a water system during a specified period and undergoes validation by an AWWA certified validator. The District's water loss audits for 2020 to 2024 were validated by an AWWA certified validator.

District 40's water loss audit for Regions 4 and 34 is completed separately from the audit prepared for Regions 24, 27, 33, 35, 38, and 39. Water losses from 2020 through 2024 are presented in Table 4-5.

Reporting Period Start Date	Loss (AFY)	Submitted to DWR Water Loss Audit Program ^a
Regions 4 and 34		
2024	1,843	Yes
2023	1,717	Yes
2022	1,591	Yes
2021	1,930	Yes
2020	2,707	Yes
Regions 24, 27, 33, 35, 38, and 39		
2024	359	Yes
2023	300	Yes
2022	46	Yes
2021	104	Yes
2020	285	Yes

a. The District's water audits can be found at https://wuedata.water.ca.gov/awwa_plans

Water losses include apparent losses and real losses, as described in the AWWA Water Loss Audit Worksheets. Apparent losses include unauthorized consumption, customer metering inaccuracies, and systematic data-handling errors. Real losses include leakage and overflows from water mains, storage tanks, and service connections. Metering inaccuracies have previously caused high

apparent losses throughout the system, increasing total calculated losses. Metering inaccuracies have significantly decreased since 2015 due to the District’s efforts to replace and upgrade to automated meter reading (AMR) and advanced metering infrastructure (AMI). As of January 2025, approximately 61% of the District’s meters were upgraded to AMI or AMR. The District has set a target of achieving 100% AMI or AMR conversion by 2030, subject to capital budget availability.

Table 4-5A displays the real and apparent losses as reported in the District’s AWWA Water Loss Audits for Regions 4 and 34 and the smaller regions (24, 27, 33, 35, 38, and 39), respectively. On average, water losses accounted for 4.6% of total water use in Region 4 and 34 and 5.5% of total water use in the other regions from 2022 to 2024. These averages were applied in the demand forecast to estimate water losses by region for 2030 to 2050. The weighted average of water losses, calculated based on regional water consumption, is 4.7%. This value is reflected in the water use projections in

TABLE 4-5A. REAL AND APPARENT LOSSES COMPARED TO WATER SUPPLY					
Year	Water Supplies (AFY)	Apparent Losses (AFY)	Real Losses (AFY)	Total Losses (AFY)	Total Losses (% of Total Water Supply)
Regions 4 and 34					
2022^a	37,598.7	179.6	1,411.4	1,591.0	4.2%
2023	36,157.6	872.9	843.6	1,716.5	4.7%
2024	39,326.9	950.9	892.0	1,843.0	4.7%
Average	37,694.4	667.8	1,049.0	1,716.8	4.6%
Regions 24, 27, 33, 35, 38, and 39					
2022^a	3,991.8	19.7	26.8	46.5	1.2%
2023	4,135.0	97.2	203.2	300.4	7.3%
2024	4,520.8	105.5	254.0	359.5	8.0%
Average	4,215.9	74.1	161.3	235.4	5.5%

a. In 2022, multiple flow meters provided inaccurate readings at wells for groundwater production, so the District relied on data obtained from hour meter readings, which differed from the flow meter readings for those wells.

4.7 Progress Towards 2028 Water Loss Standard

In 23 CCR Section 980, the State Water Board established 2028 Water Loss Performance Standards for applicable Public Water Systems. Pursuant to Water Code Section 10631(d)(3)(c), retail suppliers must report progress toward their Water Loss Performance Standard in their 2025 UWMPs. The Water Loss Performance Standards do not need to be met until 2028. The State Water Board calculated 2028 Water Loss Standards under two of the District’s five PWS. The State Water Board did not calculate separate 2028 Water Loss Standards for PWS CA1910027, CA1910005, or CA1910025 because these were included in Water Loss Standards for PWS CA1910203.

Table 4-6 uses data from the District’s 2024 validated AWWA Water Audits to calculate its Real and Apparent Water Losses in gallons per service connection per day (GPSCD) and compare them

to its 2028 Water Loss Standards. In 2024, the District's smaller regions (24, 27, 33, 35, 38, and 39) did not meet their 2028 Real Water Loss Standard of 7.6 GPSCD, but it did meet its Apparent Water Loss Standard of 33.5 GPSCD in 2024. Conversely, PWS CA1910070 (Regions 4 and 34; Lancaster and Desert Highlands) met its 2028 Real Water Loss Standard of 21.7 GPSCD, but it did not meet its Apparent Water Loss Standard of 15.9 GPSCD. The District will continue to review validated audit results and system data to better understand water loss conditions and to identify and prioritize appropriate actions, as warranted. The District's progress toward its State Water Board's 2028 Water Loss Performance Standards will be reassessed based on data from calendar year 2025, when available.

TABLE 4-6. PROGRESS TOWARDS 2028 WATER LOSS STANDARD

Public Water System ID	Real Water Loss				Apparent Water Loss			
	State Water Board 2028 Real Water Loss Standard (GPSCD)	Most Recent AWWA Water Loss Audit		Real Water Loss (GPSCD)	State Water Board 2028 Apparent Water Loss Standard (GPSCD)	Most Recent AWWA Water Loss Audit		Apparent Water Loss (GPSCD)
		Number of Connections	Volume of Total Real Loss (AF)			Number of Connections	Volume of Total Apparent Loss (AF)	
CA1910203	7.6	7,210	254.0	31.4	33.5	7,210	105.5	13.1
CA1910070	21.7	52,963	892.0	15.0	15.9	52,963	950.9	16.1

5. SB X7-7 BASELINES, TARGETS, AND 2020 COMPLIANCE

The Water Conservation Act of 2009, referred to as Senate Bill X7-7 (SB X7-7), was enacted in 2009 and required all urban water suppliers to increase their water use efficiency. To comply with SB X7-7, suppliers had to reduce their per capita water use by 20% by the year 2020, compared to a calculated baseline. This section presents information to demonstrate the District’s compliance with SB X7-7, which was reported in the 2020 UWMP. The methodologies used to establish the calculated baseline and determine the 2020 per capita demand target are presented in the District’s 2010 and 2015 UWMPs.

5.1. Compliance with Retail Supplier 2020 Per Capita Demand Target

As shown in Table 5-1 below, the District met its per capita demand target in 2020. The 2020 per capita water demand was calculated based on the District’s 2020 service area population and its 2020 total water use; it is reported in gallons per capita per day (GPCD). The SB X7-7 Verification Form and Compliance Form were attached to the District’s 2020 UWMP.

TABLE 5-1. RETAIL: SB X7-7 2020 TARGET PROGRESS						
Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target?	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	Only for suppliers that did not meet the Target in 2020	
					Actual 2025 GPCD	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	237	235	Yes	NA	NA
NA = Not Applicable						

6. WATER SUPPLIES

This section describes the District's existing and projected water supplies, including groundwater, imported or purchased water, and recycled water, in addition to carryover water as per the adjudication agreement for the Antelope Valley Groundwater Basin. It also includes information on the projected impacts of climate change and future droughts on the District's future water supplies. The District anticipates sufficient supply to meet demands through the UWMP planning horizon.

6.1 Purchased Water: Antelope Valley-East Kern Water Agency (AVEK)

AVEK is a regional water agency formed in 1959 to supplement Antelope Valley groundwater supplies with surface water supplies. AVEK is a SWP contractor and can purchase imported water from the SWP on behalf of other retail water suppliers. AVEK also produces water from the Antelope Valley Groundwater Basin (Basin) and allocates water to municipalities, ranchers, and agricultural water users. The District is AVEK's largest municipal customer. Supply agreements between AVEK and the District can be found in Appendix C.

Although AVEK-imported water provides a substantial portion of the District's total annual supply, groundwater remains the District's primary and foundational supply source. Imported water is used to supplement groundwater supplies, particularly during periods of high demand.

AVEK has an annual allotment with a contractual Table A amount of 144,844 AFY from the SWP. In April 2025, DWR approved AVEK to receive 50% of their Table A allocation during the 2025 calendar year, equivalent to 72,422 AFY (California Department of Water Resources, 2025b). Section 6.8 includes projections of the volume of imported water reasonably available to the District, based upon SWP delivery estimates provided by AVEK.

If available, AVEK is authorized to purchase additional SWP supplies from other state water contractors or sources. In years with abundant water supplies, AVEK has purchased surplus SWP water and "banked" it in the local groundwater basin for future recovery during dry-year periods. Groundwater banking involves storing imported water in an aquifer when excess supplies are available and subsequently recovering it by pumping in periods of drought or high demand. AVEK has developed three groundwater banks: Westside Water Bank, Eastside Water Bank, and High Desert Water Bank. Additionally, groundwater is recharged at Upper Amargosa Creek under a partnership project between AVEK, the District, City of Palmdale and Palmdale Water District that supports local ecosystems. AVEK's 2025 UWMP should be consulted for more detailed descriptions of these efforts.

To support anticipated demands, the District and AVEK executed a Memorandum of Understanding (MOU) in 2020 establishing a Water Supply Entitlement Acquisition program (AVEK, 2020) (Appendix C). The MOU provides a framework for managing water resources in a manner that supports sustainable growth and development in the Antelope Valley region.

6.2 Groundwater

Groundwater is the District's primary source of potable water supply. This section describes groundwater pumping, the groundwater basin, and groundwater management within the District.

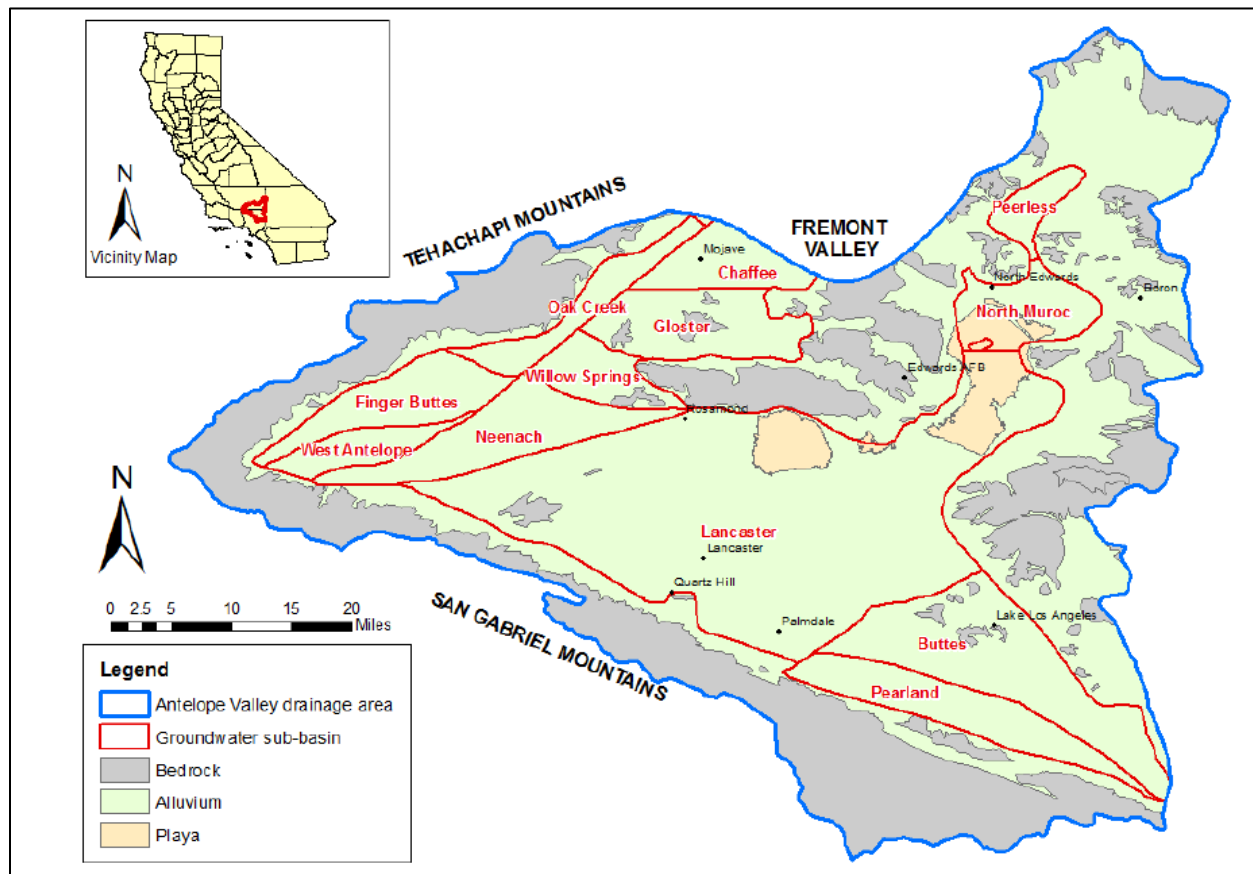
6.2.1 Historical Groundwater Pumping

Table 6-1 presents the amount of groundwater pumping by the District over the last five years. Although imported water deliveries may exceed groundwater production, the District continues to rely on groundwater as its primary source due to its reliability, local control, and adjudicated rights.

Groundwater Type	Location or Basin Name	2021	2022	2023	2024	2025
Alluvial basin	Antelope Valley Groundwater Basin	20,545	19,344	10,889	17,542	20,965

6.2.2 Basin Description

The groundwater basin underlying the District is the Antelope Valley Groundwater Basin (6-44). The Antelope Valley Groundwater Basin (Basin) is composed of two primary aquifers: the upper (principal) aquifer and the lower (deep) aquifer. It is an enclosed basin, and the only major groundwater outflow is groundwater pumping. The total storage capacity of the Basin has been estimated at 68 million AF (USGS, 2023). It is recharged by deep percolation of precipitation and runoff from the surrounding mountains and hills. The Basin is shown in Figure 6-1 (Los Angeles County Public Works, 2014), and is divided into 12 sub-basins by the U.S. Geological Survey.

FIGURE 6-1. GROUNDWATER SUB-BASIN OF ANTELOPE VALLEY

6.2.3 Basin Adjudication

The Antelope Valley Groundwater Basin was adjudicated as a result of several legal disputes (Antelope Valley Groundwater Cases Judgment, 2014). The Basin's adjudication was implemented in 2015. The groundwater adjudication judgment provides the District with annual non-overlying production rights¹ of 6,789 AFY, 55% of unused Federal Reserve rights, and annual return flows equivalent to 39% of the District's 5-year average of purchased SWP water supply (Antelope Valley Watermaster, 2025). The District is also entitled to lease up to 3,550 acre-feet (AF) of AVEK's overlying groundwater rights². However, the actual amount available for lease each year is proportional to the average share of AVEK's imported water purchased by the District. In addition to its annual production rights and return flow allocations, the District may retain unused portions of most of these rights as carryover supplies in accordance with the Judgment and Watermaster accounting procedures. Further discussion of the District's carryover supplies is provided in Section 7.2.1. A summary of the District's annual groundwater rights, excluding any carryover

¹ *Non-overlying production rights refer to rights to extract groundwater for use on land that does overlie the source aquifer.*

² *Overlying groundwater rights represent the legal right of a landowner to extract percolating groundwater from beneath their property for reasonable, beneficial use on that same overlying land.*

balances, from the Basin and other groundwater sources are provided in Table 6-1A. The adjudication is provided in Appendix D.

TABLE 6-1A. GROUNDWATER VOLUMES AVAILABLE	
Description of Right	District No. 40 Annual Groundwater Right (AFY)
Non-overlying production right ^a	6,789
55% of the unused Federal Reserve Right ^{a, b}	3,467
Imported water return flows (39% of previous 5-year average of imported supplies) ^{a, b}	10,426
AVEK lease of overlying production rights ^{b, c}	2,600
Total	23,282

- Non-overlying production right, unused Federal Reserve Right, and imported water return flows reported by Antelope Valley Watermaster for CY 2025 (Antelope Valley Watermaster, 2025).*
- The volumes of the unused Federal Reserve Right, imported water return flows, and AVEK lease of overlying production rights are subject to change each year.*
- AVEK lease as reported in the 2015 agreement between the District and AVEK. The District is entitled to a portion of AVEK's 3,550 AFY overlying production rights proportional to its average annual share of AVEK's purchased water for previous two years. 2,600 AFY was estimated for this table based on the historical average production rights the District has leased from AVEK.*

6.2.4 Groundwater Management

This section describes the Basin's groundwater management. The Antelope Valley Groundwater Basin's adjudication means that it is not subject to most Sustainable Groundwater Management Act (SGMA) requirements, as its management is governed under court orders. As part of the adjudication, the Supreme Court of California (Court) established the sustainable yield and allocated water rights to individual users (Antelope Valley Groundwater Cases Judgment, 2014). The adjudication allows unused production rights to be carried over for up to 10 years, after which they may be entered into storage agreements.

The Court also appointed a Watermaster board to implement and enforce the adjudication judgment. The Watermaster board is empowered to impose a replacement fee on any party that pumps more than its allocated right. The Watermaster board is composed of one representative from AVEK, the District, and one other public water supplier, in addition to two landowner representatives. The Watermaster board publishes an Annual Report with detailed information on groundwater use and key indicators of groundwater sustainability. The Annual Report also summarizes any compliance or enforcement actions taken against groundwater rights holders.

6.3 Stormwater

Stormwater is not currently used as an urban water supply source. However, the Upper Amargosa Creek Recharge project is a joint effort between the City of Palmdale, AVEK, PWD, and the District to redirect stormwater runoff for flood control and groundwater recharge (AVEK, 2025). This project may improve the region's water supply resilience by allowing for up to 2,350 AFY of recharge capacity into the Basin, while also providing water for a local ecosystem.

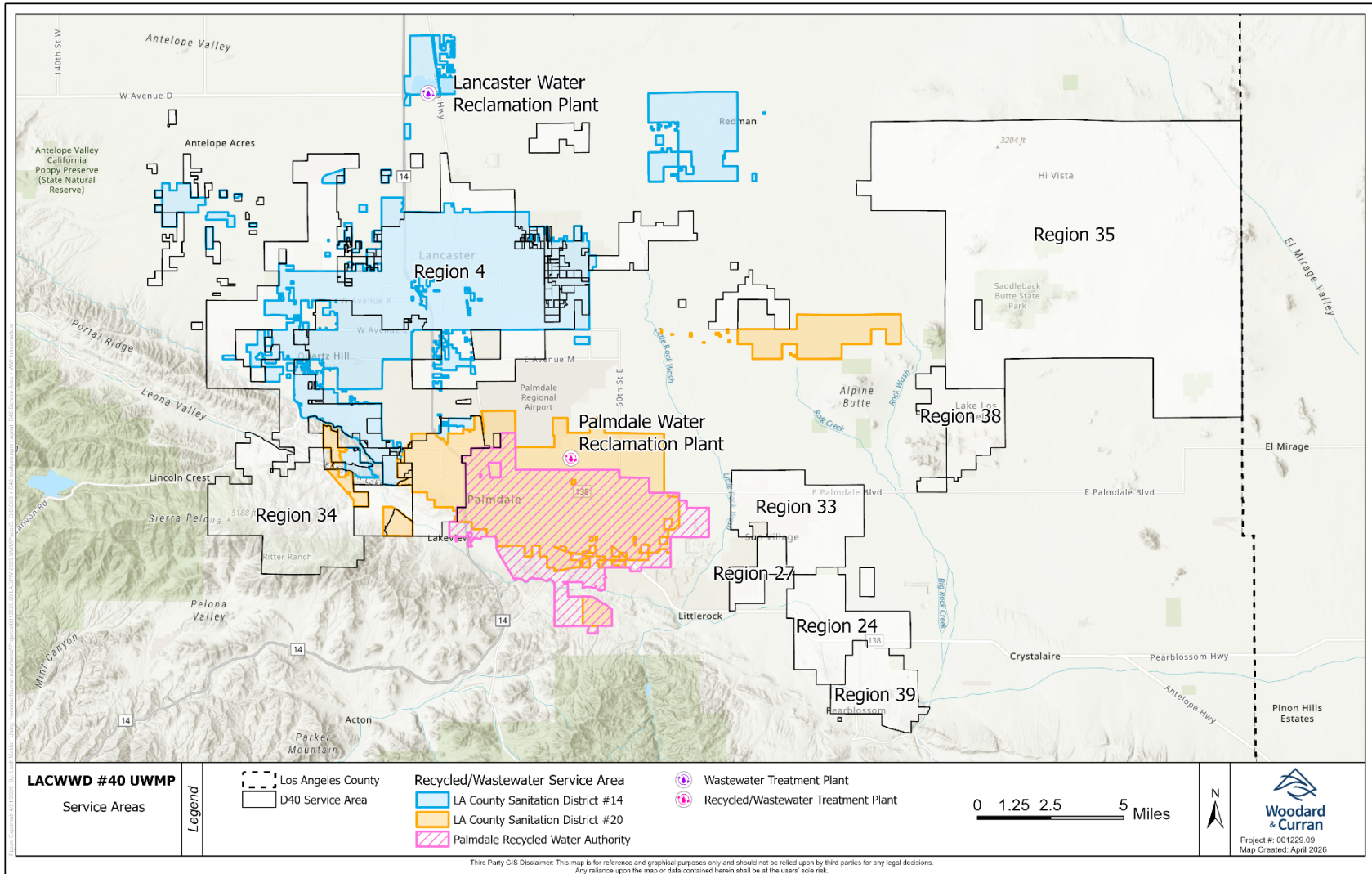
6.4 Wastewater and Recycled Water

The purpose of this section is to provide information on wastewater and recycled water within the District's service area. The elements of this section include: (1) recycled water coordination; (2) the quantity of wastewater generated in the service area; (3) description of the collection, treatment, and disposal/reuse of that wastewater; (4) current water recycling systems; and (5) the potential for water recycling in the service area.

6.4.1 Recycled Water Coordination

The District coordinated with Los Angeles County Sanitation Districts (LACSD) Nos. 14 and 20 to determine current and projected recycled water demands and supplies in the service area. LACSD is responsible for the treatment and disposal of wastewater in the District's service area, except where the cities of Lancaster and Palmdale own, operate, and maintain portions of the collection systems within their city boundaries. LACSD owns and operates the Lancaster Water Reclamation Plant (WRP) and Palmdale WRP, both of which produce recycled water. LACSD also owns and operates the trunk lines that convey wastewater to the treatment plants. The boundaries of LACSD Districts 14 and 20 are displayed in Figure 6-2, as well as the locations of the wastewater treatment facilities relative to the District's service area. Recycled water is retailed by the City of Lancaster, Palmdale Recycled Water Authority, Palmdale Water District, and Los Angeles County Waterworks District 40.

FIGURE 6-2. SERVICE AREA WASTEWATER TREATMENT FACILITIES AND SERVICE AREA



6.4.2 Wastewater Collection, Treatment, and Disposal

Municipal wastewater is generated from a combination of residential and commercial sources. The quantity of wastewater generated is proportional to the population and water use in the service area. Wastewater is collected by gravity in a series of main, trunk, and interceptor sewers. Wastewater collection systems are operated by the cities of Lancaster and Palmdale within their respective city limits and the Los Angeles County Public Works for the unincorporated areas in Lancaster and Palmdale. LACSD District 14 owns, operates, and maintains the Lancaster WRP and the wastewater trunk system in the City of Lancaster. The Lancaster WRP provides tertiary treated water that is used for irrigation, agriculture, urban reuse, wildlife habitat, maintenance, and recreational impoundments. While a portion of the recycled water produced by the Lancaster WRP is discharged to surface water, it is considered to be "recycled outside of service area" due to contractual obligations for recycled water deliveries.

LACSD District 20 owns, operates, and maintains the Palmdale WRP and a portion of the wastewater trunk system. The tertiary treated water is used for agriculture, irrigation, and maintenance. Volumes of wastewater generated within the District's service area in 2025 are presented in Table 6-2. A summary of wastewater volumes treated, discharged, and recycled in 2025 is provided in Table 6-3.

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected in 2025 (AFY)	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located within the District's Service Area?	Is WWTP Operation Contracted to a Third Party?
City of Lancaster, City of Palmdale, Los Angeles County Public Works	Metered	16,469	Los Angeles County Sanitation District 14	Lancaster WRP	No	No
City of Palmdale, Los Angeles County Public Works	Metered	10,527	Los Angeles County Sanitation District 20	Palmdale WRP	No	No
Total Wastewater Collected in Service Area		26,996				

a. Data was provided by LACSD.

TABLE 6-3. RETAIL: WASTEWATER TREATMENT AND OUTCOMES WITHIN SERVICE AREA IN 2025^a							
Wastewater Treatment Plant Name	Does this Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2025 Volumes (AFY)				
			Wastewater Treated ^b	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area ^c	Instream Flow Permit Requirement
Lancaster WRP	No	Tertiary	16,469	-	265	12,556	-
Palmdale WRP	No	Tertiary	10,527	-	-	7,422	-
Total Wastewater Collected in Service Area			26,996	-	265	19,978	-

- a. Data was provided by LACSD.
- b. "Wastewater Treated" represents plant influent. Wastewater treated does not equal water recycled due to solids removal from the treatment process, evaporation losses due to storing water in open reservoirs, and metering differences.
- c. While a portion of the recycled water from the Lancaster WRP is discharged to surface water, it is considered as "recycled outside of service area" due to contractual obligations for recycled water deliveries.

6.4.3 Recycled Water System

The existing recycled water system provides reclaimed water from LACSD's Lancaster WRP and Palmdale WRP to areas in Lancaster and Palmdale. The City of Lancaster manages Lancaster's Recycled Water Direct Reuse Program. The Palmdale Recycled Water Authority jointly manages recycled water resources created by LACSD District 20 for the City of Palmdale and Palmdale Water District and is located outside District 40.

Currently, there is a greater volume of recycled water available in the Antelope Valley region than there are uses for it within the District's service area. The District's 2020 UWMP discussed plans for development of the "Antelope Valley Backbone," a project that would enhance and protect regional access to recycled water. However, further development of this project has been postponed. Future projects may expand distribution infrastructure to convey recycled water to additional users, and thereby further offset potable water demands in the region.

6.4.4 Recycled Water Beneficial Uses

Current beneficial uses of recycled water are agricultural reuse, urban irrigation, construction, wetland water, and recreational impoundments. Table 6-4 presents the 2025 and projected recycled water use within the service area. The recycled water use projections were provided by LACSD. Table 6-5 compares the 2025 use of recycled water projected in the 2020 UWMP to actual 2025 recycled water use. The 2025 projection of recycled water use for landscape irrigation was much higher than actual use, likely due to patterns of landscape conversion/turf removal and improved irrigation efficiency.

TABLE 6-4. RETAIL: RECYCLED WATER DIRECT BENEFICIAL USES WITHIN SERVICE AREA (AFY)

Name of agency producing (treating) the recycled water		LACSD							
Name of agency operating the recycled water distribution system		Los Angeles County Public Works and City of Lancaster							
Supplemental water added in 2025		0							
Source of 2025 supplemental water		N/A							
Beneficial Use Type	General Description of 2025 Uses	Amount of Potential Uses of Recycled Water	Level of Treatment	2025	2030	2035	2040	2045	2050
Landscape irrigation (excludes golf courses)	At Institutional Locations	450	Tertiary	60 ^a	250	300	350	400	450
Commercial use	Grading, dust control, fire	250	Tertiary	9 ^a	50	100	150	200	250
Recreational impoundment	Refill Lake at Apollo Park	250	Tertiary	192 ^a	250	250	250	250	250
Other	Sewer flushing, street sweeping	2	Tertiary	2 ^a	2	2	2	2	2
Total				263^a	552	652	752	852	952

a. Data was provided by LACSD.

TABLE 6-5. RETAIL: 2020 UWMP RECYCLED WATER USE PROJECTION COMPARED TO 2025 ACTUAL (AFY)

Use Type	2020 Projection for 2025	2025 Actual Use ^a
Landscape irrigation (excludes golf courses)	500	60
Commercial use	12	9
Recreational impoundment	250	192
Other	2	2
Total	764	263

a. Data was provided by LACSD.

6.4.5 Actions to Encourage and Optimize Future Recycled Water Use

Recycled water is a reliable and dependable water source available in all seasons. It is an essential part of the District's overall water supply portfolio, as it helps to reduce reliance on groundwater and imported water from the SWP. Recycled water is included in regional planning efforts as a vital component of long-term water supply reliability. One of the goals of the 2014 Salt and Nutrient Management Plan (SNMP) was to assess impacts and prioritize projects maximizing

recycled water use in the service area (Los Angeles County Public Works, 2014). Other planning efforts, such as the Antelope Valley Integrated Regional Water Management (AVIRWM) Plan, have developed long-term water resource strategies which include increased production and utilization of recycled water to improve supply reliability (AVIRWM, 2019). The District has no active or planned projects to expand recycled water use (Table 6-6). However, future recycled water supplies could be available to the District based on potential expansion of recycled water availability from the Los Angeles County Sanitation Districts, Nos. 14 and 20.

TABLE 6-6. RETAIL: METHODS TO EXPAND FUTURE RECYCLED WATER USE	
X	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
6-11	Provide page location of narrative in UWMP

6.5 Desalinated Water Opportunities

The District has no sources of ocean water or brackish groundwater that provide opportunities for development of desalinated water as a long-term supply.

6.6 Exchanges or Transfers

When available, the District anticipates purchasing SWP water from AVEK to be banked at the Upper Amargosa Creek Recharge Project and extracted during future dry years. Such water transfers will be facilitated by AVEK.

6.7 Future Water Projects

The District does not have any future projects planned that would increase its overall water supplies, but continues to plan and implement efforts to improve reliability. Table 6-7 below provides a summary and schedule of near-term future projects that will increase reliability of existing supplies.

Name of Future Projects or Programs	Description	Planned Implementation Year	Planned for Use	Expected Increase in Water Supply to Agency (AF)
Avenue J-12 & 50 th Street West Site Improvements, Well 4-91	Well replacement	2027	All	No net increase in supply, ensures no depletion of supply
Antelope Valley Regional Water Supply Resilience	Well siting and installation to maximize use of groundwater right	2030	All	No net increase in supply, increases access to existing groundwater right

6.8 Summary of Existing and Planned Sources of Water

A summary of 2025 actual supplies is provided in Table 6-8. Projected water supplies from 2030 to 2050 are presented by source in Table 6-9.

Water Supply	Additional Detail on Water Supply	2025	
		Actual Volume	Water Quality
Groundwater	Antelope Valley Groundwater Basin	20,965	Potable
Purchased or imported water	AVEK	23,313	Potable
Recycled water	Refill lake at Apollo Park & City of Lancaster Reuse	263 ^a	Non-Potable
Total Potable		44,278	
Total Non-Potable		263	
Total		44,541	

a. Data was provided by LACSD.

Water Supply	Additional Detail on Water Supply	Reasonably Available Volume				
		2030	2035	2040	2045	2050
Groundwater ^a	Antelope Valley Groundwater Basin	23,282	23,282	23,282	23,282	23,282
Purchased or imported water ^b	AVEK	33,293	39,930	42,374	44,820	47,063
Recycled water ^c	Refill lake at Apollo Park & City of Lancaster Reuse	552	652	752	852	952
Total		57,127	63,864	66,408	68,954	71,297

- Current projections of reasonably available groundwater are based on 5-year average delivery volumes as of 2025, and do not account for future changes to delivery volumes.*
- Based on current planning analyses, AVEK has the supply capability to meet demands that exceed the District's reasonably available volume of groundwater and recycled water with imported water and/or previously banked/stored imported water through 2050 under normal water year conditions, single dry-year conditions, and a drought lasting five consecutive years.*
- Recycled water supplies are shown to equate to recycled water demands estimated by LACSD #14 and 20 (Table 4-2).*

Groundwater remains the District's primary water supply source, with imported water from AVEK used to supplement groundwater to meet remaining demands. Although imported water currently makes up a larger portion of total annual deliveries, the District's long-term water supply planning continues to rely on groundwater as the primary supply, supported by adjudicated pumping rights and return flows.

Once groundwater supplies are exhausted, the remainder of the District's potable water supplies are purchased from AVEK. AVEK's mission is to deliver reliable, sustainable, and high-quality supplemental water to the region in a cost-effective and efficient manner. As an SWP contractor, AVEK provides a supplemental imported water supply from the SWP to retailers in the greater Antelope Valley region. This is a secondary water source for these suppliers and is used by these entities in lieu of, or in addition to, pumped groundwater. In years where AVEK's SWP supplies are not adequate to meet the District's supplemental water demands, it will supplement them with previously banked/stored imported water supplies.

6.9 Climate Change Impacts to Supply

The District is dependent on local groundwater from the Antelope Valley Groundwater Basin and imported water from AVEK for potable supply.

The Antelope Valley Groundwater Basin is recharged from precipitation and runoff from the surrounding mountain and hills. A Climate Change Vulnerability Assessment was completed and climate change considerations incorporated for the Antelope Valley Integrated Regional Water Management Plan (IRWMP) (AVIRWM, 2019). The high priority regional vulnerability issues identified in the IRWMP include:

- Limited ability to meet summer demands and decrease in seasonal reliability

- Lack of groundwater storage to buffer drought
- Decrease in imported supply

The Antelope Valley Region is limited in terms of groundwater stored year to year and has groundwater quality issues in some areas. "Precipitation whiplash" may reduce groundwater as less water is recharged during weather events, such as prolonged droughts or high-flow events with risk of flooding.

AVEK purchases surface water directly from the SWP. Climate change is included in DWR's SWP Delivery Capability Report (DCR) model. According to DWR, the 2025 DCR incorporates analysis of the potential impact of climate change on delivery capability in a more comprehensive manner than previous DCRs. While the exact effects of climate change are uncertain, the following impacts to SWP supplies are expected:

- Reduction in Sierra Nevada snowpack, a crucial water source for the SWP.
- Increased intensity of "precipitation whiplash," leading to more severe and frequent extreme weather events, exacerbating flood risks, and causing prolonged droughts.
- Rising sea levels, potentially affecting coastal groundwater basins due to seawater intrusion and damaging infrastructure from storms, high-tide events, and erosion. Furthermore, since SWP deliveries intersect with the Sacramento-San Joaquin River Delta, infrastructure vulnerability could allow seawater to infiltrate supplies.
- Increased wildfire frequency and severity, impacting water quality and infrastructure
- Increased rates of evaporation in response to high temperatures, decreasing overall surface supplies

These factors may reduce the volume of available water supplies, impact water quality, or affect conveyance capacity (U.S. EPA, 2025). Other factors such as competing demands, regulatory changes, and infrastructure reliability will also influence the availability of potable water, all of which may negatively affect water supply reliability in the District (Sanchez, et al., 2020). Thus, it is essential for the District to consider the possible impacts of climate change in any long-term water resources planning analysis.

6.10 Energy Intensity

Water energy intensity is the total amount of energy on a per AF basis associated with the District's water management processes. The District has selected to report its energy intensity using the total utility approach option as outlined in the DWR 2025 Guidebook. No energy use associated with the wholesaler deliveries is included in the energy intensity analysis. Table 6-10 presents the energy intensity of the District's water supplies for fiscal year 2025. The energy use is for groundwater pumps and distribution pumps within the District, apart from the negligible use associated with lighting (0.5% or less of total energy use).

TABLE 6-10. ENERGY INTENSITY - TOTAL UTILITY APPROACH			
Urban water supplier:	Los Angeles County Waterworks Districts		
Water delivery product:	Retail potable water deliveries		
DWR Table O-1B: Energy Intensity - Total Utility Approach			
Enter start date for reporting period	7/1/2024	Urban Water Supplier Operational Control	
End date	6/30/2025		
	Sum of All Water Management Processes	Non-Consequential Hydropower	Net utility
	Total utility		
Volume of water entering process (AF)	45,759	6,589	52,348
Energy consumed (kWh)	19,444,684	-1,277,024	18,167,660
Energy intensity (kWh/AF) ^a	425	-194	347
Quantity of self-generated renewable energy			
1,367,000	kWh		
Data quality			
Combination of Estimates and Metered Data			
Data quality narrative:			
Energy consumption data is primarily metered and is taken from electric utility bills. These bills provide the pump's electrical data which are the devices consuming the large majority of power in the water distribution system.			
Narrative:			
The primary function of the District's water supply system is to distribute potable water to residential and commercial customers. The water is transported by pumps which consume the significant majority of electrical energy in the water system.			

a. In FY 2025, the net volume of water entering the treatment process was equivalent to 17,058 MG, with an energy intensity of 1,056 kWh/MG.

7. WATER SUPPLY RELIABILITY AND DROUGHT RISK ASSESSMENT

This section describes factors impacting the long-term reliability of the District's water supplies and provides a comparison of projected water supplies and demand projections in normal years, single dry years, and multiple dry years. It also discusses how the impacts of climate change were incorporated into the water supply reliability analysis and provides a five-year drought risk assessment.

7.1 Constraints on Water Supplies

The District's potable water supply is composed of groundwater and imported water purchased from AVEK, a SWP contractor. Water supply reliability is an important component of long-term water resources planning. The District's water supplies are impacted by legal limitations relating to water contracts, environmental constraints, and climatic conditions.

Groundwater quantity is generally unaffected by short-term drought conditions; therefore, it is assumed that the District's available groundwater supply during all year types will remain constant. The District's groundwater supply is governed by adjudicated rights defined in the Antelope Valley Groundwater Basin (Basin) Judgement. Additionally, the District's supply reliability is not expected to be impacted by groundwater quality issues in the Basin, as any localized groundwater quality concerns, including naturally occurring constituents, are manageable through well rehabilitation, treatment, or replacement well development. The District monitors its groundwater wells in accordance with applicable State and Federal drinking water regulations and coordinates with regulatory agencies, including the State Water Resources Control Board Division of Drinking Water, to ensure compliance with all water quality standards and to address any identified water quality concerns.

In contrast, imported surface water supplies from the SWP are variable. SWP availability fluctuates from year to year depending on precipitation, regulatory restrictions, legislative restrictions, and operational conditions. The SWP is particularly unreliable during dry years. While the quality of SWP water can be affected by environmental conditions, such as the formation of trihalomethanes (THMs) due to water age, these issues do not impact supply availability due to careful monitoring and management.

Despite its variability, SWP supplies are necessary for the District to meet expected demands, and the variable nature of the supply presents management challenges. In 2025, DWR published the *State Water Project Adaptation Strategy*, which outlines the efficacy of different methods in reducing the vulnerability of the SWP to climate change impacts (California Department of Water Resources, 2025c). Future supply planning may benefit from referencing the results of this effort. To combat uncertainty in imported supply volumes on a regional level, AVEK has developed projects to store SWP water during wet years for use in dry years to improve supply reliability, as outlined in Section 7.2 below.

7.2 Regional Supply Reliability

The District's supply reliability is supported by carryover water, pre-adjudication water banking, and regional water management strategies that are described in the 2019 update of the Antelope

Valley Integrated Regional Water Management (IRWM) Plan. The Antelope Valley IRWM group, which includes the District, is actively collaborating on the strategies and projects that are outlined in the 2019 IRWM plan update. Furthermore, the District is closely aligned with AVEK on programs that enhance the regional supply reliability. Descriptions of some of AVEK's supply reliability programs are included in the list below. AVEK's supply reliability programs are discussed in greater detail in the agency's 2025 UWMP (AVEK2025).

7.2.1 Carryover Water (District 40)

The District has access to "carryover" water in the Antelope Valley Groundwater Adjudicated Area in accordance with the provisions of the Antelope Valley Groundwater Basin Judgment (Judgment). Carryover water consists of the unused portion of a Producer's annual Production Right and/or Imported Water Return Flow allocation that remains available for future use, subject to the conditions set forth in the Judgment. All carryover accounting is maintained and reported by the Antelope Valley Watermaster.

Pursuant to the Judgment, carryover water may be retained for up to ten years. Because the earliest carryover balances were established at the beginning of 2017, certain carryover amounts will reach the ten-year limit at the end of 2026. At that time, unproduced carryover water must be addressed through a Storage Agreement with the Watermaster. District 40 is currently working with the Antelope Valley Watermaster to develop and enter into a Storage Agreement to formalize the long-term management of its carryover supplies. Carryover supplies enhance water supply reliability for the District during dry-year conditions.

7.2.2 Lancaster Sub-Basin Full-Scale Aquifer Storage and Recovery (ASR) Project (District 40)

The Lancaster Sub-Basin Full-Scale Aquifer Storage and Recovery (ASR) project was developed in partnership with AVEK and USGS before the basin adjudication. The ASR project started with a pilot project and demonstration project (1994-1999) before expanding to a full-scale project in 2004. Treated SWP water was injected into the Lancaster sub-basin between the years 1994 and 2010. Through these projects it was determined storage and recovery of treated SWP water in groundwater basins is a feasible mechanism for increasing the water supply for municipal and domestic use in the Antelope Valley Region.

7.2.3 High Desert Water Bank (AVEK)

The High Desert Water Bank is a project developed by AVEK in partnership with the Metropolitan Water District of Southern California (Metropolitan). The High Desert Water Bank has a capacity of 280,000 AF and has an estimated recharge and recovery capacity of up to 70,000 AFY. The bank will be primarily recharged with imported SWP water, which will be stored for future use by Metropolitan and AVEK's customers. The High Desert Water Bank is expected to be fully operational in late 2027 and will provide a significant buffer for regional water supply reliability by providing storage for large volumes of imported water.

7.2.4 South North Intertie Project (AVEK)

Phase I of the South North Intertie Project (SNIP) was completed in 2011. It connected AVEK's Westside Water Bank to its Kern County system and to a portion of the District's system, providing redundancy to the surrounding area and allowing AVEK to maximize the use of existing treatment facilities. The SNIP increased the reliability of AVEK's system by establishing access to stored imported water supplies and providing operational flexibility during droughts, outages, or interruptions in nearby portions of the California Aqueduct. SNIP Phase II will interconnect AVEK's Westside Water Bank with its Quartz Hill Water Treatment Plant, improving access to the bank's recovery capacity. SNIP Phase II will increase water supply reliability by connecting more customers to AVEK's groundwater banks.

7.3 Service Reliability – Year Type Characterization

Groundwater is the District's primary supply. As described in Section 6.2.3 and Table 6-1A, the District's groundwater entitlements include both fixed and variable components. In a sustained multi-year drought, reduced SWP purchases could lower the return flow entitlement in subsequent years through the lagged five-year average calculation. The District's carryover supplies and AVEK's groundwater banking capacity provide a sufficient buffer against such reductions. For the purposes of this reliability assessment, the District's total groundwater entitlement is therefore held constant across all year types and is not factored into the basis of water year data presented in Table 7-1.

The District's water service reliability depends on AVEK's projections of service reliability, as imported water from AVEK is expected to account for 58 to 66% of the District's available water supply between 2030 and 2050 in normal hydrological years. In its 2025 UWMP, AVEK used information from the Draft 2025 SWP Delivery Capability Report to estimate existing (2025) and future (2045) availability of SWP water (California Department of Water Resources, 2025b).

DWR's estimates of SWP deliveries are based on a computer model that simulates monthly operations of the SWP and Central Valley Project systems. Key inputs to the model include assumptions regarding the facilities included in the system, hydrologic inflows to the system, regulatory and operational constraints on system operations, and contractor demand for SWP water. The 2025 DCR incorporates several recent regulatory restrictions related to U.S. Fish and Wildlife and National Marine Fisheries Service biological opinions, California Department of Fish and Wildlife incidental take permits, amendments to operational agreements, and contractor demands. The long-term average allocation reported in the 2025 DCR for the existing conditions study provides an appropriate estimate of the SWP water supply availability under current conditions (DWR, 2025). AVEK used a 50th percentile level of concern scenario provided by the DCR to estimate future SWP availability (California Department of Water Resources, 2025b). The outcomes of the 50th percentile model scenario are shown in Table 7-1 below.

AVEK's supply capabilities are subject to the constraints described above. As such, AVEK does not commit to allocating a fixed percentage of its imported water supplies to any individual retailer in any specific year. Based on current planning analyses, AVEK has the supply capability to meet expected imported water demands through 2050 under normal water year conditions, single dry-year conditions, and a drought lasting five consecutive years based on projected SWP

availability from the Draft 2025 DCR (California Department of Water Resources, 2025b). Therefore, Table 7-1 reflects the expectation that AVEK will be able to meet the District's supplemental water demands which exceed its reasonably available supplies of groundwater and recycled water with SWP Table A deliveries, banked imported water, or a combination of the two during an average year, single-dry year, and five-year consecutive drought condition.

TABLE 7-1. RETAIL BASIS OF WATER YEAR DATA (RELIABILITY ASSESSMENT)			
Year Type	Base Year	Percentage of SWP Table A Allocation Delivered to AVEK	Percentage of Supplies Available to District 40
Average year	Average of 1922-2021	55% (Existing) 50% (2045)	100%
Single-dry year	1977	6% (Existing) 2% (2045)	100%
Consecutive dry years 1st year	1929	8%	100%
Consecutive dry years 2nd year	1930	34%	100%
Consecutive dry years 3rd year	1931	2%	100%
Consecutive dry years 4th year	1932	10%	100%
Consecutive dry years 5th year	1933	18%	100%

7.4 Service Reliability - Supply and Demand Comparison

This section provides a comparison of normal, single dry year, and multiple dry year supply and demand for the District. The water demands and water supplies that inform this section are addressed in Sections 4 and 6, respectively. For the purposes of this analysis, the District's groundwater production rights are assumed to remain constant in all year types, with an available volume of 23,282 AFY. Carryover water also provides additional drought-resilience benefits.

Based on current planning analyses, AVEK has the supply capability to meet expected imported water demands through 2050 under normal water year conditions, single dry-year conditions, and a drought lasting five consecutive years based on projected SWP availability from the Draft 2025 DCR (DWR, 2025).

To meet demands in years where their Table A allocation is less than average, AVEK will provide stored imported water from its groundwater banking projects to account for the deficit in imported water based on current planning analyses. Additionally, there is a larger quantity of reasonably available recycled water to the District than what is presented as supply in Table 6-9, which displays recycled water demands to maintain a conservative supply estimate.

For the water supply reliability assessment, District demand is assumed to remain consistent across normal and dry year conditions and represents unconstrained demand, consistent with guidance from the California Department of Water Resources. This approach evaluates supply reliability independently of demand management actions and focuses on how available supplies are affected by hydrologic conditions.

Maintaining consistent demand assumptions allows the analysis to isolate the impact of hydrologic variability on available supplies and provides a conservative assessment of system reliability. Any reductions in demand due to conservation measures, water use restrictions, or other response actions are addressed separately in the District's Water Shortage Contingency Plan and are not included in this reliability analysis.

7.4.1 Normal Year Water Supply and Demand

Table 7-2 presents the District's normal water year scenario, showing a comparison of projected water supplies to the projected demand. Groundwater and purchased supplies are anticipated to be able to meet the District's projected demands during normal hydrologic conditions.

	2030	2035	2040	2045	2050
Supply totals ^a	57,127	63,864	66,408	68,954	71,297
<i>Non-overlying production right ^b</i>	6,789	6,789	6,789	6,789	6,789
<i>55% of the unused Federal Reserve Right ^b</i>	3,467	3,467	3,467	3,467	3,467
<i>Imported water return flows (39% of previous 5-year average of imported supplies) ^b</i>	10,426	10,426	10,426	10,426	10,426
<i>AVEK lease of overlying production rights ^b</i>	2,600	2,600	2,600	2,600	2,600
<i>Recycled water ^c</i>	552	652	752	852	952
<i>Purchased or imported water (AVEK) ^d</i>	33,293	39,930	42,374	44,820	47,063
Demand total ^e	57,127	63,864	66,408	68,954	71,297
Difference (supply minus demand)	0	0	0	0	0

a. Supplies are anticipated to meet demands.

b. From Table 6-1A. The volumes of the unused Federal Reserve Right, imported water return flows, and AVEK lease of overlying production rights are subject to change each year.

c. Recycled water supply volumes are set equal to projected recycled water demand to maintain conservative estimates.

d. Based on current planning analyses, AVEK has the supply capability to meet demands that exceed the District's reasonably available volume of groundwater and recycled water with imported water and/or previously banked/stored imported water through 2050 under normal water year conditions.

e. Potable and recycled water demands are derived from Table 4-2.

7.4.2 Single Dry Year Water Supply and Demand

Table 7-3 presents the District's single dry year scenario, showing a comparison of projected single dry year water supplies to the projected demand. Although dry conditions often lead to increased

outdoor irrigation demands, customer demands are expected to remain stable in a single dry year because the District is located in an arid region where extensive turf removal and climate-appropriate landscape conversions have already occurred. Landscapes and other outdoor water uses are adapted to dry conditions. Additionally, in the single dry year scenario, the District will be able to access its carryover water rights from the Basin, and AVEK can meet the District's remaining water demands by pumping previously banked/stored imported water. No supply deficit is anticipated.

TABLE 7-3. SINGLE DRY YEAR WATER SUPPLY AND DEMAND COMPARISON (AFY)					
	2030	2035	2040	2045	2050
Supply totals ^a	57,127	63,864	66,408	68,954	71,297
<i>Non-overlying production right ^b</i>	6,789	6,789	6,789	6,789	6,789
<i>55% of the unused Federal Reserve Right ^b</i>	3,467	3,467	3,467	3,467	3,467
<i>Imported water return flows (39% of previous 5-year average of imported supplies) ^b</i>	10,426	10,426	10,426	10,426	10,426
<i>AVEK lease of overlying production rights ^b</i>	2,600	2,600	2,600	2,600	2,600
<i>Recycled water ^c</i>	552	652	752	852	952
<i>Carryover water ^d</i>	13,137	13,137	13,137	13,137	13,137
<i>Purchased or imported water (AVEK) ^e</i>	20,156	26,793	29,237	31,683	33,926
Demand totals ^f	57,127	63,864	66,408	68,954	71,297
Difference (supply minus demand)	0	0	0	0	0

a. Supplies are anticipated to meet demands.

b. From Table 6-1A. The volumes of the unused Federal Reserve Right, imported water return flows, and AVEK lease of overlying production rights are subject to change each year.

c. Recycled water supply volumes are set equal to projected recycled water demand to maintain conservative estimates.

d. Carryover volumes total to be equivalent to the available volume of carryover groundwater stored in the Antelope Valley Groundwater Basin (per 5/19/2025 accounting).

e. The supply volumes from AVEK are set to be equivalent to the remainder of the District's estimated demands following the use of the District's groundwater, recycled water, and carryover supplies. Potable and recycled water demands are derived from Table 4-2.

f. Potable and recycled water demands are derived from Table 4-2.

7.4.3 Five Consecutive Dry Year

Table 7-4 presents the District's multiple dry year scenario, which shows a comparison of projected multiple dry year water supplies to the projected demand. As described in the single dry year scenario, dry conditions are not anticipated to increase water demands as the District is located in an arid region, where outdoor water use is adapted to dry conditions. The multiple dry year scenario is based upon estimated SWP allocations during the driest five consecutive years from the 2025 DCR: 1929-1933. In the multiple dry year scenario, the District will be able to access its carryover water rights from the Basin, and AVEK can meet the District's remaining water demands by pumping previously banked/stored imported water. No supply deficit is anticipated.

TABLE 7-4. MULTIPLE DRY YEARS SUPPLY AND DEMAND COMPARISON (AFY)

		2030	2035	2040	2045	2050
First year	Supply totals ^a	57,127	63,864	66,408	68,954	71,297
	<i>Non-overlying production right ^b</i>	6,789	6,789	6,789	6,789	6,789
	<i>55% of the unused Federal Reserve Right ^b</i>	3,467	3,467	3,467	3,467	3,467
	<i>Imported water return flows (39% of previous 5-year average of imported supplies) ^b</i>	10,426	10,426	10,426	10,426	10,426
	<i>AVEK lease of overlying production rights ^b</i>	2,600	2,600	2,600	2,600	2,600
	<i>Recycled water ^c</i>	552	652	752	852	952
	<i>Carryover water ^d</i>	13,137	13,137	13,137	13,137	13,137
	<i>Purchased or imported water (AVEK) ^e</i>	20,156	26,793	29,237	31,683	33,926
	Demand totals ^f	57,127	63,864	66,408	68,954	71,297
	Difference (supply minus demand)	0	0	0	0	0
Second year	Supply totals ^a	57,127	63,864	66,408	68,954	71,297
	<i>Non-overlying production right ^b</i>	6,789	6,789	6,789	6,789	6,789
	<i>55% of the unused Federal Reserve Right ^b</i>	3,467	3,467	3,467	3,467	3,467
	<i>Imported water return flows (39% of previous 5-year average of imported supplies) ^b</i>	10,426	10,426	10,426	10,426	10,426
	<i>AVEK lease of overlying production rights ^b</i>	2,600	2,600	2,600	2,600	2,600
	<i>Recycled water ^c</i>	552	652	752	852	952
	<i>Carryover water ^d</i>	13,137	13,137	13,137	13,137	13,137
	<i>Purchased or imported water (AVEK) ^e</i>	20,156	26,793	29,237	31,683	33,926
	Demand totals ^f	57,127	63,864	66,408	68,954	71,297
	Difference (supply minus demand)	0	0	0	0	0

TABLE 7-4. MULTIPLE DRY YEARS SUPPLY AND DEMAND COMPARISON (AFY)

Third year	Supply totals ^a	57,127	63,864	66,408	68,954	71,297
	<i>Non-overlying production right ^b</i>	6,789	6,789	6,789	6,789	6,789
	<i>55% of the unused Federal Reserve Right ^b</i>	3,467	3,467	3,467	3,467	3,467
	<i>Imported water return flows (39% of previous 5-year average of imported supplies) ^b</i>	10,426	10,426	10,426	10,426	10,426
	<i>AVEK lease of overlying production rights ^b</i>	2,600	2,600	2,600	2,600	2,600
	<i>Recycled water ^c</i>	552	652	752	852	952
	<i>Carryover water ^d</i>	13,137	13,137	13,137	13,137	13,137
	<i>Purchased or imported water (AVEK) ^e</i>	20,156	26,793	29,237	31,683	33,926
	Demand totals ^f	57,127	63,864	66,408	68,954	71,297
	Difference (supply minus demand)	0	0	0	0	0
Fourth year	Supply total ^a	57,127	63,864	66,408	68,954	71,297
	<i>Non-overlying production right ^b</i>	6,789	6,789	6,789	6,789	6,789
	<i>55% of the unused Federal Reserve Right ^b</i>	3,467	3,467	3,467	3,467	3,467
	<i>Imported water return flows (39% of previous 5-year average of imported supplies) ^b</i>	10,426	10,426	10,426	10,426	10,426
	<i>AVEK lease of overlying production rights ^b</i>	2,600	2,600	2,600	2,600	2,600
	<i>Recycled water ^c</i>	552	652	752	852	952
	<i>Carryover water ^d</i>	13,137	13,137	13,137	13,137	13,137
	<i>Purchased or imported water (AVEK) ^e</i>	20,156	26,793	29,237	31,683	33,926
	Demand total ^f	57,127	63,864	66,408	68,954	71,297
	Difference (supply minus demand)	0	0	0	0	0

TABLE 7-4. MULTIPLE DRY YEARS SUPPLY AND DEMAND COMPARISON (AFY)						
Fifth year	Supply total ^a	57,127	63,864	66,408	68,954	71,297
	<i>Non-overlying production right ^b</i>	6,789	6,789	6,789	6,789	6,789
	<i>55% of the unused Federal Reserve Right ^b</i>	3,467	3,467	3,467	3,467	3,467
	<i>Imported water return flows (39% of previous 5-year average of imported supplies) ^b</i>	10,426	10,426	10,426	10,426	10,426
	<i>AVEK lease of overlying production rights ^b</i>	2,600	2,600	2,600	2,600	2,600
	<i>Recycled water ^c</i>	552	652	752	852	952
	<i>Carryover water ^d</i>	13,137	13,137	13,137	13,137	13,137
	<i>Purchased or imported water (AVEK) ^e</i>	20,156	26,793	29,237	31,683	33,926
	Demand totals ^f	57,127	63,864	66,408	68,954	71,297
	Difference (supply minus demand)	0	0	0	0	0

- a. Supplies are anticipated to meet demands.
- b. From Table 6-1A. The volumes of the unused Federal Reserve Right, imported water return flows, and AVEK lease of overlying production rights are subject to change each year.
- c. Recycled water supply volumes are set equal to projected recycled water demand to maintain conservative estimates.
- d. Carryover volumes total to be equivalent to the available volume of carryover groundwater stored in the Antelope Valley Groundwater Basin (per 5/19/2025 accounting).
- e. The supply volumes from AVEK are set to be equivalent to the remainder of the District's estimated demands following the use of the District's groundwater, recycled water, and carryover supplies.
- f. Potable and recycled water demands are derived from Table 4-2.

7.5 Five-Year Drought Risk Assessment

The DRA is a methodical assessment of water supplies and water uses under an assumed drought period that lasts five consecutive years from 2026 to 2030. Table 7-5. summarizes the results of the DRA for the District. To determine the unconstrained gross water use for 2026 to 2030, linear interpolation of water demands from 2025 to 2030 was performed using the total water demand data in

For the DRA, supply volumes were assumed to remain consistent with the demand estimates presented in the single dry year analysis as shown in Table 7-3. Furthermore, as in the single- and multiple-dry year analyses, the District expects to be able to access their carryover water rights, while banked imported water supply from AVEK is assumed to fulfill the remainder of the District demands (Table 7-3, Table 7-4). As described in Section 6, recycled water use is projected to increase in the foreseeable future, so recycled water volumes were linearly interpolated between 2025 and 2030 to estimate total supplies for 2026 through 2029.

The DRA analysis shows that no years during the five-year drought are projected to experience a deficit. The DRA summary is shown in Table 7-5..

TABLE 7-5. FIVE-YEAR DROUGHT RISK ASSESSMENT	
2026	Total
Gross Water Use	47,058
<i>District groundwater production</i>	23,282
<i>Recycled water</i>	321
<i>Carryover water</i>	13,137
<i>Purchased or imported water (AVEK)</i>	10,318
Total Supplies	47,058
Surplus/(Shortfall w/o WSCP Action)	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	n/a
WSCP - use reduction savings benefit	n/a
Revised Surplus/(shortfall)	n/a
Resulting % Use Reduction from WSCP action	n/a
2027	Total
Gross Water Use	49,575
<i>District groundwater production</i>	23,282
<i>Recycled water</i>	379
<i>Carryover water</i>	13,137
<i>Purchased or imported water (AVEK)</i>	12,778
Total Supplies	49,575
Surplus/(Shortfall w/o WSCP Action)	0

TABLE 7-5. FIVE-YEAR DROUGHT RISK ASSESSMENT	
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	n/a
WSCP - use reduction savings benefit	n/a
Revised Surplus/(shortfall)	n/a
Resulting % Use Reduction from WSCP action	n/a
2028	Total
Gross Water Use	52,093
<i>District groundwater production</i>	23,282
<i>Recycled water</i>	437
<i>Carryover water</i>	13,137
<i>Purchased or imported water (AVEK)</i>	15,237
Total Supplies	52,093
Surplus/(Shortfall w/o WSCP Action)	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	n/a
WSCP - use reduction savings benefit	n/a
Revised Surplus/(shortfall)	n/a
Resulting % Use Reduction from WSCP action	n/a
2029	Total
Gross Water Use	54,610
<i>District groundwater production</i>	23,282
<i>Recycled water</i>	495
<i>Carryover water</i>	13,137
<i>Purchased or imported water (AVEK)</i>	17,697
Total Supplies	54,610
Surplus/(Shortfall w/o WSCP Action)	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	n/a
WSCP - use reduction savings benefit	n/a
Revised Surplus/(shortfall)	n/a
Resulting % Use Reduction from WSCP action	n/a
2030	Total
Gross Water Use	57,127
<i>District groundwater production</i>	23,282
<i>Recycled water</i>	552
<i>Carryover water</i>	13,137

TABLE 7-5. FIVE-YEAR DROUGHT RISK ASSESSMENT	
<i>Purchased or imported water (AVEK)</i>	20,156
Total Supplies	57,127
Surplus/(Shortfall w/o WSCP Action)	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	n/a
WSCP - use reduction savings benefit	n/a
Revised Surplus/(shortfall)	n/a
Resulting % Use Reduction from WSCP action	n/a

8. WATER SHORTAGE CONTINGENCY PLAN

Water shortage contingency planning is essential to providing reliable water service in the face of drought, infrastructure disruptions, or other emergencies. The District has developed a comprehensive Water Shortage Contingency Plan (WSCP), which outlines strategies for assessing water supply conditions, implementing shortage response actions, and maintaining service reliability during times of reduced water availability. The WSCP was originally adopted in October 2021 and amended with this UWMP. The District's WSCP along with the required DWR tables, is presented as a separate document in Appendix E, and outlined briefly in this section.

8.1 Purpose and Framework

The WSCP, developed in compliance with CWC Section 10632, is a tool that can be implemented to help the District maintain reliable water service during times of reduced supply. The WSCP references the Phased Water Conservation Plan (PWCP), which is Part 5 of the Rules and Regulations of the Los Angeles County Waterworks Districts, for rules and regulations governing the demand reduction actions outlined in the WSCP (Los Angeles County Waterworks Districts, 1991). The PWCP was originally adopted in May 1991 and most recently amended in 2026; it is available at the following link: <https://pw.lacounty.gov/core-service-areas/water-resources/waterworks-districts/waterworks-rules-regulations/>.

While the PWCP provides the enforcement framework for conservation actions, the WSCP builds upon it by offering a broader, strategic approach to managing water shortages. It includes standardized shortage levels, annual assessment protocols, and a suite of response actions designed to maintain service reliability and protect public health and safety.

Together, the WSCP and PWCP provide a structured framework to:

- Assess annual water supply and demand
- Identify shortage levels and appropriate response actions
- Communicate with customers and stakeholders
- Enforce conservation measures
- Monitor effectiveness and refine strategies

These components are required by DWR and are essential for maintaining public trust, ensuring operational resilience, and aligning with regional and state water conservation goals. By proactively planning for shortages, the District can minimize service disruptions, protect public health and safety, and promote sustainable water use.

8.2 Activation and Implementation

District staff conduct an Annual Water Supply and Demand Assessment by July 1 each year, evaluating current and projected supplies against demand, assuming that the following year will be dry. The WSCP is activated when the assessment indicates a potential or actual shortage, or when otherwise deemed necessary. In response, the District may implement one of six standardized shortage levels, each with corresponding response actions. These are outlined in Table 8-1 below.

The WSCP shortage levels are aligned with DWR requirements. These levels reflect the increasing severity of supply reductions and guide the District’s conservation and operational responses.

TABLE 8-1. WATER SHORTAGE LEVELS		
Shortage Level	Percent Supply Reduction	Water Shortage Condition
Level 1	Up to 10%	Minor shortage; Board of Supervisors declares up to 10% reduction
Level 2	Up to 20%	Moderate shortage; 10–20% reduction
Level 3	Up to 30%	Significant shortage; 20–30% reduction
Level 4	Up to 40%	Severe shortage; 30–40% reduction
Level 5	Up to 50%	Critical shortage; 40–50% reduction
Level 6	> 50%	Catastrophic shortage; greater than 50% reduction

Each level triggers specific actions based on the severity of the shortage. These include demand reduction actions, such as irrigation restrictions, public outreach campaigns, and conservation surcharges. The District may also pursue supply augmentation through exercising emergency interconnections with neighboring water agencies, accessing stored water in groundwater banks or reservoirs, and authorizing transfers which are negotiated agreements to move water from one entity to another.

The Los Angeles County Board of Supervisors, as the governing body for the District, has authority to declare shortage levels, implement rate changes, and modify conservation goals. Additionally, the District’s WSCP allows for flexibility in response actions, enabling the District to adapt to evolving conditions without requiring formal amendments to the UWMP.

8.3 Plan Coordination

The WSCP is supported by the District’s Emergency Response Plan (ERP) and Water Waste Ordinance, which provide additional tools for managing supply interruptions and enforcing conservation. In addition, the District collaborates with AVEK to confirm supply reliability and coordinate public outreach. The PWCP complements these efforts by identifying specific conservation measures such as limiting outdoor irrigation, promoting water-efficient appliances, conducting public education campaigns, and enforcing water waste restrictions. These measures are designed to reduce demand and improve water use efficiency, especially during drought conditions, and are aligned with the WSCP’s staged response framework.

9. DEMAND MANAGEMENT MEASURES

The District manages an ongoing water conservation program and is committed to implementing water conservation measures for all customer sectors. This section provides narrative descriptions addressing the nature and extent of each Demand Management Measure (DMM) implemented during the past five years, from 2020-2025, as well as the District's planned implementation of each conservation measure.

9.1 Water Waste Prevention Ordinances

The Water Shortage Contingency Plan (WSCP) (Appendix E) references the Phased Water Conservation Plan (PWCP), which is part of the Rules and Regulations for the Los Angeles County Waterworks Districts (Los Angeles County Waterworks Districts, 1991). The WSCP and PWCP refer to Los Angeles County's Water Waste Prevention Ordinances, initially adopted in 1991 and most recently updated in 2015 (Los Angeles County, 2015). Under normal water supply conditions, a Water Waste Ordinance is in effect unless the Los Angeles County Board of Supervisors (Board) modifies or adds to these restrictions. The WSCP will go into effect only if the District is experiencing a shortage in water supply.

The District has set up an online form, smart phone app, and phone number for customers to report water waste. The Water Waste Ordinance is enforced via two site visits to the documented location and a referral to the jurisdictional agency for enforcement, with the potential for applying fines to the party wasting water. Additionally, a flow restricting device may be installed for customers repeatedly violating the water wasting prohibitions.

Planned Implementation. The implementation of this DMM is ongoing. The District will continue to enforce the regulations. Water waste complaints and violations are received and investigated by District staff and addressed via door hangers and/or a letter to the billing address. In some cases, fines may be issued by the local jurisdiction.

In addition to the County ordinances, the cities of Lancaster and Palmdale adopted water efficiency ordinances in 2008 (City of Lancaster, 2008). The City of Palmdale's Water Efficient Landscape Ordinance requires new developments to calculate water use budgets, and provides a list of approved plants and trees for landscaping (City of Palmdale, 2008).

9.2 Metering

The District is fully metered and continues to make significant progress in upgrading its metering infrastructure to support water conservation, operational efficiency, and customer engagement. The District currently reads meters through three methods: (1) manually, where water service workers manually read and record water usage directly from the meters, (2) drive-by automated meter reading (AMR) technology, where water meters transmit radio signals to a portable receiver located inside the meter reading vehicle, and (3) advanced metering infrastructure (AMI), which allows for remote, real-time data collection. AMR and AMI support faster and more effective leak detection, increasing water savings and decreasing customer water bills. AMI also allows customers to view their own water usage via the customer portal.

As of January 2025, the District has upgraded approximately 61% of its water meters to AMI and approximately 20% to AMR. This represents significant progress toward full AMI implementation since the 2020 UWMP.

Planned Implementation. This DMM is on track. The District continues to prioritize AMI deployment and metering upgrades as a key component of its water conservation and sustainability efforts. The District has set a target of achieving 100% AMI or AMR conversion by 2030, subject to capital budget availability.

9.3 Conservation Pricing

In early 2026, Los Angeles County Public Works implemented a new rate structure for the District following completion of a 2025 cost-of-service study. Public Works subsequently updated the PWCP and WSCP to incorporate the updated rate structure.

The District has adopted a two-tiered Quantity Charge rate structure, which may encourage water conservation, with Quantity Charge rates that differ based on the cost of service to deliver groundwater and imported water. For each Region, the tiered Quantity Charge rate structure varies slightly by geographic area. During drought conditions, the District may implement drought rates that adjust the base Quantity Charge rates to recover drought-related costs and reflect changes in water supply costs. Customers are subject to a fixed monthly Service Charge and a quantity-based Facilities Construction Surcharge.

The updated water rates are available to view on the Los Angeles County Public Works website.

Planned Implementation. If the WSCP is activated and a Water Shortage Level I is declared, the District may implement the drought rates to further encourage demand reductions. There have been no conservation surcharges between the publication of the 2020 and 2025 UWMPs. However, the District enacted conservation measures related to landscape irrigation in 2022 and 2023.

9.4 Water Conservation Public Education and Outreach

Los Angeles County Waterworks Districts engages and educates its customers through a variety of programs and outreach efforts, including:

- **Public Outreach Events:** Hosting booths at community events and fairs, as well as hosting an annual Water Awareness Event, to share information on water conservation, efficient usage, available rebate programs and offering a water use survey.
- **Webinars:** Offering online sessions on topics such as: water conservation, water quality, and customer service for the Waterworks Districts.
- **Printed and Digital Materials:** Distributing newsletters and providing web-based publications with tips on conserving water and updates on District programs and our capital improvement projects.
- **Promotional Activities:** Providing giveaways and interactive activities to encourage customer participation and awareness of conservation practices at community events.

The District continues to offer a variety of water conservation programs designed to support customers in reducing water use and improving efficiency, including the following:

- The **Water Savings Devices Rebate Program** is available to customers who purchase qualifying water-efficient devices. Rebates include up to \$85 for high-efficiency clothes washers, up to \$80 for weather-based irrigation controllers, and \$2 per nozzle for rotary sprinkler nozzles. These devices help reduce water consumption by reducing indoor water use and improving outdoor irrigation efficiency.
- The District also participates in the **Cash for Grass Rebate Program**, which encourages customers to replace water-intensive lawns with drought-tolerant landscaping. Eligible materials include mulch, decomposed granite, rock, and permeable hardscape, while artificial turf and concrete are not eligible. The rebate is offered at \$1 per square foot, with a minimum of 500 square feet and a maximum of 5,000 square feet for eligible projects. This program supports long-term water savings by promoting sustainable landscaping practices that require significantly less water for irrigation.

The District continues to operate under its PWCP and WSCP and enforces its Water Waste Prevention Ordinances. These measures are supported by ongoing public education and outreach, staffing for conservation coordination, and rebate programs.

Although no formal Best Management Practice (BMP) reports have been completed since 2019, the District implemented the Waterwise On-Call Water Conservation BMP in 2020. The District also implements and tracks BMPs as outlined in the “Making Conservation a California Way of Life” framework (State Water Resources Control Board, 2025). These updates reflect the District’s continued commitment to improving water efficiency.

The District also heightened its online and digital presence by updating its website to include water conservation tips and posting messages on applications including X (formerly Twitter) and Nextdoor.

Planned Implementation. The District is in compliance with this DMM. The District will continue to provide water conservation materials as part of its community outreach programs, as well as continue to work cooperatively with AVEK to develop and distribute water conservation information regionally. In conjunction with education and outreach programming, the District will continue to implement its suite of Water Savings Programs, including rebates for high-efficiency devices, the Cash for Grass turf replacement program, and free Water Use Surveys.

9.5 Water Conservation Program Coordination and Staffing Support

The District has several staff members that assist with the coordination of water conservation and related outreach.

The contact information for the water conservation and rebate programs is:

Phone number: 626.300.3313

Email: rebate@dpw.lacounty.gov

Planned Implementation. The implementation of this DMM is ongoing.

9.6 Programs to Assess and Manage Distribution System Real Loss

The District actively manages real water losses through ongoing leak detection and repair, in addition to system monitoring, with a focus on high-probability leak areas. Water audits, leak detection, and repair activities are conducted regularly to identify and address system inefficiencies. The District completes AWWA Water Loss Audits annually. The 2020 through 2024 AWWA Water Loss Audits have been completed and validated.

To support long-term asset management, the District maintains detailed records of all leak repairs conducted on its treated water system. This information is reviewed annually to identify pipelines that may require replacement and to inform the District's capital improvement planning process. The District also uses iWater's InfraMAP mobile application to track preventive maintenance activities, such as leak repairs, valve exercising, flushing, pump station inspections, and 811 USA tickets that automatically respond back to the 811 center, which is known as positive response.

Additionally, as described earlier in this section, the District is fully metered and continues to make significant progress in upgrading its metering infrastructure to support water conservation, operational efficiency, and customer engagement.

Planned Implementation. The District is in compliance with this DMM, which is currently being implemented and will continue to be implemented as part of the District's ongoing operations and maintenance program. The District remains on track with its AMI deployment and continues to prioritize meter upgrades as a key component of its water conservation and sustainability efforts.

9.7 Other Demand Management Measures

The District implements a variety of residential and non-residential DMMs to promote water use efficiency and support long-term conservation goals. These measures are designed to assist customers in identifying and reducing water waste through education, technical support, and financial incentives. Programs are often offered in partnership with AVEK, the District's wholesale supplier.

9.7.1 Water Use Survey for all Customers

The District offers a complimentary water use survey to all customers upon request. A consultant will perform a detailed, in-person assessment of customer water use, both indoors and outside. This includes checking for leaks in toilets, sinks, showers, dishwashers, and washing machines, as well as evaluating irrigation systems, timers, sprinklers, valves, and overall plant hydration. This program is key to assessing and managing real water losses in the District's distribution system. While the District provides the analysis and guidance, it is the customer's responsibility to address any identified leaks and implement the recommended conservation practices. This program plays a vital role in helping customers optimize their water use and reduce waste through personalized, data-driven insights.

After the visit, the customer will receive a personalized report outlining water usage by fixture, an overview of their irrigation system, a recommended watering schedule, and practical tips to help with water conservation.

9.7.2 Rebates

The District continues to offer a variety of rebate programs, subject to available funding, to encourage the adoption of water-efficient technologies. These programs are periodically updated to reflect regional conservation priorities and are often coordinated with AVEK to maximize funding opportunities and program reach.

DRAFT

10. UWMP ADOPTION, SUBMITTAL, AND IMPLEMENTATION

This section describes actions taken by the District to address the CWC requirements for public hearings, UWMP adoption, submittal of the adopted UWMP, UWMP implementation, and the process for amending an adopted UWMP and WSCP.

10.1 Notice of Public Hearing

In accordance with the CWC requirements, the District provided advance notification to relevant agencies regarding the preparation of its 2025 UWMP and amendment of its WSCP. As noted in Table 10-1, notification letters were emailed to the City of Palmdale, the City of Lancaster, the Los Angeles County Department of Regional Planning, AVEK, other local sewer agencies and water suppliers affected by the District's water planning efforts on April 23, 2026, 60 days prior to the scheduled public hearing. These notifications informed these entities of the District's intent to update its UWMP and amend its WSCP and invited them to participate and provide input during the planning process.

Entity	60 Day Notice of Preparation	Notice of Public Hearing
AVEK	✓	✓
City of Lancaster	✓	✓
City of Palmdale	✓	✓
Los Angeles County Department of Regional Planning	✓	✓
Los Angeles County Public Works – Sewer Maintenance Division	✓	✓
Los Angeles County Sanitation Districts No. 14 and 20	✓	✓
Quartz Hill Water District	✓	✓
Rosamond Community Services District	✓	✓
Littlerock Creek Irrigation District	✓	✓

To increase awareness of the public hearing and promote engagement, the District will publish legal notices in a local newspaper, the *Antelope Valley Press*, beginning two weeks prior to the hearing date. These notices will provide the date, time, and location of the hearing, and indicate where the draft UWMP and WSCP are available for public review. Draft copies of the notice of preparation and the newspaper notification are included in Appendix F.

The public review period and the public hearing provide an opportunity for the District's customers and other interested parties, such as social, cultural, and economic community groups,

to learn about, ask questions, and comment on the District's water supply planning efforts that are critical to maintaining reliable, safe, high-quality water supply into the future.

10.2 Public Hearing and Adoption

A public hearing will be held on June 23, 2026, at 9:30 a.m. before the Los Angeles County Board of Supervisors at the Kenneth Hahn Hall of Administration in downtown Los Angeles to receive public comment on and to adopt the 2025 UWMP and amend the WSCP. A virtual participation option was also provided to the public. The District will receive comments on the Draft 2025 UWMP and WSCP before and during the public hearing. The hearing will provide an opportunity for public input and discussion regarding the District's long-term water supply planning and conservation strategies.

Following the public hearing, the Board of Supervisors will consider the 2025 UWMP and amended WSCP for adoption. Copies of the adoption resolutions will be included in Appendix G.

10.3 Plan Submittal

The District's 2025 UWMP and WSCP will be submitted to the DWR using the Water Use Efficiency (WUE) data online submittal tool in advance of the July 1, 2026 deadline. In accordance with the CWC requirements, copies of the adopted plan will also be submitted to the City of Palmdale, the City of Lancaster, the County of Los Angeles Department of Regional Planning, and the California State Library Government Publications Section within 30 days of plan adoption.

10.4 Public Availability

The adopted 2025 UWMP and WSCP will be available for public review at the link below and via DWR's website: <https://pw.lacounty.gov/core-service-areas/water-resources/waterworks-districts/standard-plans-water-mgmt-plan/>

11. REFERENCES

- Antelope Valley Groundwater Cases Judgment, Judicial Council Coordination Proceeding No. 4408 (2014).
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APPENDICES

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Appendix A. DWR UWMP Checklist

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Urban Water Management Plan Checklist

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Relevant Submittal Table	2025 UWMP Location
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	n/a	Section 1.2
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	n/a	Section 1.2
x	x	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	n/a	n/a
x	n/a	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	2-1	Section 2.1
x	x	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	2-2	Section 2.1
x	x	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	2-3	Section 2.1
x	x	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	n/a	Section 10.1
x	x	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	2-4A	Section 2.2
x	n/a	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	2-4	Section 2.2
n/a	x	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	n/a	n/a
x	x	Chapter 3.0	10631(a)	Describe the Supplier service area.	n/a	Section 3.1
x	x	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	3-1A	Section 3.4
x	x	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	3-1	Section 3.3
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	n/a	Section 3.3
x	x	Section 3.5	10631(a)	Describe the land uses within the service area... include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	n/a	Section 3.5
x	Optional	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	4-1, 4-1A, and 4-2	Section 4.1; Section 4.3
x	Optional	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	4-5	Section 4.6
x	n/a	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	4-6	Section 4.7
x	n/a	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	4-3A	Section 4.5
x	n/a	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	4-3	Section 4.4
x	n/a	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	4-3	Section 4.4
x	n/a	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall... Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	4-3	Section 4.4
x	x	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	n/a	Section 4.2

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Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Relevant Submittal Table	2025 UWMP Location
n/a	x	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	n/a	n/a
x	n/a	Section 5.2	10608.4	Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	5-1	Section 5.1
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	n/a	Section 6.1, Section 6.2
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	7-2, 7-3, and 7-4	Section 7.4
x	x	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water... (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	6-1	Section 6.2
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	n/a	Section 6.2.3; Section 6.2.4
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	n/a	Section 6.2.2
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	n/a	Section 6.2.3; Appendix D
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins... (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin...	n/a	n/a
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins... describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	n/a	n/a
x	x	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water... (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	6-1	Section 6.2.1
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	6-9	Section 6.8
x	x	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	6-8 and 6-9	Section 6.8
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	n/a	Section 6.6
x	n/a	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	6-2 and 6-3	Section 6.4.2
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	6-4	Section 6.4.3
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	6-4	Section 6.4.3
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	n/a	Section 6.4.5
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	6-4 and 6-5	Section 6.4.4
x	x	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	6-6 and 6-6A	Section 6.4.5
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	n/a	Section 6.4.5

Urban Water Management Plan Checklist

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Relevant Submittal Table	2025 UWMP Location
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	n/a	Section 6.5
x	x	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	6-7	Section 6.9
x	x	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	O-1B	Section 6.10
x		Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	n/a	Section 7.1
x	x	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	7-2, 7-3, and 7-4	Section 7.4
x	x	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	n/a	Section 7.2
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	7-5	Section 7.5
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	7-1	Section 7.3
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	n/a	Section 7.4
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	7-2, 7-3, and 7-4	Section 7.4
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	n/a	Section 7.2
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	n/a	Appendix E
x	x	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	n/a	Appendix E
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	n/a	Appendix E
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	n/a	Appendix E
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	8-1	Appendix E
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	n/a	n/a
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	8-2	Appendix E
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	8-3	Appendix E
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	n/a	Appendix E
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	n/a	Appendix E
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	n/a	Appendix E

Urban Water Management Plan Checklist

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Relevant Submittal Table	2025 UWMP Location
x	x	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	n/a	Appendix E
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	n/a	Appendix E
x	x	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	n/a	Appendix E
x	n/a	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	n/a	Appendix E
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	n/a	Appendix E
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. <i>Water Shortage Emergencies</i> .	n/a	Appendix E
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	n/a	Appendix E
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	n/a	Appendix E
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	n/a	Appendix E
x	n/a	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, <i>Excessive Residential Water Use During Drought</i> .	n/a	Appendix E
x	n/a	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	n/a	Appendix E
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	n/a	Appendix E
x	n/a	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	n/a	Appendix E
x	x	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	n/a	Appendix F
x	n/a	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	n/a	Section 9
n/a	x	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	n/a	n/a
x	n/a	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	n/a	Section 10.2
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	10-1	Section 10.1
x	x	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 2026.	n/a	Section 10.3
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	n/a	Section 10.4
x	x	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	10-1	Section 10.2

Urban Water Management Plan Checklist

Retail (x = required)	Wholesale (x = required)	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Relevant Submittal Table	2025 UWMP Location
x	x	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	n/a	Section 10.2; Appendix G
x	x	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	n/a	Section 10.3
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	n/a	Section 10.3
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	n/a	Section 10.3
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	n/a	Section 10.3
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	n/a	Section 10.2
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	n/a	Section 10.4
x	x	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	n/a	n/a

Appendix B. DWR Submittal Tables

DRAFT

Submittal Table 2-1 Retail: Public Water Systems

Has there been a change in the number of affiliated Public Water Systems since the 2020 UWMP? (OPTIONAL)			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025
			(AF)
Add additional rows as needed			
CA1910070	Los Angeles County Waterworks District No. 40, Region 4 and 34: Lancaster (Lancaster and Desert Highlands)	53,296	39,689
CA1910203	Los Angeles County Waterworks District No. 40, Region 24, 27, 33: Pearblossom, Littlerock, and Sun Village	2,990	2,550
CA1910027	Los Angeles County Waterworks District No. 40, Region 35: Northeast Los Angeles County	239	413
CA1910005	Los Angeles County Waterworks District No. 40, Region 38: Lake Los Angeles	3,651	1,471
CA1910025	Los Angeles County Waterworks District No. 40, Region 39: Rock Creek	366	155
Total		60,542	44,278

DWR NOTES:

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Table 2-3.

Submittal Table 2-2: Plan Identification

Select One or Both	Type of Plan		Name of Regional Alliance or RUWMP (Drop Down List)
<input checked="" type="checkbox"/>	Individual UWMP		
	<input type="checkbox"/>	Water Supplier is also a member of a SB X7-7 Regional Alliance	
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)		

NOTES:

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
<input type="checkbox"/>	Supplier is a wholesale supplier
<input checked="" type="checkbox"/>	Supplier is a retail supplier
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables are in calendar years
<input type="checkbox"/>	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
Units of measure used in UWMP (Select from the drop down list).	
Unit	AF
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.	
NOTES:	

**Submittal Table 2-4 Retail: Water Supplier Information Exchange
Water Code Section 10631(h)**

The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631 (h).

Wholesale Water Supplier Name

Add additional rows as needed

Antelope Valley-East Kern Water Agency

NOTES:

**Submittal Table 3-1 Retail: Population - Current and Projected
Water Code Section 10631(a)**

Population Served	2025	2030	2035	2040	2045	2050(opt)
	235,026	237,732	240,535	241,220	241,908	242,601

NOTES:

**Submittal Table 4-1 Retail: 2025 Actual Total Uses for Potable and Non-Potable Water
Water Code Section 10631(d)(1)**

Use Type	Additional Description (as needed)	2025 Actual Water Use	
Drop down list May select each use multiple times These are the only use types that will be recognized by the WUEdata online submittal tool		Level of Treatment When Delivered (OPTIONAL) Drop down list	Volume (AF)
Add additional rows as needed			
Single Family		Potable	27,638
Multi-Family		Potable	4,310
Commercial		Potable	7,398
Industrial		Potable	53
Institutional/Governmental	Includes large landscapes	Potable	3,210
Other (optional)	Includes firefighting, flushing of water mains, and fire flow tests	Potable	106
Other (optional)	Includes construction meters	Potable	169
Landscape	At institutional locations	Non-Potable	60
Commercial	Grading, dust control, fire suppression	Non-Potable	9
Other (optional)	Recreational impoundment at Apollo Park	Non-Potable	192
Other (optional)	Sewer flushing, street sweeping	Non-Potable	2
Distribution System Water Loss		Potable	1,394
Subtotal Potable			44,278
Subtotal Non-Potable			263
Total			44,541
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.			
NOTES:			

Submittal Table 4-2 Retail: Total Uses of Potable, and Non-Potable Water - Projected
Water Code Section 10631(d)(1)

Use Type	Additional Description (as needed)	Level of Treatment When Delivered (OPTIONAL) Drop down list	Projected Water Use (Report To the Extent that Records are Available)				
			2030	2035	2040	2045	2050 (opt)
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool			(AF)	(AF)	(AF)	(AF)	(AF)
Add additional rows as needed.							
Single Family		Potable	32,218	33,609	34,102	34,597	34,897
Multi-Family		Potable	4,795	5,166	5,478	5,791	6,103
Commercial		Potable	8,315	8,975	9,507	10,037	10,569
Industrial		Potable	5,023	8,485	9,081	9,678	10,274
Institutional/Governmental	Includes large landscapes	Potable	3,287	3,722	4,116	4,511	4,906
Other (optional)	Includes firefighting, flushing of water mains, and fire flow tests	Potable	134	151	156	162	168
Other (optional)	Includes construction meters	Potable	188	188	188	188	188
Landscape	At institutional locations	Non-Potable	250	300	350	400	450
Commercial	Grading, dust control, fire suppression	Non-Potable	50	100	150	200	250
Other (optional)	Recreational impoundment at Apollo Park	Non-Potable	250	250	250	250	250
Other (optional)	Sewer flushing, street sweeping	Non-Potable	2	2	2	2	2
Distribution System Water Loss		Potable	2,615	2,916	3,028	3,138	3,240
Subtotal Potable			56,575	63,212	65,656	68,102	70,345
Subtotal Non-Potable			552	652	752	852	952
Total			57,127	63,864	66,408	68,954	71,297
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.							

**Submittal Table 4-3 Retail: Inclusion in Water Use Projections
Water Code Section 10631 (a), 10631 (d)(4)(A), and 10631 (d)(4)(B)**

<p>Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) Drop down list (y/n)</p>	<p>No</p>
<p>If "Yes" to above: State the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. OPTIONAL Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.</p>	<p>N/A</p>
<p>Are Lower Income Residential Demands Included In Projections? (Refer to Appendix K of UWMP Guidebook) Drop down list (y/n)</p>	<p>Yes</p>
<p>OPTIONAL If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found. (An example is included in Appendix K.)</p>	
<p>NOTES:</p>	

**Submittal Table 4-5 Retail: Water Loss Audit Reporting
Water Code Section 10631(d)(3)(A)**

Public Water System ID # Reported in Table 2-1 R	Reporting Period	Submitted to DWR Water Loss Audit Program (yes/no)
--	------------------	--

Report submittal status for all five years for each Public Water System as available. Add rows as needed

CA1910070	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
CA1910203	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
CA1910027	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
CA1910005	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
CA1910025	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes

DWR NOTES: Suppliers will provide a link to the WUEdata submittals of their Water Loss Audit Reports.

NOTES: Interconnected systems Regions 24, 27, and 33 (PWSID CA1910203), along with Regions 35 (CA1910027), 38 (CA1910005), and 39 (CA1910025) were all reported consolidated water loss audit under PWSID CA1910203.

Submittal Table 4-6 Retail: Progress Towards 2028 Water Loss Standard
Water Code Section 10631(d)(3)(C)

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit			State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)	Real Water Loss Per Unit per Day	2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	Apparent Water Loss Per Unit per Day
Add additional rows as needed.											
CA1910203	Yes	7.6	Gallons per Service Connection per Day (GPSCD)	7,210	254	31.4	33.5	Gallons per Service Connection per Day (GPSCD)	7,210	105.5	13.1
CA1910070	Yes	21.7	Gallons per Service Connection per Day (GPSCD)	52,963	892	15.0	15.9	Gallons per Service Connection per Day (GPSCD)	52,963	950.9	16.1
Water Board's Calculated Water Loss Standards											
DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss MUST remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.											
NOTES: Interconnected systems Regions 24, 27, and 33 (PWSID CA1910203), along with Regions 35 (CA1910027), 38 (CA1910005), and 39 (CA1910025) were all reported consolidated water loss audit under PWSID CA1910203.											

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress
Water Code Section 10608.40

Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.

Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	Only for suppliers that did not meet the Target in 2020 See DWR NOTES below.	
					Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	237	235	Yes		NA

DWR NOTES:
Suppliers calculating a 2025 GPCD will need to complete and submit SB X 7-7 Compliance Tables to verify the use of SB X7-7 Methodologies.
Suppliers that were part of a merger or consolidation since 2020 see Chapter 5 and Appendix P for guidance.
 NA=Not Applicable

NOTES:

Submittal Table 6-1 Retail: Groundwater Volume Pumped
Water Code Section 10631(4) and 10631(4)(c)

Check the box if the Supplier does not pump groundwater. Proceed to the next table.

Check the box if all or part of the groundwater described below is desalinated. (OPTIONAL)

Groundwater Type Drop Down List May use each category multiple times	Water Type (OPTIONAL) Drop down list	Location or Basin Name	2021	2022	2023	2024	2025
			(AF)	(AF)	(AF)	(AF)	(AF)

Add additional rows as needed

Alluvial Basin	Potable	Antelope Valley Groundwater Basin	20,545	19,344	10,889	17,542	20,965
Total			20,545	19,344	10,889	17,542	20,965

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.

NOTES

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2025
Water Code Section 10633(a)

<input type="checkbox"/>	Check the box if there is no wastewater collection system. Proceed to the next table.
	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)
	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)

Wastewater Collection			Recipient of Collected Wastewater	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL Drop Down List	Volume of Wastewater Collected from UWMP Service Area 2025	Name of Wastewater Treatment Plant (WWTP) and Place ID Number Drop down list	Is WWTP Located Within UWMP Area? Drop Down List
		(AF)		

Add additional rows as needed

City of Lancaster, City of Palmdale, Los Angeles County Public Works	Metered	16,469	Lancaster Water Reclamation Plant, Place ID 236378	No
City of Palmdale, Los Angeles County Public Works	Metered	10,527	Palmdale Water Reclamation Plant, Place ID 247448	No
Total Wastewater Received from UWMP Service Area in 2025:		26,996		

DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Additional Guidance. See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

Submittal Table 6-3 Retail: Wastewater Treatment and Outcomes Within UWMP Service Area in 2025
Water Code Section 10633(a)

<input type="checkbox"/> Check the box if no wastewater is treated or disposed of within the UWMP service area. Proceed to the next table.														
Wastewater Treatment Plant Name and Place ID Number Drop down list	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) Drop down list	2025 Volume of Wastewater Received from UWMP Service Area (As Reported in Submittal Table 6-2 R.) (AF)	Total 2025 Volume of Water Treated (AF)	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area (enter data as applicable)		Water Recycled Outside of UWMP Service Area (enter data as applicable)		Effluent Discharge that is not a Permitted Recycled Water Use (enter data as applicable)		Required Discharge for Instream Flow (enter data as applicable)		Delivered to Another Entity for Additional Treatment (enter data as applicable)		
				Treatment Level Drop down list	Volume (AF)	Treatment Level Drop down list	Volume (AF)	Treatment Level Drop down list	Volume (AF)	Treatment Level Drop down list	Volume (AF)	Treatment Level Drop down list	Volume (AF)	Name of other entity
Add additional rows as needed														
Lancaster Water Reclamation Plant, Place ID 236378	No	16,469	16,469	Tertiary	265		12,556							
Palmdale Water Reclamation Plant, Place ID 247448	No	10,527	10,527	Tertiary			7,422							
Total		26,996	26,996		265		19,978		0		0		0	
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. IPR: Indirect Potable Reuse would have the treatment level of its end use requirement in the Level of Treatment drop-down. Additional Guidance. See Appendix M, Section M.21 for detailed guidance on this table.														
NOTES:														

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area
Water Code Section 10633 (c)(e)

<input type="checkbox"/> Check box if recycled water is not used and is not planned for use within the service area of the supplier. The supplier will only complete the column on "Potential Recycled Water Use" and submit an accompanying narrative on the feasibility of that potential recycled water use.										
Name(s) of Facility/ies Producing (Treating) the Recycled Water (OPTIONAL) :										
Name of Supplier Operating the Recycled Water Distribution System (OPTIONAL) :										
Supplemental Water Added in 2025 (volume) Include units (OPTIONAL) :										
Source of 2025 Supplemental Water (OPTIONAL) :										
Use Type Drop down list	Water Type (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025	2030	2035	2040	2045	2050 (opt)	Potential Recycled Water Use	
			(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	Volume	Narrative page number (OPTIONAL)
Add additional rows as needed										
Landscape irrigation (exc golf courses)	Non-Potable	At Institutional Locations	60	250	300	350	400	450	450	
Commercial use	Non-Potable	Grading, dust control, fire	9	50	100	150	200	250	250	
Recreational impoundment	Non-Potable	Refill Lake at Apollo Park	192	250	250	250	250	250	250	
Other (Description Required)	Non-Potable	Sewer flushing, street sweeping	2	2	2	2	2	2	2	
Total			263	552	652	752	852	952	952	0
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. Additional Guidance. See Appendix M, Section M.21 for detailed guidance on this table. Potential recycled water use - a description of the feasibility of these uses must be included in the narrative. Multiple Producers: If you have multiple recycled water producers, submit a separate table for each.										
NOTES:										

Submittal Table 6-5 Retail: 2020 UWMP Recycled Water Use Projection Compared to 2025 Actual
Water Code Section 10633 (e)

<input type="checkbox"/>	Check the box if recycled water was not used in 2025 nor previously projected for use in 2020. Proceed to the next table.
--------------------------	---

Use Type Drop Down list	2020 Projection for 2025	2025 Actual Use
	(AF)	(AF)
Add additional rows as needed		
Landscape irrigation (exc golf courses)	500	60
Commercial use	12	9
Recreational impoundment	250	192
Other (Description Required)	2	2
Total	764	263

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3
Additional Guidance. See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

**Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use
Water Code Section 10633 (f)**

<input type="checkbox"/>	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.
6-11	Provide page location of narrative in the UWMP

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs
Water Code Section 10631 (f)

Check the box if there are no expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Proceed to the next table.

Check the box if some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.

Provide page location of narrative in the UWMP

Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	Water Type (after treatment if treated) (OPTIONAL) Drop Down list	Planned Implementation Year	Planned for Use in Year Type Drop Down List	Expected Increase in Water Supply to Supplier (This may be a range)
	Drop Down List (yes/no)	If Yes, Supplier Name					(AF)

Add additional rows as needed

Avenue J-12 & 50 th Street West Site Improvements, Well 4-91	No		Well replacement	Potable	2027	All Year Types	0
Antelope Valley Regional Water Supply Resilience	No		Well siting and installation to maximize use of groundwater right	Potable	2030	All Year Types	0

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure reported in Submittal Table 2-3.

NOTES:

Submittal Table 6-8 Retail: Water Supplies — 2025 Actual
Water Code Section 10631 (b)

Water Supply	Additional Description (as needed)	2025		
		Water Type (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUdata online submittal tool			(AF)	(AF)
Add additional rules as needed				
Groundwater	Antelope Valley Groundwater Basin	Potable	20,965	2,350
Purchased or Imported Water	AVEK	Potable	23,313	3,300
Recycled Water	Refill lake at Apollo Park & City of Lancaster Reuse	Non-Potable	263	9,322
Subtotal Potable			44,278	5,650
Subtotal Non-Potable			263	9,322
Total			44,541	14,972

DWR NOTES:
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3.
Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:

Submittal Table 6-9 Retail: Water Supplies — Projected
Water Code Section 10631 (b)

Water Supply	Additional Detail on Water Supply	Water Type (after treatment, if treated) (OPTIONAL) Drop Down list	Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
			Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below	Reasonably Available Volume	Total Entitlement (OPTIONAL) See "DWR Notes" below
Add additional rows as needed												
Groundwater (not desalinated)	Groundwater	Potable	23,282		23,282		23,282		23,282		23,282	
Recycled Water	Purchased or Imported Water	Potable	33,293		39,930		42,374		44,820		47,063	
Surface water (not desalinated)	Recycled Water	Non-Potable	552		652		752		852		952	
Subtotal Potable			56,575	0	63,212	0	65,656	0	68,102	0	70,345	0
Subtotal Non-Potable			552	0	652	0	752	0	852	0	952	0
Total			57,127	0	63,864	0	66,408	0	68,954	0	71,297	0
DWR NOTES:												
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.												
Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.												
NOTES:												

Optional Submittal Table O-1B: Recommended Energy Reporting - SINGLE DELIVERY PRODUCT - TOTAL UTILITY APPROACH

Water Delivery Product drop down list (If delivering more than one type of product recommend using Table O-1C)	Retail Potable Deliveries	Only for Water Delivery Products Under the Urban Water Supplier's Operational Control		
Start Date of Reporting Period	7/1/2024	Sum of All Water Management Processes	Non-Consequential Hydropower	
End Date of Reporting Period	6/30/2025			
Is upstream embedded energy in the values reported?				
Units of Measure for Water	(AF)	Total Utility See DWR NOTES	Hydropower	Net Utility
Volume of Water Entering Process		45,759	6,589	52,348
Energy Consumed (kWh)		19,444,684	(1,277,024)	18,167,660
Energy Intensity (kWh/vol. converted to MG)		425	(194)	347

DWR NOTES:
Total Utility: The volume of water entered in the "Total Utility" column should equal the volume of water entering the distribution system (excluding recycled water); in most cases, this is the total volume calculated in UWMP Table 4-1: 2025 Actual Total Uses for Potable and Non-Potable Water. Note if recycled water is included in your Submittal Table 4-1, you must exclude it from your volume in this table.

Quantity of Self-Generated Renewable Energy
 1,367,000 kWh

Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)
 Combination of Estimates and Metered Data

Data Quality Narrative:
 Energy consumption data is primarily metered and is taken from electric utility bills. These bills provide the pump's electrical data which are the devices consuming the large majority of power in the water distribution system.

Narrative:
 The primary function of the District's water supply system is to distribute potable water to residential and commercial customers. The water is transported by pumps which consume the significant majority of electrical energy in the water system.

NOTES:

OPTIONAL Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)

Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2024-2025, use 2025	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location: [insert location from UWMP]
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available	% of Average Supply
Average Year	2021		100%
Single-Dry Year	1977		100%
Consecutive Dry Years 1st Year	1929		100%
Consecutive Dry Years 2nd Year	1930		100%
Consecutive Dry Years 3rd Year	1931		100%
Consecutive Dry Years 4th Year	1932		100%
Consecutive Dry Years 5th Year	1933		100%

DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 R if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If a Supplier uses multiple versions of Submittal Table 7-1 R, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 R are being used and identify the particular water source that is being reported in each submittal table.

Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3. This table reports the units of measure reported in Submittal Table 2-3.

NOTES:

**Submittal Table 7-2 Retail: Normal Year Supply and Use Comparison
Water Code Section 10635 (a)**

	2030	2035	2040	2045	2050 (Opt)
	(AF)	(AF)	(AF)	(AF)	(AF)
Supply totals (autofill from Submittal Table 6-9 R)	57,127	63,864	66,408	68,954	71,297
Use totals (autofill from Submittal Table 4-2 R)	57,127	63,864	66,408	68,954	71,297
Surplus/(shortfall)	0	0	0	0	0

OPTIONAL Planned WSCP Actions

WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					

DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.

NOTES:

**Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison
Water Code Section 10635(a)**

	2030	2035	2040	2045	2050 (Opt)
	(AF)	(AF)	(AF)	(AF)	(AF)
Supply totals	57,127	63,864	66,408	68,954	71,297
Use totals	57,127	63,864	66,408	68,954	71,297
Surplus/(shortfall)	0	0	0	0	0
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison						
Water Code Section 10635(a)						
		2030	2035	2040	2045	2050 (Opt)
		(AF)	(AF)	(AF)	(AF)	(AF)
First year	Supply totals	57,127	63,864	66,408	68,954	71,297
	Use totals	57,127	63,864	66,408	68,954	71,297
	Surplus/(shortfall)	0	0	0	0	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Second year	Supply totals	57,127	63,864	66,408	68,954	71,297
	Use totals	57,127	63,864	66,408	68,954	71,297
	Surplus/(shortfall)	0	0	0	0	0
	OPTIONAL WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Third year	Supply totals	57,127	63,864	66,408	68,954	71,297
	Use totals	57,127	63,864	66,408	68,954	71,297
	Surplus/(shortfall)	0	0	0	0	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fourth year	Supply totals	57,127	63,864	66,408	68,954	71,297
	Use totals	57,127	63,864	66,408	68,954	71,297
	Surplus/(shortfall)	0	0	0	0	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Fifth year	Supply totals	57,127	63,864	66,408	68,954	71,297
	Use totals	57,127	63,864	66,408	68,954	71,297
	Surplus/(shortfall)	0	0	0	0	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.						
NOTES:						

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)			
2026			Total
Total Water Use	(AF)		47,058
Total Supplies	(AF)		47,058
Surplus/Shortfall w/o WSCP Action			0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)			
WSCP - supply augmentation benefit	(AF)		
WSCP - use reduction savings benefit	(AF)		
Revised Surplus/(shortfall)			
2027			Total
Total Water Use	(AF)		49,575
Total Supplies	(AF)		49,575
Surplus/Shortfall w/o WSCP Action			0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)			
WSCP - supply augmentation benefit	(AF)		
WSCP - use reduction savings benefit	(AF)		
Revised Surplus/(shortfall)			
2028			Total
Total Water Use	(AF)		52,093
Total Supplies	(AF)		52,093
Surplus/Shortfall w/o WSCP Action			0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)			
WSCP - supply augmentation benefit	(AF)		
WSCP - use reduction savings benefit	(AF)		
Revised Surplus/(shortfall)			
2029			Total
Total Water Use	(AF)		54,610
Total Supplies	(AF)		54,610
Surplus/Shortfall w/o WSCP Action			0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)			
WSCP - supply augmentation benefit	(AF)		
WSCP - use reduction savings benefit	(AF)		
Revised Surplus/(shortfall)			
2030			Total
Total Water Use	(AF)		57,127
Total Supplies	(AF)		57,127
Surplus/Shortfall w/o WSCP Action			0
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)			
WSCP - supply augmentation benefit	(AF)		
WSCP - use reduction savings benefit	(AF)		
Revised Surplus/(shortfall)			
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.			
NOTES:			

Submittal Table 8-1: Cross-reference for Standard vs Supplier Shortage Levels
Water Code Section 10632(a)(3)(B)

<input checked="" type="checkbox"/>	Check the box if the Supplier uses the Standard six levels of water shortage. Proceed to the next table.		
Standard Shortage Levels	Percent Shortage Range	Suppliers Shortage Levels	Percent Shortage Range
1	Up to 10%		
2	Up to 20%		
3	Up to 30%		
4	Up to 40%		
5	Up to 50%		
6	>50%		

NOTES:

Submittal Table 8-2 Retail: Supply Augmentation and Other Actions				
Yes	Is the Supplier completing this table using the standard six levels? (yes/no)			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier Drop down list	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)	
Add additional rows as needed				
All	Other Actions (describe)	Percentage	Up to 100% (varies)	Increase Groundwater Pumping (where available). Applicable to Districts 36, 37, and 40; subject to well capacity, water quality, basin conditions, and regulatory requirements.
All	Stored Emergency Supply	Percentage	Up to 100% (varies)	Includes carryover groundwater supplies for D40.
All	Other Purchases	Percentage	Up to 100% (varies)	Additional Purchase of Imported Water via Wholesale Supplier. Delivered pursuant to wholesale agency contracts and availability.
All	Other Actions (describe)	Percentage	Up to 100% (varies)	Wholesale Supply Augmentation Actions. Implemented by wholesale suppliers consistent with their adopted WSCPs (e.g., stored water, transfers, regional supplies).
All	Transfers	Percentage	Up to 100% (varies)	Imported Water via Existing Emergency Interconnections. Emergency or operational interconnections used where physically available and permitted.
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES:				
a. Supply augmentation actions may be considered at any shortage level, as needed, based on the nature, location, duration, and severity of the shortage.				
b. Estimated shortage-gap reductions are not quantified because the effectiveness of each action varies by District, source of supply, system conditions, and wholesale supplier availability at the time of implementation.				
c. Actions requiring increased pumping, use of carryover or stored water, additional imported purchases, or emergency interconnections are subject to available capacity, applicable agreements, regulatory requirements, and operational feasibility.				
d. Not all actions may be implemented at every shortage level. The District Engineer may determine which actions are appropriate based on system-specific conditions and the shortage response needed.				

Submittal Table 8-3 Retail: Demand Reduction Actions					
Water Code Section 10632(a)(4)(B) and (E)					
Yes	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions Drop down list These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? <small>For Retail Suppliers Only</small> Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
Add additional rows as needed					
In effect at all times	Other - Prohibit use of potable water for washing hard surfaces	Percentage	Up to 10%	Potable water shall not be used for washing hard surfaces, such as pavement, roadways, concrete, and sidewalks, except for public health and safety exceptions.	Yes
In effect at all times	Landscape - Limit landscape irrigation to specific times	Percentage	Up to 10%	Suggested irrigation times: before 10AM and after 5PM	Yes
In effect at all times	Landscape - Other landscape restriction or prohibition	Percentage	Up to 10%	No person shall water or cause to be watered any lawn or landscaping more than once a day	Yes
In effect at all times	Landscape - Limit landscape irrigation to specific days	Percentage	Up to 10%	No person shall water or cause to be watered any lawn or landscaping to such an extent that causes runoff due to incorrectly directed or maintained sprinklers or excessive watering	Yes
In effect at all times	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Percentage	Up to 10%	Prohibit vehicle washing except at commercial car wash or with reclaimed water unless such vehicle is washed by a hand-held bucket or hose with automatic shutoff nozzle.	Yes
In effect at all times	Other - Require automatic shut of hoses	Percentage	Up to 10%	Hoses must have an automatic shut-off nozzle for washing vehicles. Additionally, hoses shall not be left running while washing vehicles or any other time.	Yes
In effect at all times	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Percentage	Up to 10%	Customers must repair water leaks, breaks, and malfunctions in a timely manner	Yes
In effect at all times	CI - Restaurants may only serve water upon request	Percentage	Up to 10%	Restaurants shall only serve water upon request	Yes
In effect at all times	Water Features - Restrict water use for decorative water features, such as fountains	Percentage	Up to 10%	No person shall use potable water to clean, fill, or maintain levels in decorative fountains, ponds, lakes, or other similar aesthetic structures	Yes
In effect at all times	Expand Public Information Campaign	Percentage	Up to 10%	Ongoing conservation outreach and education	No
In effect at all times	Provide Rebates on Plumbing Fixtures and Devices	Percentage	Up to 10%	Rebates for high efficiency clothes washers.	No
In effect at all times	Provide Rebates for Landscape Irrigation Efficiency	Percentage	Up to 10%	Rebates for weather-based sprinkler controllers and rotary sprinkler nozzles	No
In effect at all times	Provide Rebates for Turf Replacement	Percentage	Up to 10%	Rebates for removing water-inefficient grass with drought-tolerant landscaping.	No
In effect at all times	Offer Water Use Surveys	Percentage	Up to 10%	Water Use Surveys (upon request)	No
1	Expand Public Information Campaign	Percentage	Up to 10%		No
1	Implement or Modify Drought Rate Structure or Surcharge	Percentage	Up to 10%	Implemented pursuant to PWCP and Board of Supervisors' authorization	Yes
1	Other	Percentage	Up to 10%	District Engineer discretionary restrictions (as needed) per PWCP	Yes
2	Landscape - Limit landscape irrigation to specific times	Percentage	10 - 20%	PWCP authority; builds upon County irrigation limits	Yes
2	Implement or Modify Drought Rate Structure or Surcharge	Percentage	10 - 20%	Implemented pursuant to PWCP and Board of Supervisors' authorization	Yes
2	Other	Percentage	10 - 20%	District Engineer discretionary restrictions (as needed) per PWCP	Yes
3	Landscape - Other landscape restriction or prohibition	Percentage	20 - 30%	Further reduce landscape irrigation	No
3	Implement or Modify Drought Rate Structure or Surcharge	Percentage	20 - 30%	Implemented pursuant to PWCP and Board of Supervisors' authorization	Yes
3	Other	Percentage	20 - 30%	District Engineer discretionary restrictions (as needed) per PWCP	Yes
4	Landscape - Other landscape restriction or prohibition	Percentage	30 - 40%	Further reduce landscape irrigation	No
4	Implement or Modify Drought Rate Structure or Surcharge	Percentage	30 - 40%	Drought Rates for districts and Conservation surcharges for MDR in effect.	Yes
4	Other	Percentage	30 - 40%	District Engineer discretionary restrictions (as needed) per PWCP	Yes
5	Landscape - Other landscape restriction or prohibition	Percentage	40 - 50%	Further reduce landscape irrigation	No
5	Implement or Modify Drought Rate Structure or Surcharge	Percentage	40 - 50%	Implemented pursuant to PWCP and Board of Supervisors' authorization	Yes
5	Other	Percentage	40 - 50%	District Engineer discretionary restrictions (as needed) per PWCP	Yes
6	Landscape - Other landscape restriction or prohibition	Percentage	> 50%	No outdoor irrigation. Hand or drop irrigation is allowed only to preserve trees.	No
6	Implement or Modify Drought Rate Structure or Surcharge	Percentage	> 50%	Implemented pursuant to PWCP and Board of Supervisors' authorization	Yes
6	Other	Percentage	> 50%	District Engineer discretionary restrictions (as needed) per PWCP	Yes
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					
a. Estimated reductions vary based on weather, seasons, customer response, and enforcement intensity.					
b. Not all actions may be implemented at every level; actions are selected as necessary to achieve the declared shortage reduction target.					
c. State-mandated water use restrictions, if applicable, take precedence and may be implemented independent of the actions listed above.					

**Submittal Table 10-1 Retail: Notification to Cities and Counties
Water Code Section 10621(b) and 10642**

City Name	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
Add additional rows as needed		
City of Lancaster	Yes	Yes
City of Palmdale	Yes	Yes
County Name Drop Down List	60 Day Notice Drop Down (yes/no)	Notice of Public Hearing Drop Down (yes/no)
Add additional rows as needed		
Los Angeles County	Yes	Yes
<p>NOTES: The District also collaborated and/or communicated with the following entities: Antelope Valley - East Kern Water Agency (AVEK), Quartz Hill Water District, Rosamond Community Services District, and Littlerock Creek Irrigation District. The District collaborated with the following Los Angeles County departments: Los Angeles County Department of Regional Planning, Los Angeles County Public Works – Sewer Maintenance Division, Los Angeles County Sanitation Districts No. 14 and 20.</p>		

Appendix C. AVEK Agreements

DRAFT

AMENDED AND RESTATED MEMORANDUM OF
UNDERSTANDING effective as of June 2, 2020 by
and between Antelope Valley-East Kern Water Agency ("AVEK")
and Los Angeles County Waterworks Districts Nos. 40 and 37
("Waterworks Districts")

A. Recitals

(i) Effective August 13, 2013, the parties hereto entered into a Memorandum of Understanding concerning the mutual perception that the water available to Waterworks Districts supplied by Antelope Valley Groundwater Basin (Basin) pumping and imported water from AVEK were insufficient in quantity to satisfy its then present demand and anticipated growth in that demand (hereinafter referred to as "the 2013 MOU").

(ii) Based on the above-stated perception, the 2013 MOU provided that upon any person applying for new retail water service from Waterworks Districts, AVEK and Waterworks Districts would enter into a series of ad hoc agreements providing for such an applicant to pay fees in an amount equal to the costs for additional water to be imported by AVEK to meet the additional demand, including the purchase price of that water, processing costs, California Environmental Quality Act compliance costs and professional costs such as attorneys' fees. The applicant's agreement to pay all of those costs would be established as a condition precedent to Waterworks Districts committing to supply and then supplying retail water to the subject project.

(iii) Subsequent to the trial court entering a Judgment in the Antelope Valley groundwater adjudication, Waterworks Districts enhanced its available Basin water supplies through an established right to produce water from the Basin equivalent to the imported water return flows generated by water provided by AVEK and beneficially used by Waterworks Districts' retail ratepayers. In addition, AVEK has developed the ability to manage and enhance its wholesale water portfolio, including maintaining water stored in the Basin pursuant to the above-referenced Judgment and engaging in local banking and recovery programs in order to make its water supply more resilient.

(iv) The parties now intend to establish a modified approach to assessing the potential of any applicant for retail water service from Waterworks Districts to an area to be developed requiring additional water supply on a case by case basis. The parties also intend to provide for payments to be made by any such development which generates the need for that additional water by imposing an AVEK new water supply fee on that development. Accordingly, it is the parties' mutual intent to rescind the 2013 MOU and replace it with this Amended and Restated Memorandum of Understanding.

B. Agreement

NOW, THEREFORE, the parties hereto agree as follows:

1. The 2013 MOU hereby is rescinded.
2. AVEK shall review, revise as necessary, and adopt a new water supply fee (fee) to be charged to any person or development within the jurisdiction of AVEK and Waterworks

Districts. The fee shall be based upon the reasonably projected costs of providing and maintaining the increased fully reliable water supply, expressed as the annual amount in acre feet, necessary to provide service to the development in question. The amount of the AVEK fee shall be reviewed as to the adequacy of the fixed price per acre-foot to be applied in accordance with then current costs of new water. No more than five (5) years shall elapse between any such cost reviews.


3. When Waterworks Districts are requested to issue a will serve letter to provide retail water service to an applicant and Waterworks Districts' available information generated by the California Environmental Quality Act input or its Water Supply Assessment or credibly generated in any other context, reasonably indicates Waterworks Districts will require an increase in water supply from AVEK within its service area to meet the calculated project water demand in perpetuity, Waterworks Districts will condition its obligation to provide retail water service to require that the applicant pay to AVEK the then current AVEK water supply fee. The fee shall be calculated by the annual volume of additional water supply required to service the project, expressed as acre-feet. Proof of the applicant's payment of the fee to AVEK shall be provided to Waterworks Districts prior to and as a condition of Waterworks Districts providing any connection to its retail system for the project.

4. The term "new water" used in this Amended and Restated Memorandum of Understanding shall be water originating outside the Basin and imported into the Basin by AVEK in addition to such water included in AVEK's Table "A" annual allocation from the California Department of Water Resources pursuant to the applicable state water project supply agreement.


5. The above described procedures and commitments may be revised by a written agreement modifying or superseding the terms stated herein as appropriate to adjust to changing circumstances or needs, or to conform to orders or procedures resulting from the Antelope Valley groundwater adjudication.

IN WITNESS WHEREOF, the parties hereto have entered into this Amended and Restated Memorandum of Understanding as of the effective date stated above.

LOS ANGELES COUNTY WATERWORKS DISTRICTS

By 
Date June 2, 2020

ANTELOPE VALLEY-EAST KERN WATER AGENCY

By 
Date 2-26-20

AGREEMENT FOR LEASE OF OVERLYING PRODUCTION WATER RIGHTS

This Agreement is made and entered by and between the Antelope Valley-East Kern Water Agency, a California Water Agency (hereinafter referred to as “AVEK”) and Los Angeles County Waterworks District No. 40 (hereinafter referred to as “District No. 40”) as of the effective date provided herein. AVEK and District No. 40 individually may be referred to herein as a “Party” and collectively may be referred to herein as the “Parties.”

RECITALS

- A. California’s water law and policy, Article X, Section 2 of the California Constitution requires that all uses of the State’s water be both reasonable and beneficial. Specifically, this section of the Constitution states in part, “It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.”
- B. AVEK Water Agency Law codified as California Water Code Appendix 98-49 et seq. specifically provides for AVEK to sell and deliver or use water under the control of the agency for the beneficial use or uses and protection of the Agency and its inhabitants.
- C. The Urban Water Management Planning Act (California Water Code Section 10610 et. seq.) requires California’s urban water suppliers to ensure adequate water supplies are available to meet existing and future water demands. Every urban water supplier that either provides over 3,000 acre-feet of water annually or serves 3,000 or more connections is required to assess the reliability of its water sources over a twenty year planning horizon considering normal, dry and multiple dry years.
- D. The Parties recognize that this Agreement for District No. 40 to lease water from AVEK will: (1) increase certainty for District No. 40 thereby enabling better water resource planning in the future; (2) support the ability of District No. 40 to establish community specific policies and goals based on consistent delivery of water; (3) promote improved water management since imported water will enable District No. 40 to implement and directly benefit from specific policies related to sustainability, dual plumbing and conjunctive use; and (4) improve coordination between District No. 40 and AVEK.
- E. AVEK and District No. 40 are parties to the action entitled Antelope Valley Groundwater Cases (Santa Clara County Case No. 1-05-CV-049053). The Overlying Production Rights allocated to AVEK in the Judgment in this matter will allow AVEK to produce 3,550 acre feet of water from the Basin on an annual basis or in such amount as is determined from time to time by the Watermaster. As of the effective date, AVEK’s Overlying Production Rights as defined in the Judgment are believed to be 3,550 acre feet for the water year. This agreement is subject to and conditioned upon the execution by District No. 40 and AVEK

of the Stipulation for Entry of Judgment and Physical Solution substantially in the form that was circulated to the Parties on December 23, 2014, the entry of Judgment in the above captioned case (“Judgment”), and confirmation thereof by the Appellate Courts if appealed by any Party.

- F. This Agreement entered into by AVEK with District No. 40 will allow AVEK and District No. 40 to settle in the Antelope Valley Groundwater Cases and allows AVEK and District No. 40 to execute the Stipulation for Entry of Judgment.

MUTUAL PROMISES

AVEK and District No. 40 wish to enter into a lease that will contribute to the long term groundwater stability and sustainability of the Antelope Valley Groundwater Basin (“Basin”).

The lease provisions herein entitles District No. 40 to the use, through this lease only, the water available to AVEK based upon AVEK’s Overlying Production Rights. AVEK retains and does not convey to District No. 40 any other rights associated with AVEK’s said production right.

AGREEMENT

IN CONSIDERATION of the foregoing recitals, which are incorporated herein as part of this Agreement, and the mutual promises set forth herein, AVEK and District No. 40 agree as follows:

- 1. AVEK Water Agency Law, AVEK’s Ordinances, Rules and Regulations and Board Policies.** This Agreement is subject to AVEK Water Agency Law (Water Code Appendix 98-49 et seq.), AVEK’s Ordinances, Rules and Regulations and Board Policies. As of the effective date described in Paragraph 5, this Agreement is consistent with AVEK Water Agency Law, AVEK’s Ordinances, Rules and Regulations and Board Policies.
- 2. Leasing of Production Rights.** As described in more particularity herein, AVEK hereby leases to District No. 40 and District No. 40 lease from AVEK up to 3,550 acre-feet annually of AVEK’s Overlying Production Rights as defined in the Judgment. This agreement does not impact any existing obligations or agreements between District No. 40 and AVEK relating to water AVEK delivers from the State Water Project.
- 3. Annual Allocation of Leased Water.** As described in more particularity herein, the portion of the up to 3,550 acre feet of AVEK’s Overlying Production Rights that AVEK shall lease annually to District No. 40 and that District No. 40 leases from AVEK shall be calculated by multiplying (a) 3,550 by (b) the average of the prior two years of District No. 40’s purchases of AVEK’s water taken as a percentage of the total amount of AVEK’s treated water sold in those years to entities listed in Exhibit C that have existing contracts with AVEK for water service as of the effective date (“Existing AVEK Customers”). For example, if in each of the prior two years AVEK has sold 50,000 acre feet of treated water to Existing AVEK Customers, and in each year District No. 40 has purchased 35,000 acre feet of that 50,000 acre feet of treated water from

AVEK, District No. 40's average purchases would be 70% and District No. 40 would be entitled to 70% of the 3,550 acre feet or 2,485 acre feet.

4. **Carryover of Unused Lease Production Rights.** Any Overlying Production Rights that are leased pursuant to Paragraph 2 and are not used in the year in which they are leased shall be carried over and accrue over time. For example, if in each of the prior two years AVEK has sold 50,000 acre feet of AVEK's treated water to Existing AVEK Customers, and in each year District No. 40 has purchased 35,000 acre feet of that 50,000 acre feet of treated water from AVEK, District No. 40's average purchases would be 70% and District No. 40 would be entitled to carry over, accrue and subsequently lease 70% of the 3,550 acre feet or 2,485 acre feet from that accrual year. At the end of each year in which AVEK's Overlying Production Rights are leased pursuant to Paragraph 2 but are not used in that year, AVEK shall: (1) notify the Watermaster the amount of AVEK's Overlying Production Rights leased to District No. 40 that were not pumped; and (2) take all necessary steps to ensure that such unused and accrued carry over water is transferred to District No. 40 for District No. 40's use as Carry Over water as defined in the Judgment and pursuant to Section 15.3 of the Judgment.

5. **Effective Date.** This Agreement shall become effective and binding upon the Parties on the first day of the month following the execution of the Agreement by District No. 40 and AVEK and entry of the Judgment by the Superior Court. If the Judgment should be overturned at any level, this Agreement shall become null and void.

6. **Term.** The term of this Agreement shall commence at the effective date as described in Paragraph 5 and be in effect so long as AVEK is allocated water under contract with the State of California or any of its subdivisions or via statute for purchase and/or delivery of water.

7. **Lease Rate, Payment, and Adjustment.**

7.1 The rental amount payable under this Agreement shall be \$50 per acre foot, in addition to the actual direct costs incurred by AVEK, if any, for any portion of the lease water not pumped by District No. 40 that requires the use of AVEK groundwater pumping and distribution system to deliver the leased water to District No. 40

On July 1, 2017, and each July 1st thereafter, the rental amount provided for in Paragraph 7.1 shall be increased by the percentage change in the Consumer Price Index (All Urban Consumer Index set forth for the Los Angeles-Riverside-Orange County area), for the prior calendar year (e.g., 2016 on July 1, 2017.)

7.2 The annual rental amount shall be paid by District No. 40 when water is pumped and upon receipt of an invoice for the full amount from AVEK.

7.3 All payments due AVEK pursuant to this Lease shall be made and sent as follows:

AVEK
6500 West Avenue N
Palmdale, CA 93551

8. Agreement regarding Basin Watermaster.

- 8.1 AVEK agrees to execute and deliver to District No. 40 all documents which, from time to time, may be required by the Watermaster to reflect the lease to District No. 40 of the Overlying Productions Rights which are the subject of this Agreement. All such documents shall be in such form and substance as shall be reasonably satisfactory to AVEK, District No. 40, and Watermaster.
- 8.2 District No. 40 shall, at its expense, prepare and submit all reports required by the Watermaster in connection with the exercise by District No. 40 of its allocation pursuant to this Agreement.
- 8.3 This Agreement entitles District No. 40 to lease the water associated with AVEK's Overlying Production Right. AVEK retains and does not convey to District No. 40 any other rights associated with its Overlying Production Right.
- 8.4 District No. 40 shall pay any and all Watermaster assessments and County of Los Angeles charges which may be levied against the portion of AVEK's aforesaid Overlying Productions Rights that District No. 40 leased, as additional rent.

General Provisions

9. Definition. Capitalized terms not otherwise defined herein shall have the same meaning ascribed to such terms in the Judgment.
10. Termination. This agreement shall terminate only upon mutual written consent of both Parties.
11. Amendments. This Agreement may be modified or amended only upon mutual written consent of both Parties.
12. No Assignments. This Agreement and the rights, duties and benefits contained in it, may not be assigned.
13. Partial Invalidity. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of the Agreement shall continue in full force and effect and shall in no way be impaired or invalidated, and the Parties agree to substitute for the invalid or unenforceable provision a valid and enforceable provision that most closely approximates the intent and economic effect of the invalid or unenforceable provision.

14. Governing Law. This Agreement shall be governed by the laws of the State of California.

15. Successors. This Agreement shall inure to the benefit of and be binding on the parties to this Agreement and their respective successors.

16. Covenants, Conditions or Remedies. The waiver by one Party of the performance of any covenant, condition or promise, or of the time for performing any act, under this Agreement shall not invalidate this Agreement nor shall it be considered a waiver by such party of any other covenant, condition or promise, or of the time for performing any other act required, under this Agreement. The remedies set forth in this Agreement are cumulative and not exclusive to any other legal or equitable remedy available to a party. The exercise of any remedy provided in this Agreement shall not be a waiver of any consistent remedy provided by law, and the provisions of this Agreement for any remedy shall not exclude any other consistent remedies unless they are expressly excluded.

17. Exhibits. All exhibits to which reference is made in this Agreement are deemed incorporated in this Agreement whether or not actually attached. The following exhibits are attached to this Agreement:

- **Exhibit “A”** - AVEK Boundaries
- **Exhibit “B”** - District No. 40 Service area
- **Exhibit “C”**

18. Counterparts. This agreement may be executed in counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument.

19. Legal Advice. Each Party has received independent legal advice from its attorneys with respect to the advisability of executing this Agreement and the meaning of the provisions. The provisions of this Agreement shall be construed as to the fair meaning and not for or against any party based upon preparation of the document, or any attribution of such party as the sole source of the language in question.

20. All notices and demands (collectively “Notices”) of any kind shall be made in writing and personally served or sent by registered or certified mail, postage prepaid to the following:

AVEK
6500 West Avenue N
Palmdale, CA 93551

Los Angeles County Waterworks District No. 40
900 South Fremont Avenue
Alhambra, CA 91803

Any Notice personally served shall be effective upon service. Any Notice sent by mail, and properly addressed, shall be effective upon date or receipt, or refusal as indicated on the return

receipt. Either party may change its address for Notices by Notice to the other given in a manner provided in this Paragraph.

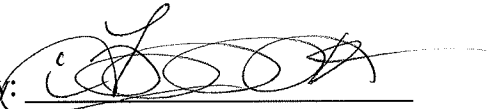
21. Each Party shall, upon request of the other party, take such further actions and execute and deliver such further instruments as shall be reasonably required to carry out the purpose and intent of this Agreement.

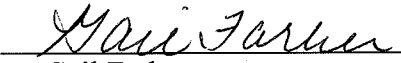
22. This Agreement is executed in the State of California and shall be governed by and construed in accordance with California law. Venue for any action arising out of or related to this Agreement shall be placed in any court of the State of California with appropriate jurisdiction and located in the County of Los Angeles, with service of process to be in accordance with the then provisions of the California Code of Civil Procedure.

23. The paragraph headings contained in this Agreement are for convenience only and shall not be considered in the construction or interpretation of any provision hereof.

Antelope Valley East Kern Water Agency

Los Angeles County
Waterworks District No. 40

By: 
Frank Donato
Director

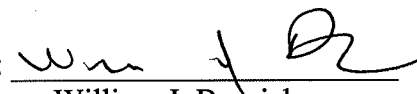
By: 
Gail Farber
Director of Public Works


Date: 2-10-15

Date: 2/24/15

APPROVED AS TO FORM

APPROVED AS TO FORM by Mark J.
Saladino, County Counsel

By: 
William J. Brunick
Agency Special Counsel

By: 
Warren R. Wellen
Principal Deputy County Counsel

Date: 2-10-15

Date: 2/24/15

Exhibit C

AVEK Treated Water Customers

Alan Nishino
Allen Copeland
Antelope Valley Country Club
Association of Irrigation Water Users
Boron CSD
California Water Service
City of California City
Daniel Castronova
Darik Bolin
Desert Lake CSD
Desert Sage Apartments
Earl Jaques
Edgemont Acres MWC
Edwards AFB
Frances Lane
Frank Cosola
Frank Lane
George Lane
Gary Shafer
Karelskint-Cum , Inc.
Keith Miller
Kirkpatrick
LA County Waterworks Districts
Lendale MWC
Les Kuete
Mojave PUD
Palm Ranch Irrigation District
Pat Kellerman
Quartz Hill Water District
Rancho Colima
Rio Tinto/US Borax
Rosamond CSD
Shadow Acres MWC
Sunnyside Farms MWC
Terry Milford
White Fence Farms #3 MWC
White Fence Farms MWC

Appendix D. Groundwater Basin Adjudication

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SUPERIOR COURT OF THE STATE OF CALIFORNIA
COUNTY OF LOS ANGELES – CENTRAL DISTRICT

ANTELOPE VALLEY GROUNDWATER
CASES

Included Actions:
Los Angeles County Waterworks District No.
40 v. Diamond Farming Co., Superior Court of
California, County of Los Angeles, Case No.
BC 325201;

Los Angeles County Waterworks District No.
40 v. Diamond Farming Co., Superior Court of
California, County of Kern, Case No. S-1500-
CV-254-348;

Wm. Bolthouse Farms, Inc. v. City of
Lancaster, Diamond Farming Co. v. City of
Lancaster, Diamond Farming Co. v. Palmdale
Water Dist., Superior Court of California,
County of Riverside, Case Nos. RIC 353 840,
RIC 344 436, RIC 344 668

RICHARD WOOD, on behalf of himself and
all other similarly situated v. A.V. Materials,
Inc., et al., Superior Court of California,
County of Los Angeles, Case No. BC509546

Judicial Council Coordination Proceeding
No. 4408

CLASS ACTION

Santa Clara Case No. 1-05-CV-049053
Assigned to the Honorable Jack Komar

~~PROPOSED~~ JUDGMENT

1 The matter came on for trial in multiple phases. A large number of parties representing
2 the majority of groundwater production in the Antelope Valley Area of Adjudication (“Basin”)
3 entered into a written stipulation to resolve their claims and requested that the Court enter their
4 [Proposed] Judgment and Physical Solution as part of the final judgment. As to all remaining
5 parties, including those who failed to answer or otherwise appear, the Court heard the testimony
6 of witnesses, considered the evidence, and heard the arguments of counsel. Good cause
7 appearing, the Court finds and orders judgment as follows:

- 8 1. The Second Amended Stipulation For Entry of Judgment and Physical Solution
9 among the stated stipulating parties is accepted and approved by the Court.
- 10 2. Consistent with the December 23 2015 Statement of Decision (“Decision”), the
11 Court adopts the Proposed Judgment and Physical Solution attached hereto as
12 Exhibit A and incorporated herein by reference, as the Court’s own physical
13 solution (“Physical Solution”). The Physical Solution is binding upon all parties.
- 14 3. In addition to the terms and provisions of the Physical Solution the Court finds as
15 follows:
 - 16 a. Each of the Stipulating Parties to the Physical Solution has the right to
17 pump groundwater from the Antelope Valley Adjudication Area as stated
18 in the Decision and Physical Solution.
 - 19 b. The following entities are awarded prescriptive rights from the native safe
20 yield against the Tapia Parties, defaulted parties identified in Exhibit 1 to
21 the Physical Solution, and parties who did not appear at trial identified in
22 Exhibit B attached hereto, in the following amounts:

23	Los Angeles County Waterworks District No. 40	17,659.07 AFY
24	Palmdale Water District	8,297.91 AFY
25	Littlerock Creek Irrigation District	1,760 AFY
26	Quartz Hill Water District	1,413 AFY
27	Rosamond Community Services District	1,461.7 AFY
28	Palm Ranch Irrigation District	960 AFY

1	Desert Lake Community Services District	318 AFY
2	California Water Service Company	655 AFY
3	North Edwards Water District	111.67 AFY

4 No other parties are subject to these prescriptive rights.

5 c. Each of the parties referred to in the Decision as Supporting Landowner
6 Parties has the right to pump groundwater from the Antelope Valley
7 Adjudication Area as stated in the Decision and in Paragraph 5.1.10 of the
8 Physical Solution in the following amounts:

9	i. Desert Breeze MHP, LLC	18.1 AFY
10	ii. Milana VII, LLC dba Rosamond Mobile Home Park	21.7 AFY
11	iii. Reesdale Mutual Water Company	23 AFY
12	iv. Juanita Eyherabide, Eyherabide Land Co., LLC	
13	and Eyherabide Sheep Company, collectively	12 AFY
14	v. Clan Keith Real Estate Investments, LLC.,	
15	dba Leisure Lake Mobile Estates	64 AFY
16	vi. White Fence Farms Mutual Water Co. No. 3	4 AFY
17	vii. LV Ritter Ranch LLC	0 AFY

18 d. *viii. Robar Enterprises Inc., Hi-Grade Materials Co., and CSR, a*
Each member of the Small Pumper Class can exercise an overlying right
19 pursuant to the Physical Solution. The Judgment Approving Small Pumper
20 Class Action Settlements is attached as Exhibit C ("Small Pumper Class
21 Judgment") and is incorporated herein by reference.

22 e. Cross-defendant Charles Tapia, as an individual and as Trustee of Nellie
23 Tapia Family Trust (collectively, "The Tapia Parties") has no right to pump
24 groundwater from the Antelope Valley Adjudication Area except under the
25 terms of the Physical Solution.

26 f. Phelan Piñon Hills Community Services District ("Phelan") has no right to
27 pump groundwater from the Antelope Valley Adjudication Area except
28 under the terms of the Physical Solution.

General Partnership - 200 AFY

1 g. The Willis Class members have an overlying right that is to be exercised in
2 accordance with the Physical Solution.

3 h. All defendants or cross-defendants who failed to appear in any of these
4 coordinated and consolidated cases are bound by the Physical Solution and
5 their overlying rights, if any, are subject to the prescriptive rights of the
6 Public Water Suppliers. A list of the parties who failed to appear is
7 attached hereto as Exhibit D.

8 i. ~~Robar Enterprises, Inc., Hi-Grade Materials Co., and CJR, a general~~
9 ~~partnership (collectively, "Robar") are~~

10 _____
11 _____
12 _____
13 _____
14 4. Each party shall designate the name, address and email address, to be used for all
15 subsequent notices and service of process by a designation to be filed within thirty
16 days after entry of this Judgment. The list attached as Exhibit A to the Small
17 Pumper Class Judgment shall be used for notice purposes initially, until updated
18 by the Class members and/or Watermaster. The designation may be changed from
19 time to time by filing a written notice with the Court. Any party desiring to be
20 relieved of receiving notice may file a waiver of notice to be approved by the
21 Court. The Court will maintain a list of parties and their respective addresses to
22 whom notice or service of process is to be sent. If no designation is made as
23 required herein, a party's designee shall be deemed to be the attorney of record or,
24 in the absence of an attorney of record, the party at its specified address.

25 5. All real property owned by the parties within the Basin is subject to this Judgment.
26 It is binding upon all parties, their officers, agents, employees, successors and
27 assigns. Any party, or executor of a deceased party, who transfers real property
28 that is subject to this Judgment shall notify any transferee thereof of this Judgment.

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This Judgment shall not bind the parties that cease to own real property within the Basin, and cease to use groundwater, except to the extent required by the terms of an instrument, contract, or other agreement.

The Clerk shall enter this Judgment.

Dated: Dec 23, , 201 5



JUDGE OF THE SUPERIOR COURT

Appendix E. Water Shortage Contingency Plan

The WSCP Public Draft is available for review under separate cover at the following webpage:

<https://pw.lacounty.gov/core-service-areas/water-resources/waterworks-districts/standard-plans-water-mgmt-plan/>

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Appendix F. Notices Of Public Hearings

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Notice of Preparation Distribution List

Antelope Valley East Kern Water Agency

City of Lancaster

Littlerock Creek Irrigation District

Los Angeles County Public Works - Sewer Maintenance Division

Los Angeles County Sanitation District (No. 14 and No. 20)

Quartz Hill Water District

Los Angeles County Department of Regional Planning

City of Palmdale (Public Works)

Rosamond Community Services District

From: Sara Samaan <SSamaan@dpw.lacounty.gov>
Sent: Thursday, April 23, 2026 10:48 AM
Subject: Los Angeles County Waterworks District No. 40 – 60-Day Notice of Preparation: 2025 UWMP & WSCP
Attachments: 60-Day NOP_2025 UWMP WSCP_District40.pdf

Good morning,

In accordance with the Urban Water Management Planning Act, please find attached the 60-Day Notice of Preparation for the Los Angeles County Waterworks District No. 40, Antelope Valley, 2025 Urban Water Management Plan and Water Shortage Contingency Plan.

A public hearing before the Los Angeles County Board of Supervisors is tentatively scheduled for June 23, 2026, at 9:30 a.m. at the Kenneth Hahn Hall of Administration. A direct link to the draft documents will be provided once they become available for public review. Your agency is invited to submit any questions, comments, or input as outlined in the attached notice.

Please do not hesitate to reach out if you have any questions.

Thank you,

Sara Samaan, PE
Civil Engineer
Los Angeles County Public Works
Office: (626) 300-3334



MARK PESTRELLA, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331

NOTICE OF PREPARATION

Los Angeles County Waterworks District No. 40 Antelope Valley: 2025 Urban Water Management Plan and Water Shortage Contingency Plan

The Los Angeles County Waterworks District No. 40 Antelope Valley (District) is preparing its 2025 Urban Water Management Plan (UWMP) and 2025 Water Shortage Contingency Plan (WSCP) pursuant to the Urban Water Management Planning Act, California Water Code (CWC) §§10610–10657. The Act requires urban water suppliers providing municipal and industrial water to more than 3,000 customers, or delivering more than 3,000 acre-feet of water annually, to prepare and adopt a UWMP every five years in accordance with prescribed requirements.

The UWMP is a long-term planning document supporting reliable water supply and resource management. The District's most recently adopted plan is the 2020 UWMP, which includes a 25-year planning horizon through 2045 and continues to guide water supply planning. The 2025 UWMP will update these projections and strategies based on current conditions, data, and regulatory requirements. The UWMP also includes an updated Water Shortage Contingency Plan (WSCP), prepared in accordance with CWC §10632, which outlines procedures for identifying and addressing water shortages, establishes six standard shortage levels, and defines corresponding response actions.

Pursuant to CWC §10620(d)(3), the District is coordinating the preparation of its plan with appropriate agencies, including cities, counties, water suppliers that share a common source, water management agencies, and other relevant public agencies. A copy of the Draft 2025 UWMP and Draft 2025 WSCP will be available for public review at the Waterworks Districts' office in Antelope Valley and on the Waterworks Districts' [website](#). A direct link to the draft documents will be provided once they become available for public review. Your agency is invited to submit any questions, comments, or input. Written comments may be submitted via email to RGindi@dpw.lacounty.gov or by mail to:

Attn: Ramy Gindi
Los Angeles County Waterworks Districts
900 South Fremont Avenue
Alhambra, CA 91803

The public hearing for the Los Angeles County Board of Supervisors to consider adoption of the UWMP and amended WSCP is tentatively scheduled for **June 23, 2026, at 9:30 a.m.** at the Kenneth Hahn Hall of Administration, 500 West Temple Street, Los Angeles, California 90012 (remote participation will be available via the online Webex app). Public comment may be provided at the public hearing. Following the public hearing, the Los Angeles County Board of Supervisors will take action on the proposed 2025 UWMP and amended WSCP.

**NEWSPAPER NOTICE OF PUBLIC HEARING FOR THE
2025 URBAN WATER MANAGEMENT PLANS FOR THE LOS ANGELES COUNTY
WATERWORKS DISTRICT NO. 29, MALIBU AND THE MARINA DEL REY WATER
SYSTEM, AND FOR THE LOS ANGELES COUNTY WATERWORKS DISTRICT NO.
40, ANTELOPE VALLEY; AND WATER SHORTAGE CONTINGENCY PLAN FOR
ALL WATERWORKS DISTRICTS AND THE MARINA DEL REY WATER SYSTEM
(SUPERVISORIAL DISTRICTS 2, 3, AND 5)**

The Los Angeles County Board of Supervisors will hold a public hearing on June 23, 2025, at 9:30 a.m., in the Hearing Room of the Board of Supervisors, Room 381, Kenneth Hahn Hall of Administration, 500 West Temple Street (corner of Temple Street and Grand Avenue), Los Angeles, California 90012, in the matter of requesting the Board to adopt the 2025 Urban Water Management Plans (2025 UWMPs) for the Los Angeles County Waterworks District No. 29, Malibu and the Marina del Rey Water System, and the Los Angeles County Waterworks District No. 40, Antelope Valley (Districts) and to adopt the Water Shortage Contingency Plan (WSCP) for all Waterworks Districts and Marina del Rey Water System. The action is required to comply with California Water Code, Sections 10610 through 10657 (commonly referred to as the Urban Water Management Planning Act), to prepare and update an Urban Water Management Plan every 5 years.

Copies of the 2025 UWMPs and amended WSCP are available for public review at Districts' field offices located at 23533 West Civic Center Way, Malibu, California 90625 and at 260 East Kern Avenue K-8, Lancaster, California 92535. The 2025 UWMPs and amended WSCP will also be available for review at: <https://pw.lacounty.gov/core-service-areas/water-resources/waterworks-districts/standard-plans-water-mgmt-plan/>

Public comments can be submitted prior to and/or made at the public hearing at the time and place listed above. The Board of Supervisors will consider and may approve these actions as recommended by the Director of Public Works. For information on water rates for specific service areas or for any other information regarding this matter, please call (626) 300-3338.

Para más información relacionada con esta noticia, por favor llame al Departamento de Obras Publicas al (626) 300-3384, de Lunes a Jueves, 7 a.m. a 5 p.m.

Appendix G. Adoption Resolutions

The Adoption Resolution will be added after the public hearing takes place on June 23, 2026.

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Public Works
LOS ANGELES COUNTY

LACWD



LOS ANGELES COUNTY WATERWORKS DISTRICTS

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