2025 Urban Water Management Plan

Public Review Draft

MAY 2026

ANTELOPE VALLEY - EAST KERN WATER AGENCY

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Prepared by Water Systems Consulting, Inc

ACKNOWLEDGEMENTS

This document was prepared in partnership between Water Systems Consulting, Inc. and the Antelope Valley-East Kern Water Agency. WSC thanks the following people for their contributions.

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ACRONYMS & ABBREVIATIONS

AF	Acre Foot
AFY	Acre Feet per Year
Agency	Antelope Valley-East Kern Water Agency
AVEK	Antelope Valley-East Kern Water Agency
BASIN	Antelope Valley Groundwater Basin
CIMIS	California Irrigation Management Irrigation System
CSD	Community Services District
CWC	California Water Code
DCR	DWR SWP Delivery Capacity Report
DDW	SWRCB Division of Drinking Water
Delta	Sacramento-San Joaquin Delta
DMM	Demand Management Measure
DRA	Drought Risk Assessment
DWR	California Department of Water Resources
EAFB	Edwards Air Force Base
°F	Fahrenheit
IRWMP	Integrated Regional Water Management Plan
Judgement	Antelope Valley Groundwater Basin Adjudication Judgment
KCOG	Kern Council of Governments
LACSD	Los Angeles County Sanitation Districts
LACWD	Los Angeles County Waterworks Districts
MGD	Million Gallons per Day
MWC	Mutual Water Company
Metropolitan	Metropolitan Water District of Southern California
mg/L	Milligrams per liter
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments

SBX7-7	Senate Bill 7 of Special Extended Session 7
SGPWA	San Gorgonio Pass Water Agency
SNIP	South North Intertie Pipeline and Pump Station/Turnout Project
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAZ	Traffic Analysis Zones
UWMP	Urban Water Management Plan
Watermaster	Antelope Valley Groundwater Basin Watermaster
WSCP	Water Shortage Contingency Plan
WRP	Water Reclamation Plant
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

Executive Summary

This section summarizes the 2025 Urban Water Management Plan (UWMP or Plan) for the Antelope Valley-East Kern Water Agency (AVEK or Agency) including water supply reliability, challenges ahead, and strategies for managing reliability risks.

This UWMP was prepared in compliance with California Water Code requirements for UWMPs, following guidance from the California Department of Water Resources (DWR), and is intended to be the long-term water resources planning reference for the Agency.

AVEK is a wholesale supplier of State Water Project (SWP) water to the greater Antelope Valley region. SWP water is a supplemental water source for AVEK's customers and is used in lieu of, or in addition to, pumped groundwater.

AVEK's service area encompasses nearly 2,400 square miles in northern Los Angeles and eastern Kern Counties as well as a small portion of Ventura County. AVEK has played a major role in the Valley's water system since it was granted a charter by the State Legislature in 1959 and became a SWP contractor in 1962. AVEK currently provides treated and untreated water to 33 retail water agencies, water companies, industrial customers, and agricultural customers. AVEK's mission is to deliver reliable, sustainable, and high-quality supplemental water to the region in a cost-effective and efficient manner.

IN THIS SECTION

Outreach and Engagement

The 2025 UWMP was prepared in a transparent manner, and AVEK actively engaged stakeholders, cities, counties, water agencies, and the public to seek and distribute information about water use, supply, and reliability to strengthen the region's ability to assess and plan for the region's water future. AVEK conducted a public hearing on June 9, 2026, and notified over 50 entities, including AVEK's customers, cities, and counties within the AVEK service area, and other water and planning agencies in the region.

Population Projections

AVEK provides service to incorporated and unincorporated areas of the greater Antelope Valley. The current and projected populations for AVEK's service area (Table ES-1) were based on population projections from the Southern California Association of Governments (SCAG) for Los Angeles and Ventura Counties and the Kern Council of Governments (KCOG) for Kern County. The combined projections result in an average annual growth rate of 0.5%.

Table ES-1. AVEK Service Area Current and Projected Population

	2025	2030	2035	2040	2045	2050
Los Angeles and Ventura Counties	291,759	298,968	306,176	314,311	322,446	330,580
Kern County	42,423	43,706	44,989	45,450	45,911	46,372
TOTAL	**334,182**	**342,673**	**351,165**	**359,760**	**368,356**	**376,952**

Notes: Data for Los Angeles and Ventura Counties from SCAG 2024 Connect SoCal Regional Transportation Plan (SCAG, 2024). KCOG data is from KCOG estimates and projections, regional growth forecast, and growth allocation (KCOG, 2024).

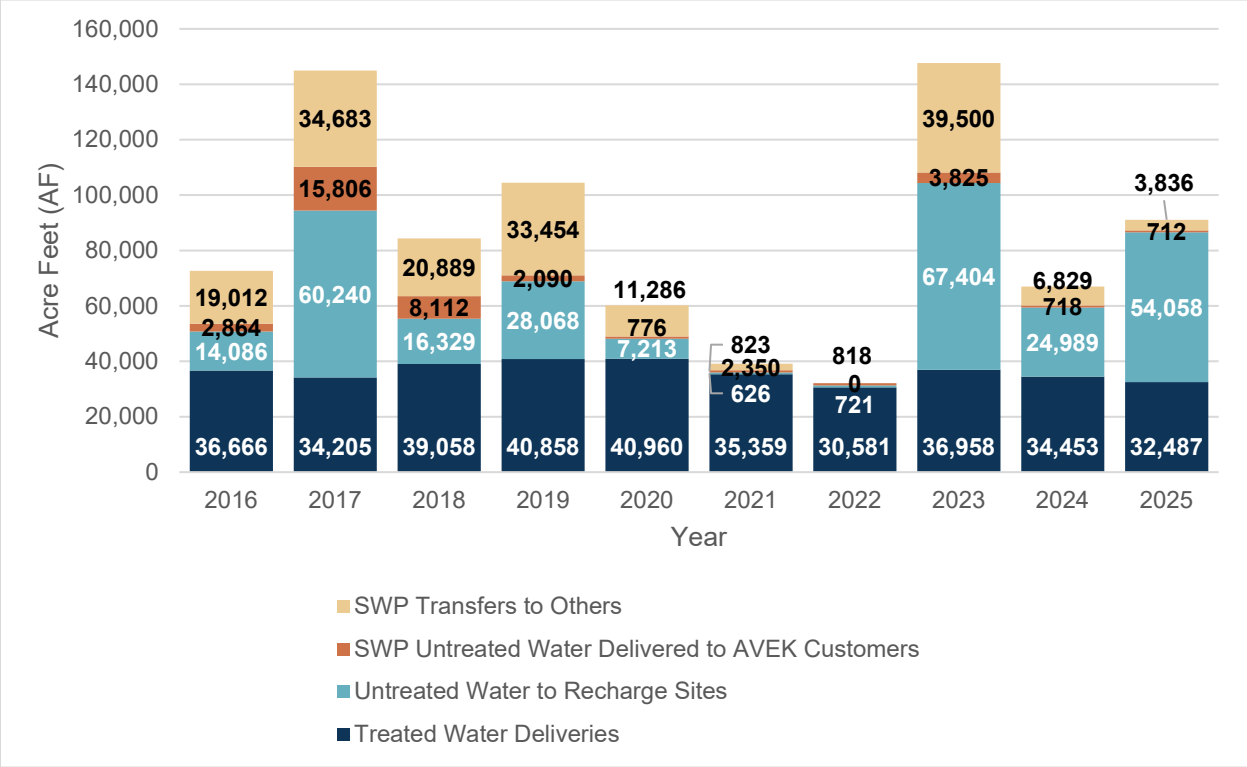
Water Demand Projections

AVEK delivers treated water from the SWP and groundwater to 28 customers, and untreated SWP water to 5 customers. In addition, AVEK delivers untreated surplus SWP water to its groundwater banks for storage in the groundwater basin and recovery when SWP supplies are limited or for water quality purposes. AVEK also occasionally transfers untreated surplus SWP water to other water agencies in need of water.

As shown in Figure ES-1, treated water deliveries to AVEK customers were relatively consistent compared with deliveries to recharge sites and other locations. Treated water demands have increased slightly since 2022 but have not returned to the levels observed prior to 2014 (above 40,000 AFY) following severe drought restrictions. Both recharge water deliveries and deliveries to other locations have varied significantly based on water availability, as evidenced by the high recharge volume in 2017 and 2023 that coincided with high SWP allocations. Recharge deliveries are discussed further below. Transfers are not projected in this UWMP because they

are opportunistic agreements made by willing parties dependent on each party's needs and they are the lowest priority use of AVEK's supplies.

Figure ES-1. 2016-2025 AVEK Deliveries by Type



Treated Water Demand Projections

To estimate demands on AVEK supplies, AVEK must first project total demand in the AVEK service area along with projected use of local supplies. The primary local supply is groundwater.

Five of AVEK's customers—California Water Service Co., City of California City, Los Angeles County Waterworks District (LACWD), Quartz Hill Water District, and Rosamond CSD—must prepare UWMPs. They represent roughly 90% of AVEK demand and 80% of population in the AVEK service area. For the 2025 UWMP, AVEK coordinated with these customers to develop and confirm demand and supply projections. AVEK prepared projections for the remainder of customers that did not provide projections based on feedback AVEK has received from these customers.

AVEK has additional commitments to provide water including a lease of adjudicated Production Right to LACWD (2,600 avg. acre-feet per year (AFY)), replacement water for the Watermaster (estimated at 1,000 AFY starting in 2025 and assumed to increase by 50 AFY per year), lease with San Gorgonio Pass Water Agency (1,700 AFY through 2035), deliveries to Tejon Ranch Co. (1,360 AFY average.

Based on the assumptions described above, estimated total AVEK service area customer demand projections and net total demand for AVEK supply projections through 2050 are shown in Table ES-2.

Table ES-2. 2030-2050 AVEK Demand Projections (AF)

	2030	2035	2040	2045	2050
Total Demand for Customers Served by AVEK	**80,020**	**89,310**	**93,870**	**98,440**	**102,650**
Customer Groundwater and Recycled Water Supplies	33,920	34,290	34,470	34,640	34,750
AVEK Customer Demand for AVEK Supplies	**46,100**	**55,020**	**59,400**	**63,800**	**67,900**
Additional AVEK Supply Commitments	7,190	5,870	4,350	4,600	4,850
Total Demand for AVEK Supplies (rounded)	**53,300**	**60,900**	**63,800**	**68,400**	**72,800**

Groundwater Recharge Projections

AVEK's groundwater banking programs store surplus water available from the SWP through groundwater recharge and include recovery wells to pump stored water in times of need. AVEK's groundwater banks and the year they started operations include the Westside Water Bank (2010); the Eastside Water Bank (2016); the Upper Amargosa Creek Recharge Project, a partnership project (2019); the High Desert Water Bank (2023), and Littlerock Creek Recharge Project (2023). Local recovery of imported water from the groundwater banks has become an important source of water for AVEK to supplement annual SWP water allocations. AVEK began recovering imported water from the groundwater banks in 2014 once recovery wells were in place. A summary of AVEK's historical SWP deliveries to its banking sites is provided in Figure ES-2.

AVEK's goal is to have enough storage in the groundwater banks so that the agency is prepared to meet demands during three consecutive years of 5% Table A allocations from the SWP. AVEK currently has roughly 155,000 AF of SWP water stored within its banks for future recovery and a total available stored water supply of 182,700 AF which includes stored imported water and groundwater carry over supply (27,200 AF). AVEK is implementing infrastructure projects to expand its capacity to recharge water, recover water, and distribute recovered water. Based on the demand projections presented above, the target groundwater bank storage capacity and annual production capacity are projected in Figure ES-3.

Figure ES-2. 2016-2025 Imported Water Deliveries to Groundwater Banking Sites

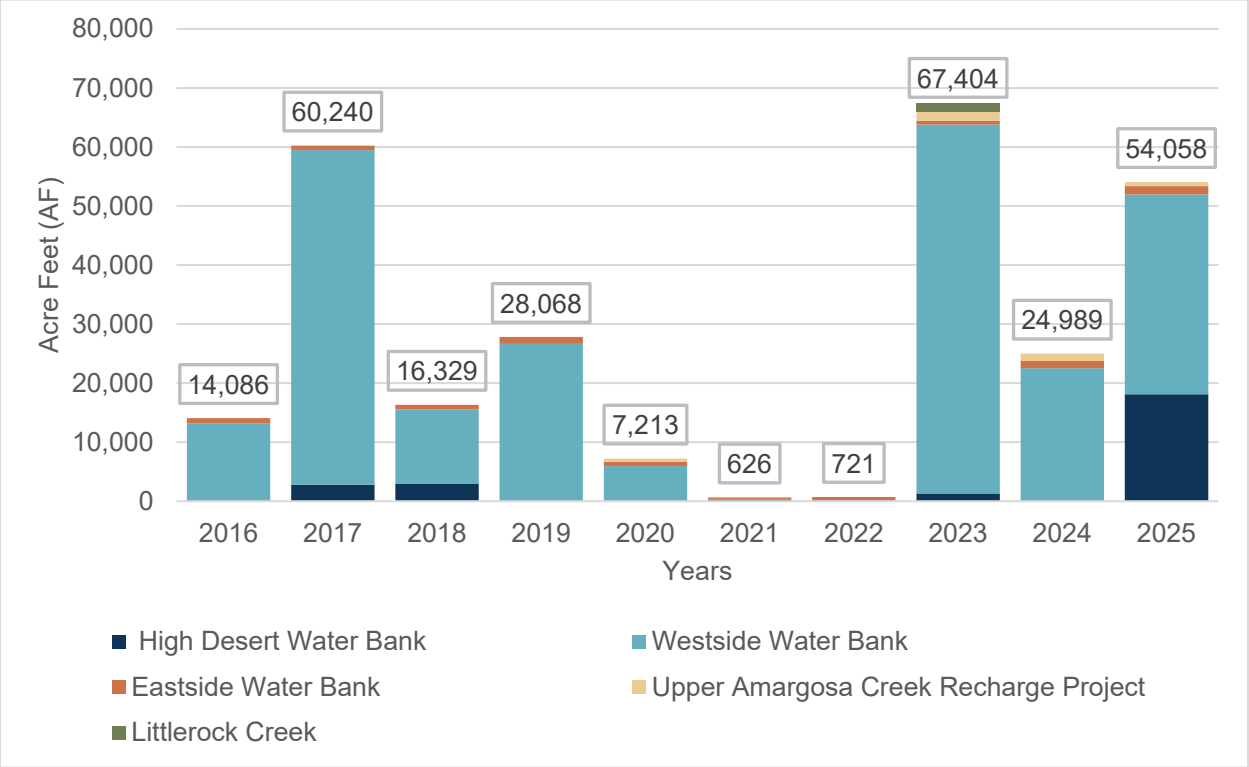
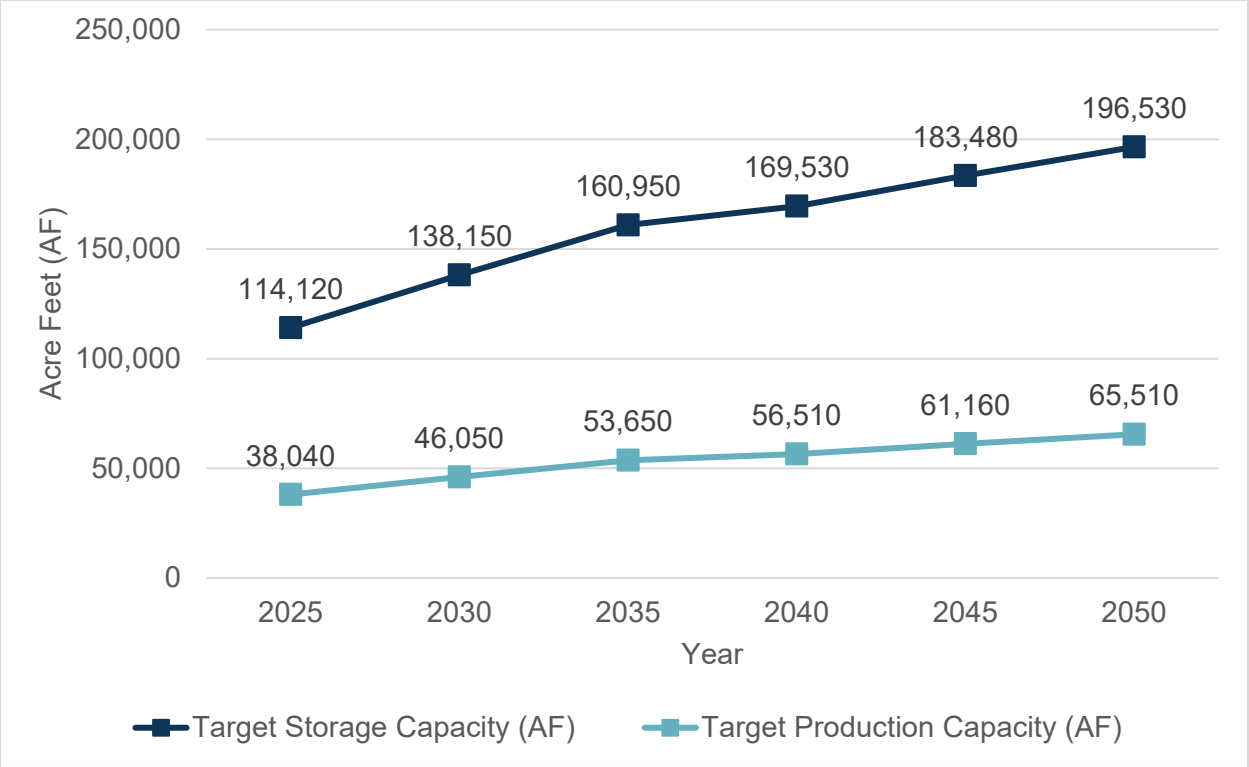


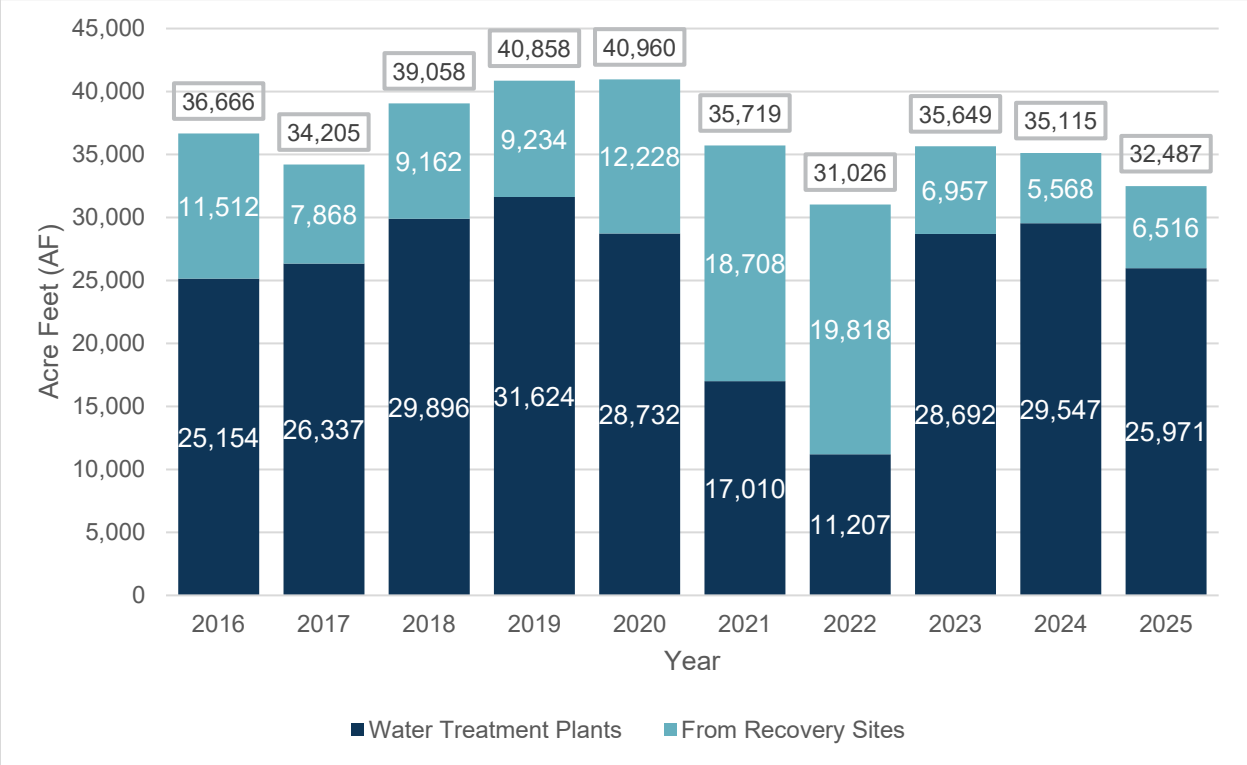
Figure ES-3. Projected AVEK Groundwater Banking Target Sizing



Water Sources and Uses

As shown in Figure ES-4, AVEK's potable water deliveries consist of either imported water treated at AVEK water treatment plants, or groundwater that is either recovered imported SWP water from recharge in previous years or part of AVEK's adjudicated groundwater production rights. Each supply is discussed further below.

Figure ES-4. 2016-2025 AVEK Potable Water Deliveries by Source



State Water Project

SWP water availability depends on rainfall, snowpack, runoff, reservoir storage, pumping capacity of SWP facilities, and regulatory and environmental mandates on SWP operations. DWR prepares a biennial report to assist SWP contractors and local planners in assessing the availability of supplies from the SWP. DWR prepared the Draft 2025 SWP Delivery Capability Report (DWR, 2025), which includes DWR's estimates of SWP water supply availability under both existing (2025) and future (2043) conditions.

The SWP DCR evaluates SWP water supply reliability using the CalSim 3 planning model configured to represent existing infrastructure, demands, and regulatory requirements, including SWRCB water right decision D-1641, the 2019 Biological Opinions, the 2020 Incidental Take Permit, and the amended Coordinated Operations Agreement. A key update in this report is the use of Adjusted Historical Hydrology as the baseline condition, in which the full 1922–2021 hydrologic record is statistically modified so that earlier years reflect the mean, variability, and

seasonal runoff characteristics of the most recent 30 years, providing a baseline more representative of current climate conditions. The model also evaluates future delivery capability under three risk-informed climate change scenarios centered on 2043 (50th, 75th, and 95th percentile levels of concern), which adjust temperature, precipitation, runoff timing, and sea level rise while holding infrastructure, land use, and regulations constant and excluding adaptation actions. This approach explicitly represents climate uncertainty and supports risk-informed water supply planning for SWP contractors.

The 2025 DCR provided updated projections and AVEK assumes a straight-line reduction in long-term average allocation from 55% in 2025 to 50% by 2043, as shown in Table ES-3.

Table ES-3. SWP Average Yield Projections

	2025	2030	2035	2040	2045	2050
Average Table A Allocation (%)	55%	53.75%	52.5%	51.25%	50%	50%
Average Table A Yield (AFY)	9,664	77,854	76,043	74,233	72,422	2,422

DWR's 2025 DCR indicates that the modeled single dry year SWP water supply allocation is 6% under existing conditions decreasing to 2% by 2043. DWR's 2025 DCR indicates that the lowest consecutive five-year period occurred from 1929 to 1933, with an average allocation of 15% under the existing conditions.

Groundwater

AVEK's groundwater wells are located within the Antelope Valley Groundwater Basin (Basin). The Basin was adjudicated in 2015 after 15 years of complex proceedings among more than 4,000 parties, including public water suppliers, landowners, small pumpers and non-pumping property owners, and the federal and state governments. The Antelope Valley Area of Adjudication covers approximately 1,390 square miles, or 90% of the groundwater basin. The Judgment determined the Basin is in a state of overdraft, established respective water rights among groundwater producers based on the Basin's Native Safe Yield, and ordered a ramp-down of production to meet the Native Safe Yield by 2023. The adjudication defined a native safe yield of 82,300 AFY. To achieve sustainable groundwater elevations, groundwater production was reduced (ramped down) over a seven-year period (2016–2022) to a final production right.

Following the adjudication, the Antelope Valley Watermaster was formed to implement the Judgment. The Watermaster is charged with administering the adjudicated water rights and managing the groundwater resources within the adjudicated portion of the Antelope Valley.

Within AVEK's service area, groundwater production rights decreased to 15,634 AFY in 2023, including AVEK's 3,550 AFY production right. In January 2022, AVEK obtained an additional 700 AFY of production rights through the purchase of a property from Jane Healy and Healy Enterprises Inc., bringing their current total production right to 4,250 AFY.

In addition, AVEK and other pumpers receive groundwater pumping rights from imported water return flows equal to the applicable percentage multiplied by the average amount of imported water used by that party within the basin in the preceding five-year period. AVEK received a return flow credit of 890 AF in 2025. The average return credit AVEK received between 2021 and 2025 was 860 AF.

In recent years, AVEK has leased a portion of its groundwater productions rights to LACWD for the districts' use.

Non-SWP Water

In 2017, AVEK acquired non-SWP water supply through a long-term lease of annual supply originally belonging to the Nickel Family, a farming interest in Kern County. AVEK has acquired the rights to 1,700 acre-feet of water made available for a period of thirty-five years (with an option to extend for thirty-five more years), even in dry years. However, AVEK conservatively projects that this water will no longer be available by 2045. Gaining additional non-SWP supplies improves the Agency's reliability of its existing water supply, as well as providing additional supplies to meet future demand.

Summary of Projected Water Supplies

Based on the supplies described above, reasonably available volumes of AVEK water supplies are projected in Table ES-4. In addition, AVEK can supplement supplies by recovering stored imported water from groundwater banks or accessing supplies, if available, such as carry-over groundwater or SWP water types other than Table A.

Table ES-4. Projected Water Supplies (AF)

	2030	2035	2040	2045	2050
SWP Table A	77,854	76,043	74,233	72,422	72,422
Groundwater, Production Rights	4,250	4,250	4,250	4,250	4,250
Groundwater, Imported Water Return Flows	860	860	860	860	860
Non-SWP Water	1,700	1,700	1,700	-	-
TOTAL	**84,664**	**82,853**	**81,043**	**77,532**	**77,532**

Note: Groundwater, Imported Water Return Flows are an average from 2021 to 2025.

Water Supply Reliability

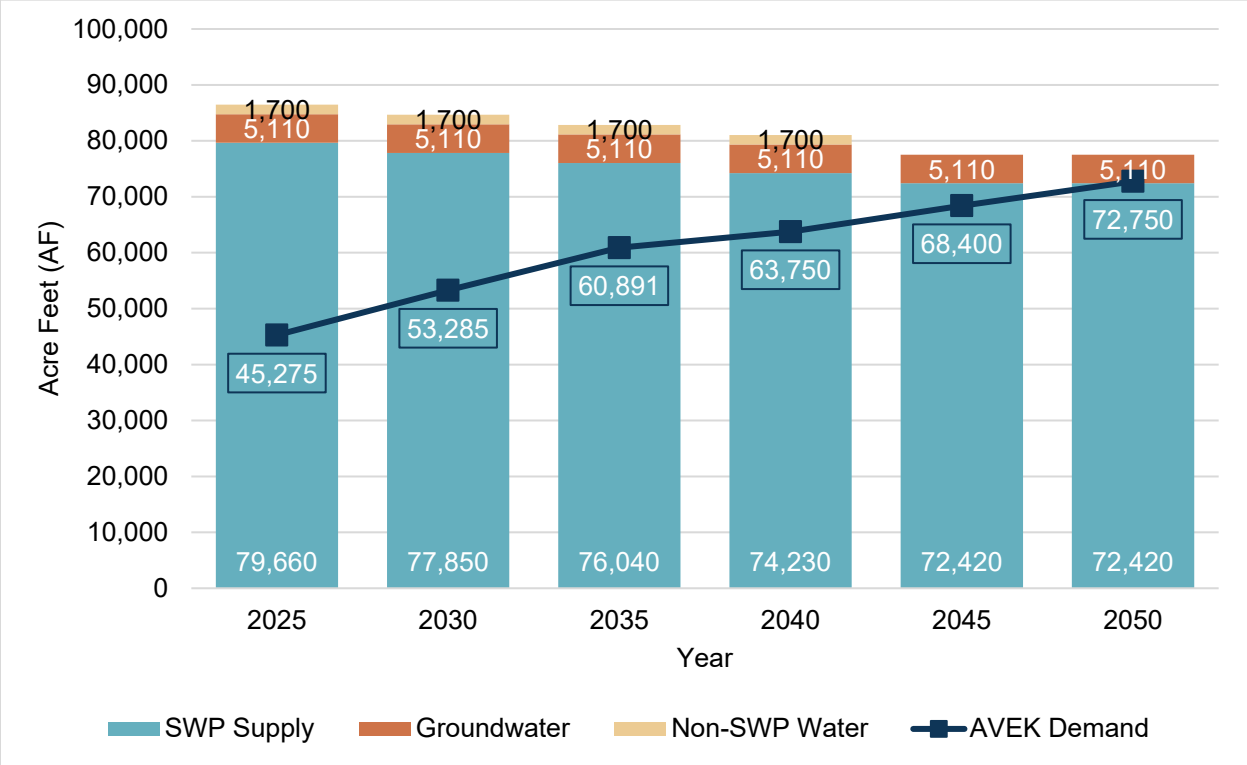
Water supply reliability reflects AVEK's ability to meet the water needs of its customers with water supplies under varying conditions. AVEK's water reliability goal is to provide a level of regional water reliability that supports customers' water needs. The foundational strategy of this goal is to develop groundwater banking programs to help increase the reliability of the greater Antelope Valley region's water supplies by storing excess SWP water during wet periods and recovering it for delivery to customers during dry and high-demand periods or during a disruption in deliveries from the SWP.

AVEK evaluated its water supply reliability for normal, single dry, and multiple dry years through 2050 and assessed the drought risk over the next five years. The analysis considered plausible hydrological and regulatory variability, climate conditions, and other factors that affect the Agency's water supply and demand.

Normal Year

Total normal year AVEK supplies are shown in Figure ES-5 based on the supply projections discussed above. As shown in the figure, AVEK has sufficient supplies in normal years and could use available supplies to add to groundwater storage for dry periods. For example, SWP water could be recharged when available, or unused groundwater rights could be carried over for use in future years.

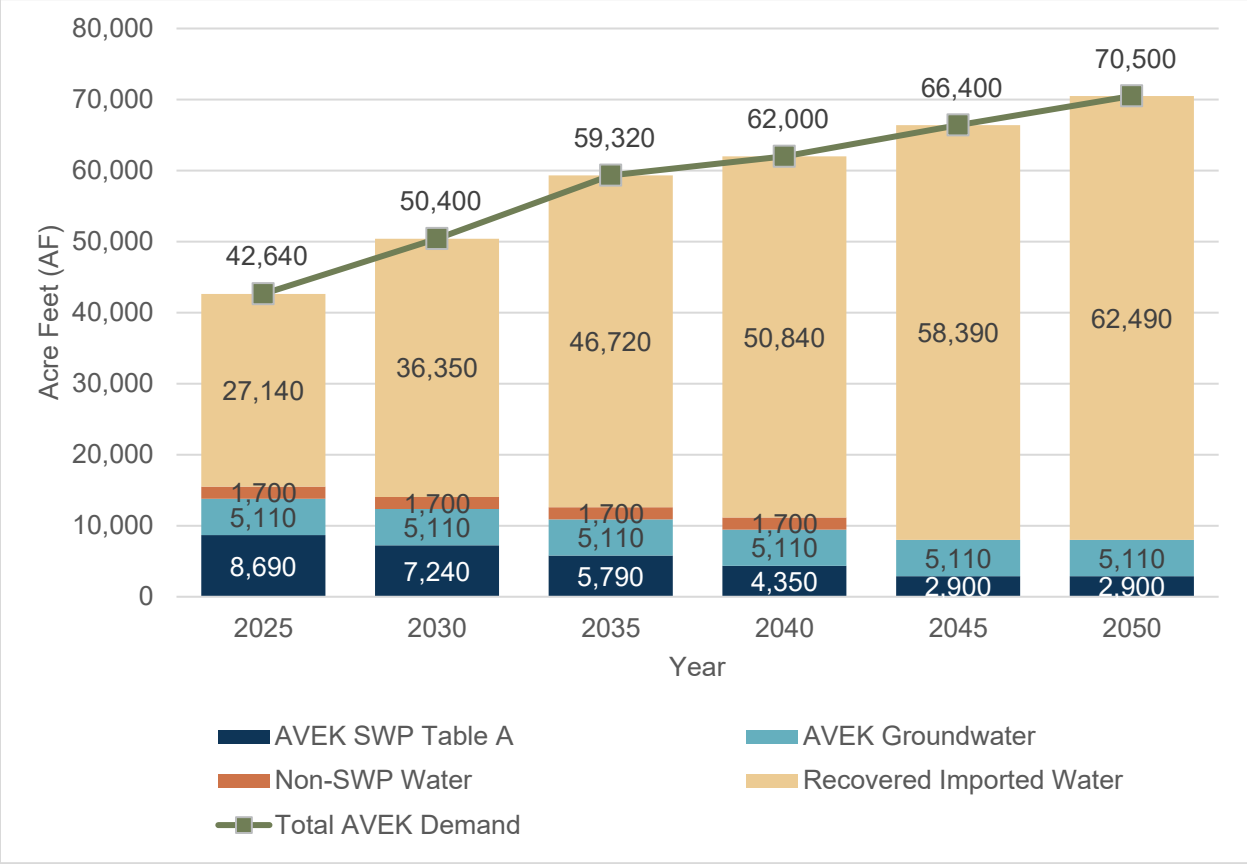
Figure ES-5. AVEK Supply and Demand Projections, Normal Year



Single Dry Year

Single dry year yield for SWP water is based on the 2025 DCR estimated SWP Table A deliveries which are 6% in 2025 and decrease in a straight line regression to 2% by 2045. Groundwater rights and AVEK's non-SWP water are not impacted by short-term drought conditions, so normal year supply assumptions are applied. In addition, some AVEK additional commitments to deliver supplies in normal years are reduced in dry years, reducing the total AVEK demand. The remainder of demand is met with recovered imported water or groundwater in storage. As shown in Figure ES-6, recovered imported water from AVEK groundwater banks enable AVEK to meet its demands in a single dry year.

Figure ES-6. AVEK Supply and Demand Projections, Single Dry Year



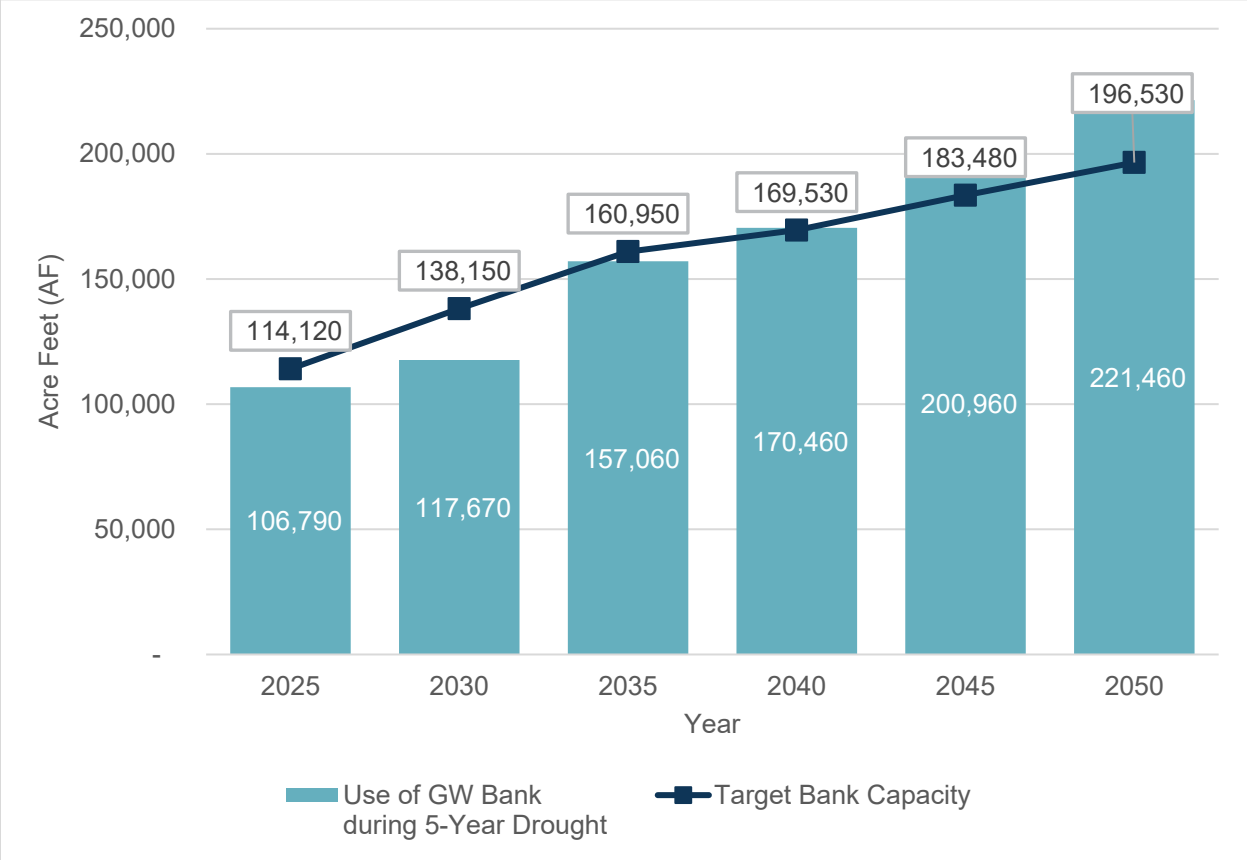
Five Consecutive Dry Years

For multiple dry years, SWP water availability is based on 1929 to 1933 simulated yield from the 2025 SWP DCR for AVEK, which estimated the following annual Table A allocation:

- Year 1 (1929): 8%
- Year 2 (1930): 34%
- Year 3 (1931): 2%
- Year 4 (1932): 10%
- Year 5 (1933): 18%

Similar to single dry year, groundwater rights and non-SWP water are not impacted by an extended drought, and recovered imported water from AVEK groundwater banks are used to meet remaining demands. Figure ES-7 presents the total volume of imported water recovered from AVEK groundwater banks during a multiple-year drought in comparison with the target total storage volume. As shown in the figure, groundwater bank storage capacity is not sufficient in five-year drought conditions projected by 2045. Projections extended this far into the future have uncertainties and AVEK will continue to monitor demand projections and groundwater banking storage to assess if efforts to increase storage capacity to meet future demands are necessary.

Figure ES-7. AVEK Groundwater Bank Storage Capacity vs. Use During Five Consecutive Dry Years



2026–2030 Drought Risk Assessment

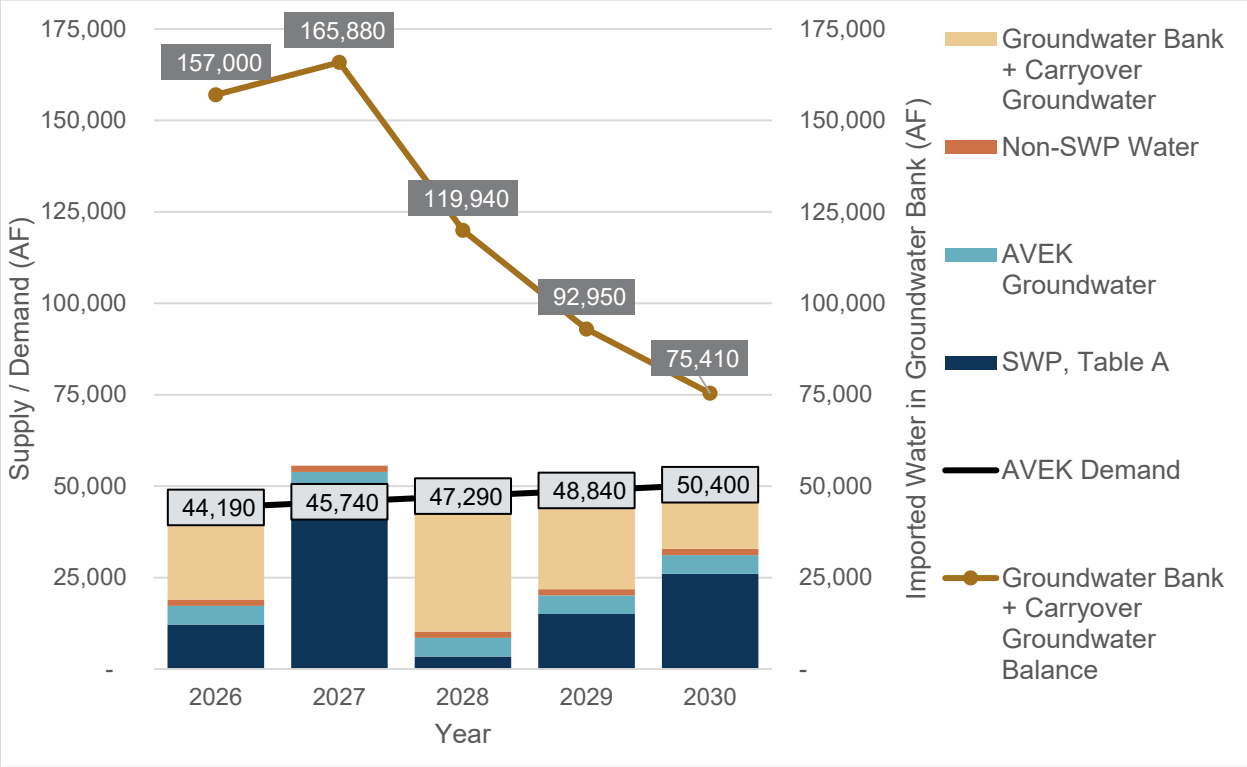
CWC requires a Drought Risk Assessment for the upcoming five years (2026 to 2030) based on the five driest years on record. The supply assumptions are similar to the multiple dry year assumptions as shown in Table ES-5. AVEK currently has roughly 155,000 AF of SWP water stored within its banks for future recovery and is implementing infrastructure projects to expand its capacity to recharge water, recover water, and distribute recovered water. As shown in Figure ES-8, AVEK still would have over 48,000 AF of groundwater remaining in storage at the end of a five-year drought that starts in 2026.

Table ES-5. AVEK Supply Projections for 2026-2030 Drought Risk Assessment (AF)

SUPPLIES	2026	2027	2028	2029	2030
SWP, Table A	12,180	48,880	3,420	15,040	26,050
AVEK Groundwater	5,110	5,110	5,110	5,110	5,110
Non-SWP Water	1,700	1,700	1,700	1,700	1,700
Recovered Imported Water from Groundwater Bank	25,220	0	37,060	26,990	17,540
TOTAL AVEK SUPPLIES	**44,190**	**55,610**	**47,290**	**48,840**	**50,400**

Note: Stored Imported Water supplies are used to meet balance of demand.

Figure ES-8. 2026-2030 Drought Risk Assessment



2025 Water Shortage Contingency Plan

AVEK's 2025 Water Shortage Contingency Plan (WSCP) is a detailed plan that describes how AVEK intends to respond to foreseeable and unforeseeable water shortages. A water shortage occurs when the water supply is reduced to a level that cannot support typical demand at any given time. The WSCP is used to provide guidance by identifying response actions to allow for efficient management of any water shortage with predictability and accountability. Preparation provides the tools to maintain reliable supplies and reduce the impacts of supply interruptions due to extended drought or catastrophic supply interruptions.

The AVEK 2025 WSCP is included as Appendix H in the 2025 UWMP.

Demand Management Measures

Demand management is an integral part of sustainably managing water resources in California. Implementation of demand management measures that help lower demands can improve water supply reliability and help meet both state and regional water conservation goals.

AVEK has been a leader in water use efficiency for many years and actively collaborates with local and regional agencies and the communities it serves to support innovative programs that drive change. AVEK implements demand management measures as part of its ongoing operations.

Chapter 9 of the 2025 UWMP describes AVEK's efforts as a wholesale water supplier to promote conservation and reduce demands on water supplies.

Aerial Photo of AVEK's High Desert Water Bank

1 Introduction

This section provides a brief overview of Antelope Valley - East Kern Water Agency and the purpose of this 2025 Urban Water Management Plan (AVEK or Agency). It also describes how the UWMP is organized and its relationship to local and regional planning efforts in which AVEK is involved.

IN THIS SECTION

1.1 Introduction

This document presents the 2025 Urban Water Management Plan (UWMP) for the Antelope Valley-East Kern Water Agency.

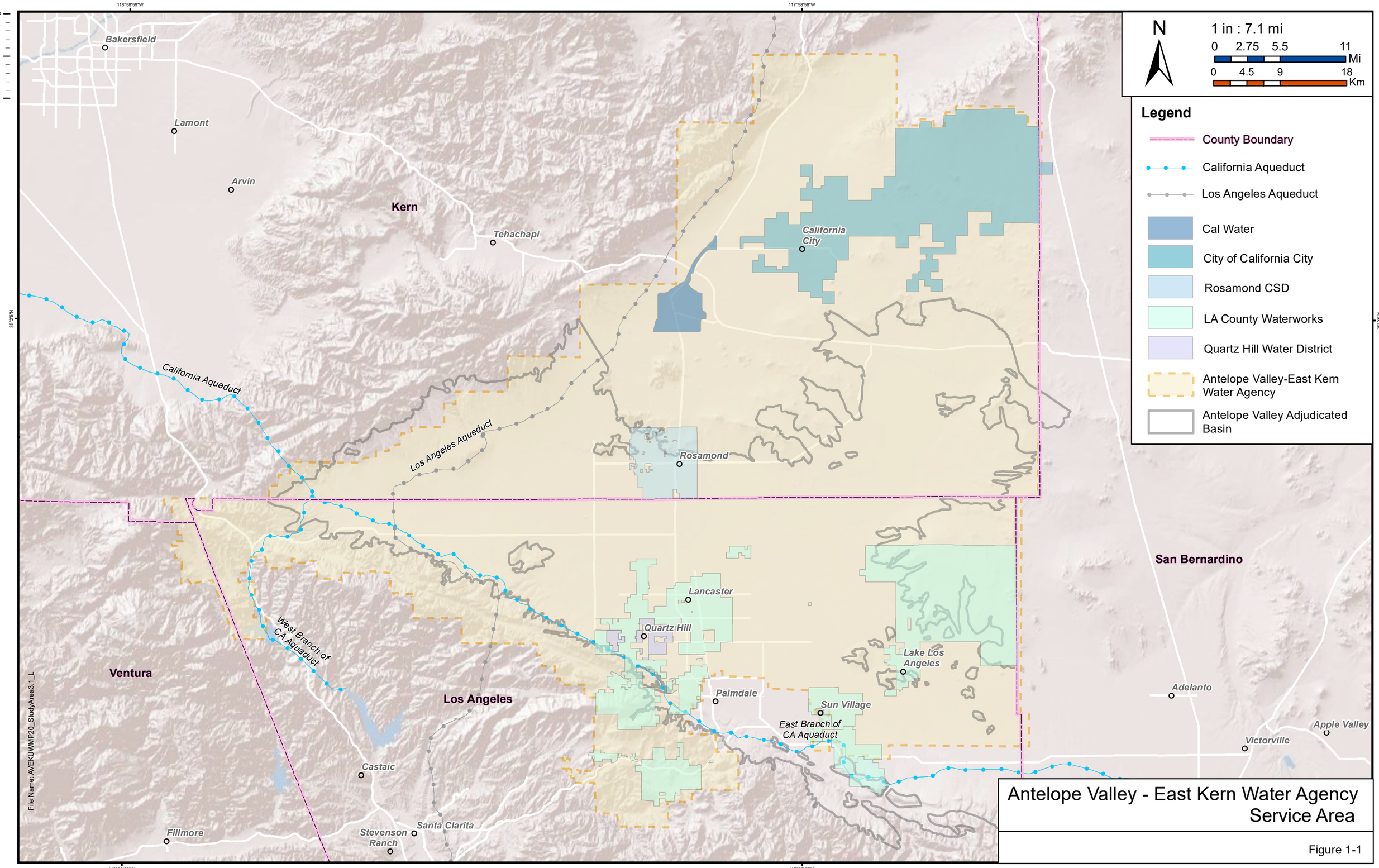
AVEK is a wholesale supplier of State Water Project (SWP) water to the greater Antelope Valley region. SWP water is a supplemental water source for AVEK's customers and is used in lieu of, or in addition to, pumped groundwater.

The greater Antelope Valley is located in the western part of the Mojave Desert, approximately 50 miles northeast of Los Angeles, California. The region is a triangle-shaped, topographically closed basin bordered on the southwest by the San Gabriel Mountains, on the northwest by the Tehachapi Mountains, and on the east by a series of hills and buttes that generally follow the Los Angeles/San Bernardino County line. AVEK's service area encompasses nearly 2,400 square miles in northern Los Angeles and eastern Kern Counties, as well as a small portion of Ventura County. AVEK has played a major role in the Valley's water system since it was granted a charter by the State Legislature in 1959 and became an SWP contractor in 1962. AVEK currently provides treated and untreated water to 33 retail water agencies and water companies, as well as to industrial and agricultural customers. The five largest customers are shown along with the AVEK service area in Figure 1-1.

1.2 California Water Code

In 1983, the State of California Legislature enacted the Urban Water Management Planning Act (UWMP Act). The law required an urban water supplier providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet per year (AFY) to adopt a UWMP every five years. This UWMP must demonstrate water supply reliability under both normal and drought conditions. The UWMP Act applies to wholesale and retail water suppliers.

Since the original UWMP Act was passed, it has undergone significant expansion. Prolonged droughts, groundwater overdraft, regulatory revisions, and changing climatic conditions affect the reliability of each water supplier as well as statewide water reliability overseen by California Department of Water Resources (DWR), the State Water Resources Control Board (SWRCB), and the Legislature. Accordingly, the UWMP Act has grown to address changing conditions. The current requirements are found in Sections 10610-10656 and 10608 of the California Water Code (CWC).



Antelope Valley - East Kern Water Agency Service Area

Figure 1-1

Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

DWR provides guidance for urban water suppliers by preparing an Urban Water Management Plan Guidebook 2025 (DWR, 2026), conducting workshops, developing tools, and providing program staff to help water suppliers prepare comprehensive and useful water management plans, implement water conservation programs, and understand the requirements of the CWC. Suppliers prepare their own UWMPs and submit them to DWR. DWR then reviews the plans to make sure they have addressed the requirements; they submit a report to the State Legislature summarizing the status of the plans for each five-year cycle. The 2025 UWMP Guidebook, finalized in January 2026, was used to complete this 2025 UWMP.

The purpose of this UWMP is for AVEK to evaluate long-term resource planning and establish management measures to ensure adequate water supplies are available to meet existing and future demands. The UWMP provides a framework to help water suppliers maintain efficient use of urban water supplies, promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a response mechanism during drought conditions or other water supply shortages.

The UWMP is a valuable planning tool used for multiple purposes, including:

- Providing a standardized methodology for water utilities to assess their water resource needs and availability.
- Serving as a resource to the community and other interested parties regarding water supply and demand, conservation, and other water-related information.
- Providing a key source of information for cities and counties when considering approval of proposed new developments and preparing regional long-range planning documents, such as city and county General Plans.
- Informing other regional and Statewide water planning efforts, such as Integrated Regional Water Management Plans and the California Water Plan.

CWC 10632 also includes requirements for suppliers to prepare a Water Shortage Contingency Plan (WSCP). The WSCP documents a supplier's plans to manage and mitigate an actual water shortage condition, should one occur because of drought or other impacts on water supplies. The WSCP is a standalone document that can be updated independently of the UWMP but is referenced and attached to the 2025 UWMP. The WSCP is provided in Section 8 and Appendix H.

1.3 UWMP Organization

The 2025 UWMP is organized as follows:

Section 1 – Introduction and Lay Description

This section provides background information on the UWMP process, new regulatory requirements, and an overview of the information covered throughout the remaining sections.

Section 2 – Plan Preparation

This section provides information on the processes used to develop the UWMP, including coordination and outreach efforts, the steps taken to prepare AVEK's 2025 UWMP, hold a public hearing, adopt, submit, and implement the 2025 UWMP.

Section 3 – System Description

This section describes AVEK's water system, service area, population demographics, local climate, and land uses.

Section 4 –Water Use Characterization

This section describes and quantifies the current and projected water uses through 2050 within the water service area.

Section 5 – SBX7-7 Baseline and Targets

As a wholesale supplier, AVEK is not required to calculate baseline, targets, or compliance gallons per capita per day; therefore, this section is not required.

Section 6 – Water Supply Characterization

This section describes and quantifies the current and projected potable and non-potable water supplies.

Section 7 – Water Supply Reliability and Drought Risk Assessment

This section describes the water service reliability through 2050 and includes the Drought Risk Assessment for the next five years.

Section 8 – Water Shortage Contingency Plan

This section includes an overview of the standalone WSCP. The complete WSCP is included as Appendix H.

Section 9 – Demand Management Measures

This section describes AVEK's efforts to promote conservation and reduce water demand, including discussions of specific demand management measures.

Section 10 – Plan Adoption, Submittal, and Implementation

This section describes AVEK's efforts to engage stakeholders, cities, counties, water agencies, and the public to both seek and distribute information about water use, supply, and reliability and summarizes the notification and public hearing process conducted.

1.4 Consistency with the Delta Plan for Participants in Covered Actions

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

DWR recommends that an urban water supplier that anticipates participating in or receiving water from a proposed covered action—such as a multiyear water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta provides information in their 2025 UWMP that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance.

Senate Bill (SB) X7-1, which was signed in 2009, reformed Sacramento-San Joaquin Delta (Delta) policy and governance, including requiring development, adoption, and implementation of a Delta Plan and establishing a statewide policy to reduce reliance on the Delta in meeting California's future water supply needs, through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency.

DWR does not review this analysis as part of the UWMP approval process; therefore, this information has been prepared as a stand-alone document and is attached as Appendix C. The analysis and documentation provided in the appendix include the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

2 Plan Preparation

This section provides information on the processes used to develop the UWMP, including efforts in coordination and outreach.

IN THIS SECTION

- Basis for Preparing a Plan
- Regional Planning
- Coordination and Outreach

2.1 Plan Preparation

The 2025 UWMP was prepared in a transparent manner, and AVEK actively engaged stakeholders, cities, counties, water agencies, and the public to both seek and distribute information about water use, supply, and reliability to strengthen the region's ability to assess and plan for the region's water future. This chapter provides details regarding AVEK's UWMP preparation and the coordination and outreach efforts conducted.

AVEK prepared this 2025 UWMP in accordance with CWC Section 10617, which requires water suppliers with 3,000 or more service connections, or those supplying 3,000 AFY or more to prepare a UWMP. Suppliers are required to update UWMPs at least once every five years on or before July 1 in years ending in one and six, incorporating updated and new information from the five years preceding each update. AVEK's 2025 UWMP was submitted to DWR by July 1, 2026.

2.2 Basis for Preparing a Plan

AVEK prepared an individual UWMP as a wholesale agency and is not a member of a Regional UWMP or Regional Alliance. Throughout this UWMP, water volume is represented in units of AFY, unless otherwise noted, and data is presented on a calendar year basis.

2.3 Coordination and Outreach

AVEK coordinated with multiple neighboring and stakeholder agencies to prepare the 2025 UWMP. The coordinated efforts were conducted to 1) inform the agencies of AVEK's efforts and activities; 2) gather high quality data for use in developing this UWMP; and 3) coordinate planning activities with other related regional plans and initiatives.

CWC Section 10621 requires that suppliers notify cities and counties to which they serve water that the UWMP and WSCP are being updated and reviewed. The CWC specifies that this must be done at least 60 days prior to the public hearing about the updated plan. To fulfill this requirement, AVEK sent letters of notification of preparation of the 2025 UWMP and 2025 WSCP to the cities and counties within AVEK's service area, listed below, 60 days prior to the public hearing.

- City of California City
- City of Lancaster
- City of Palmdale
- Kern County
- Los Angeles County
- Ventura County

Copies of the 60-day notification letters are attached as Appendix D. The notifications to cities, counties, and customers are further discussed in Section 10.

To fulfill the requirements of CWC Section 10642, AVEK made the 2025 UWMP and 2025 WSCP available for public review and held a public hearing on June 9, 2026. The public review hearing was noticed on April 8, 2026; the hearing notice is attached as Appendix D. In addition, AVEK maintained a copy of the 2025 UWMP and 2025 WSCP in its office prior to the public hearing.

2.3.1 Wholesale and Retail Coordination

AVEK's service area includes 33 customers, and all were informed of AVEK's UWMP update and water supply projections from 2025 through 2050 for average, single, and five consecutive dry years.

In compliance with California Water Code 10631, AVEK notified these customers:

- Antelope Valley Country Club
- Boron Community Services District (CSD)
- California State Parks / Mojave Desert
- California Water Service Company (Antelope Valley District)
- City of California City
- Desert Lake CSD
- Desert Sage Apartments
- Edgemont Acres Mutual Water Company (MWC)
- Edwards Air Force Base
- El Dorado MWC
- Kern County Water Agency
- Hydrostor
- Lake Elizabeth MWC
- Landale MWC
- Los Angeles County Waterworks Districts (LACWD) No. 37 and No. 40
- Mojave Public Utility District
- North Edwards Water District
- Palm Ranch Irrigation District
- Quartz Hill Water District
- Rancho Vista Development
- Rio Tinto Minerals (US Borax)
- Rosamond Community Services District
- Shadow Acres MWC
- Sunnyside Farms MWC
- Tejon Ranch Co.
- Westside Park MWC
- White Fence Farms MWC
- White Fence Farms MWC #3

Copies of the 60-day notification letters are attached as Appendix D.

There are five retail customers within AVEK's service area that are required to prepare an UWMP, and additional coordination occurred with these agencies:

- California Water Service Company (Antelope Valley District)
- City of California City
- LACWD No. 37 and No. 40
- Quartz Hill Water District
- Rosamond Community Services District

2.3.2 Coordination with Other Agencies and the Community

Several years ago, AVEK and 10 additional public agencies representing the broad interests of the greater Antelope Valley region formed a Regional Water Management Group. The 11 agencies signed a Memorandum of Understanding that defines roles and responsibilities to make formal decisions regarding the scope and content of the Antelope Valley Integrated Regional Water Management Plan (IRWMP). Since initial development of the IRWMP in 2007, phased efforts have been advanced to define a meaningful course of action to meet the demands for water within the greater Antelope Valley region and the shared vision within the region. AVEK remains involved in regional water management efforts and participated in the 2019 update to the IRWMP (Antelope Valley Integrated Regional Water Management Group, 2019). The IRWMP includes the prioritization of water projects for implementation within the region. In their taking part within the IRWMP Advisory Team, AVEK has sought to present and support projects that gain long-term water supply resiliency for the greater Antelope Valley.

3 System Description

This section describes AVEK's water system, service area, population demographics, local climate, and land uses.

IN THIS SECTION

- Agency Description
- System Description
- Local Climate
- Population and Demographics

3.1 Agency Description

AVEK is a wholesale supplier of SWP water to the greater Antelope Valley region. The region is located in the western part of the Mojave Desert, approximately 50 miles northeast of Los Angeles. AVEK's service area encompasses nearly 2,400 square miles in northern Los Angeles and eastern Kern Counties as well as a small portion of Ventura County. The service area has not changed since the 2020 UWMP.

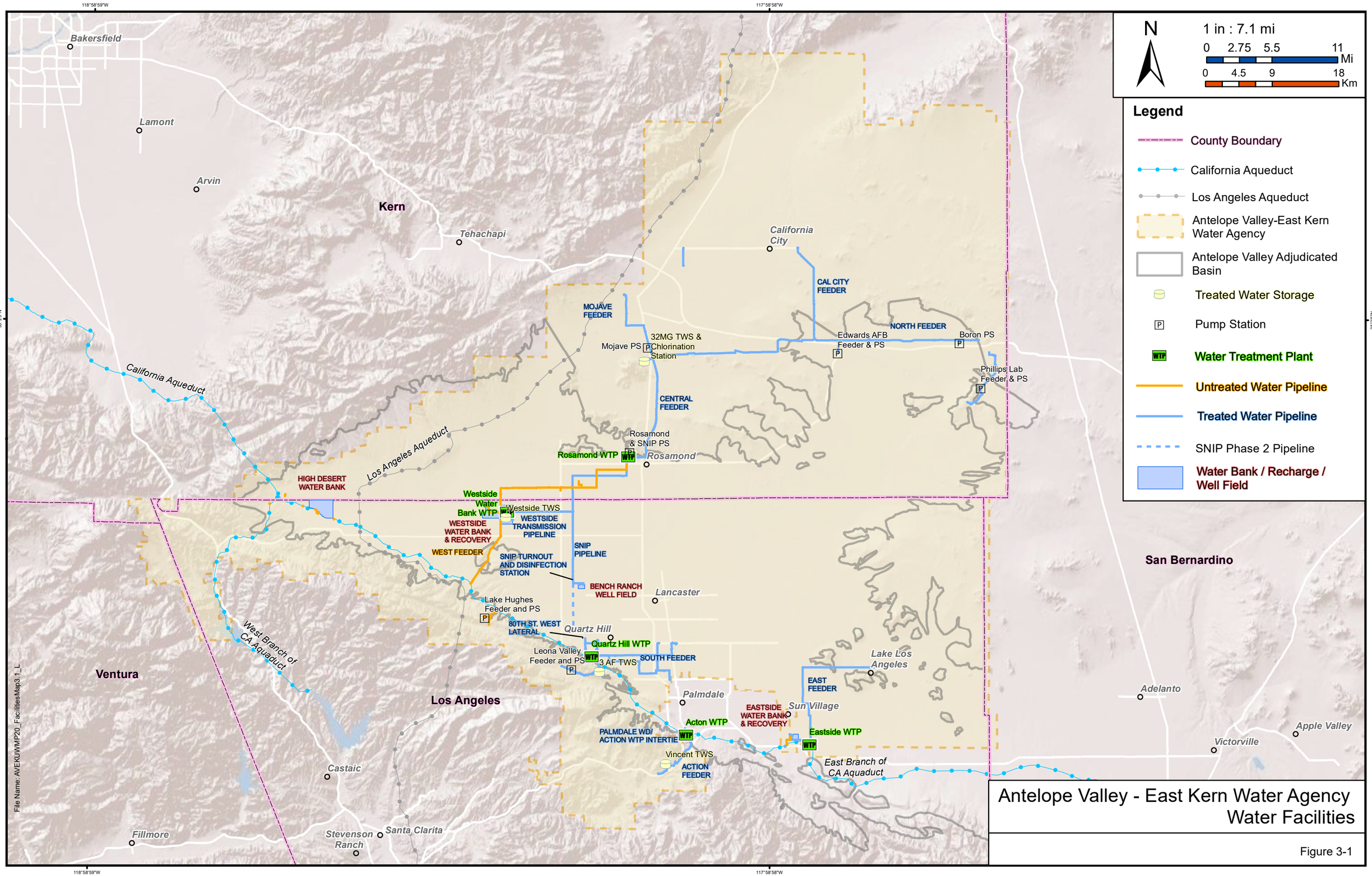
AVEK has played a major role in the Antelope Valley's water system since it was granted a charter by the State Legislature in 1959 and became a SWP contractor in 1962. AVEK's mission is to deliver reliable, sustainable, and high-quality supplemental water to the region in a cost-effective and efficient manner. AVEK's goals include groundwater basin stewardship, water reliability, and water quality promotion.

In 1962, AVEK signed a water supply contract with DWR for delivery of imported water supplies from the SWP to supplement Antelope Valley region's groundwater supplies. AVEK has the third-largest allotment of the 29 SWP contractors, with a contractual Table A amount of 144,844 AFY. Only the Metropolitan Water District of Southern California (Metropolitan) and Kern County Water Agency receive a larger allotment. Table A water is a reference to the amount of water listed in "Table A" of the contract between the DWR and the contractors and represents the maximum amount of water a contractor may request each year. Table A water is the primary delivery type of imported water AVEK receives; however, additional delivery types (e.g., Article 21 Water and Carryover Water) help to make up AVEK's full imported water supply. AVEK's imported water delivery types are further described in Section 6.

3.2 System Description

AVEK's water system is connected to the California Aqueduct at 23 different turnouts. However, only 12 of the turnouts are currently operational. AVEK's turnouts feed into separate subsystems that are hydraulically disconnected from each other. AVEK's nine subsystems include: Acton, East, Kern County, Lake Hughes, Leona Valley, Rancho Vista, South, Tejon, and West. Distribution throughout AVEK's service area is carried out through a system of approximately 184 miles of pipeline. Water travels throughout the system using gravity and booster pump stations that pump water from the lower elevations to the higher elevations. AVEK's pump stations are located at water treatment plants (WTPs) or at customer connections. There are currently 10 existing pumping stations within AVEK's system. The Agency's major facilities are shown in Figure 3-1.

A summary of AVEK customers, which includes treated and untreated deliveries, and associated subsystems is provided in Table 3-1.



Antelope Valley - East Kern Water Agency Water Facilities

Figure 3-1

Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

Table 3-1. AVEK Customers by Subsystem

AVEK Subsystem	Subsystem Pipelines[1]	Subsystem Customer(s)
Acton	Acton Feeder	LACWD No. 37
East	East Feeder	LACWD No. 40
Kern County	Central Feeder, Mojave Feeder, North Feeder, Cal City Feeder	Boron CSD, City of California City, Desert Lake CSD, Desert Sage Apartments, Edgemont Acres MWC, Edwards Air Force Base, Granite Construction, Hydrostor, Mojave Public Utility District, North Edwards Water District, Rio Tinto Minerals, Rosamond CSD, Steel Mill, Northgate Travel Plaza
Lake Hughes	Lake Hughes Feeder	Lake Elizabeth MWC, Untreated Water Agricultural
Leona Valley	Leona Valley Feeder	California Water Service Co., Treated Water Agricultural
Rancho Vista	Rancho Vista Turnout	Rancho Vista Golf Course
South	South Feeder, 80th St West Facility	Antelope Valley Country Club, El Dorado MWC, Landale MWC, LACWD No. 40, Palm Ranch Irrigation District, Quartz Hill Water District, Shadow Acres MWC, Sunnyside Farms MWC, Treated Water Agriculture, Westside Park MWC, White Fence Farms, White Fence Farms #3
Tejon	Tejon Turnout	Tejon Ranch Company
West	West Feeder	California State Parks / Mojave Desert, Untreated Water Agriculture

Note:
1. Refer to Figure 3-1.

AVEK owns and operates four WTPs that treat SWP water to drinking water standards and deliver the treated water into the regional distribution system. The four WTPs and the year they were constructed are: Acton WTP (1991); Eastside WTP (1981); Quartz Hill WTP (1977); and Rosamond WTP (1978). AVEK's water distribution systems rely on stored water to help

equalize fluctuations between supply and demand. In addition, storage is required to provide adequate water supply for emergency or unplanned outages of a major source of supply. Currently, the Agency's water system has clearwells co-located with each WTP and seven reservoirs that provide storage for the distribution system, five of which are owned and maintained by AVEK and two of which are owned by LACWD and maintained by AVEK (Carollo, 2020).

In addition, AVEK developed groundwater banking programs to store surplus water available from the SWP during wet periods through groundwater recharge to increase water supply reliability in the greater Antelope Valley. The banking programs include recovery wells to supplement imported water during dry periods, high delivery periods, or during a disruption of SWP deliveries. Currently, AVEK's groundwater banks and the year operations started include the Westside Water Bank (2010); the Eastside Water Bank (2016); the Upper Amargosa Creek Recharge Project, a partnership project (2019); the High Desert Water Bank (2023), Littlerock Creek Recharge Project (2026), and Big Rock Creek location (2019- pilot).

The High Desert Water Bank is a partnership between AVEK and Metropolitan to increase water supply reliability by storing excess Metropolitan SWP supply in the Antelope Valley Groundwater Basin for use during periods of low SWP allocation. AVEK began recharge operations in 2023 and recovery capability is currently estimated to be complete in 2028. As the project expands and additional phases are constructed, AVEK will have dedicated capacity and the ability to recover stored imported water from the groundwater basin and pump the recovered water into the East Branch of the California Aqueduct for downstream deliveries to AVEK's existing water treatment facilities.

AVEK has made many improvements to its water system since initially being constructed in the 1970s to allow for better distribution of water through system interconnections and expansions. The South North Intertie Pipeline and Pump Station/Turnout Project (SNIP) Phase 1 was constructed in 2011 to enable delivery of recovered banked water to the Rosamond WTP service area and to a LACWD turnout. SNIP also provides flexibility in the method of return of water banked in the Westside Water Bank (direct delivery or transfer). SNIP Phase 2 design is complete and construction of the project is anticipated to begin in 2026. SNIP Phase 2 involves installation of high-lift pumps at the existing pump station and a 48-inch diameter, 6.5 mile potable water pipeline that will interconnect AVEK's Westside Water Bank with its Quartz Hill WTP, enabling full utilization of the recovery capacity in the bank to customers within the distribution system. Other previous facility improvements include the Parallel South Feeder and the addition of 9 million gallons of storage at the Quartz Hill WTP.

3.3 Service Area Climate

AVEK's service area is located in the western part of the Mojave Desert within the greater Antelope Valley. The region's elevation ranges from approximately 2,300 feet to 3,500 feet above sea level. Vegetation native to the greater Antelope Valley region is typical of the high desert and includes Joshua trees, saltbush, mesquite, sagebrush, and creosote bush. The climate is characterized by hot summer days, cool summer nights, cool winter days, and cool

winter nights. Typical of a semiarid region, mean daily summer temperatures range from 64 degrees Fahrenheit (°F) to 96°F, and mean daily winter temperatures range from 35°F to 60°F. Summer temperatures can reach 112°F, while winter temperatures can drop to about 10°F. Typical annual rainfall is 4 to 6 inches. Most rainfall occurs between December and March, with little to no precipitation falling in summer months. The perimeter of the greater Antelope Valley includes low brush-covered hills transitioning into the Tehachapi Mountains to the west and the San Gabriel Mountains to the south. Surface water drainage channels and courses are only active during times of runoff due to precipitation. The water tables are well below the levels needed to sustain year-round flowing streams. The area is known for its daily winds, primarily from the west. Table 3-2 presents the average rates of evapotranspiration, temperature, and precipitation in the service area. The total average precipitation is 5.3 inches and total average evapotranspiration is 68.7 inches in the service area.

Table 3-2. Precipitation, Evapotranspiration, and Temperature in AVEK Service Area

MONTH	AVERAGE PRECIPITATION (INCHES)	AVERAGE EVAPOTRANSPIRATION (INCHES)	AVERAGE AIR TEMP (°F)
January	0.9	2.3	43.5
February	1.0	3.1	46.3
March	1.0	4.8	51.1
April	0.2	6.6	57.5
May	0.1	8.3	64.8
June	0.0	9.2	73.6
July	0.1	9.8	79.3
August	0.4	8.9	78.6
September	0.2	6.4	71.7
October	0.2	4.5	60.3
November	0.4	2.9	49.6
December	0.8	2.0	43.0
Annual Average	**0.4**	**5.8**	**60.1**

Source: California Irrigation Management Information System (CIMIS), Station 197 Palmdale, (April 2005 through December 2025) http://wwwcimis.water.ga.gov/cimis/data

3.4 Service Area Population, Demographics, and Socioeconomics

AVEK provides service to incorporated and unincorporated areas of the greater Antelope Valley. The current and projected population and demographic projections for AVEK's service area (Table 3-3 and Table 3-4, respectively) are based on 2020 Census data and population projections from the Southern California Association of Governments (SCAG) for Los Angeles

and Ventura Counties, and the Kern Council of Governments (KCOG). The SCAG projection data was last updated in December 2022 and is the projection modeling information that SCAG used in the 2024 Connect SoCal Regional Transportation Plan (SCAG, 2024). Population projections were calculated based on the SCAG 2024 regional growth forecast for the transportation analysis zones overlying AVEK service area. The estimates were developed using SCAG's traffic analysis zones (TAZs), which were clipped to AVEK's service area boundary in ArcGIS. TAZs that were partially outside the service area were estimated based on the percentage of the area that lies within AVEK's service area. SCAG's 2024 model data has estimates for 2019 (historical estimate), 2035, and 2050. Intermediate values are linear interpolations between the given SCAG values.

SCAG prepared preliminary demographic forecast estimates for each TAZ in 2022 for the 2024 Connect SoCal Plan. Over the course of 2022, SCAG met with each jurisdiction to review the demographic forecasts. This review process incorporated feedback from each jurisdiction, including land use planning departments, to help align the demographic forecasts with current land use and anticipated land use changes.

The KCOG population projection data is from KCOG estimates and projections, regional growth forecast, and growth allocation (KCOG, 2024). Similar to SCAG, the KCOG estimates were developed using KCOG's TAZs. The TAZs were clipped to AVEK's service area boundary in ArcGIS, and TAZs that were partially outside the service area were estimated based on the percentage of the area that lies within AVEK's service area. However, KCOG data was presented based on the number of households. A ratio of 2.7 persons per household was used for KCOG population projections, which was calculated using the 2020 Census data for population and households for AVEK's service area.

KCOG data is projected for 2035, and 2049. Similar to SCAG, linear interpolation was applied to intermediate values and extrapolation for 2050. In addition, population projections for Kern County were adjusted to reflect the closure of the California City Correctional Facility, which closed in March 2024 but may reopen in 2026. Census data from 2020 indicated the Correctional Facility had a population of 2,065.

The SCAG average annual growth estimate from 2025 to 2050 is 0.5% and the KCOG average annual growth estimate decreases from 0.6% to 0.2% between 2025 to 2050. The combined projections result in an average annual growth rate of 0.5%.

Table 3-3. Current and Projected Population

POPULATION SERVED	2020	2025	2030	2035	2040	2045
Los Angeles and Ventura Counties	291,759	298,968	306,176	314,311	322,446	330,580
Kern County	42,423	43,706	44,989	45,450	45,911	46,372
TOTAL:	**334,182**	**342,673**	**351,165**	**359,760**	**368,356**	**376,952**

Notes: Data for Los Angeles and Ventura Counties from SCAG 2024 Connect SoCal Regional Transportation Plan (SCAG, 2024). KCOG data is from KCOG estimates and projections, regional growth forecast, and growth allocation (KCOG, 2024).

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 (United Sates Census Bureau, 2020).

Table 3-4. Current and Projected Households and Employment

	2025	2030	2035	2040	2045	2050
HOUSEHOLDS						
Los Angeles and Ventura Counties	97,368	102,230	107,091	111,836	116,580	121,325
Kern County	16,477	16,952	17,427	17,598	17,769	17,939
TOTAL:	**113,845**	**119,182**	**124,518**	**129,434**	**134,349**	**139,265**
EMPLOYMENT						
Los Angeles and Ventura Counties	103,280	107,579	111,877	117,845	123,812	129,780
Kern County	21,452	22,799	24,147	24,955	25,764	26,573
TOTAL:	**124,732**	**130,378**	**136,024**	**142,800**	**149,576**	**156,353**

Notes: Data for Los Angeles and Ventura Counties from SCAG 2024 Connect SoCal Regional Transportation Plan (SCAG, 2024). KCOG data is from KCOG estimates and projections, regional growth forecast, and growth allocation (KCOG, 2024).

3.5 Land Uses within Service Area

The Antelope Valley is a broad high-desert basin on the western edge of the Mojave Desert. Historical land use in the Antelope Valley was dominated by agriculture, but the region is transitioning out of a predominantly agricultural economy. Existing residential and commercial development tends to cluster in towns separated by wide open spaces. Outside the urbanized areas are rural residential, agricultural land, open spaces for conservation and recreation, federally owned lands, and growing acreage dedicated to large solar panel facilities. 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 (Antelope Valley Integrated Regional Water Management Group, 2019).

4 Water Use Characterization

This section describes and quantifies AVEK's past, current, and future water use through 2050.

IN THIS SECTION

- Past Water Use
- Current Water Use
- Projected Water Use

4.1 Water Use Characterization

AVEK delivers treated water and untreated water to customers within its service area. All connections are metered and are cross-checked with DWR SWP delivery records. In addition, AVEK delivers untreated water for recharge of the local groundwater basin and conducts exchanges or transfers for delivery of a portion of its SWP allocation to agencies with a short-term need for additional water supplies.

As a SWP contractor, AVEK provides a supplemental imported water supply from the SWP to customers in the greater Antelope Valley region. These supplies are used in lieu of, or in addition to, local groundwater production. AVEK's mission is to deliver reliable, sustainable, and high-quality supplemental water in a cost effective and efficient manner.

Therefore, AVEK must first project total demand in the AVEK service area, along with projected utilization of local supplies, to estimate demands on AVEK supplies. The primary local supply is groundwater, but several agencies are investing in recycled water and recharge projects to diversify their water supplies.

This chapter describes recent demands in the AVEK service area and projections through 2050 for water demand in the AVEK service area, local supplies, and AVEK demands.

4.2 Past and Current Water Use

As a wholesale water supplier, AVEK reports the sale of water to other agencies; the retail water supplier is responsible for reporting the uses of their water supply by water sector. Water use sectors relevant to AVEK include sales to other agencies, groundwater recharge (groundwater banking using imported supplies), losses, and transfers/exchanges. Water delivery data for 2025 is summarized in Table 4-1 and presented along with 2016–2025 deliveries in Figure ES-1.

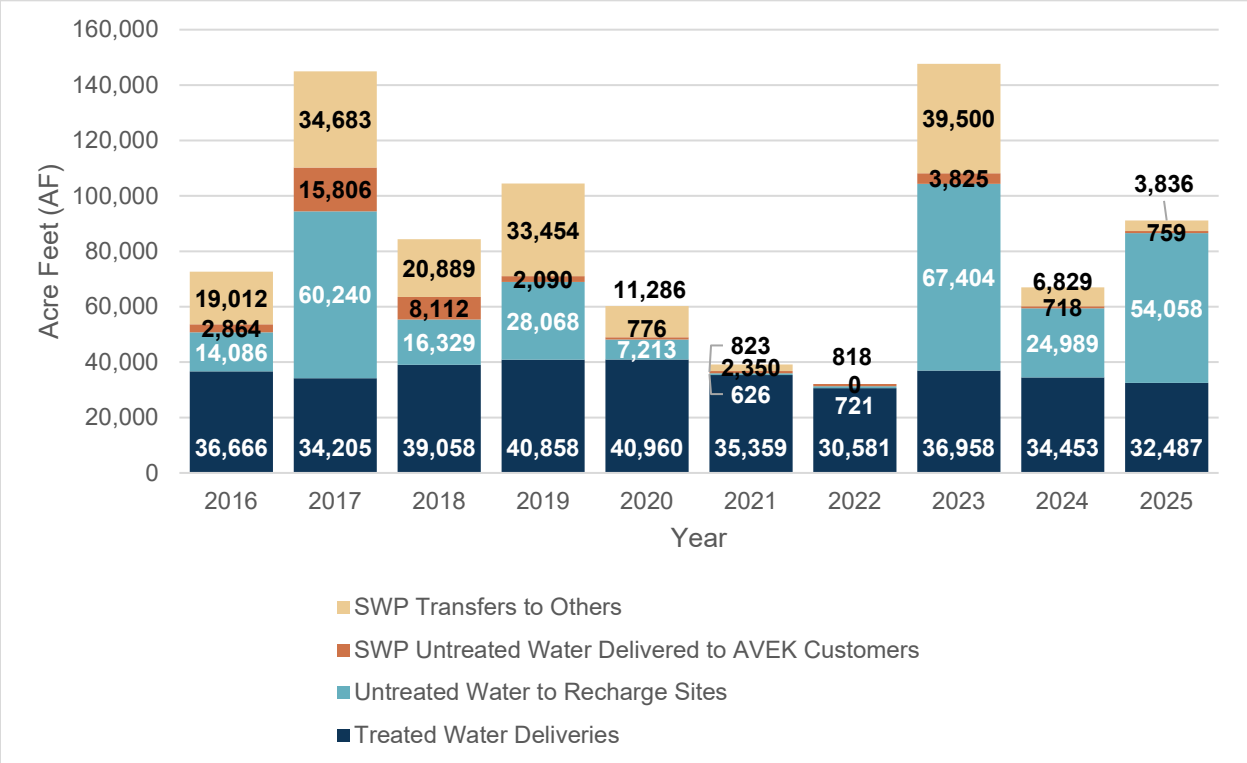
As shown in Figure 4-1, treated water deliveries to AVEK customers were relatively consistent compared with deliveries to recharge sites and other locations. Both recharge water deliveries and deliveries to other locations have varied significantly based on water availability, as evidenced by the high recharge volume in 2017 and 2023 that coincided with high SWP allocations. Future use of water for recharge is discussed further in Section 6. Similarly, yearly deliveries to other locations vary substantially and are primarily driven by the extent of exchanges or transfers conducted in those years. Exchanges and transfers are not explicitly projected in this UWMP because they are opportunistic agreements made by willing parties dependent on each party's needs, and they are the lowest priority use of AVEK's supplies.

The remainder of this chapter focuses on treated water demand projections.

Table 4-1. AVEK 2025 Actual Demands for Water (AF)

CUSTOMER OR USE	LEVEL OF TREATMENT WHEN DELIVERED	2025 VOLUME
Los Angeles County Waterworks Districts	Treated Water	24,535
Quartz Hill Water District	Treated Water	2,608
Rio Tinto Minerals / US Borax	Treated Water	979
Edwards Air Force Base	Treated Water	1,471
Other M&I Customers (26 Customers)	Treated Water	2,774
Untreated Water Deliveries (5 Customers)	Untreated Water	759
Transfers to/from Other Agencies	Untreated Water	3,836
Groundwater Recharge	Untreated Water	54,058
Losses	Treated and Untreated Water	120
	TOTAL:	**91,140**

Figure 4-1. 2016-2025 AVEK Deliveries by Type



4.3 Projected Water Use

4.3.1 Customer Demands

To estimate future customer demands, AVEK developed demand projections that estimate total customer water demand in the AVEK service area and customer's use of local supplies (groundwater and recycled water) to estimate customer demands of AVEK water.

Five of AVEK's customers—California Water Service Co., City of California City, LACWD, Quartz Hill Water District, and Rosamond CSD—must prepare UWMPs. They represent roughly 90% of AVEK demand and 80% of population in the AVEK service area. For the 2025 UWMP, AVEK coordinated with these customers to develop and confirm demand and supply projections.

AVEK prepared projections for the remainder of customers that did not provide projections based on feedback AVEK has received from these customers. Some customers anticipate growth, such as Tejon Ranch Co., and other customers anticipate maintaining similar demands, such as some agricultural and industrial uses. For customers with anticipated growth but without specific projections from the customers, the population growth rate for either Los Angeles or Kern County was applied based on the customer's location to demands to estimated future demands. As discussed in Section 3.4, population growth projections are based on projections from SCAG for Los Angeles and Ventura Counties and KCOG for Kern County.

4.3.2 Distribution System Water Losses

Distribution system water losses are the physical potable water losses from the point of water entry to the distribution system to the point of delivery to the customer's system. Water loss can result from aging infrastructure, leaks, seepage, theft, metering inaccuracies, data handling errors, operational uses, and other causes.

Wholesale suppliers do not have to perform water loss audits and are not required to report this information in their 2025 UWMP. However, AVEK audits its system losses monthly as a part of its normal billing procedures. Pipelines alignments are driven regularly by AVEK staff during water quality sample collection runs, which allows personnel to note if leaks are observed.

Water losses were calculated as the difference between water production (groundwater) or purchases (SWP water) and metered consumption. As shown in Table 4-2, water losses over the last five years have ranged from -0.4% (or a gain of 0.4%) to 3.5%. The average system losses/gains between 2020 and 2024 along with an increase of 1.5% was applied to demand projections.

Table 4-2. 2021-2025 Distribution System Water Losses (AF)

	2021	2022	2023	2024	2025
Annual Water Loss / (Gain) in AF	833	1,135	(137)	380	120
Total Annual Deliveries in AF	37,089	32,618	37,447	36,023	33,126
Annual Water Loss / (Gain) as % of Deliveries	2.2%	3.5%	(0.4%)	1.1%	0.4%

4.3.3 Additional AVEK Supply Commitments

In addition, AVEK has additional commitments to provide water, including:

- Groundwater lease with LACWD: Average of 2,600 AFY through 2050
- SWP lease with San Gorgonio Pass Water Agency: 1,700 AFY through 2035
- Tejon Ranch Co. demand: Average of 1,360 AFY from AVEK, since 2014
- Replacement water for the Antelope Valley Watermaster (Watermaster): Calculated by the Watermaster and, for this UWMP, estimated at 1,000 AFY, on average, starting in 2025 and increases by 50 AFY through 2050

4.3.4 Climate Change Considerations

AVEK 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. Elevated temperatures affect evapotranspiration in plants, which will increase water demands for landscape irrigation in dry periods. Increased evapotranspiration will increase outdoor water demands. This increase may be offset by increase water use efficiency.

4.3.5 AVEK Demand Projections

Based on the assumptions described above, estimated total AVEK service area customer demand projections and net total demand for AVEK supply projections through 2050 is shown in Table 4-3.

Table 4-3. 2030-2050 AVEK Demand Projections (AF)

	2030	2035	2040	2045	2050
Total AVEK Service Area Customer Demand	**80,020**	**89,310**	**93,870**	**98,440**	**102,650**
Customer Groundwater and Recycled Water Use	33,920	34,290	34,470	34,640	34,750
AVEK Customer Demand for AVEK Supplies	**46,100**	**55,020**	**59,400**	**63,800**	**67,900**
Additional AVEK Supply Commitments	7,190	5,870	4,350	4,600	4,850
Total Demand for AVEK Supplies (rounded)	**53,300**	**60,900**	**63,800**	**68,400**	**72,800**

4.3.5.1 Demands by Subsystem

As discussed in Section 3.2, AVEK's turnouts feed into separate subsystems that are hydraulically disconnected from each other. AVEK evaluates existing and future demands within each of the nine subsystems to assess recharge and recovery capacity goals for each subsystem to meet customer demands. Table 4-4 provides AVEK's demand projections through 2050 by subsystem.

Table 4-4. 2030-2050 AVEK Demand Projections by Subsystem (AF)

Subsystem	2030	2035	2040	2045	2050
Acton	1,482	1,566	1,599	1,633	1,667
East	2,549	2,488	2,483	2,478	2,474
Kern County	5,063	5,091	5,106	5,116	5,126
Lake Hughes	363	372	382	391	401
Leona Valley	348	353	357	362	367
Rancho Vista	500	500	500	500	500
South	35,142	42,264	44,929	47,608	49,992
Tejon	0	1,564	3,164	4,763	6,362
West	5	5	5	5	5
Other Commitments	7,185	5,871	4,350	4,600	4,850
Losses	683	814	879	944	1,005
Total (rounded)	**53,300**	**60,900**	**63,800**	**68,400**	**72,800**

4.3.6 Characteristic Five Year Water Use

In Chapter 7, AVEK's supplies for the next five years are compared to its demands for the next five years as part of a five-year drought risk assessment. The demand projections, shown in Table 4-5, are required to be reported without drought conditions (also known as "unconstrained demand"), so they do not account for potential water shortage measures that AVEK or its customers could enact if an extended drought emerges from recent dry water years.

Table 4-5. 2026-2030 AVEK Demand Projections (AF)

	2026	2027	2028	2029	2030
Total AVEK Service Area Customer Demand	**69,030**	**71,780**	**74,530**	**77,280**	**80,020**
Customer Groundwater and Recycled Water Use	29,140	30,340	31,540	32,740	33,920
AVEK Customer Demand for AVEK Supplies	**39,890**	**41,440**	**42,990**	**44,540**	**46,100**
Additional AVEK Supply Commitments	6,990	7,040	7,090	7,140	7,185
Total Demand for AVEK Supplies (rounded)	**46,900**	**48,500**	**50,100**	**51,700**	**53,300**

5 SB X7-7 Baselines, Targets, and 2025 Compliance

As a wholesale supplier, AVEK is not required to calculate baseline, targets, or compliance gallons per capita per day; therefore, this section is not required.

Measures, programs, and policies that AVEK has adopted to help the retail water suppliers within its service area to achieve their SBX7-7 water use reduction targets are discussed in Chapter 9 (Demand Management Measures). Retail water suppliers within AVEK's service area that are required to prepare and submit an Urban Water Management Plan will include their baselines, targets, and 2025 compliance in their individual Plans.

AVEK will continue to work with its retail water suppliers to implement demand management measures (discussed in Chapter 9) to help them achieve their future targets.

6 Water Supply Characterization

This section describes and quantifies AVEK's current and projected water supplies. It provides a narrative description of each supply source and quantifies the supply availability for each supply source identified.

IN THIS SECTION

- Water Supply Analysis Overview
- Water Supply Characterization
- Energy Intensity

6.1 Water Supply Analysis Overview

AVEK provides treated (drinking) water and untreated (raw) water to a variety of customers in the greater Antelope Valley, including municipal water, agricultural water, private companies, and individual agricultural customers. AVEK primarily supplies imported water from the SWP; however, it also supplies local groundwater and banked imported water supplies. AVEK's mission is to deliver reliable, sustainable, and high-quality supplemental water to the region in a cost-effective and efficient manner.

AVEK's water reliability goal is to provide a level of regional water reliability that supports customers' water needs. The foundational strategy of this goal is developing groundwater banking programs to help increase the reliability of the Antelope Valley region's water supplies by storing excess SWP water during wet periods and recovering it for delivery to customers during dry and high-demand periods or during a disruption in deliveries from the SWP.

To maximize the use of its SWP supplies, AVEK has developed a water banking program and entered into various water transfer and exchange programs with other SWP contractors. In addition to SWP supplies, AVEK also has adjudicated groundwater production rights, which are available to help meet water demands in the region. Information regarding AVEK's imported water and groundwater supplies is detailed in this chapter.

As shown in Figure 6-1, AVEK's potable water deliveries consist of either SWP water treated at AVEK water treatment plants or groundwater that is recovered from previously recharged imported water or part of AVEK's production rights. And, as shown in Table 6-1, AVEK also delivers raw (untreated) SWP water to customers for recharge locally or for transfer or exchange outside of the AVEK service area.

Figure 6-1. 2016-2025 AVEK Treated Water Deliveries by Source

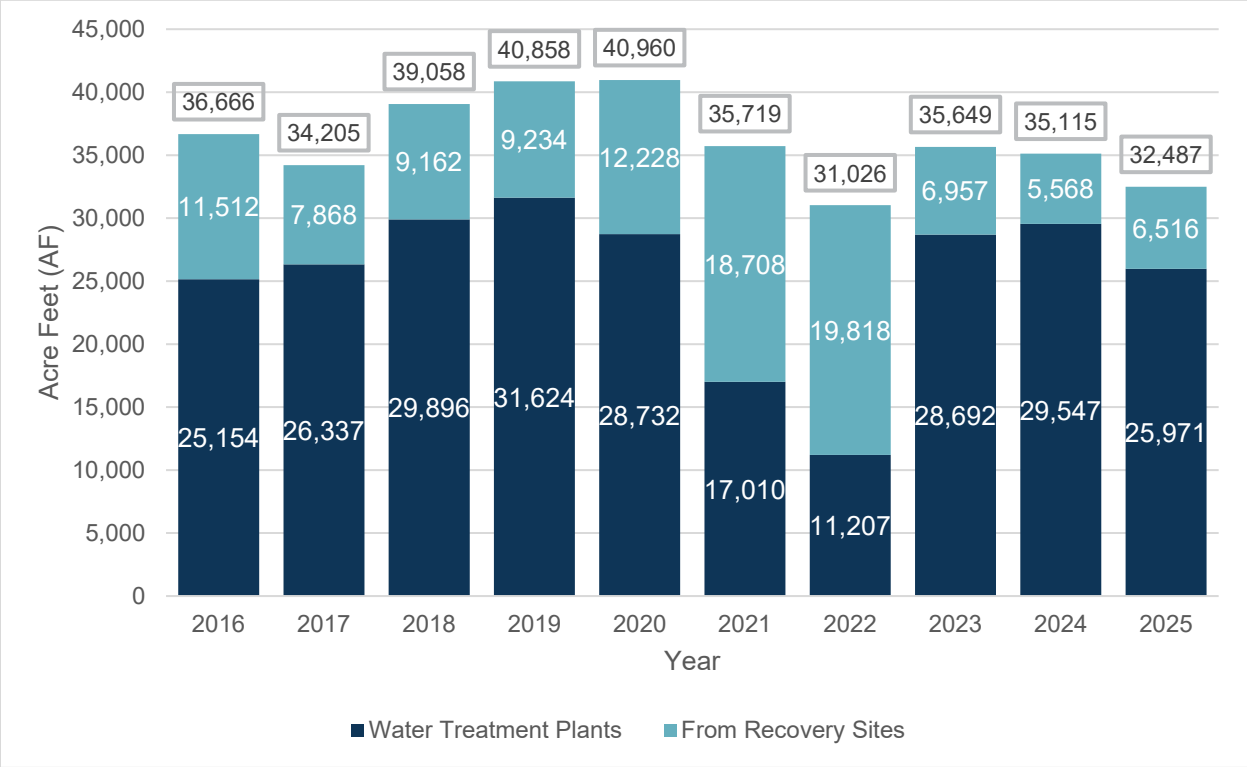


Table 6-1. AVEK 2025 Actual Water Supplies

Supply Type and Uses	2025 Volume (AF)
Treated Water to Customers	25,971
Treated Recovered Water from Groundwater Bank	6,516
Untreated Water to Customers	759
Untreated Imported Water to Groundwater Bank	54,058
Untreated Water, Transfer / Exchanges	3,836
TOTAL	**91,140**

The following sections further describe each of AVEK's existing and potential water supplies.

6.2 Water Supply Characterization

This section provides further guidance on the water supply availability and narrative required under the Water Code.

6.2.1 State Water Project

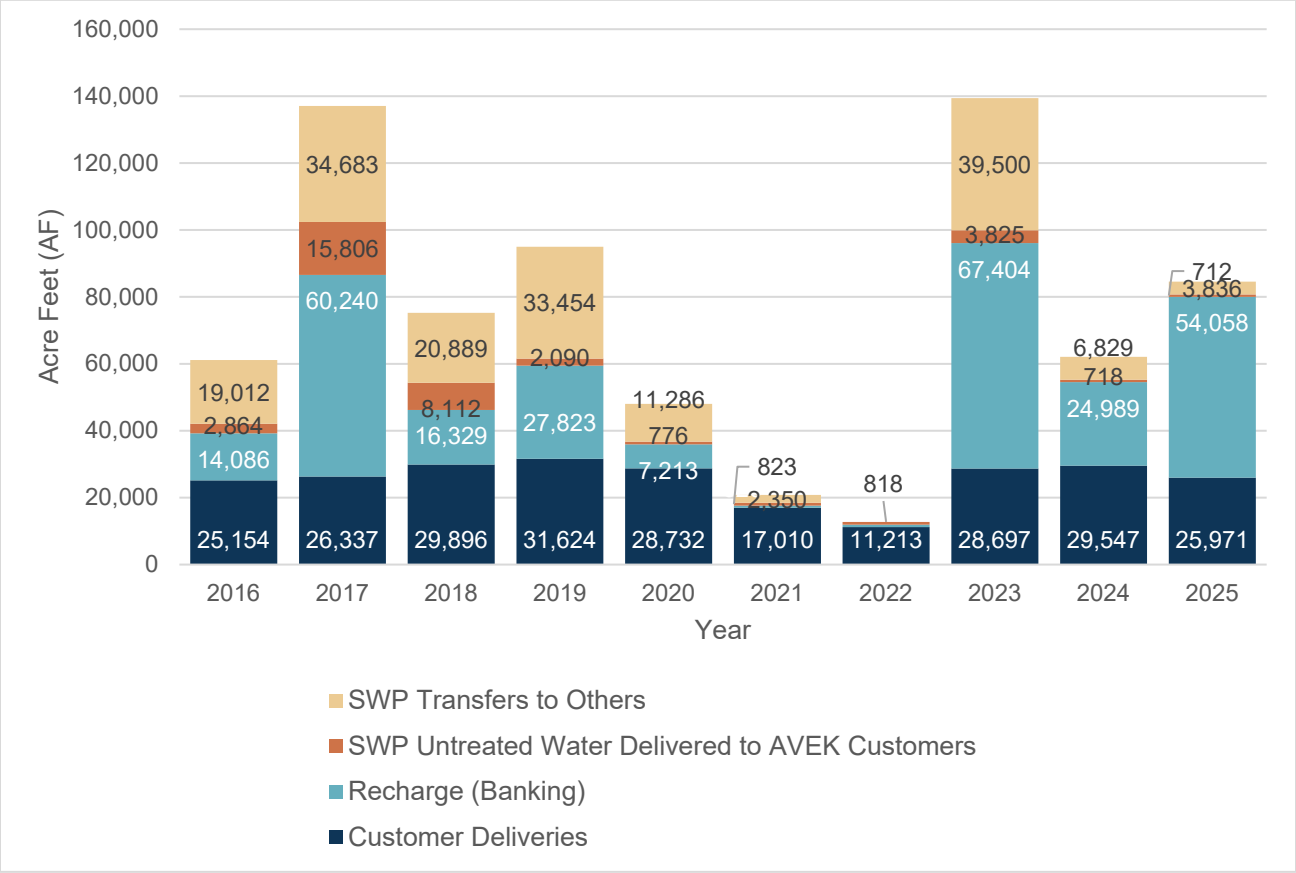
AVEK is a wholesale supplier of SWP water from the California Aqueduct. AVEK has the third-largest allotment of the 29 SWP contractors with a contractual Table A amount of 144,844 AFY. Table A water is a reference to the amount of water listed in "Table A" of the contract between the SWP and the contractors, representing the maximum amount of water a contractor may request each year. Table A water is the primary delivery type of imported water AVEK receives; however, additional delivery types help to make up AVEK's full imported water supply.

As listed below, AVEK uses a variety of SWP water types:

- **SWP Table A water:** Once the total amount of water to be delivered is determined for the year, all available water is allocated in proportion to each contractor's annual maximum SWP Table A amount.
- **SWP Article 21 water:** Water that SWP contractors may receive on a short-term basis in addition to their Table A water, if requested. It is predominantly available in wet years.
- **SWP Carryover water:** Water that is allocated to a SWP contractor and approved for delivery to that contractor each year, but not used by the end of the year. Instead of being delivered to the contractor, the water is stored in San Luis Reservoir, when space is available, for the contractor to use in the following year. Carryover water credit is lost when the reservoir storage space is full.
- **SWP Turnback Pool water:** SWP contractors may offer a portion of their Table A water that has been allocated in the current year and exceeds their needs to a "turnback pool," where another contractor may purchase it.
- **Other SWP water:** Water from negotiated agreements with other SWP contractors.
- **Other Non-SWP water:** Water from negotiated agreements with non-SWP contractors that is delivered through SWP.

As shown in Figure 6-2, in addition to delivering SWP water to customers, AVEK optimizes the use of available SWP water through recharge for future use or in deliveries to other SWP locations as exchanges or transfers, which are further discussed in this Section 6.2.1.4.

Figure 6-2. 2016-2025 AVEK SWP Deliveries by Location



6.2.1.1 SWP Water Supply Estimates

The water supply availability for delivery by the SWP depends on rainfall, snowpack, runoff, reservoir storage, pumping capacity of SWP facilities, and regulatory and environmental mandates on SWP operations. DWR prepares a biennial report to assist SWP contractors and local planners in assessing the availability of supplies from the SWP. DWR issued the 2025 SWP Delivery Capability Report (DCR) (DWR, 2025) in December 2025. In this update, DWR provides SWP supply estimates for SWP contractors to use in their planning efforts, including for use in their 2025 UWMPs. The 2025 DCR includes DWR's estimates of SWP water supply availability under both recent (2023) and future (2043) conditions.

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 the facilities included in the system, hydrologic inflows to the system, regulatory and operational constraints on system operations, and contractor demands for SWP water. In conducting its model studies, DWR must make assumptions regarding each of these key inputs.

The 2023 SWP DCR evaluated SWP water supply reliability using the CalSim 3 planning model configured to represent existing infrastructure, demands, and regulatory requirements, including SWRCB water right decision D-1641, the 2019 Biological Opinions, the 2020 Incidental Take

Permit, and the amended Coordinated Operations Agreement. A key update in this report is the use of Adjusted Historical Hydrology as the baseline condition, in which the full 1922–2021 hydrologic record is statistically modified so that earlier years reflect the mean, variability, and seasonal runoff characteristics of the most recent 30 years, providing a baseline more representative of current climate conditions. The model also evaluates future delivery capability under three risk-informed climate change scenarios centered on 2043 (50th, 75th, and 95th percentile levels of concern), which adjust temperature, precipitation, runoff timing, and sea level rise while holding infrastructure, land use, and regulations constant and excluding adaptation actions. This approach explicitly represents climate uncertainty and supports risk-informed water supply planning for SWP contractors.

The 2025 DCR provided updated projections and AVEK assumes a straight-line reduction in long-term average allocation from 55% in 2025 to 50% by 2045, as shown in Table 6-2.

Table 6-2. SWP Average Yield Projections

	2025	2030	2035	2040	2045	2050
Average Table A Allocation (%)	55%	53.75%	52.5%	51.25%	50%	50%
Average Table A Yield (AF)	79,664	77,854	76,043	74,233	72,422	72,422

Source: 2025 DCR

DWR's 2025 DCR indicates that the modeled single dry year SWP water supply allocation is 6% under existing conditions decreasing to 2% by 2043. Historically, the lowest SWP allocations were 5% in 2014, 2021, and 2022. DWR's 2025 DCR indicates that the lowest consecutive five-year period occurred from 1929 to 1933, with an average allocation of 14.6% under the existing conditions, as presented in Table 6-3.

Table 6-3. Table A Deliveries under Multiple Dry Years

DROUGHT CONDITION	TABLE A ALLOCATION (%)	TABLE A ALLOCATION (AF)
Year 1 (1929)	8%	12,181
Year 2 (1930)	34%	48,798
Year 3 (1931)	2%	3,423
Year 4 (1932)	10%	15,043
Year 5 (1933)	18%	26,051

6.2.1.2 Groundwater Banking

AVEK's groundwater banking program stores surplus imported water through groundwater recharge and include recovery wells to pump stored water in times of need. AVEK's groundwater banks and the year they started operations include the Westside Water Bank (2010); the Eastside Water Bank (2016); the Upper Amargosa Creek Recharge Project, a

partnership project (2019); the High Desert Water Bank (2023), and Littlerock Creek Recharge Project (2023 – pilot; 2026 – full-scale).

The Westside Water Bank has an estimated total storage capacity of 150,000 acre-feet (AF) and an estimated annual recharge capacity of 70,000 AFY. The Westside Water Bank includes over 1,000 acres of groundwater recharge basins and 11 groundwater recovery wells. Additional wells may be constructed as a part of the Westside Water Bank project to match recovery capacity with the SNIP system infrastructure. Five irrigation wells existing on the property at the time of development may also be used in the program. AVEK meters the deliveries and recovery for the program and will not recover more than 90% of the amount recharged to account for evapotranspiration and other losses during recharge and conveyance as well as typical metering accuracy.

The Eastside Water Bank has an estimated total storage capacity of 6,700 AF and an estimated annual recharge capacity of 2,000 AFY. The Eastside Water Bank consists of 80 acres, with three two-acre recharge basins and three groundwater wells. The project allows for recharge of untreated water that is later recovered and blended with treated water from the Eastside Water Treatment Plant.

AVEK and partners—including LACWD, Palmdale Water District, and City of Palmdale—completed construction of the Upper Amargosa Creek Recharge Project in 2019. The project can recharge 1,600 to 2,350 AFY via eight spreading basins.

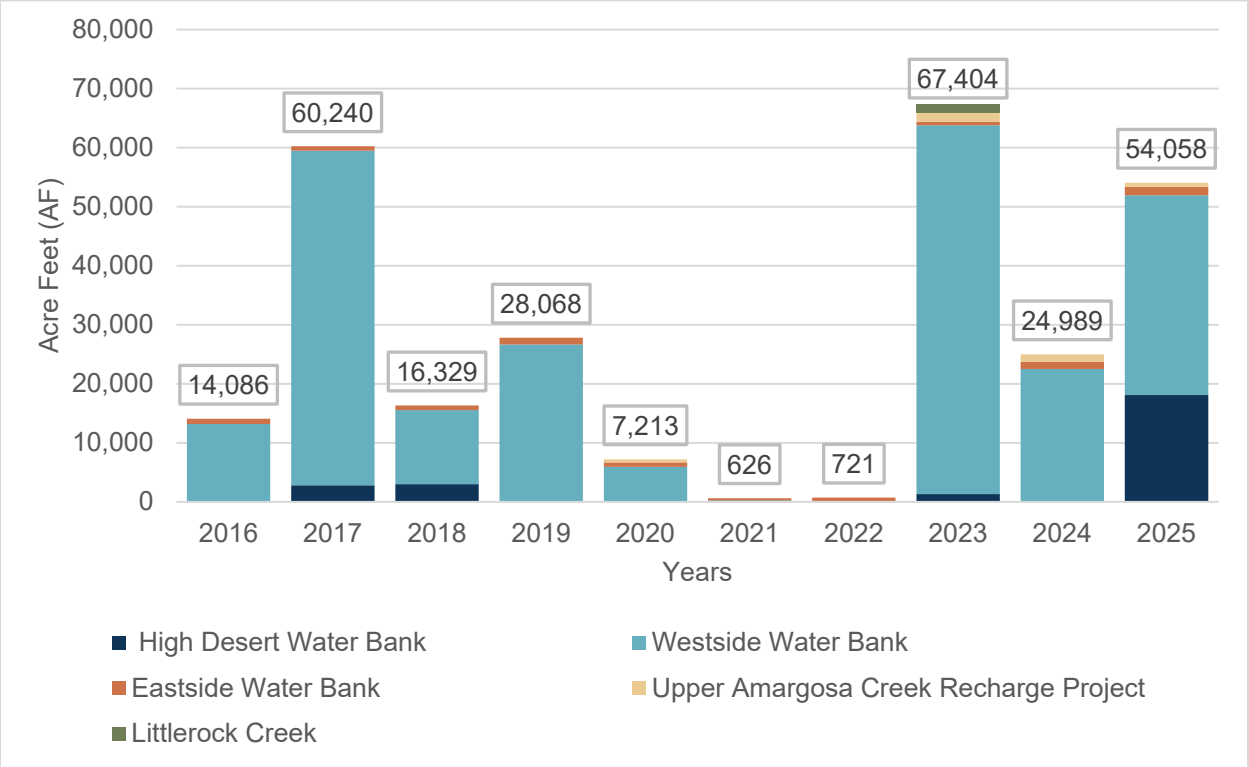
The High Desert Water Bank is located in the western portion of the Antelope Valley Groundwater Basin along the East Branch of the California Aqueduct. The groundwater storage facility is a partnership between AVEK and the Metropolitan Water District of Southern California to increase water supply reliability south of the Delta. The total storage capacity of the High Desert Water Bank is 280,000 AF, with an estimated annual recharge capacity of 70,000 AFY. Together, Metropolitan and AVEK have stored over 75,000 AF at High Desert Water Bank since recharge operations started in 2023. Recovery capacity is anticipated to be available by mid-2028. Metropolitan has first priority right, and AVEK has second priority right, to 70,000 AFY of recharge and recovery. Water recovered from the High Desert Water Bank can be returned to the East Branch of the SWP for downstream deliveries to Metropolitan and AVEK water treatment facilities.

The Antelope Valley State Water Contractors Association, a regional partnership between AVEK, Littlerock Creek Irrigation District, and Palmdale Water District, have developed the Littlerock Creek Recharge Project. The project diverts surplus SWP water from the California Aqueduct into Littlerock Creek, where it would naturally percolate into the Antelope Valley Groundwater Basin. The water is diverted using an existing turnout with a capacity of 20 cubic feet per second located along the California Aqueduct. A pilot project was conducted in 2023 and based on the success of the project permanent recharge is anticipated to begin in 2026. Recharge will only occur when there are surplus SWP supplies available and will total up to 15,000 AFY.

All AVEK water banks have a storage loss factor of 10%.

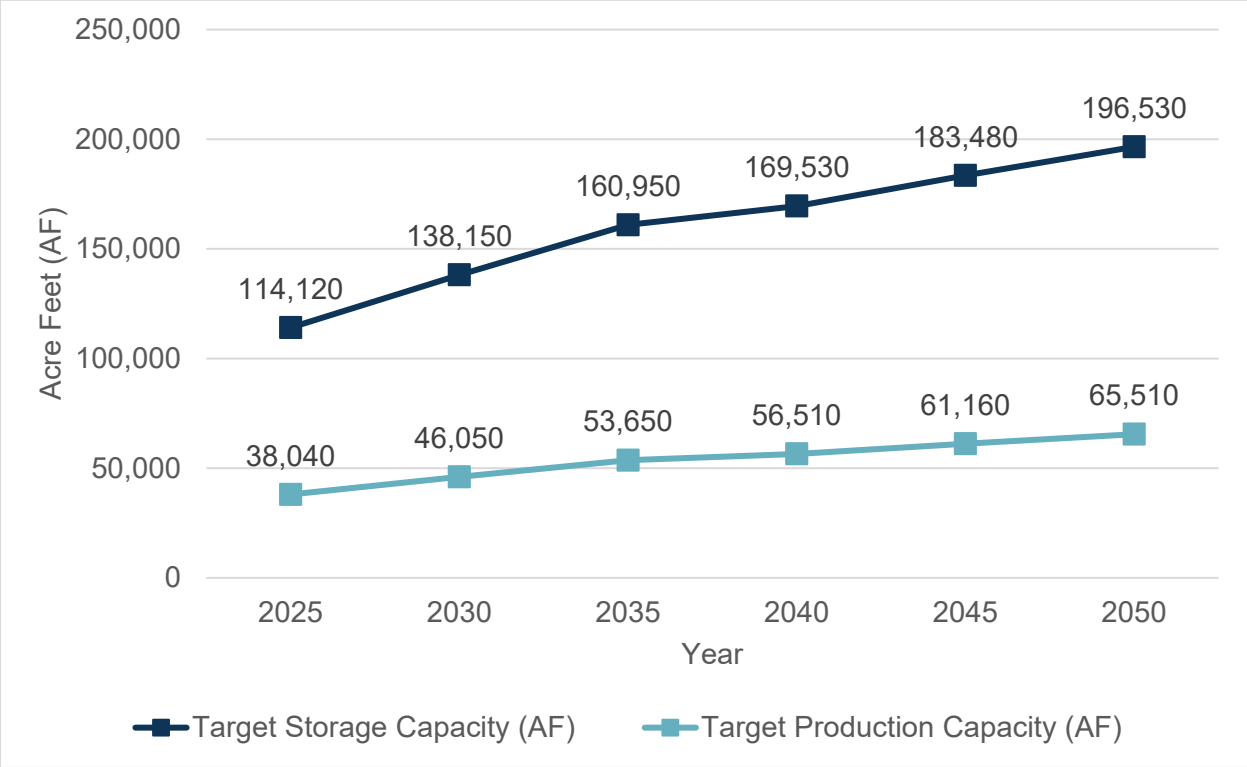
Local recovery of imported water from AVEK groundwater banks has become an important source of water for AVEK to supplement annual SWP water allocations. A summary of AVEK's historical SWP deliveries to their banking sites is provided in Figure 6-3.

Figure 6-3. 2016-2025 AVEK Historical SWP Deliveries to Groundwater Banking Sites



AVEK's goal is to add storage in the groundwater banks so that the Agency is prepared to meet demands during three consecutive years of 5% Table A allocations from the SWP. AVEK currently has roughly 155,000 AF of SWP water stored within its banks for future recovery and a total available stored water supply of 182,700 AF including stored imported water and groundwater carry over supply (27,200 AF). AVEK is implementing infrastructure projects to expand its capacity to recharge water, recover water, and distribute recovered water. Based on the demand projections presented in Section 4.3, the target groundwater bank storage capacity and annual production capacity are projected in Figure 6-4.

Figure 6-4. Projected AVEK Groundwater Banking Target Sizing



6.2.1.3 Water Quality

DWR has conducted water quality monitoring for the SWP since 1968. Initially, this program sought to monitor eutrophication (an increase in chemical nutrients) and salinity in the SWP. Over time, the water quality program expanded to include parameters of concern for drinking water, recreation, and wildlife. Water quality samples are collected at regular intervals throughout the year for chemical, physical, and biological parameters. The coverage of this program includes more than 40 locations associated with the SWP, from the Feather River drainage in the north to Lake Perris in the south.

In addition, AVEK routinely monitors for contaminants in the drinking water according to Federal and State laws. AVEK prepares an annual water quality report, which provides results of the monitoring efforts. Through monitoring and testing, AVEK has found that some contaminants exist; however, all State and Federal drinking water requirements have been met. The presence of contaminants does not necessarily pose a health risk, and all drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants.

The SWP water has moderate total organic carbon levels, resulting in disinfection byproduct (DBP) formation, and also has some taste- and odor causing compounds. AVEK's conventional surface water treatment plants use a treatment process of flocculation, sedimentation basins, ozone, followed by biologically active filters, and chlorination. The ozone effectively removes the taste and odor compounds, but DBP formation is a concern due to only moderate organics

removal through the treatment process, followed by chlorination. AVEK uses the Eastside Water Bank to blend with water from the Eastside WTP to control DBPs, and uses the Westside Water Bank to serve the Rosamond WTP system to minimize DBPs due to the long detention time of water in the system. Other than controlling DBP formation, there are no water quality parameters identified to be of special concern to AVEK at this time.

6.2.1.4 Water Exchanges and Transfers

AVEK takes part in water exchanges and water transfers with other State Water Contractors, including suppliers within the greater Antelope Valley, to help meet demands within the region. A water exchange is water delivered by one water user to another, with the receiving water user providing water in return at a specified time or when conditions of the parties' agreement are met. A water transfer is a temporary or long-term change in the point in diversion, place of use, or purpose of use due to a transfer, sale, lease, or exchange of water or water rights. In the past 10 years, AVEK has executed 32 exchange agreements and 14 transfer agreements totaling over 175,000 AF of water from AVEK to other agencies and over 50,000 AF from other agencies to AVEK. In 2025, AVEK transferred or exchanged 9,169 AF of water to/from four agencies, as summarized in Table 6-4. Table 6-5 summarizes exchanges and transfer volumes from 2016 to 2025 from AVEK to other agencies.

Table 6-4. 2025 AVEK Exchanges and Transfers

Entity Name	Description	DWR Agreement No. (SWPAO#)	Amount from AVEK to Other Agencies (AF)	Amount to AVEK from Other Agencies (AF)
Crestline-Lake Arrowhead WA	Table A Transfer	25-026	1,740	0
Kern County WA/RRBWSD	3:1 Table A Exchange	24-030	0	5,333
Kern County WA/TRC	Table A Transfer	25-022	1,636	0
Littlerock Creek ID	1:1 Table A Exchange	15-026	460	0
Total			**3,836**	**5,333**

Table 6-5. 2016 - 2025 AVEK Exchanges and Transfers (AF)

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
19,012	34,683	20,889	33,454	11,286	2,350	--	30,000	5,829	3,836

AVEK is developing a long-term exchange/storage program to further maximize the use of its SWP supplies and provide funding for purchase of additional water supplies. Other exchange programs are anticipated to be developed in the future to further secure AVEK's water supplies.

Potential exchange deliveries have not been included in AVEK's projections of future water supplies.

AVEK transfers water to the Watermaster of the Basin on an annual basis to accommodate replacement water for any overproducers within the Basin. AVEK provides the stored imported water supply to accommodate for this pumping and estimates 1,000 AFY of water beginning in 2025 increasing by 50 AF every year, for this purpose.

AVEK also has an agreement with LACWD District 40 to transfer groundwater supplies, which is discussed in Section 6.2.2.1.

6.2.2 Groundwater

AVEK's groundwater wells are located within the Antelope Valley Groundwater Basin ("the Basin"). The Basin is a large, topographically closed alluvial basin with an estimated total storage capacity of about 68 to 70 million acre-feet. It consists of two primary aquifers: the upper unconfined aquifer ("principal aquifer"), which is the main source of groundwater for the area, and a lower aquifer that is considered to be confined. The Basin encompasses 1,580 square miles in Los Angeles, Kern, and San Bernardino counties. The groundwater basin boundaries have been defined by the California Department of Water Resources (DWR Basin Number 6-44).

Prior to 1972, groundwater provided more than 90% of the total water supply in the Antelope Valley. Since 1972, it is estimated that between 50% to 90% of the area's water supplies are from groundwater. Groundwater pumping peaked in the 1950's, and then declined as greater pumping lifts and increasing energy costs made the use of groundwater in the area less economical for agricultural uses. Groundwater levels in some areas have declined significantly since the early 1900s due to over-pumping. According to the US Geological Service (USGS) (2003), groundwater levels declined more than 200 feet in some parts of the Basin, resulting in increased pumping lifts, reduced well efficiency, and land subsidence of more than six feet in some areas.

The Basin was adjudicated in 2015 after 15 years of complex proceedings among more than 4,000 parties, including public water suppliers, landowners, small pumpers and non-pumping property owners, and the Federal and State governments. The Antelope Valley Area of Adjudication covers approximately 1,390 square miles, or 90% of the groundwater basin.

The Antelope Valley Groundwater Basin Adjudication Judgment ("Judgment"), included in Appendix F, determined the Basin is in a state of overdraft, established respective water rights among groundwater producers based on the Basin's Native Safe Yield, and ordered a ramp-down of production to meet the Native Safe Yield by 2023. The adjudication defined a Native Safe Yield of 82,300 AFY. To achieve sustainable groundwater elevations, groundwater production has been reduced (ramped down) over a seven-year period (2016–2022) to a final Production Right. Following the adjudication, the Antelope Valley Watermaster was formed to implement the Judgment. The Watermaster is charged with administering the adjudicated water

rights and managing the groundwater resources within the adjudicated portion of the Antelope Valley. Figure 1-1 shows the adjudication boundary in relation to AVEK's service area.

AVEK's Production Right is 3,550 AFY and, in January 2022, AVEK obtained an additional 700 AFY of production rights through the purchase of a property from Jane Healy and Healy Enterprises Inc., bringing their current total production right to 4,250 AFY. Table 6-6 summarizes production rights for AVEK, AVEK's customers, and other pumpers in the Basin.

Table 6-6. Production Rights Within and Outside of AVEK's Service Area

	PRODUCTION RIGHTS (AFY)
AVEK	4,250.0
AVEK Customers	12,083.8
SUBTOTAL WITHIN AVEK SERVICE AREA	**16,334.8**
Non-AVEK Customers	66,666.2
TOTAL	**83,000.0**

There are seven potential production categories identified in the Judgment: production rights, ramp-down production, imported water return flows, carry-over water, stored water, other rights to produce groundwater, and additional production. Production rights are divided into five categories: overlying production rights, non-overlying production rights, Federal Reserve water rights, small pumper class, and California production rights. Detailed information regarding each production category is available in the annual Watermaster reports. The most recent available report is included in Appendix G. Of most relevance to AVEK are Overlying Production Rights and Non-Overlying Production Rights within the AVEK service area, because this groundwater is the primary supply other than imported water from AVEK.

Table 6-7. Non-Overlying Producers' Production Rights

PRODUCER	PRODUCTION RIGHT (AFY)
Boron Community Services District	50.00
California Water Services Company	343.14
Desert Lake Community Services District	73.53
LACWD No. 40	6,789.26
North Edwards Water District	49.02
Palm Ranch Irrigation District	465.69
Quartz Hill Water District	563.73
Rosamond Community Services District	404.42
West Valley County Water District	40.00
TOTAL	**8,778.79**

Note: From Judgment Table A-1 Exhibit 3. Excludes Palmdale Water District and Littlerock Creek Irrigation District. Both have their own SWP contracts.

Table 6-8. Overlying Producer's Production Rights

PRODUCER	PRODUCTION RIGHT (AFY)
60th Street Association Water System	2.16
Antelope Park Mutual Water Company	169.89
Antelope Valley Mobile Estates	8.75
Aqua-J Mutual Water Company	44.35
Averydale Mutual Water Company	254.35
Baxter Mutual Water Company	35.02
Bleich Flat Mutual Water Company	33.50
Evergreen Mutual Water Company	68.54
Land Projects Mutual Water Company	613.54
Landale Mutual Water Company	155.57
Llano del Rio Water Company	279.00
Llano Mutual Water Company	-
Miracle Improvement Corporation dba Golden Sands Mobile Home Park/Trailer Park	27.00
Shadow Acres Mutual Water Company	51.74
Sundale Mutual Water Company	472.23
Tierra Bonita Mutual Water Company	40.32
West Side Park Mutual Water Co.	276.86
White Fence Farms Mutual Water Co.	772.13
TOTAL	**3,304.95**
AVEK	4,250.00
TOTAL WITHIN AVEK SERVICE AREA	***7,554.95***

Note: From Table A-2 Exhibit 4 of the 2024 Watermaster Report

In addition, parties listed on Exhibit 8 of the Judgment have a right to imported water return flows equal to the applicable percentage multiplied by the average amount of imported water used by that party within the Basin in the preceding five-year period. AVEK has rights to the return flows used by parties not on Exhibit 8 of the Judgment. For example, AVEK received 890 AF of groundwater in 2025 from imported water return flows. Return flows from agricultural imported water use are set in the Judgment at 34%, and return flows from municipal and industrial imported water use are set in the Judgment at 39% of the amount of imported water used.

6.2.2.1 Groundwater Accounting

As shown in Table **6-9**, AVEK traditionally doesn't pump any of its production rights and has only done so two times in the last five years. AVEK primarily pumps stored imported water. As a result, AVEK has increased available groundwater for future years through storage of carry-over water and return flows. Also, AVEK has an agreement with LACWD to transfer groundwater on a non-permanent basis from AVEK to LACWD.

Table 6-9. Groundwater Volume Pumped

Location, Type	2021	2022	2023	2024	2025
Antelope Valley Basin, Production Rights	-	-	-	456	1,574
Antelope Valley Basin, Banked Imported Water	18,708	19,818	6,975	5,568	6,516
TOTAL	**18,708**	**19,818**	**6,975**	**6,024**	**8,090**

6.2.2.2 Water Quality

Groundwater quality in the upper aquifer is generally suitable for domestic, agricultural, and industrial use. Total dissolved solids concentrations are in the range of 200 to 800 milligrams per liter (mg/L). The deep aquifer typically has higher total dissolved solids concentrations. Hardness levels range from 50 to 200 mg/L. High fluoride, boron, nitrates, hexavalent chromium, and arsenic are found in some areas of the Basin. However, AVEK has not had and does not anticipate groundwater quality issues with its wells.

6.2.3 Non-SWP Water

On January 1, 2017, AVEK acquired an additional non-SWP water supply through a long-term lease of annual supply originally belonging to the Nickel Family, a farming interest in Kern County. AVEK has acquired the rights to 1,700 acre-feet of water made available for a period of 35 years (with an option to extend for 35 more years), even in dry years. Additional non-SWP supplies improves the Agency's reliability of its existing water supply, as well as provide additional supplies to meet future demand.

6.2.4 Surface Water

AVEK does not have sources of surface water supply other than imported SWP water.

6.2.5 Stormwater

AVEK does not intentionally divert stormwater for beneficial use.

6.2.6 Wastewater and Recycled Water

AVEK does not provide supplemental treatment to recycled water and does not distribute recycled water. The Agency has no plans to provide recycled water as a part of its future

deliveries. As a result, DWR Table 6-3, Table 6-4, and Table 6-5 have not been completed and are not included in the UWMP.

Agencies within AVEK's service area do collect, treat, and distribute recycled water. In accordance with the 2025 UWMP Guidebook, information regarding wastewater facilities and recycled water use within AVEK's service area is provided below.

6.2.6.1 Recycled Water Coordination

The most recent coordination to document the collection, treatment, and distribution of recycled water in the greater Antelope Valley region occurred as part of the Antelope Valley IRWMP 2019 update. Agencies responsible for operating, managing, and using the recycled water systems in the region are:

- Los Angeles County Sanitation Districts (LACSD) Nos. 14 & 20
- Los Angeles County Waterworks District No. 40
- Palmdale Recycled Water Authority (includes the City of Palmdale and the Palmdale Water District)
- Rosamond CSD
- Edwards Air Force Base (EAFB)

6.2.6.2 Wastewater Collection, Treatment, and Disposal

The greater Antelope Valley region's municipal wastewater is generated from a combination of residential and commercial sources. The Cities of Lancaster and Palmdale own, operate, and maintain the wastewater collection systems in their respective service areas. In addition, the LACSD No. 14 and No. 20 serve the Antelope Valley. LACSD No. 14 serves a large portion of Lancaster, portions of Palmdale, and adjacent unincorporated areas of Los Angeles County. LACSD No. 20 provides wastewater management services for the Palmdale area as well as adjacent unincorporated Los Angeles County areas.

Recycled water in the greater Antelope Valley is available from two primary sources, the Lancaster Water Reclamation Plant (WRP) and the Palmdale WRP. The LACSD owns and operates the Lancaster WRP and Palmdale WRP, which collect wastewater from the Cities of Palmdale and Lancaster. Wastewater is treated to tertiary levels that are suitable for non-potable uses and groundwater recharge. The Lancaster WRP has a permitted capacity of 18.0 million gallons per day (MGD), which is used for irrigation, agriculture, urban reuse, wildlife habitat, maintenance, and recreational impoundments. The Palmdale WRP has a permitted capacity of 12.0 MGD for agricultural and urban reuse. The Lancaster WRP collects most of the wastewater produced within the AVEK service area.

The Rosamond CSD owns and operates the Rosamond Wastewater Treatment Plant (WWTP) located in the town of Rosamond. The Rosamond WWTP has a permitted capacity of 1.27 MGD. The Rosamond WWTP currently produces secondary-treated water. In 2008, Rosamond CSD developed a plan to build a tertiary treatment plant with a potential for future expansion. However, construction to complete the upgrades is on hold indefinitely due to lack of funding and other economic considerations.

EAFB has two treatment plants that distribute recycled water to the base. The EAFB Air Force Research Laboratory Treatment Plant is a secondary wastewater treatment plant that discharges all of its effluent to evaporation ponds at the base. The EAFB Main Base WWTP produces tertiary treated effluent for landscape irrigation at the base golf course, and excess effluent is discharged to the evaporation ponds.

The majority of the wastewater currently collected from within the LACWD No. 40 service area is treated and discharged outside its service area. However, recycled water from the Palmdale and Lancaster WRPs is projected to be a potential source of supply for LACWD No. 40 with completion of the Antelope Valley Backbone project. This project will provide the necessary distribution infrastructure to convey recycled water from the two WRPs to additional users in the Antelope Valley. Only a portion of the Antelope Valley Backbone has been constructed.

AVEK's customers have projected increased use of recycled water to offset potable use, but to-date little progress has been made implementing recycled water projects within AVEK's service area. Table 6-10 summarizes recycled water use projections from LACWD No. 40. For supply and demand analysis in this UWMP, no additional recycled water is assumed to be developed through 2050.

Table 6-10. Customer Recycled Water Projection Within AVEK Service Area (AF)

Customer	2030	2035	2040	2045	2050
LACWD No. 40	802	952	1,152	1,352	1,552

Source: LACWD No. 40

6.2.7 Desalinated Water Opportunities

AVEK has no plans for the development of desalinated water supplies within the planning horizon of this UWMP.

6.2.8 Future Water Projects

A description of future projects that AVEK may implement to increase water supplies is provided below.

Westside Water Bank Improvements

Construction of permanent underground piping. The project includes the replacement of temporary irrigation piping with permanent buried pipelines and appurtenances, which will improve the ability to achieve the recharge goals at the bank during wet years.

Eastside Water Bank Expansion

AVEK has partnered with San Gorgonio Pass Water Agency, a fellow State Water Contractor, to explore the feasibility of a joint water banking project, to be located in the vicinity of the existing Eastside Water Bank. The expansion project is currently envisioned to share some of the facilities for the existing Eastside Water Bank and add an additional ~150 acres of recharge and

8-10 recovery wells. The expansion project aims to increase the recharge capacity by over 20,000 AFY and recovery capacity by over 8,000 AFY. These capacities will be shared between AVEK and SGPWA with each party having priority rights for some portion of the capacity.

Enterprise / High Desert Water Bank Expansion

Development of a new groundwater recharge and recovery facility, roughly equal to the recharge and recovery capacities of the existing High Desert Water Bank. The expansion project would be modeled after the existing HDWB and include recharge basins and pipelines, groundwater recovery wells, well collection system, and transmission and pumping facilities to deliver water from the bank to the California Aqueduct for delivery to AVEK's banking partners. The Agency expects to have first priority rights to the recharge and recovery capacity in the expansion to meet increased local demands and improve water supply resiliency.

South-North Intertie Pipeline Phase 2

The South-North Intertie Pipeline Phase II Project includes the construction of a 6.5 mile 48-inch diameter potable water pipeline and equipping the existing pump station with high-lift pumps. The new pipeline will tie into AVEK's existing SNIP system and connect the Westside Water Bank to the Quartz Hill WTP. Environmental review, feasibility study, property acquisition, and final design are complete. Construction of the pipeline will allow access to water currently stored in the Westside Water Bank and enable delivery to the entire Quartz Hill WTP service area.

6.2.9 Summary of Existing and Planned Sources of Water

AVEK's primary water supplies consist of the following sources:

- **SWP, Table A Allocation**: Average yield based on DWR 2025 DCR and presented in Table 6-2.
- **Antelope Valley Groundwater Basin Production Rights:** Based on the Judgment and subsequent water rights acquisition.
- **Antelope Valley Groundwater Basin Imported Water Return Flows:** Estimate based on projected imported water demands for parties not on Exhibit 8 of the Judgment.
- **Non-SWP Water:** Estimate based on reliable supply of 1,700 AFY, as described in Section 6.2.3.

The projected reasonably available volumes summarized in Table 6-11. In addition, AVEK can supplement supplies by recovering stored imported water in groundwater or accessing supplies, if available, such as carry-over groundwater or SWP water types other than Table A.

Table 6-11. Projected Water Supplies (AF)

	2030	2035	2040	2045	2050
SWP Table A	77,854	76,043	74,233	72,422	72,422
Groundwater, Production Rights	4,250	4,250	4,250	4,250	4,250
Groundwater, Imported Water Return Flows	860	860	860	860	860
Non-SWP Water	1,700	1,700	1,700		
Total	**84,664**	**82,853**	**81,043**	**77,532**	**77,532**

6.2.10 Climate Change Impacts

Climate models disagree on average annual precipitation projections but agree on other hydrologic metrics relevant to water resources management, including (Persad, 2020) (Partida, 2020):

- Snowpack declines
- Increased fraction of precipitation on extreme rainfall days
- Shorter, sharper rainy season
- Increased evapotranspiration
- Higher frequency of extremely wet and extremely dry years
- Higher incidence of extremely dry year followed an extremely wet year, or vice versa

As discussed at greater length in the 2019 Antelope Valley IRWMP (Antelope Valley Integrated Regional Water Management Group, 2019), climate change is expected to increase average temperature by at least 5 degrees Fahrenheit by 2100. Despite the potential minimal impact on total annual precipitation, climate change is expected to result in a larger proportion of precipitation coming in the form of intense single-day events.

The largest impact of climate change on AVEK will likely be seen from SWP availability. The DCR 2025 Early Access Results Package incorporates climate change into the characterization of SWP water supplies by evaluating future delivery performance under climate-adjusted conditions for the year 2043 using the CalSim 3 modeling framework. Future water supply conditions are represented by two risk-informed climate scenarios, a 50 percent Level of Concern and a 95 percent Level of Concern, which reflect a range of plausible climate outcomes. These scenarios apply climate-adjusted hydrology that accounts for projected changes in precipitation patterns, runoff timing, and the increasing frequency and severity of droughts, rather than assuming that historical hydrologic conditions will persist. Sea level rise is also incorporated into future scenarios to reflect potential climate-related operational constraints within the Sacramento–San Joaquin Delta that affect SWP conveyance and exports.

The effects of climate change on imported water supply reliability are quantified by comparing these future climate scenarios to Draft DCR 2025 existing conditions while holding non-climate

assumptions largely constant. Modeling results indicate that climate change reduces long-term average SWP Table A deliveries by approximately 11% under the 50 percent Level of Concern and approximately 21% under the 95 percent Level of Concern, with corresponding reductions in South of Delta allocations and Article 21 deliveries. Probabilistic analysis further demonstrates a reduced likelihood of achieving higher annual SWP deliveries and an increased likelihood of low-delivery years under future climate conditions. This approach explicitly represents climate uncertainty and supports risk-informed water supply planning for SWP contractors.

6.3 Energy Intensity

AVEK must include information that could be used to calculate the energy intensity of their water service per Water Code Section 10631.2.(a). AVEK water service energy intensity was estimated based on readily available electrical billing data and water production data. AVEK compiled electrical billing records from 2022 through 2025 and calculated the annual electrical consumption for its treatment plants, recovery wells, and distribution system combined. The analysis focused on treated water deliveries because untreated water deliveries are typically via gravity from the California Aqueduct, and AVEK transfers and exchanges are outside of its service area. Based on this information, AVEK's water service energy intensity was 282 kilowatt hours per AF (kWh/AF) of treated water delivered from 2022 to 2025, as shown in Table 6-12.

Table 6-12. 2022-2025 AVEK Energy Intensity Estimates

	2022	2023	2024	2025	2022-2025 TOTAL
Electricity (kWh)	15,476,000	8,987,000	6,951,000	6,506,000	**37,920,000**
Treated Water Deliveries (AF)	30,581	36,958	34,453	32,487	**134,479**
ENERGY INTENSITY (KWH/AF)	**506**	**243**	**202**	**200**	**282**

7 Water Service Reliability and Drought Risk Assessment

This section describes the water service reliability through 2050. As required by the UWMP Act, the assessment must compare total projected water supply and demands over the next 20 years in five-year increments under normal, single dry water years, and multiple dry water years. This section also includes the drought risk assessment (DRA), which provides a snapshot of the anticipated surplus or deficit if a drought were to occur in the next five years.

IN THIS SECTION

7.1 Introduction

This chapter describes the reliability of the AVEK water supply. It presents 25-year projections for normal, single dry, and multiple dry years, and assesses the drought risk over the next five years. Water supply reliability reflects AVEK's ability to meet the water needs of its customers with water supplies under varying conditions. The analysis considers plausible hydrological and regulatory variability, climate conditions, and other factors that affect the Agency's water supply and demand.

AVEK's water sources and their constraints are described in detail in Section 6. The primary constraint on availability of SWP supplies has been extreme drought conditions, and SWP availability depends on rainfall, snowpack, runoff, reservoir storage, pumping capacity of SWP facilities, and regulatory and environmental mandates on SWP operations. AVEK has invested in its groundwater banking programs to stabilize the swings in SWP water availability by storing surplus SWP water through groundwater recharge and pumping from recovery wells in times of need. The following sections analyze the performance of AVEK's supplies under different conditions.

7.2 Water Service Reliability Assessment

This section presents AVEK's expected water supply reliability for a normal year, single dry year, and five consecutive dry years, including projections for 2030, 2035, 2040, 2045, and 2050.

AVEK's supplies for this assessment include:

- **SWP Table A Allocation:** Yield based on the DWR 2025 DCR per Section 6.2.1
- **Antelope Valley Groundwater Basin Production Rights:** 3,550 AFY based on the Judgment for the 2015 Antelope Valley Groundwater Adjudication plus recently acquired rights of 700 AFY for a total production right of 4,250 AFY.
- **Antelope Valley Groundwater Basin Imported Water Return Flows:** 860 AFY based on projected imported water demands for parties not on Exhibit 8 of the Judgment.
- **Non-SWP Water:** 1,700 AFY based on existing agreement and the supplies have high reliability, as described in Section 6.2.3.

7.2.1 Service Reliability – Year Type Characterization

In accordance with CWC Section 10635(a), every urban water supplier must provide their expected water service reliability for a normal year, single dry year, and five consecutive dry years for 2030, 2035, 2040, 2045, and optionally 2050. DWR defines these years as:

- **Normal Year:** This condition represents a single year or an averaged range of years that most closely represents the average water supply available. An average was used for this analysis.

- **Single Dry Year:** The single dry year is recommended to be the year that represents the lowest water supply available. Historically the lowest allocation was 5%; however, the 2025 DCR estimated SWP Table A deliveries reducing from 6% in 2025 to 2% by 2043.
- **Five-Consecutive Year Drought:** The driest five-year historical sequence for the supplier, which may be the lowest average water supply available for five years in a row.

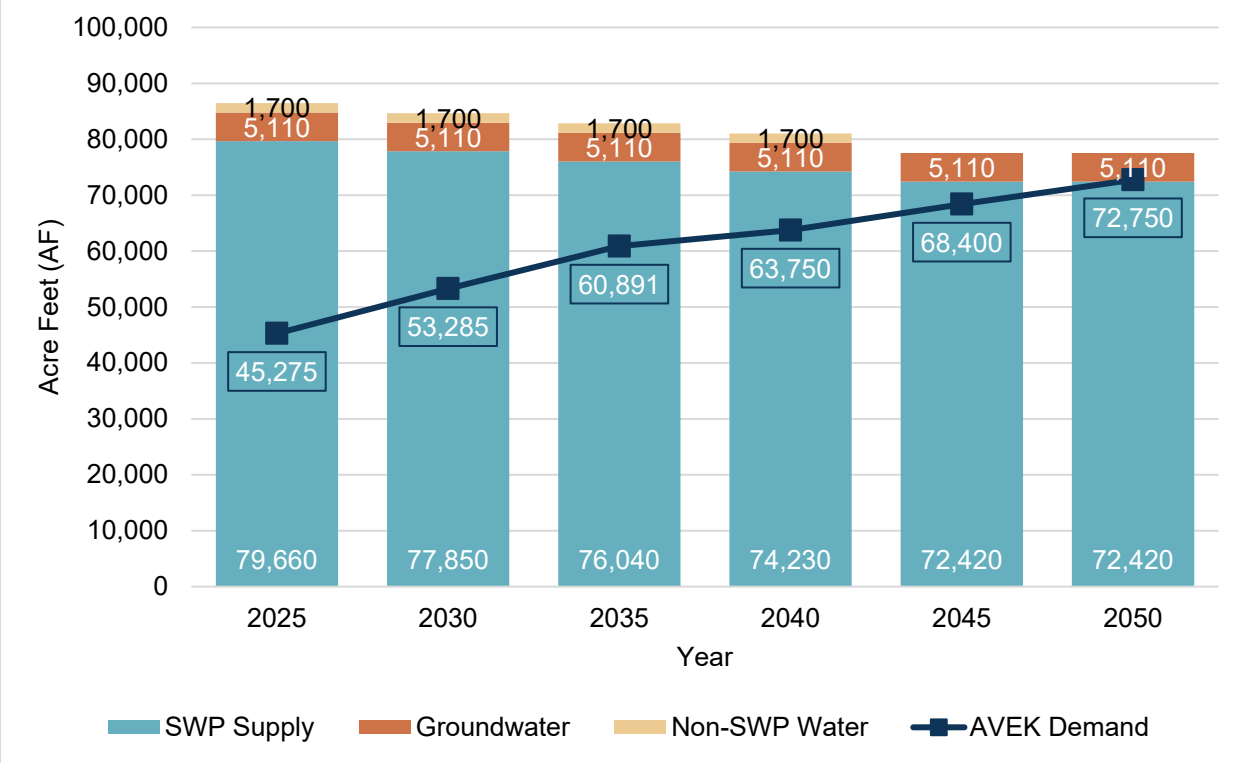
7.2.2 Water Service Reliability – Supply and Demand Comparison

Results of the water supply and demand analysis for normal, single dry, and five-year consecutive drought are shown in the following sections. AVEK expects to meet demands under all water year scenarios through 2050.

7.2.2.1 Water Service Reliability – Normal Year

Total normal year AVEK supplies are shown in Figure 7-1 and, based on these assumptions, AVEK has sufficient supplies in normal years and could use available supplies to add groundwater storage for dry periods. For example, SWP water could be recharged when available, or unused groundwater rights can be carried over for use in future years.

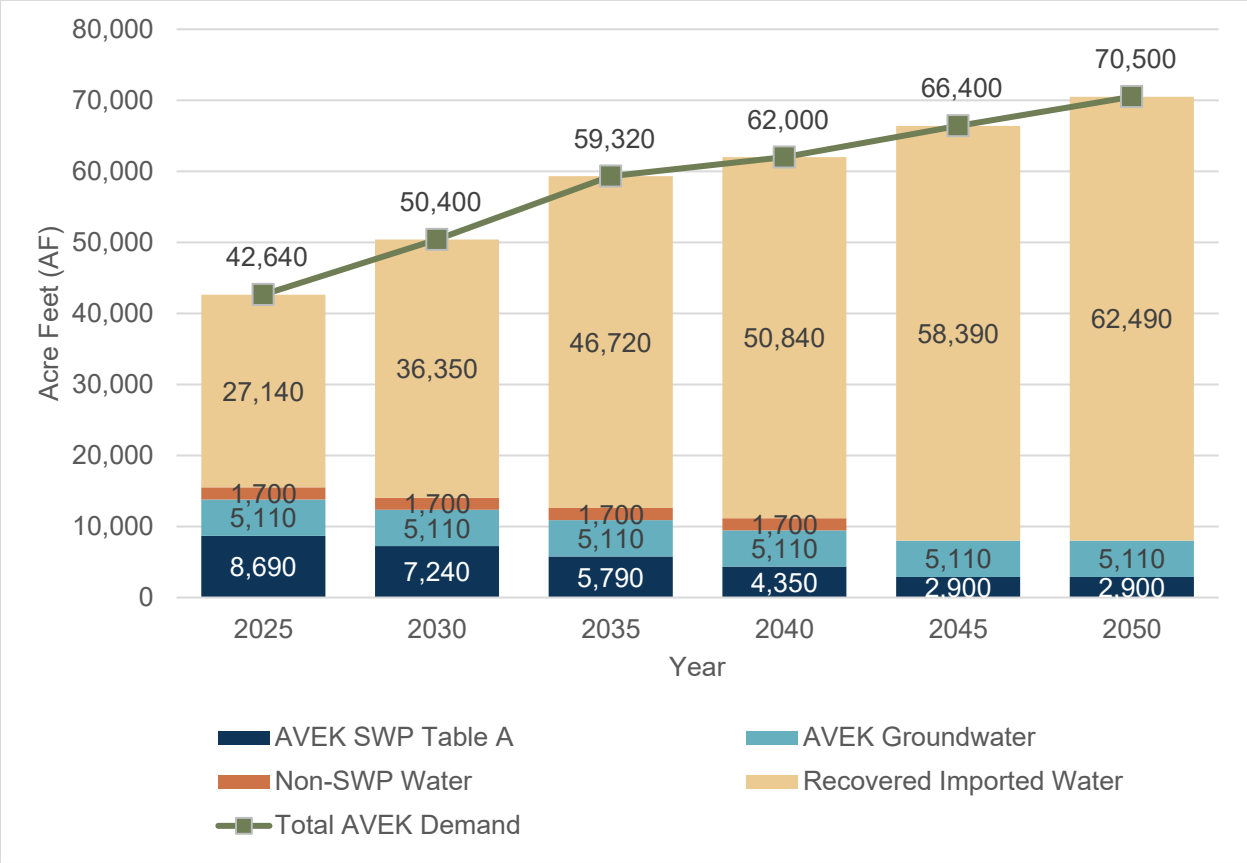
Figure 7-1. AVEK Supply and Demand Projections, Normal Year



7.2.2.2 Water Service Reliability – Single-Dry Year

Single dry year yield for SWP water is based on the 2025 DCR estimated SWP Table A deliveries which are 6% in 2025 and decrease in a straight line regression to 2% by 2045. Groundwater rights and non-SWP water are not impacted by short-term drought conditions, so normal year supply assumptions are applied. The remainder of demand is met with recovered imported water or groundwater in storage. During the Single Dry Year scenario AVEK does not include supply commitments for replacement water, DWR deliveries, and Tejon demand that is out of the service area, which reduces AVEK's demands during drought conditions. As shown in Figure 7-2, recovered imported water from AVEK groundwater banks enable AVEK to meet its demands in a single dry year.

Figure 7-2. AVEK Supply and Demand Projections, Single Dry Year



7.2.2.3 Water Service Reliability – Five Consecutive Dry Years

For multiple dry years, SWP water availability is based on 1929 to 1933 simulated yield from the SWP 2025 DCR for AVEK. Similar to single dry year, groundwater rights and non-SWP water are not impacted by an extended drought, and recovered imported water from AVEK groundwater banks are used to meet remaining demands. Also, AVEK does not include supply

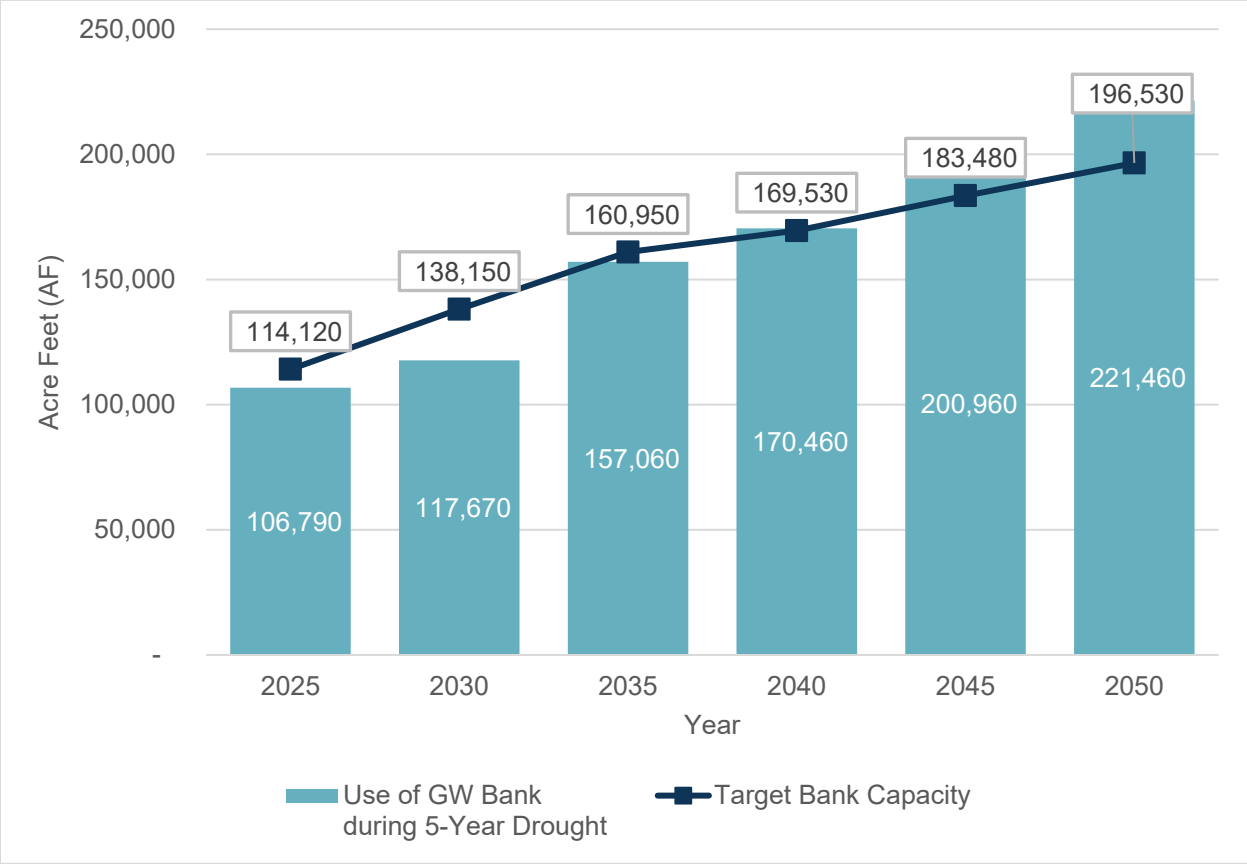
commitments for replacement water, DWR deliveries, and Tejon demand that is out of the service area, which reduces AVEK's demands during drought conditions. Table 7-1 summarizes AVEK supply and demand totals for the multiple dry year scenario.

Table 7-1. Multiple Dry Years Supply and Demand Comparison (AF)

		2030	2035	2040	2045	2050
First Year	Supply Totals	50,400	59,320	62,000	66,400	70,500
	Demand Totals	50,400	59,320	62,000	66,400	70,500
	Difference	**0**	**0**	**0**	**0**	**0**
Second Year	Supply Totals	55,610	59,320	62,000	66,400	70,500
	Demand Totals	50,400	59,320	62,000	66,400	70,500
	Difference	**5,210**	**0**	**0**	**0**	**0**
Third Year	Supply Totals	50,400	59,320	62,000	66,400	70,500
	Demand Totals	50,400	59,320	62,000	66,400	70,500
	Difference	**0**	**0**	**0**	**0**	**0**
Fourth Year	Supply Totals	50,400	59,320	62,000	66,400	70,500
	Demand Totals	50,400	59,320	62,000	66,400	70,500
	Difference	**0**	**0**	**0**	**0**	**0**
Fifth Year	Supply Totals	50,400	59,320	62,000	66,400	70,500
	Demand Totals	50,400	59,320	62,000	66,400	70,500
	Difference	**0**	**0**	**0**	**0**	**0**

As discussed in Section 6.2.1, AVEK's total banking storage target is at least enough stored groundwater to meet demand with 5% Table A allocations from the SWP for three consecutive years. Figure 7-3 presents the total volume of imported water recovered water from AVEK groundwater banks during a multiple year drought compared with the target total storage volume. As shown in the figure, the current groundwater bank storage capacity target is not sufficient in the five-year drought conditions projected in 2045 and 2050. Projections extended this far into the future have uncertainties and AVEK will continue to monitor demand projections and groundwater banking storage to assess if efforts to increase storage capacity to meet future demands are necessary.

Figure 7-3. AVEK Groundwater Bank Storage Capacity vs. Use During Five Consecutive Dry Years



7.3 Drought Risk Assessment

Water Code Section 10635(b) is a new provision of the Water Code that requires a Drought Risk Assessment (DRA) for the upcoming five years (2026 to 2030) based on the five driest years on record. The supply assumptions are similar to the multiple dry year assumptions in the previous section:

- **SWP Table A Allocation:** Yield based on five years with lowest yield from the DWR 2025 DCR, 1929 to 1933.
- **Antelope Valley Groundwater Basin Production Rights:** 3,550 AFY based on the Judgment along with acquired rights of 700 AFY for a total production right of 4,250 AFY.
- **Antelope Valley Groundwater Basin Imported Water Return Flows:** 860 AFY based on projected imported water demands for parties not on Exhibit 8 of the Judgment.
- **Non-SWP Water:** Same value (1,700 AF) in each year.
- **AVEK Groundwater Bank:** Used to meet remaining demand.

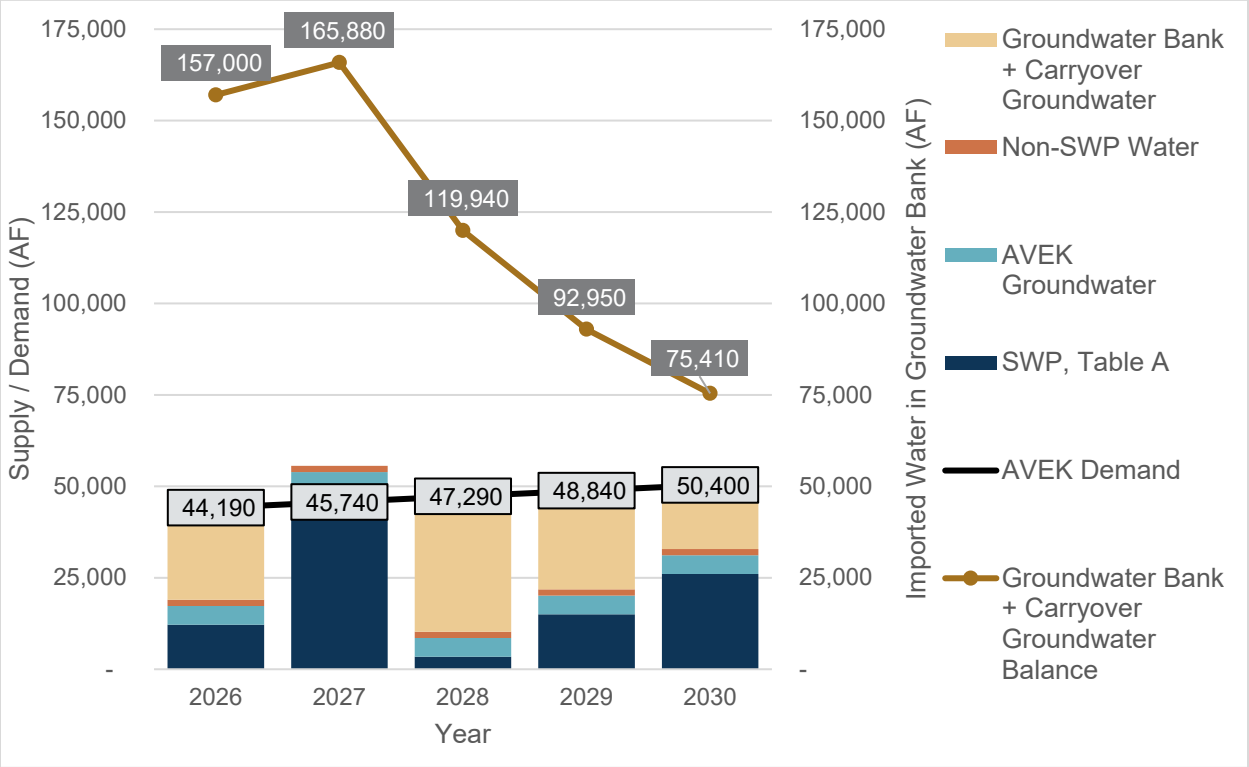
AVEK currently has roughly 155,000 AF of SWP water stored within its banks for future recovery and a total available stored water supply of 182,700 AF including groundwater carryover supply of 27,200 AF. AVEK and is implementing infrastructure projects to expand its capacity to recharge water, recover water, and distribute recovered water. Annual use of supplies during a five-year drought that starts in 2026 is shown in Table 7-2 and Figure 7-4. Based on the analysis, AVEK still would use roughly 107,000 AF from groundwater storage over five years, leaving over 48,000 AF of groundwater remaining in storage at the end of the theoretical drought.

Table 7-2. AVEK Supply Projections for 2026-2030 Drought Risk Assessment

SUPPLIES	2026	2027	2028	2029	2030
SWP, Table A	12,180	48,800	3,420	15,040	26,050
AVEK Groundwater	5,110	5,110	5,110	5,110	5,110
Non-SWP Water	1,700	1,700	1,700	1,700	1,700
Recovered Imported Water from Groundwater Bank	25,200	0	37,060	26,990	17,540
TOTAL AVEK SUPPLIES	**44,190**	**55,610**	**47,290**	**48,840**	**50,400**

Note: Groundwater bank supplies are used to meet balance of demand.

Figure 7-4. 2026-2030 AVEK Drought Reliability Assessment



8 Water Shortage Contingency Plan

The Water Shortage Contingency Plan (WSCP) is a detailed plan for how AVEK intends to act in the case of an actual water shortage condition. This allows for management of a shortage with predictability and accountability. This section provides an overview of the contents of AVEK's WSCP. The standalone WSCP is included in Appendix H.

IN THIS SECTION

- Overview of WSCP Components

8.1 Introduction

The CWC Section 10632 requires that every urban water supplier shall prepare and adopt a standalone Water Shortage Contingency Plan (WSCP) as part of its UWMP. AVEK's WSCP is included as Appendix H and will be separately submitted to DWR. The WSCP is developed independently of AVEK's 2025 UWMP and can be amended, as needed, without amending the UWMP.

The WSCP is a strategic plan that AVEK uses to prepare for and respond to foreseeable and unforeseeable water shortages. A water shortage occurs when the water supply available is insufficient to meet the normally expected customer water use at a given point in time. A shortage may occur due to a number of reasons, such as water supply quality changes, climate change, drought, regional power outage, and catastrophic events (e.g., earthquake). Additionally, the State may declare a statewide drought emergency and mandate that water suppliers reduce demands, as occurred in 2014. The WSCP serves as the operating manual that AVEK will use to prevent catastrophic service disruptions through proactive, rather than reactive, mitigation of water shortages.

The WSCP provides a process for an annual water supply and demand assessment and structured steps designed to respond to actual conditions. This level of detailed planning and preparation provides accountability and predictability and will help AVEK maintain reliable supplies and reduce the impacts of any supply shortages and/or interruptions.

The WSCP must be updated based on new requirements every five years and will be adopted as a current update for submission to DWR.

8.2 Overview of WSCP Components

The Water Code establishes several prescriptive elements that must be included in a retail water supplier's WSCP. Each element and its location within the WSCP is described below.

Water Supply Reliability Analysis: Summarizes AVEK's water supply analysis and reliability and identifies any key issues that may trigger a shortage condition.

Annual Water Supply and Demand Assessment Procedures: Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.

Shortage Stages: Establishes water shortage levels to clearly identify and prepare for shortages.

Shortage Response Actions: Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand.

Communication Protocols: Describes communication protocols under each stage to ensure customers, the public, and government agencies are informed of shortage conditions and requirements.

Compliance and Enforcement: Defines compliance and enforcement actions available to administer demand reductions.

Legal Authorities: Lists the legal documents that grant AVEK the authority to declare a water shortage and implement and enforce response actions.

Financial Consequences of WSCP Activation: Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.

Monitoring and Reporting: Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated or if efforts are successful and response actions should be reduced.

WSCP Refinement Procedures: Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.

Special Water Feature Distinctions: Identifies exemptions for decorative features aside from pools and spas.

Plan Adoption, Submittal, and Availability: Describes the process for the WSCP adoption, submittal, and availability after each revision.

The WSCP was prepared in conjunction with AVEK's 2025 UWMP and is a standalone document that can be modified as needed. The document is compliant with the CWC Section 10632 and incorporates guidance from the DWR UWMP Guidebook.

9 Demand Management Measures

This chapter describes AVEK's implementation of wholesale demand management measures intended to promote water use efficiency and partner with retail agencies to support sustainable management of regional water supplies.

IN THIS SECTION

- Existing Demand Management
- Reporting Implementation
- Water Use Objectives

9.1 Introduction

Demand management is an integral part of sustainably managing water resources in California. Implementation of demand management measures (DMMs) that help lower demand can improve water supply reliability and help meet both state and regional water conservation goals. This chapter describes AVEK's efforts as a wholesale water supplier to promote conservation and reduce demands on water supplies.

AVEK has been a leader in water use efficiency for many years. The Agency actively collaborates with local and regional agencies and the communities it serves to support innovative programs that drive change. AVEK implements DMMs as part of its ongoing operations, which are detailed in the following sections.

9.2 Demand Management Measures for Wholesale Suppliers

AVEK's system is fully metered, and unmetered connections have never been operated. AVEK charges all customers based on metered readings and established rate schedules. All current and new connections, including temporary connections, are required to be metered and billed per volume of use. Existing meters are regularly checked for leakage and accuracy.

9.3 Public Education and Outreach

A summary of public education and outreach measures implemented by AVEK are as follows:

- AVEK was the lead agency in the formation of the Antelope Valley Water Conservation Coalition (AVWCC). The AVWCC includes water districts, cities, builders, landscapers, designers, legislators, and other interested parties within the region. Water conservation in the greater Antelope Valley region is discussed during regular meetings, and the coalition provides periodic public education messaging regarding water conservation issues.
- AVEK was the lead agency and principal funding source for the development of the website AVSavesWater.com, which provided information on water conservation, water smart landscaping, resources, and rebate opportunities. The content is now hosted at avswca.org.
- AVEK is the lead agency and principal funding source for the Antelope Valley Fairgrounds Conservation Garden educational exhibits. Development of the gardens began in 2018 with ongoing maintenance continuing through 2026.

9.4 Asset Management

AVEK maintains its facilities according to the operations and maintenance manuals for its various facilities and equipment. In addition, AVEK conducts periodic inspections to assess the conditions of facilities and recommend needed repairs or improvements. AVEK audits system

losses monthly as a part of its normal billing procedures. Pipeline alignments are driven regularly by AVEK staff during water quality sample collection runs, which allows personnel to note if leaks are observed. The Agency repairs leaks promptly, on average about twice per year. The Agency's average long-term system loss is about 2% to 3%, which is considered to be within the margin of error and normal.

AVEK understands the importance of maintaining its capital facilities and has included the development of a formal asset management plan under the Capital and Human Resources Stewardship Goal of its Strategic Plan as shown below:

- **Goal 5:** Capital and Human Resources Stewardship — AVEK will be efficient and thoughtful stewards of our human and capital resource assets.
    - **Strategy 2:** Maintain capital facilities to ensure optimum facility life:
        - **Objective 1:** Develop an Asset Management Plan
        - **Objective 2:** Maintain facilities operational support

AVEK completed a draft Water System Master Plan (WSMP) in 2020. The WSMP evaluates the performance and condition of AVEK's potable water system under existing conditions and future conditions. The WSMP is intended to be a strategic document that guides AVEK with prioritization and decision-making regarding future water system improvements through the planning horizon of 2040 and build-out conditions. The goal of the WSMP is to assist AVEK in the planning and development of potable water system facilities to allow the Agency to reliably and efficiently serve water to its current customers, meet future growth, and respond to emergencies. Chapter 7 of the WSMP specifically describes the capacity evaluations of the water system under existing and future delivery needs, water system hydraulics under existing and future delivery needs, and existing system replacement.

9.5 Water Conservation Program Coordination and Staffing Support

AVEK has designated a Water Conservation Program Coordinator and has established a water conservation group as part of their Board of Directors' Public Information Committee, which meets regularly. The program coordinator leads implementation of ongoing water conservation efforts described in this chapter and the Water Shortage Contingency Plan in Appendix H.

9.6 Wholesale Supplier Assistance Programs

AVEK's Wholesale Supplier Assistance Programs are described in Section 9.3.

10 Plan Adoption, Submittal, and Implementation

This section describes the completed steps taken to make the UWMP publicly available as well as adopt and submit the UWMP in accordance with the Water Code.

IN THIS SECTION

10.1 Notifications

CWC Section 10621(b) requires that suppliers notify cities and counties in which they serve water that the UWMP and WSCP are being updated and reviewed at least 60 days prior to the public hearing. To fulfill this requirement, AVEK sent letters of notification of preparation to the following cities and counties within AVEK's service area 60 days prior to the public hearing:

- City of California City
- City of Lancaster
- City of Palmdale
- Kern County
- Los Angeles County
- Ventura County

In addition, AVEK notified their retail customers. Copies of the 60-day notification letters are attached as Appendix D.

AVEK made the 2025 UWMP and WSCP available for public review on May 26, 2026, and held public hearing on June 9, 2026. The notice to the public was made once a week for two successive weeks. The public hearing was first noticed in the Valley Press on May 27, 2026 and noticed again on June 3, 2026. The hearing notices are attached as Appendix D. Prior to the public hearing, AVEK maintained a copy of the 2025 UWMP and WSCP in its office and on the Agency's website at www.avek.org.

The 2025 UWMP and WSCP were included as separate agenda items, noticed, and reviewed in a public hearing at the regularly scheduled AVEK Board of Directors meeting on June 9, 2026. This hearing provided cities, counties, and members of the public a chance to review the report and provide comment. The public hearing took place before the adoption, allowing opportunity for the report to be modified in response to public input.

The 2025 UWMP and WSCP were adopted by AVEK's Board of Directors on June 9, 2026. A copy of the Resolution of Adoption is included as Appendix E.

The 2025 UWMP and WSCP was submitted to DWR through the Water Use Efficiency Data portal before the deadline of July 1, 2026. The documents were also sent to the California State Library and to all cities and counties within AVEK's service are within 30 days of adoption.

10.2 Public Availability

AVEK will have a copy of the 2025 UWMP and WSCP available for public review at the AVEK office (see address below) during normal business hours.

Antelope Valley-East Kern Water Agency
6500 W. Avenue N
Palmdale, CA 93551

The documents also will be posted on the Agency's website at www.avek.org.

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Appendix A 2025 UWMP DWR Checklist

A

2025 Guidebook Location	Summary as Applies to UWMP	Subject	2025 UWMP Location
Chapter 1	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	Executive Summary
Chapter 1	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.	Plan preparation	Executive Summary
Section 2.1	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	N/A
Section 2.5	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	Section 2.2
Section 2.5	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	Section 2.2
Section 2.4	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.	Plan preparation	Appendix D
Section 2.4.2	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.	Plan preparation	Section 2.3
Section 2.4.1	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.	Plan preparation	DWR Table 2-4W
Chapter 3.0	Describe the Supplier service area.	System description	Section 3.2
Section 3.3	Describe the climate of the Supplier's service area.	System description	Section 3.3
Section 3.4.1	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	Section 3.4
Section 3.4.2	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	Section 3.4
Section 3.5	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.	System description and baselines	Section 3.5
Sections 4.2.3 and 4.2.4	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	Chapter 4
Section 4.3.2	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	Section 4.3.2
Section 4.2.5.6	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	Section 4.3
Section 5.1	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.	Baselines and targets	Chapter 5
Section 6.1	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	Section 6.2
Sections 6.1 and 6.2	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.	System supplies	Section 6.2
Section 6.2.2	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.	Water supplies and recycled water	Section 6.2.2
Section 6.2.2	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.	System supplies	Section 6.2.2
Section 6.2.2	Describe the groundwater basin.	System supplies	Section 6.2.2
Section 6.2.2	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.	System supplies	Section 6.2.2
Section 6.2.2	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…	Water supplies and recycled water	N/A
Section 6.2.2	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	N/A
Section 6.2.2.	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.	System supplies	Section 6.2.2
Section 6.2.2	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	Section 6.2.2
Section 6.1	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	Section 6.9
Section 6.2.7	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	Section 6.2.1

2025 Guidebook Location	Summary as Applies to UWMP	Subject	2025 UWMP Location
Section 6.2.5	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.	System supplies (recycled water)	Section 6.2.6
Section 6.2.5	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	Section 6.2.6
Section 6.2.5	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	Section 6.2.6
Section 6.2.5	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.	System supplies (recycled water)	Section 6.2.6
Section 6.2.5	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.	System supplies (recycled water)	N/A
Section 6.2.5	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	N/A
Section 6.2.6	Describe desalinated water project opportunities for long-term supply.	System supplies	Section 6.2.7
Section 6.2.10	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.	System supplies	Section 6.2.9
Section 6.3 and Appendix O	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	Section 6.3
Section 7.1	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.	Water supply reliability assessment	Chapter 6
Section 7.2	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.	Water supply reliability assessment	Chapter 7
Section 7.2.3	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	Chapter 6
Section 7.3	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	Section 7.3
Section 7.3	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.	Water supply reliability assessment	Section 7.3
Section 7.3	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	Section 7.2
Section 7.3	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	Section 7.2
Section 7.3	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.	Water supply reliability assessment	Section 7.2
Chapter 8	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	Appendix H
Chapter 8	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	Appendix H Section 2
Section 8.2	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	Appendix H Section 3
Section 8.2	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.	Water shortage contingency planning	Appendix H Section 3
Section 8.3	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.	Water shortage contingency planning	Appendix H Section 4
Section 8.3	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	Appendix H Section 4
Section 8.4	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	Appendix H Section 5
Section 8.4	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	Appendix H Section 5
Section 8.4	Specify locally appropriate operational changes.	Water shortage contingency planning	Appendix H Section 5
Section 8.4	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Appendix H Section 5

2025 Guidebook Location	Summary as Applies to UWMP	Subject	2025 UWMP Location
Section 8.4	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	Appendix H Section 2
Section 8.4.6	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	Appendix H Section 5.4
Section 8.5	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	Appendix H Section 6
Section 8.5	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.	Water shortage contingency planning	Appendix H Section 6
Section 8.7	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	Appendix H Section 7
Section 8.7	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. *Water Shortage Emergencies* .	Water shortage contingency planning	Appendix H Section 7
Section 8.7	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.	Water shortage contingency planning	Appendix H Section 7
Section 8.8	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	Appendix H Section 8
Section 8.8	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	Appendix H Section 8
Section 8.10	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.	Water shortage contingency planning	Appendix H Section 9
Section 8.12	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	Appendix H Section 10
Sections 9.2	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	Chapter 9
Section 10.2.1	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.	Plan adoption, submittal, and implementation	DWR Table 10-1W
Section 10.4	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 202 6.	Plan adoption, submittal, and implementation	Section 10.1
Sections 10.2.2, 10.3, and 10.5	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.	Plan adoption, submittal, and implementation	Appendix D
Section 10.2.2	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	Section 10.1
Section 10.3.2	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	Appendix E
Section 10.4	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	Section 10.1
Section 10.4	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.	Plan adoption, submittal, and implementation	Section 10.1
Sections 10.4.1 and 10.4.2	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	N/A
Section 10.7.2	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	N/A
Section 10.5	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.	Plan adoption, submittal, and implementation	Section 10.2
Section 10.5	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.	Plan adoption, submittal, and implementation	Section 10.2
Section 10.6	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	N/A

Appendix B 2025 UWMP DWR Tables

B

Submittal Table 2-2: Plan Identification		
Select One	**Type of Plan**	**Name of Regional Alliance or RUWMP** (Drop Down List)
☑	**Individual UWMP**	
	If Water Supplier is also a member of a SB X7-7 Regional Alliance, select name from the drop-down.	
☐	**Regional Urban Water Management Plan (RUWMP)**	
	If Supplier selected RUWMP, select name from the drop-down.	
NOTES:		

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☑	Supplier is a wholesale supplier
☐	Supplier is a retail supplier
Fiscal or Calendar Year (select one)	
☑	UWMP Tables are in calendar years
☐	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 Wholesale: Water Supplier Information Exchange Water Code Section 10631(h)	
☑	Check the box if the Supplier has informed more than 10 other water suppliers of water supplies available. **Completion of the table below is optional. If not completed, include a list of the water suppliers that were informed.**
Sec 2.3	Provide page number for location of the list.
☐	Check the box if the Supplier has informed 10 or fewer other water suppliers of water supplies available. **Complete the table below.**
Water Supplier Name	
Add additional rows as needed	
NOTES:	

Submittal Table 3-1 Wholesale: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	334,182	342,673	351,165	359,760	368,356	376,952

NOTES: Data for Los Angeles and Ventura Counties from SCAG 2024 Connect SoCal Regional Transportation Plan (SCAG, 2024). KCOG data is from KCOG estimates and projections, regional growth forecast, and growth allocation (KCOG, 2024).

Optional Submittal Table 4-1 Wholesale: Total Uses for Potable and Non-Potable Water — Actual 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		**Potable or Non-Potable** (OPTIONAL) Drop down list	Volume (AF)
Add additional rows as needed			
Sales to other agencies	Los Angeles County Waterworks District	Potable	24,535
Sales to other agencies	Quartz Hill Water District	Potable	2,608
Sales to other agencies	Rio Tinto Minerals / US Borax	Potable	979
Sales to other agencies	Edwards Airforce Base	Potable	1,471
Sales to other agencies	Other M&I Customers (26 Customers)	Potable	2,774
Sales to other agencies	Untreated Water Deliveries (5 Customers)	Non-Potable	759
Transfers to other agencies		Non-Potable	3,836
Groundwater recharge		Non-Potable	54,058
Distribution System Water Loss		Potable	120
		Subtotal Potable	32,487
		Subtotal Non-Potable	58,653
		Total	91,140
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:			

Optional **Submittal Table 4-2 Wholesale: Total Uses for Potable and Non-Potable Water — Projected**
Water Code Section 10631(d)(1)

Use Type		**Projected Water Use** (Report To the Extent that Records are Available)					
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.	Additional Description (as needed)	**Potable or Non-Potable** (OPTIONAL) Drop down list	**2030 (AF)**	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 opt (AF)**
Add additional rows as needed							
Sales to other agencies	Projected AVEK Customer Demand including Commitments	Potable	53,285	60,891	63,750	68,400	72,750
		Subtotal Potable	53,285	60,891	63,750	68,400	72,750
		Subtotal Non-Potable	0	0	0	0	0
		Total	53,285	60,891	63,750	68,400	72,750

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 6-1 Wholesale: Groundwater Volume Pumped							
☐	Check the box if the Supplier does not pump groundwater.						
☐	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	Potable or Non-Potable (OPTIONAL) Drop down list	Location or Basin Name	2021 (AF)	2022 (AF)	2023 (AF)	2024 (AF)	2025 (AF)
Add additional rows as needed							
Alluvial Basin		AV Basin, Production Rights					
Alluvial Basin		AV Basin, Banking	18,349	19,411	6,778	4,906	6,516
		Total	18,349	19,411	6,778	4,906	6,516
DWR NOTES:							
NOTES:							

Submittal Table 6-3 Wholesale: Wastewater Treatment and Discharge Within Service Area
Water Code Section 10633(b)

☑ Check the box if the Wholesale Supplier neither distributes nor provides supplemental treatment to recycled water. 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 (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.														
Total		0	0		0		0		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 Wholesale: Current and Projected Recycled Water Uses
Water Code Section 10633(c),(d),(e)

☐	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) :	
Volume of Supplemental Water Added in 2025 (OPTIONAL) :	
Source of 2025 Supplemental Water (OPTIONAL) :	

Name of Receiving Supplier or Direct Use by Wholesale Supplier	Potable or Non-Potable (after treatment if treated) (OPTIONAL) Drop down list	Additional Information (as needed)	2025 (AF)	2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)	Potential Recycled Water Use	
									Volume (AF)	Narrative page number (OPTIONAL)
Add additional rows as needed										
Los Angeles County Waterworks District No. 40			379	802	952	1152	1352	1552	NA	
Subtotal Potable			0	0	0	0	0	0	0	
Subtotal Non-Potable			0	0	0	0	0	0	0	
Total			379	802	952	1152	1352	1552	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 reports 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: Source LACWD No. 40

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

☑	Check the box if recycled water was not used or distributed by the supplier in 2025, nor projected for use or distribution in 2020. Proceed to the next table.

Name of Receiving Supplier or Direct Use by Wholesale Supplier	2020 Projection for 2025 (AF)	2025 Actual Use (AF)
Add additional rows as needed		
Total	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.

Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

Submittal Table 6-7 Wholesale: 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.						
Section 6.2.8	Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	Potable or Non-Potable (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) (AF)
	Drop Down List (yes/no)	If Yes, Supplier Name					
Add additional rows as needed							
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 Wholesale: Water Supplies — Actual
Water Code Section 10631(b)

Water Supply	Additional Description (as needed)	2025		
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool		**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Actual Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Add additional rows as needed				
Purchased or Imported Water	To Retailers - Treated Water	Potable	25,971	
Purchased or Imported Water	To Retailers - Untreated Water	Non-Potable	759	
Purchased or Imported Water	To GW Bank - Untreated Water	Non-Potable	54,058	
Groundwater (not desalinated)	From GW Bank - Treated Water	Potable	6,516	
Purchased or Imported Water	Transfer / Exchanges - Untreated Water	Non-Potable	3,836	
		Subtotal Potable	32,487	0
		Subtotal Non-Potable	58,653	0
		Total	91,140	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.

Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:

Optional **Table 6-8DS: Source Water Desalination by Urban Water Supplier**											
☑	Check the box if the Supplier does not reduce salinity in either groundwater or surface water prior to distribution.										
Desalination Facility **Drop Down list**	Plant Capacity	Intake Type **Drop down list**	Source Water Type **Drop down list**	Influent TDS	Brine Discharge **Drop down list**	Volume of Water Desalinated					Name(s) of Agencies that Receive this Water
						2021 (AF)	**2022 (AF)**	**2023 (AF)**	**2024 (AF)**	**2025 (AF)**	
Add additional rows as needed											
					Total	0	0	0	0	0	
DWR NOTES: **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Submital Table 2-3. This table identifies the units of measure reported in Submittal Table 2-3.											
NOTES:											

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

Water Supply			Projected Water Supply (Report to the Extent Practicable)									
			2030		2035		2040		2045		2050 (opt)	
Drop down list May use each category multiple times.These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	**Potable or Non-Potable** (after treatment if treated) (OPTIONAL) Drop Down list	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)	Reasonably Available Volume (AF)	Total Entitlement (OPTIONAL) See 'DWR Notes' below (AF)
Add additional rows as needed												
Purchased or Imported Water	SWP Table A		77,854		76,043		74,233		72,422		72,422	
Groundwater (not desalinated)	Production Rights		4,250		4,250		4,250		4,250		4,250	
Groundwater (not desalinated)	Imported Water Return Flows		860		860		860		860		860	
Purchased or Imported Water	Non-SWP Water		1,700		1,700		1,700		0		0	
		Subtotal Potable	0	0	0	0	0	0	0	0	0	0
		Subtotal Non-Potable	0	0	0	0	0	0	0	0	0	0
		Total	84,664	0	82,853	0	81,043	0	77,532	0	77,532	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 a Submittal Table 2-3.

Total Entitlement: e.g. Water Right, Groundwater Allocation, Contracted Amount.

NOTES:

OPTIONAL Submittal Table 7-1 Wholesale: 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	
		☑ Check the box if quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. **Location:** Section 7.2	
		Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
		Volume Available (AF)	**% of Average Supply**
Average Year			100%
Single-Dry Year			
Consecutive Dry Years 1st Year			
Consecutive Dry Years 2nd Year			
Consecutive Dry Years 3rd Year			
Consecutive Dry Years 4th Year			
Consecutive Dry Years 5th Year			

DWR NOTES: Supplier may use multiple versions of Submittal Table 7-1 W 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 W, in the "Note" section of each submittal table, state that multiple versions of Submittal Table 7-1 W 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 unit of measure selected in Submittal Table 2-3.

NOTES:

Submittal Table 7-2 Wholesale: Normal Year Supply and Use Comparison Water Code Section 10635 (a)					
	2030 (AF)	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 (AF)**
Supply totals (autofill from Submittal Table 6-9 W)	84,664	82,853	81,043	77,532	77,532
Use totals (see OPTIONAL Submittal Table 4-2 W)	53,285	60,891	63,750	68,400	72,750
Surplus/(shortfall)	31,379	21,963	17,293	9,132	4,782
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 Wholesale: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030 (AF)	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 (AF)**
Supply totals	50,400	59,320	62,000	66,400	70,500
Use totals	50,400	59,320	62,000	66,400	70,500
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: Supply equals demand because AVEK would extract imported water stored in local groundwater banks to meet supply shortfalls.					

Submittal Table 7-4 Wholesale: Multiple Dry Years Supply and Use Comparison Water Code Section 10635(a)						
		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	50,400	59,320	62,000	66,400	70,500
	Use totals	50,400	59,320	62,000	66,400	70,500
	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	55,610	59,320	62,000	66,400	70,500
	Use totals	50,400	59,320	62,000	66,400	70,500
	Surplus/(shortfall)	5,210	0	0	0	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Third year	Supply totals	50,400	59,320	62,000	66,400	70,500
	Use totals	50,400	59,320	62,000	66,400	70,500
	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	50,400	59,320	62,000	66,400	70,500
	Use totals	50,400	59,320	62,000	66,400	70,500
	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	50,400	59,320	62,000	66,400	70,500
	Use totals	50,400	59,320	62,000	66,400	70,500
	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: Supply equals demand because AVEK would extract imported water stored in local groiundwater banks

Submittal Table 7-5 Wholesale: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
2026	**Total**
Total Water Use (AF)	44,190
Total Supplies (AF)	44,190
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)	45,740
Total Supplies (AF)	55,610
Surplus/Shortfall w/o WSCP Action	9,870
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)	47,290
Total Supplies (AF)	47,290
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)	48,840
Total Supplies (AF)	48,840
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)	50,400
Total Supplies (AF)	50,400
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)			
☐	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%	1	1-50%
2	Up to 20%	2	>50%
3	Up to 30%		
4	Up to 40%		
5	Up to 50%		
6	>50%		
NOTES:			

Submittal Table 8-2 Wholesale: Supply Augmentation and Other Actions Water Code Section 10632(a)(4)(A),(C) and (E)				
No	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** These are the only categories that will be accepted by the WUEdata online submittal tool	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	Expand Public Information Campaign	Percentage	up to 50%	
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES:				

Submittal Table 8-3 Wholesale: Demand Reduction Actions Water Code Section 10632(a)(4)(B) and (E)				
No	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)
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)	
Add additional rows as needed				
All	Expand Public Information Campaign	Percentage	Up to 50%	
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES:				

Submittal Table 10-1 Wholesale: Notification to Cities and Counties Water Code Section 10621(b) and 10642		
☐	Check the box if the Supplier has notified more than 10 cities or counties. **Completion of the table below is not required. Provide a separate list of the cities and counties that were notified.**	
	Provide the page or location of this list in the UWMP.	
☑	Check the box if the Supplier has notified 10 or fewer cities or counties. **Complete the table below.**	
City Name	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Add additional rows as needed		
City of California City	Yes	Yes
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		
Kern County	Yes	Yes
Los Angeles County	Yes	Yes
Ventura County	Yes	Yes
NOTES: See Appendix D for notices		

Appendix C Delta Reliance

C

Technical Memorandum

Date: April 10, 2026

To: Matt Knudson
Antelope Valley – East Kern Water Agency (AVEK)

CC: Tom Barnes (AVEK)

Prepared by: Rob Morrow, P.E.

Project: 2025 UWMP

SUBJECT: **Quantifying Regional Self-Reliance and Reduced Reliance on Water Supplies From the Delta Watershed**

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1 Background

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2025 Urban Water Management Plans (UWMP) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

WR P1 details what is needed for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance. WR P1 subsection (a) states that:

> *(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:*
>
> > *(1) One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);*

> *(2) That failure has significantly caused the need for the export, transfer, or use; and*
>
> *(3) The export, transfer, or use would have a significant adverse environmental impact in the Delta.*

WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

> *(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:*
>
> *(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;*
>
> *(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and*
>
> *(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).*

The analysis and documentation provided below include all the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

2 Methodology

As stated in WR P1(c)(1)(C), the policy requires that, commencing in 2015, UWMPs include expected outcomes for improved regional self-reliance and measurable reduction in Delta reliance. WR P1 further states that those outcomes shall be reported in the UWMP as the reduction in the amount of water used, or in the percentage of water used, from the Delta. The expected outcomes for AVEK regional self-reliance and reduced Delta reliance were developed using the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2025 issued in February 2026 (Guidebook Appendix C).

The methodology used to determine AVEK's improved regional self-reliance and reduced Delta reliance is consistent with the approach detailed in DWR's UWMP Guidebook Appendix C, including the use of narrative justifications for the accounting of supplies and the documentation of specific data sources. Some of the key assumptions include:

- All data were obtained from the current 2025 UWMP or previously adopted UWMPs and represent average or normal water year conditions.
- All analyses were conducted at the service area level, and all data reflect the total contributions of AVEK and its customers as well as their customers.

To calculate the expected outcomes for improved regional self-reliance and reduced Delta reliance, a baseline is needed to compare against. This analysis uses a normal water year representation of 2010 as the baseline, which is consistent with the approach described in the Guidebook Appendix C. Data for the 2010 baseline were taken from AVEK's 2005 UWMP as the UWMPs generally do not provide normal water year data for the year that they are adopted (i.e., 2005 UWMP forecasts begin in 2010, 2010 UWMP forecasts begin in 2015, and so on).

Consistent with the 2010 baseline data approach, the expected outcomes for improved regional self-reliance and reduced Delta reliance for 2015, 2020, and 2025 were taken from AVEK's 2010, 2015, and 2020 UWMPs, respectively. Expected outcomes for 2030-2050 are from the current 2025 UWMP. Documentation of the specific data sources and assumptions are included in the discussions below.

3 Demonstration of Regional Self-Reliance

Service Area Demands without Water Use Efficiency

In alignment with the Guidebook Appendix C, this analysis uses normal water year demands, rather than normal water year supplies to calculate expected outcomes in terms of the percentage of water used. Using normal water year demands serves as a proxy for the amount of supplies that would be used in a normal water year, which helps alleviate issues associated with how supply capability is presented to fulfill requirements of the UWMP Act versus how supplies might be accounted for to demonstrate consistency with WR P1.

Because WR P1 considers water use efficiency savings a source of water supply, water suppliers such as AVEK that do not explicitly quantify water use efficiency savings in their UWMPs can calculate their embedded water use efficiency savings based on changes in forecasted per capita water use since the baseline.

Agencies that explicitly calculate and report water use efficiency savings in their UWMP will need to make an adjustment to properly reflect normal water year demands in the calculation of reduced reliance. As explained in the Guidebook Appendix C, water use efficiency savings must be added back to the normal year demands to represent demands without water use efficiency savings accounted for; otherwise the effect of water use efficiency savings on regional self-reliance would be overestimated. Table 1 shows the results of this adjustment for AVEK. Supporting narratives and documentation for all the data shown in Table 1 are provided below.

Service Area Demands with Water Use Efficiency

The service area demands shown in Table 1 represent the total water demands for AVEK's service area. The demand data shown in Table 1 were collected from the following sources:

- Baseline (2010): AVEK 2005 UWMP, Table 7 and Table 8
- 2015: AVEK 2010 UWMP, Table 4 and Table 5
- 2020: AVEK 2015 UWMP, Table 4-2
- 2025: AVEK 2020 UWMP, Table ES-2
- 2030-2050: AVEK 2025 UWMP, Table ES-2

Service Area Population

The population data shown in Table 1 were collected from the following sources:

- Baseline (2010): AVEK 2010 UWMP, Table 2
- 2015: AVEK 2015 UWMP, Table 3-1
- 2020: AVEK 2020 UWMP, Table ES-1
- 2025-2050: AVEK 2025 UWMP, Table ES-1

Estimated Water Use Efficiency Since Baseline

Calculated using "Potable Service Area Demands with Water Use Efficiency" divided by "Service Area Population" and then calculating Estimated Water Use Efficiency Since Baseline by comparing with 2010 Per Capita Water Use.

Service Area Water Demands without Water Use Efficiency

Add "Service Area Demands with Water Use Efficiency" to "Estimated Water Use Efficiency Since Baseline."

Supplies Contributing to Regional Self-Reliance

For a covered action to demonstrate consistency with the Delta Plan, WR P1 subsection (c)(1)(C) states that water suppliers must report the expected outcomes for measurable improvement in regional self-reliance. Table 2 shows expected outcomes for supplies contributing to regional self-reliance both in amount and as a percentage. The numbers shown in Table 2 represent efforts to improve regional self-reliance for AVEK's entire service area and include the total contributions of AVEK and its customers. Supporting narratives and documentation for all of the data shown in Table 2 are provided below.

Water Use Efficiency

The water use efficiency information shown in Table 2 is taken directly from Table 1.

Local and Regional Water Supply and Storage Programs

The local and regional water supply and storage programs data shown in Table 2 represent groundwater pumping estimates by AVEK and entities within AVEK's service area. The estimates were complicated because the Antelope Valley Groundwater Basin Judgment (Judgment) did not go into effect until 2016 and roughly half of annual pumping rights are associated with imported water return flows, which is dependent on total demands in the AVEK service area. Now that the Judgment is in place, the following categories were totaled to estimate annual pumping rights

- Exhibit 3 – Non-Overlying Producers Production Rights
  - Production Rights
  - Rights from Return Flows
- Exhibit 4 – Overlying Producers Production Rights
  - Production Rights
  - Rights from Return Flows

Based on this information, groundwater pumping data was estimated from the following sources:

- Baseline (2010): Prior to the Judgement, there were not estimates of groundwater pumping within AVEK service area so the 2010 pumping value was assumed to be equivalent to the 2015 estimate
- 2015: Groundwater accounting for the Judgement started in 2016 so the 2016 production rights values for 2016 from the 2016 Annual Report from the Antelope Valley Watermaster were used for 2015 values
- 2020: 2020 groundwater sources from the Annual Report from the Antelope Valley Watermaster
- 2025: 2025 groundwater sources from the Annual Report from the Antelope Valley Watermaster
- 2030-2050: Judgement production rights plus estimated return flows based on projected AVEK demands presented in the 2025 UWMP

Other Programs and Projects that Contribute to Regional Self-Reliance

Other Programs and Projects that Contribute to Regional Self-Reliance includes non-SWP water supply acquired by AVEK in 2017 through a long-term lease of annual supply originally belonging to the Nickel Family, a farming interest in Kern County. AVEK acquired the rights to 1,700 acre-feet of water made available for a period of 35 years (with an option to extend for 35 more years), even in dry years.

Conclusions

The results shown in Table 2 demonstrate that AVEK's service area is measurably improving its regional self-reliance. In the near-term (2030), the expected outcome for normal water year regional self-reliance is expected to increase by 55,500 AFY from the 2010 baseline; this represents an increase of about 38 percent of 2030 normal water year retail demands. In the long-term (2050), the expected outcome for normal water year regional self-reliance is expected to increase by more than 45,100 AFY from the 2010 baseline, this represents an increase of about 24 percent of 2050 normal water year retail demands (Table 2). The results show that as a region, AVEK and its customers are measurably reducing reliance on the Delta and improving regional self-reliance, both as an amount of water used and as a percentage of water used.

4 Demonstration of Reduced Reliance on the Delta

AVEK's service area reduces reliance on the Delta through investments in non-Delta water supplies, local water supplies, and regional and local demand management measures. For reduced reliance on supplies from the Delta Watershed, the data used in this analysis represent the total regional efforts of AVEK and

its customers, and were developed in conjunction with AVEK customers as part of the UWMP coordination process (as described in Chapter 2 of AVEK's 2025 UWMP). In accordance with UMWP requirements, several of AVEK's customers also report demands and supplies for their service areas in their respective UWMPs. The data reported by those agencies are not additive to the regional totals shown in AVEK's UWMP, rather their reporting represents subtotals of the regional total and should be considered as such for the purposes of determining reduced reliance on the Delta.

Calculation of Reliance on Water Supplies from the Delta Watershed

The calculation of reliance on water supplies from the Delta watershed, shown in Table 3, is based on the following assumptions. AVEK water supplies from the Delta watershed include "CVP/SWP Contract Supplies."

CVP/SWP Contract Supplies

The supply data shown in Table 3 is for AVEK's SWP Table A allocation and were collected from the following sources:

- Baseline (2010): AVEK 2005 UWMP, Table 10
- 2015: AVEK 2010 UWMP, Table 6
- 2020: AVEK 2015 UWMP, Table 6-9
- 2025: AVEK 2020 UWMP, Table ES-3
- 2030-2050: AVEK 2025 UWMP, Table ES-4

Total Water Supplies from the Delta Watershed

Total Water Supplies from the Delta Watershed is equivalent to CVP/SWP Contract Supplies.

Change in Supplies from the Delta Watershed

Calculates changes in Total Water Supplies from the 2010 baseline value with future values.

Percent Change in Supplies from the Delta Watershed

Divides "Water Supplies from the Delta Watershed" by "Service Area Demands without Water Use Efficiency" and calculates changes from the 2010 baseline.

Conclusions

The following provides a summary of the near-term (2030) and long-term (2050) expected outcomes for AVEK's Delta reliance on supplies from the Delta watershed:

- Near-term (2030) – Normal water year reliance on supplies from the Delta watershed decreased by 22,540 AF from the 2010 baseline, this represents a decrease of 31 percent of 2025 normal water year demands without water use efficiency (Table 3).
- Long-term (2050) – Normal water year reliance on supplies from the Delta watershed decreased by 28,000 AF from the 2010 baseline, this represents a decrease of 40 percent of 2025 normal water year demands without water use efficiency (Table 3).

The results show that as a region, AVEK and its customers (including AVEK) as well as their customers are measurably reducing reliance on the Delta and improving regional self-reliance, both as an amount of water used and as a percentage of water used.

5 UWMP Implementation

In addition to the analysis and documentation described above, WR P1 subsection (c)(1)(B) requires that all programs and projects included in the UWMP that are locally cost-effective and technically feasible, which reduce reliance on the Delta, are identified, evaluated, and implemented consistent with the implementation schedule. WR P1 (c)(1)(B) states that:

> *(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta[.]*

In accordance with Water Code Section 10631(f), water suppliers must already include in their UWMP a detailed description of expected future projects and programs that they may implement to increase the amount of water supply available to them in normal and single-dry water years and for a period of drought lasting five consecutive years. The UWMP description must also identify specific projects, include a description of the increase in water supply that is expected to be available from each project, and include an estimate regarding the implementation timeline for each project or program.

Chapter 6 of AVEK's 2025 UWMP summarizes the implementation plan and continued progress in developing a diversified water portfolio to meet the region's water needs.

Table 1. Calculation of Service Area Water Demands without Water Use Efficiency (UWMP Table C-1 and Table C-2)

Table C-1: Optional Calculation of Water Use Efficiency -To be completed if Water Supplier does not specifically estimate Water Use Efficiency as a supply

Service Area Water Use Efficiency Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Service Area Water Demands with Water Use Efficiency Accounted For	111,031	91,075	83,680	73,420	80,020	89,310	93,870	98,440	102,650
Non-Potable Water Demands									
Potable Service Area Demands with Water Use Efficiency Accounted For	111,031	91,075	83,680	73,420	80,020	89,310	93,870	98,440	102,650

Total Service Area Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Service Area Population	291,063	359,500	320,571	334,182	342,673	351,165	359,760	368,356	376,952

Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Per Capita Water Use (GPCD)	341	226	233	196	208	227	233	239	243
Change in Per Capita Water Use from Baseline (GPCD)		(114)	(108)	(144)	(132)	(114)	(108)	(102)	(97)
Estimated Water Use Efficiency Since Baseline		46,062	38,607	54,059	50,699	44,648	43,367	42,076	41,145

Table C-2: Calculation of Service Area Water Demands Without Water Use Efficiency

Total Service Area Water Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Service Area Water Demands with Water Use Efficiency Accounted For	111,031	91,075	83,680	73,420	80,020	89,310	93,870	98,440	102,650
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		46,062	38,607	54,059	50,699	44,648	43,367	42,076	41,145
Service Area Water Demands without Water Use Efficiency Accounted For	111,031	137,137	122,287	127,479	130,719	133,958	137,237	140,516	143,795

Table 2. Calculation of Supplies Contributing to Regional Self-Reliance (UWMP Table C-3)

Table C-3: Calculation of Supplies Contributing to Regional Self-Reliance

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Water Use Efficiency		46,062	38,607	54,059	50,699	44,648	43,367	42,076	41,145
Water Recycling									
Stormwater Capture and Use									
Advanced Water Technologies									
Conjunctive Use Projects									
Local and Regional Water Supply and Storage Projects	35,870	35,870	33,280	33,330	39,010	39,380	39,560	39,730	39,840
Other Programs and Projects the Contribute to Regional Self-Reliance			1,700	1,700	1,700	1,700	1,700		
Water Supplies Contributing to Regional Self-Reliance	35,870	81,932	73,587	89,089	91,409	85,728	84,627	81,806	80,985

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Service Area Water Demands without Water Use Efficiency Accounted For	111,031	137,137	122,287	127,479	130,719	133,958	137,237	140,516	143,795

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Water Supplies Contributing to Regional Self-Reliance	35,870	81,932	73,587	89,089	91,409	85,728	84,627	81,806	80,985
Change in Water Supplies Contributing to Regional Self-Reliance		46,062	37,717	53,219	55,539	49,858	48,757	45,936	45,115

Percent Change in Regional Self Reliance (As Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Percent of Water Supplies Contributing to Regional Self-Reliance	32.3%	59.7%	60.2%	69.9%	69.9%	64.0%	61.7%	58.2%	56.3%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		27.4%	27.9%	37.6%	37.6%	31.7%	29.4%	25.9%	24.0%

Table 3. Reliance on Water Supplies from the Delta Watershed (UWMP Table C-4)

Table C-4: Calculation of Reliance on Water Supplies from the Delta Watershed

Water Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
CVP/SWP Contract Supplies	100,394	87,688	85,460	81,840	77,854	76,043	74,233	72,422	72,422
Delta/Delta Tributary Diversions									
Transfers and Exchanges									
Other Water Supplies from the Delta Watershed									
Total Water Supplies from the Delta Watershed	100,394	87,688	85,460	81,840	77,854	76,043	74,233	72,422	72,422

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Service Area Water Demands without Water Use Efficiency Accounted For	111,031	137,137	122,287	127,479	130,719	133,958	137,237	140,516	143,795

Change in Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Water Supplies from the Delta Watershed	100,394	87,688	85,460	81,840	77,854	76,043	74,233	72,422	72,422
Change in Water Supplies from the Delta Watershed		(12,706)	(14,934)	(18,554)	(22,540)	(24,351)	(26,161)	(27,972)	(27,972)

Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045	2050 (Optional)
Percent of Water Supplies from the Delta Watershed	90.4%	63.9%	69.9%	64.2%	59.6%	56.8%	54.1%	51.5%	50.4%
Change in Percent of Water Supplies from the Delta Watershed		-26.5%	-20.5%	-26.2%	-30.9%	-33.7%	-36.3%	-38.9%	-40.1%

Appendix D Notifications and Notifications List

[Will be included once all Notifications have been completed]

D

Appendix E Adoption Resolutions

[Will be included once plan is adopted]

E

Appendix F Antelope Valley Groundwater Adjudication

Available at:

https://avwatermaster.net/resources/exhibits-charts/

F

Appendix G Antelope Valley Watermaster 2024 Annual Report

Available at:

https://avwatermaster.net/wp-content/uploads/2025/09/2024-AVWM-Annual-Report.pdf

G

Appendix H Water Shortage Contingency Plan

H

Water Shortage Contingency Plan

Public Review Draft

MAY 2026

ANTELOPE VALLEY - EAST KERN WATER AGENCY

ANTELOPE VALLEY - EAST KERN WATER AGENCY

Water Shortage Contingency Plan

PUBLIC REVIEW DRAFT

MAY 2026

Prepared by Water Systems Consulting, Inc

ACKNOWLEDGEMENTS

This document was prepared in partnership between Water Systems Consulting, Inc. and the Antelope Valley-East Kern Water Agency. WSC thanks the following people for their contributions.

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ACRONYMS & ABBREVIATIONS

AF	Acre-feet
AFY	Acre-feet per year
Agency	Antelope Valley East Kern Water Agency
AVEK	Antelope Valley East Kern Water Agency
Cal OES	California Office of Emergency Services
Corps	Army Corps of Engineers
CWC	California Water Code
DCR	Delivery Capability Report
DWR	California Department of Water Resources
DRA	Drought Risk Assessment
LHMP	Local Hazard Mitigation Plan
SWP	State Water Project
UWWP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan

1.0 Introduction

This Water Shortage Contingency Plan (WSCP) is a strategic plan that the Antelope Valley - East Kern Water Agency uses to prepare for and respond to water shortages.

A water shortage occurs when the water supply available is insufficient to meet the normally expected customer water use at a given point in time. A shortage may occur due to a number of reasons. This includes water supply quality changes, climate change, drought, regional power outages, and catastrophic events (e.g., earthquake). Additionally, the State may declare a statewide drought emergency and mandate that water suppliers reduce demands. The Water Shortage Contingency Plan (WSCP) serves as the operating manual that the Antelope Valley-East Kern Water Agency (AVEK or Agency) will use to prevent catastrophic service disruptions through proactive, rather than reactive, mitigation of water shortages.

This WSCP provides a process for an annual water supply and demand assessment and structured steps designed to respond to actual conditions. This level of detailed planning and preparation provides accountability and predictability to help AVEK maintain reliable supplies and reduce the impact of any supply shortages and/or interruptions.

The WSCP describes the following:

Water Service Reliability Analysis: Summarizes the AVEK water supply analysis and reliability and identifies any key issues that may trigger a shortage condition.

Annual Water Supply and Demand Assessment Procedures: Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage stages and response actions.

Water Shortage Stages: Establishes water shortage stages to clearly identify and prepare for shortages.

Shortage Response Actions: Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand as well as minimize social and economic impacts to the community.

Communication Protocols: Describes communication protocols under each stage to ensure customers, the public, and government agencies are informed of shortage conditions and requirements.

Legal Authority: Lists the legal documents that grant the Agency the authority to declare a water shortage and implement and enforce response actions.

Financial Consequences of WSCP Implementation: Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.

WSCP Refinement Procedures: Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.

Plan Adoption, Submittal, and Availability: Describes the process for the WSCP adoption, submittal, and availability after each revision.

This WSCP was prepared in conjunction with AVEK's 2025 UWMP and is a standalone document that can be modified as needed. This document is compliant with the California Water Code (CWC) Section 10632 and incorporates guidance from the State of California Department of Water Resources (DWR) UWMP Guidebook. The plan is intended to provide guidance, rather than absolute direction, for action in response to water shortages and provide options to responsibly manage water shortages.

2.0 Water Service Reliability Analysis

Water supply reliability reflects the Agency's ability to meet the water needs of its customers with water supplies under varying conditions. The analysis considers plausible hydrological and regulatory variability, climate conditions, and other factors that affect water supply and demand. The following is a concise narrative of the water supply reliability assessment. Chapter 7 of AVEK's 2025 UWMP describes the reliability of the water supply by comparing supply and demand projections through 2050 for normal, single dry, and multiple dry years. The section also assesses the drought risk over the next five years (2026 to 2030) assuming the driest five-year period is repeated over the next five years. Refer to the 2025 UWMP for the full assessment. As demonstrated in this section, AVEK has sufficient supplies to meet demand in normal year and single dry years. AVEK also has sufficient supplies to meet demand during multiple dry years as projected through 2040. Projections extending beyond 2040 have uncertainties and AVEK will continue to monitor demand projections and groundwater banking to assess if efforts to increase storage capacity to meet future demands are necessary.

As a wholesale water supplier, AVEK provides supplemental water to retail water suppliers in the Antelope Valley. AVEK's supplies for this assessment consist of:

- The State Water Project (SWP), which is managed by DWR.
- Antelope Valley Groundwater Basin adjudicated rights, including production rights and imported water return flows, which are managed by the Antelope Valley Groundwater Basin Watermaster.
- Non-SWP water, from a long-term lease for 1,700 acre-feet (AF), even in dry years.

AVEK's water reliability goal is to provide a level of regional water reliability that supports customers' water needs by developing groundwater banking programs to help increase the reliability of the Antelope Valley region's water supplies. This is achieved by storing excess

imported SWP water during wet periods in the local groundwater basin and recovering it for delivery to customers during dry and high-demand periods or during a disruption in deliveries from the SWP.

For the water supply reliability analysis, the following supply availability assumptions were applied for SWP Table A allocation for normal, single dry year, and multiple dry conditions for each of the Agency's supplies:

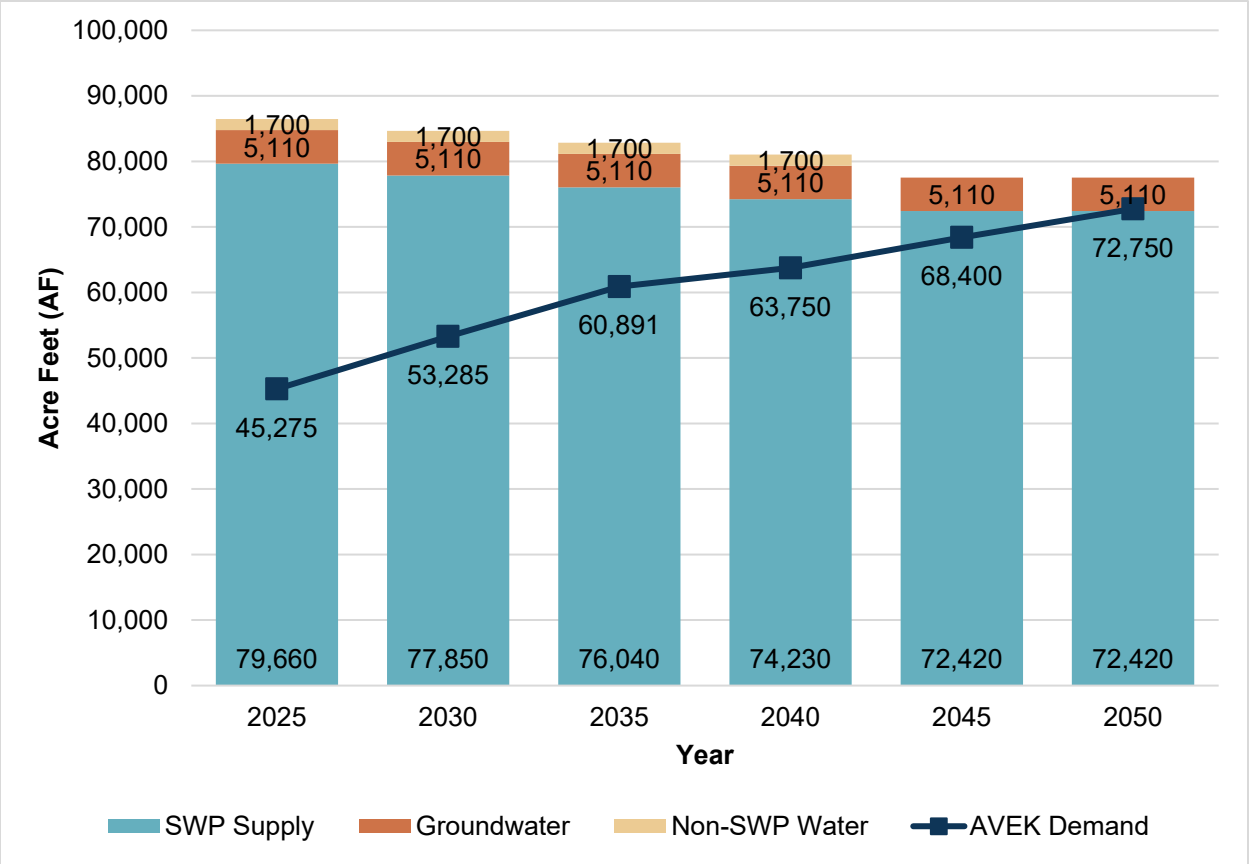
- **Normal Year:** This condition represents a single year or an averaged range of years that most closely represents the average water supply available. An average was used for this analysis.
- **Single Dry Year:** The single dry year is recommended to be the year that represents the lowest water supply available. Historically the lowest allocation was 5%; however, DWR's 2025 SWP Delivery Capability Report (DCR) estimated SWP Table A deliveries reducing from 6% in 2025 to 2% by 2043 (Department of Water Resources, 2025).
- **Multiple Dry Year:** The driest five-year historical sequence for the supplier, which may be the lowest average water supply available for five years in a row. SWP water availability is based on 1929 to 1933 simulated yield from the 2025 DCR for AVEK.

AVEK groundwater supplies are assumed to consist of 3,550 acre-feet per year (AFY) of production rights from the adjudication, and additional 700 AFY of production rights obtained through the purchase of a property from Jane Healy and Healy Enterprises Inc., bringing their total production right to 4,250 AFY. In addition, 860 AFY of imported water return flows based on 2021 to 2025 average return flows. Groundwater rights are not impacted by short-term drought conditions, so normal year groundwater yield assumptions are applied. In years with low SWP Table A allocations, the remainder of demand is met with groundwater bank imported water supplies.

Normal Year

Average SWP Table A allocation is projected to decrease from 55% in 2025 to 50% in 2045. Total normal year AVEK supplies are shown in Figure 2-1. Based on these assumptions, AVEK has sufficient supplies in normal years and could use available supplies to build groundwater storage for dry periods. For example, SWP water could be recharged when available, or unused groundwater rights can be carried over for use in future years.

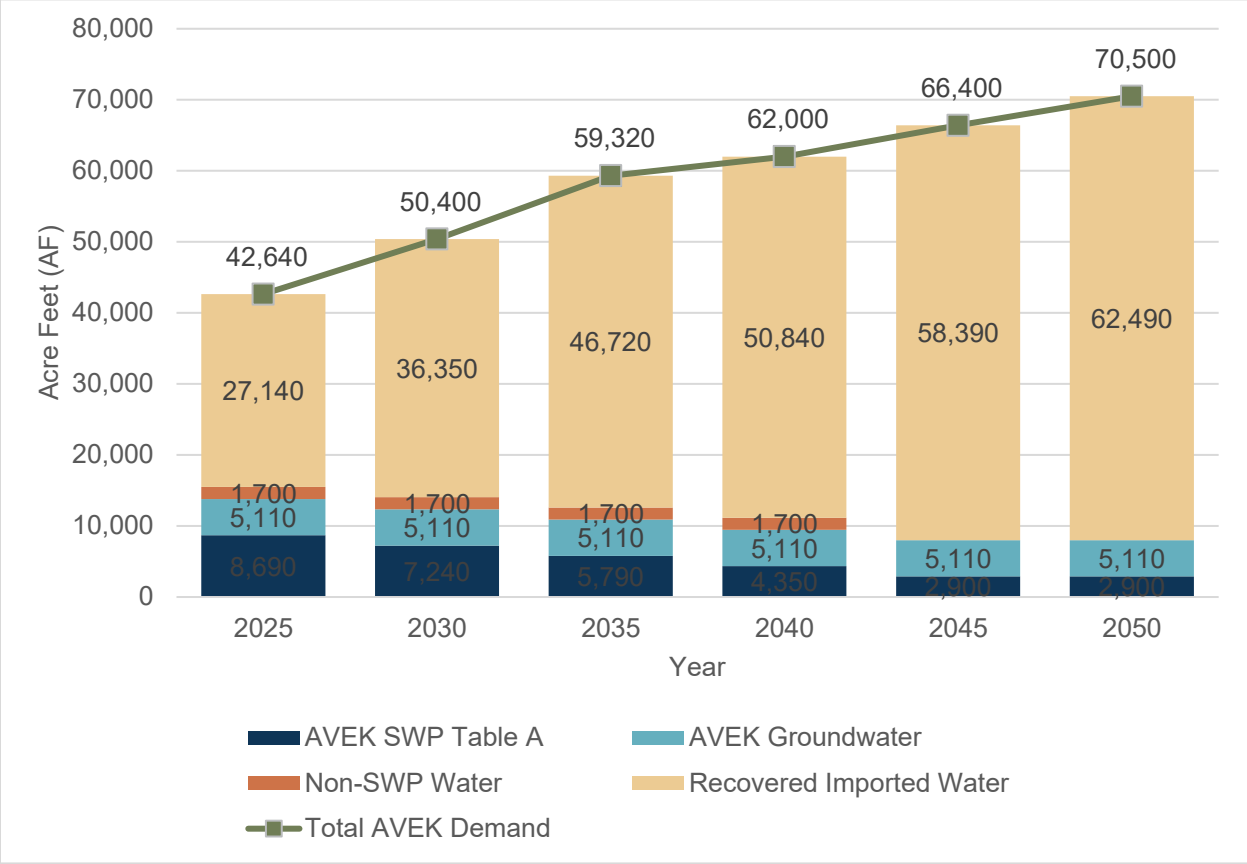
Figure 2-1. AVEK Supply and Demand Projections, Normal Year



Single Dry Year

Single dry year yield for SWP water is based on the 2025 DCR estimated SWP Table A deliveries which are 6% in 2025 and decrease in a straight line regression to 2% by 2045. Groundwater rights and non-SWP water are not impacted by short-term drought conditions, so normal year supply assumptions are applied. The remainder of demand is met with groundwater in storage. As shown in Figure 2-2, recovered imported water from AVEK groundwater banks enable AVEK to meet its demands in a single dry year. During dry years, AVEK does not include supply commitments for replacement water, DWR deliveries, and Tejon demand that is out of the service area, which reduces AVEK's demands during drought conditions

Figure 2-2. AVEK Supply and Demand Projections, Single Dry Year

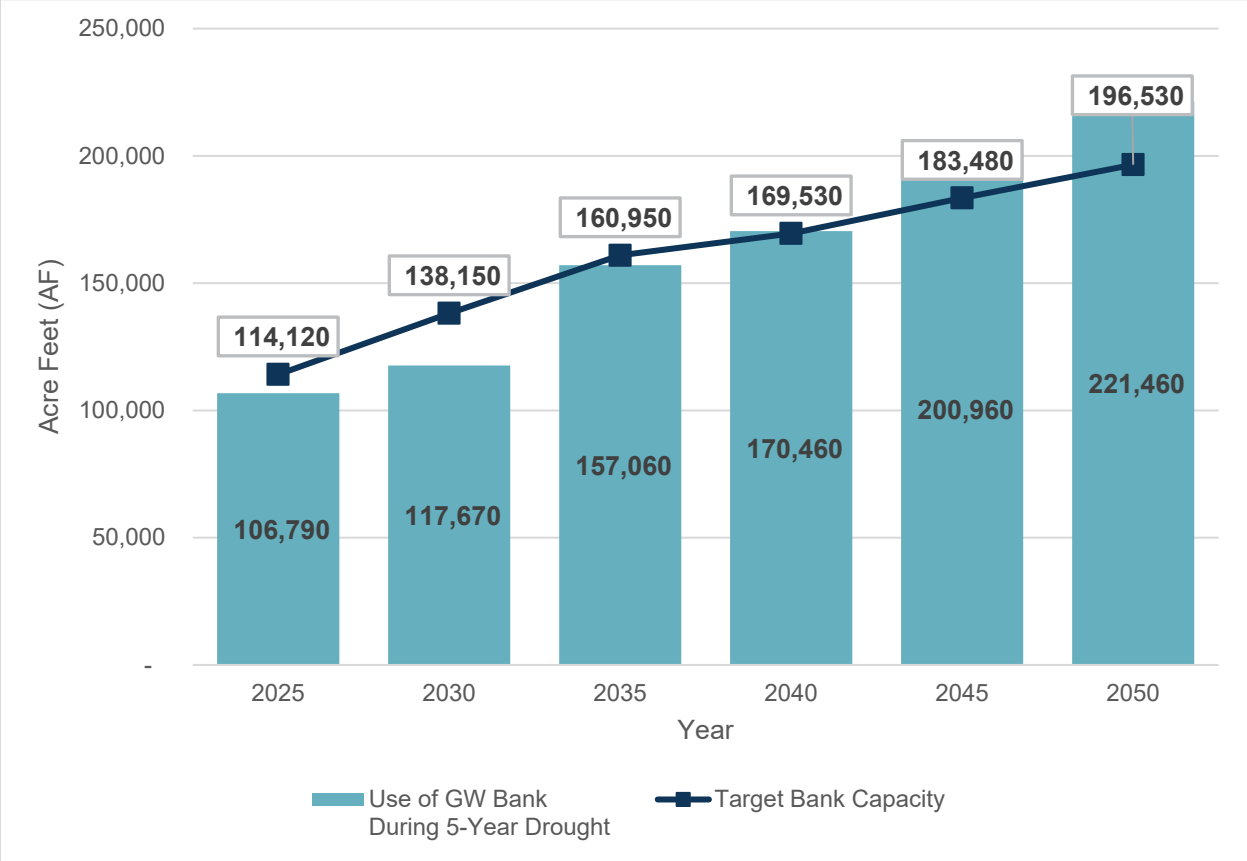


Five Consecutive Dry Years

For multiple dry years, SWP water availability is based on 1929 to 1933 simulated yield from the SWP 2025 DCR for AVEK, which estimated the following annual Table A allocation ranging from 2% to 34%.

Similar to single dry year, groundwater rights and non-SWP water are not impacted by an extended drought, and recovered imported water from AVEK groundwater banks are used to meet remaining demands. Also, AVEK does not include supply commitments for replacement water, DWR deliveries, and Tejon demand that is out of the service area, which reduces AVEK's demands during drought conditions. Figure 2-3 presents the total volume of imported water recovered from AVEK groundwater banks during a multiple-year drought in comparison with the target total storage volume. As shown in the figure, groundwater bank storage capacity is not sufficient in five-year drought conditions projected in 2040 and 2050. Projections extended this far into the future have uncertainties and AVEK will continue to monitor demand projections and groundwater banking storage to assess if efforts to increase storage capacity to meet future demands are necessary.

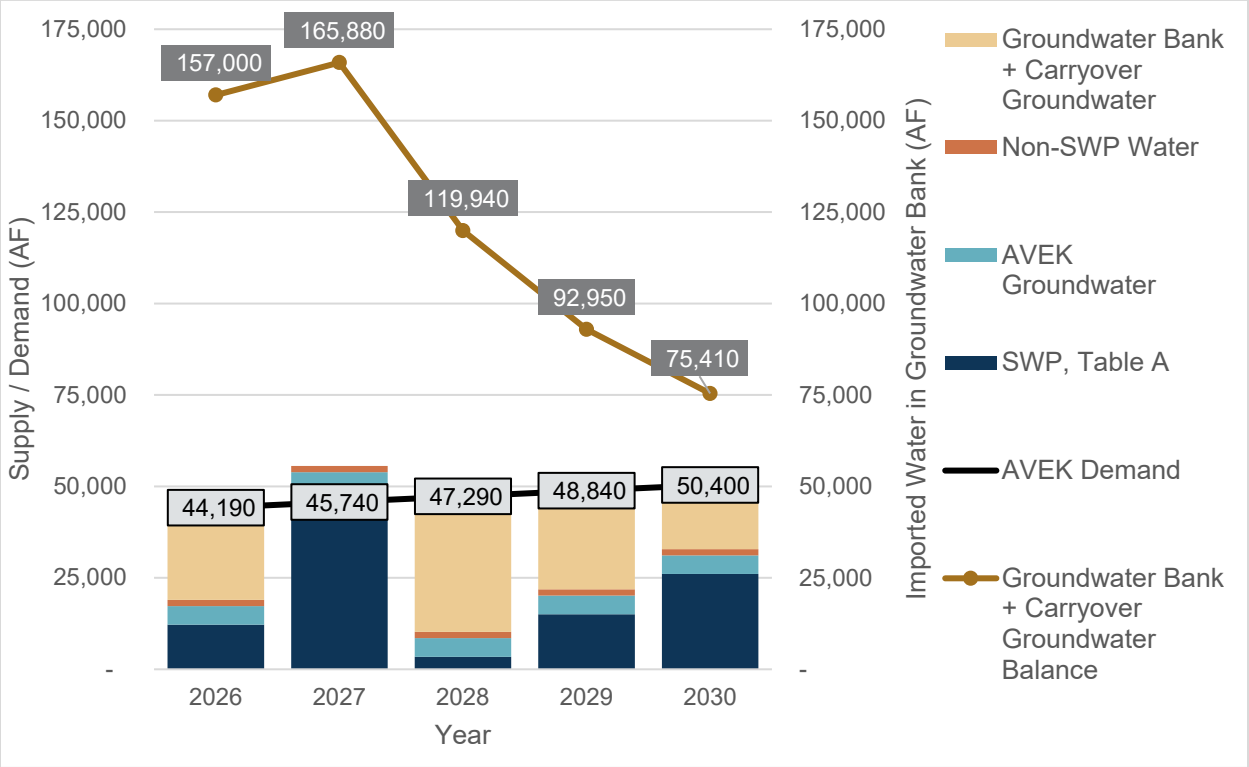
Figure 2-3. AVEK Groundwater Bank Use vs. Storage Capacity during Five Consecutive Dry Years



2026-2030 Drought Risk Assessment

The Drought Risk Assessment for the upcoming five years (2026–2030) is based on the five-year period with the lowest SWP simulated yield from the 2025 DCR (1929–1933). Figure 2-4 presents the projected supplies used to meet demands and the remaining available supply each year. AVEK currently has roughly 155,000 AF of SWP water stored within its groundwater banks for future recovery and a total available stored water supply of 182,700 AF, including groundwater carry over supply (27,200 AF). AVEK is implementing infrastructure projects to expand its capacity to recharge water, recover water, and distribute recovered water. As shown in Figure 2-4, AVEK still would have over 75,000 AF of imported water and groundwater carry over remaining in storage at the end of a five-year drought that starts in 2026.

Figure 2-4. 2026-2030 AVEK Drought Reliability Assessment



3.0 Annual Water Supply and Demand Assessment Procedures

As established by CWC Section 10632.1, urban water suppliers must conduct annual water supply and demand assessments, and submit an annual water shortage assessment report to DWR with information on anticipated shortages, triggered shortage response actions, and compliance and enforcement actions consistent with the WSCP. AVEK must continue preparing its annual water supply and demand assessment and submit an Annual Water Shortage Assessment Report to DWR. The Annual Water Shortage Assessment Report will be due by July 1 of every year.

Per CWC, the annual assessment must include:

- The written decision-making process AVEK will use each year to determine its water supply reliability
- The key data inputs and assessment methodology used to evaluate the supplier's water supply reliability for the current year and one dry year, including:
    - Current year unconstrained demand
    - Current year available supply in the current year and one dry year
    - Existing infrastructure capabilities and plausible constraints
    - A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment
    - A description and quantification of each source of water supply

AVEK regularly assesses its water supply and demands. The following are AVEK's targets and goals when making decisions on managing AVEK's water supplies:

- Storage goals
    - SWP carryover goal of 15,000 to 20,000 AF in the event the following water year is below average or dry.
    - Local groundwater storage goal to have enough local groundwater storage to meet customer demands for three years with a 5% SWP allocation for those three years.
- During the fourth quarter of each year, AVEK requests a five-year demand projection from each of its customers. AVEK uses this information to calculate what the projected annual demand will be for AVEK and tracks the projected versus actual demand to adjust the plan for that year.
- AVEK's General Manager, Assistant General Manager, Water Resources Management, and Operations Manager meet regularly to review the available water supplies and sources, customer demands, and transfer/exchange statuses. Decisions are discussed and made as to which water sources will be used and what facilities will be used to treat/distribute the water to meet the demands of its customers.

4.0 Water Shortage Stages

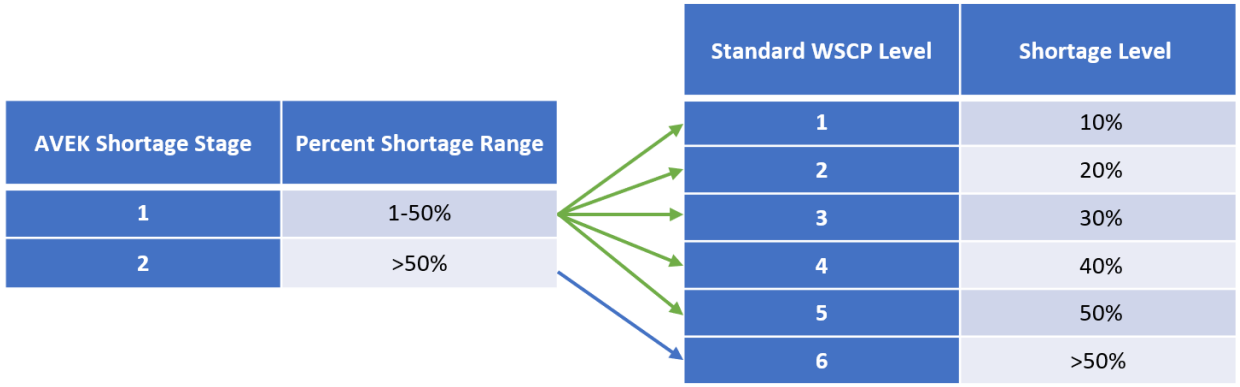
In the event of water supply shortages, the Agency will make water delivery reductions per this WSCP. The stages of action are summarized in Table 4-1. Actions to be taken as a result of a catastrophic water supply shortage are discussed in Section 4.

Table 4-1. WSCP Level (DWR Table 8-1)

Shortage Level	Percent Shortage Range	Water Supply Condition
1	Up to 50%	Reduction in SWP Allocation below Current Demand
2	>50%	Reduction in SWP Allocation below Current Demand or Catastrophic water supply shortage

CWC Section 10632(a)(3)(A) includes six standard water shortage levels corresponding to progressive ranges of up to 10%, 20%, 30%, 40%, and 50% shortages and greater than 50% shortages. If the supplier's water shortage levels do not correspond with the six standard levels, a crosswalk between the supplier's stages and the standard levels is required for compliance, as shown in Figure 4-1.

Figure 4-1. Water Shortage Level Crosswalk



5.0 Shortage Response Actions

CWC Section 10632 (a)(4) requires the WSCP to specify shortage response actions that align with the defined shortage levels. The Agency has defined specific shortage response actions that align with the defined shortage levels in Table 4-1 and Figure 4-1. These shortage response actions were developed with consideration to the system infrastructure and operations changes, supply augmentation responses, customer-class- or water-use-specific demand reduction initiatives, and increasingly stringent water use prohibitions.

5.1 Demand Reduction

Although AVEK does not have the authority to implement consumer-level reduction methods, the Agency has adopted some consumption reduction measures to help retail water suppliers reduce water usage. These are listed in Table 5-1 and described in more detail in the 2025 UWMP Chapter 9, Demand Management Measures.

Table 5-1. Demand Reduction Actions (DWR 8-2)

Shortage Level	Demand Reduction Actions	How Much Is This Going To Reduce The Shortage Gap?	Additional Explanation Or Reference	Penalty, Charge, Or Other Enforcement
All	Expand Public Information Campaign	Up to 50%	Community outreach that includes educational information and water conservation tips	No

Note: Reduction in the shortage gap is estimated and can vary significantly.

5.2 Supply Augmentation

The SWP conveyance infrastructure enables AVEK to convey supplemental water purchases to augment drought year supplies. Refer to the 2025 UWMP Section 6.2.1 for more information on supplemental water purchases and transfers. Supply augmentation actions are described in Table 5-2. These augmentations represent short-term management objectives triggered during a water shortage and do not overlap with the long-term new water supply development or supply reliability enhancement projects.

Table 5-2. Supply Augmentation & Other Actions (DWR 8-3W)

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How Much Is This Going to Reduce the Shortage Gap?	Additional Explanation Or Reference
Agency Discretion	Water Purchases and Transfers	Varying	Supplemental water purchases from SWP

5.3 Emergency Response Plan

AVEK maintains emergency plans for activities required in the event there is an interruption in the SWP water supply or there is a major mechanical or electrical failure in one of the water treatment plants. In September 2020, AVEK adopted an Emergency Response Plan in alignment with America's Water Infrastructure Act of 2018. An Emergency Response Plan describes strategies, resources, plans, and procedures utilities can use to prepare for and respond to an incident, natural or man-made, that threatens life, property, or the environment.

The Antelope Valley Mutual Response Agreement (2021) allows AVEK and other participating water agencies, cities, and municipalities to request assistance in the event of an emergency. The AV MRA recognizes that emergencies may require assistance in the form of personnel, equipment, and supplies from outside the area of an emergency's impact. Members meet regularly to discuss how to coordinate response activities and share resources during emergencies and assist during local emergencies or planned or unplanned outages.

In providing greater water security within the Antelope Valley, AVEK helped to develop a path for emergency response coordination with local mutual water companies. The Emergency Response Agreement with Antelope Valley Mutual Water Companies was executed in 2022.

The AVEK Emergency Response Plan, Antelope Valley Mutual Response Agreement, or Antelope Valley Emergency Response Agreement documents are not attached to this WSCP due to sensitive information included, but key aspects are summarized in this section.

The emergency activities undertaken by AVEK depend upon the severity of the problem and how quickly it can be remedied. Response to a catastrophic event will always include contact and coordination with AVEK's customers. If the emergency can be resolved within the available water storage time frame, only a few of the larger customers need to be notified of the temporary decrease in water supply. If there will be a stoppage in the raw water deliveries to the various water treatment plants, all customers (municipal and industrial; and agriculture) will be notified of the stoppage and how soon water deliveries may be resumed.

Possible catastrophes affecting water supply may include:

- Widespread power outage
- Local earthquake
- Agency treatment plant shutdown due to vital component failure
- Aqueduct failure due to earthquake or other circumstances
- Delta levee failure

In the event of power loss, AVEK has permanent emergency power generation equipment that automatically starts to maintain water treatment operations. In the event of an earthquake, AVEK personnel will survey and assess damage and respond accordingly with shutdowns and repairs. Damaged Agency treatment plant components, whether mechanical or electrical, may be able to be circumvented due to the duplication of pumping and operations systems or the availability of manual override controls.

If raw water deliveries to water treatment plants are temporarily stopped, treated water from other plants may be able to be rerouted to the affected areas via interconnecting pipeline systems. Recovery of previously banked groundwater can be used to supply water in the event of SWP outages. The magnitude of reduced water deliveries and length of time before resumption of full water availability will determine the extent of customer (municipal and industrial; and agriculture) notification and activities required by AVEK staff. In the event of a long-term outage of SWP supplies, AVEK will coordinate with the retail water agencies to develop and implement appropriate regional water conservation measures.

Failure of the aqueduct or Delta levees could result in significant outages and potential interruption in SWP service to AVEK for six months or longer. DWR has estimated that, in the event of a major earthquake in or near the Delta, regular water supply deliveries from the SWP could be interrupted for up to three years, posing a substantial risk to the California business economy. Accordingly, a post-event strategy has been developed which would provide necessary water supply protections. The plan has been coordinated through DWR, the Army Corps of Engineers (Corps), Bureau of Reclamation, California Office of Emergency Services (Cal OES), Metropolitan Water District of Southern California, and State Water Contractors. Full implementation of the plan would enable resumption of at least partial deliveries from the SWP in less than six months.

DWR has developed the Delta Flood Emergency Management Plan to provide strategies for a response to Delta levee failures, addressing a range of failures up to and including earthquake-induced multiple island failures during dry conditions when the volume of flooded islands and saltwater intrusion is large. Under such severe conditions, the plan includes a strategy to establish an emergency freshwater pathway from the central Delta along Middle River and Victoria Canal to the export pumps in the south Delta. The plan includes the pre-positioning of emergency construction materials at existing and new stockpiles and warehouse sites in the Delta, and development of tactical modeling tools (DWR Emergency Response Tool) to predict levee repair logistics, water quality conditions, and timelines of levee repair and suitable water quality to restore exports. The Delta Flood Emergency Management Plan has been extensively coordinated with state, federal, and local emergency response agencies. DWR, in conjunction with local agencies, the Corps, and Cal OES, regularly conducts simulated and field exercises to test and revise the plan under real-time conditions.

DWR and the Corps provide vital Delta region response to flood and earthquake emergencies, complementing an overall Cal OES structure. Cal OES is preparing its Northern California Catastrophic Flood Response Plan, which incorporates the DWR Delta Flood Emergency Management Plan. These agencies use a unified command structure and response and recovery framework. DWR and the Corps, through a Draft Delta Emergency Operations Integration Plan (April 2015), would integrate personnel and resources during emergency operations.

The DWR Delta Levees Subvention Program has prioritized, funded, and implemented levee improvements along the emergency freshwater pathway and other water supply corridors in the central and south Delta region. These efforts have been complementary to the DWR Delta Flood Emergency Management Plan, which, along with use of pre-positioned emergency flood fight materials in the Delta, relies on the pathway and other levees providing reasonable seismic performance to facilitate restoration of the freshwater pathway after a severe earthquake. Together, these two DWR programs have been successful in implementing a coordinated strategy of emergency preparedness for the benefit of SWP and Central Valley Project export systems.

Significant improvements to the central and south Delta levee systems along the Old and Middle Rivers began in 2010 and are continuing to the present time at Holland Island, Bacon Island,

Upper and Lower Jones Tracts, Palm Tract, and Orwood Tract. This complements substantially improved levees at Mandeville and McDonald Islands and portions of Victoria and Union Islands. Together, levee improvements along the pathway and Old River levees consisting of crest raising, crest widening, landside slope fill, and toe berms meet the needs of local reclamation districts and substantially improve seismic stability to reduce levee slumping and create a more robust flood-fighting platform.

5.4 Seismic Risk Assessment and Mitigation Plan

AVEK completed a Risk and Resilience Assessment (R.E. Patterson and Associates, March 2020) in 2020 in alignment with America's Water Infrastructure Act of 2018 and conducted a focused seismic assessment as part of the 2020 AVEK Water System Master Plan (Carollo, 2020). These documents, along with the AVEK Emergency Response Plan, Antelope Valley Mutual Response Agreement, and Antelope Valley Emergency Response Agreement documents, (discussed in the previous section) address the risk assessment and emergency response requirements for UWMPs in the water code.

6.0 Communication Protocols

AVEK strives to be proactive in communicating work strategy and conservation efforts with its retail customers. To support these efforts, AVEK developed a Strategic Communications Plan in 2020. For water shortages, AVEK would focus on key stakeholders, which include AVEK customers (public agencies, agricultural entities, water purveyors, and individuals), agency directors and staff, and State Water Contractors. AVEK would also engage with secondary stakeholders, such as constituents, government agencies (local, state, and federal), and elected officials (local, state, and federal).

Engagement would occur through owned media and earned media. Owned media is any communication channel that the Agency has control over, such as its website, social media pages, newsletters, or e-mail outreach. Owned media can be used to disseminate information and resonate messages.

The following media outlets have been identified and prioritized:

- Website, including news bulletins, press releases, news stories, and newsletter
- Newsletter
- Videos and photos
- Social media channels, including Facebook, X (formerly Twitter), and LinkedIn

In addition, AVEK would emphasize water shortage conditions and measures at events. Earned media refers to publicity that is gained through unpaid promotional efforts, such as press placements or social media content shared by others. The Agency maintains a media distribution list.

7.0 Legal Authority

In the event of water supply shortages, the Agency will make water delivery reductions per the Agency law for allocations and the Agency's water shortage contingency ordinance (Ordinance O-07-2), which is included in Attachment A.

AVEK can declare a water shortage emergency in accordance with CWC Chapter 3 (commencing with Section 350) of Division 1 general provision regarding water shortage emergencies. AVEK will coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558).

8.0 Financial Consequences of WSCP Implementation

Revenues collected by the Agency are currently used to fund operation and maintenance of the existing facilities and fund new capital improvements. In dry years, the Agency will estimate a projected range of water sales versus shortage stage to quantify the impact the shortage stage may have on projected revenues and expenses.

Revenue reductions and an increase in expenses may occur during implementation of the Water Shortage Contingency Plan. The magnitude of the revenue reduction and expenditure increase will depend on the severity of the shortage. In some cases, AVEK may be able to absorb the revenue shortfall/expenditure increase by reallocating existing funds, such as delaying some capital projects. For more severe events, the Agency may enact a rate adjustment to its customers.

9.0 WSCP Refinement Procedures

AVEK intends to use this WSCP as an adaptive management plan to respond to foreseeable and unforeseeable water shortages. The WSCP is used to provide guidance to the Agency, its staff, and the public by identifying response actions to allow for efficient management of any water shortage with predictability and accountability. To maintain a useful and efficient standard of practice in water shortage conditions, the requirements, criteria, and response actions need to be continuously evaluated and improved upon to make sure the WSCP provides the tools to maintain reliable supplies and reduce the impacts of supply shortages.

AVEK deliveries are entirely metered. The meter readings will be used to monitor the actual reductions in deliveries to AVEK's customers in accordance with the water shortage contingency plan to measure effectiveness of implemented strategies.

10.0 Plan Adoption, Submittal, and Availability

AVEK made the 2025 UWMP and WSCP available for public review on May 26, 2026, and held public hearing on June 9, 2026. The notice to the public was made once a week for two successive weeks. The public hearing was first noticed in the Valley Press on May 27, 2026 and noticed again on June 3, 2026. The hearing notices are attached as Attachment B. Prior to the public hearing, AVEK maintained a copy of the WSCP in its office and on the Agency's website at www.avek.org.

The WSCP was included as a separate agenda item, noticed, and reviewed in a public hearing at the regularly scheduled AVEK Board of Directors meeting on June 9, 2026. This hearing provided cities, counties, and members of the public a chance to review the report and provide comment. The public hearing took place before the adoption, allowing opportunity for the report to be modified in response to public input.

The WSCP was adopted by AVEK's Board of Directors on June 9, 2026. A copy of the Resolution of Adoption is included as Attachment C.

The WSCP was submitted to DWR through the Water Use Efficiency Data portal before the deadline of July 1, 2026.

If AVEK identifies the need to amend this WSCP, it will follow the same procedures for notification to cities, counties, and the public as used for the initial adoption of the WSCP.

The WSCP also will be posted on the Agency's website at www.avek.org.

References

Carollo. (2020). *Draft AVEK Water System Master Plan.*

Department of Water Resources. (2025). *The State Water Project Draft Delivery Capability Report 2025.*

R.E. Patterson and Associates. (March 2020). *AVEK Risk and Resilience Assessment.*

Attachment A – AVEK Water Shortage Contingency Ordinance

1

ORDINANCE O-07-2: AVEK WATER SHORTAGE CONTINGENCY PLAN

ANTELOPE VALLEY-EAST KERN WATER AGENCY
ORDINANCE NO. O-07-2

AN ORDINANCE OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY TO ADOPT A WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the Board of Directors of the Antelope Valley-East Kern Water Agency ("AVEK") hereby finds:

I.
RECITALS

WHEREAS, the Antelope Valley-East Kern Water Agency was formed in 1959 by an act of the State Legislature. AVEK's powers, duties, authorities and other matters are set forth in its enabling act, which is codified at California Water Code, Uncodified Acts, Act 9095 (the "AVEK Enabling Act"); and

WHEREAS, AVEK's jurisdictional boundaries cover portions of three counties, Los Angeles, Ventura County and Kern County, and is more particularly described in Appendix E in the 2005 Urban Water Management Plan ("AVEK's Jurisdictional Boundaries"); and

WHEREAS, AVEK was formed for the purpose of providing water received from the State Water Project ("SWP") as a supplemental source of water to retail water purveyors and other water interests with AVEK's Jurisdictional Boundaries on a wholesale basis; and

WHEREAS, in order to effectuate the above-referenced purpose, AVEK, among other things, entered into a contract with the Department of Water Resources ("DWR"), which operates the SWP, in order for AVEK to receive water from the SWP ("SWP Water"); and

WHEREAS, AVEK has entered into contracts with various retail purveyors and other water interests in AVEK's Jurisdictional Boundaries that govern AVEK's delivery of SWP Water to those purveyors and other water interests (the "AVEK's Water Supply Contracts"). Article 19 in those contracts provides that "substantial uniformity" in those contracts is "desirable" and that AVEK will attempt to maintain such "uniformity" between such contracts; and

WHEREAS, AVEK does not provide SWP Water directly to any person or entity for domestic or municipal purposes; and

WHEREAS, AVEK does not own or operate any facilities that can produce reclaimed water or native groundwater from any area in AVEK's Jurisdictional Boundaries, and neither does AVEK possess any contractual right or matured water right to produce such waters; and

WHEREAS, the Urban Water Management Planning Act, California Water Code Section 10610 *et seq.* ("UWMP Act") provides that urban water management plans shall include a resolution or ordinance by the supplier that sets forth a water shortage contingency plan; and

WHEREAS, Section 61.1 of t he AVEK Enabling Act sets forth guiding principles for AVEK's distribution of SWP Water, which principles can be drawn upon in allocating such water in times of shortage (the provisions of Section 61.1 of the AVEK Enabling Act are set forth in Exhibit A to this Ordinance); and

WHEREAS, real property related taxes have been paid to AVEK since 1959 by entities in AVEK's Jurisdictional Boundaries.

WHEREAS, AVEK has circulated drafts of its proposed 2005 UWMP and the water shortage contingency plan set forth in this Ordinance ("WSC Plan") to the public for review and comment; and

WHEREAS, AVEK's Board of Directors ("AVEK Board") held duly noticed public hearings on its proposed 2005 UWMP on November 15, 2005 and December 20, 2005, and a public meeting on the WSC Plan on December 20. 2005; and

WHEREAS, the AVEK Board received written and verbal testimony and evidence from the public and others concerning its proposed 2005 UWMP and WSC Plan.

II.
FINDINGS

THEREFORE, AVEK finds as follows:

1. AVEK finds that there is a need to adopt a water shortage contingency plan given, among other things, the requirements of the UWMP Act and the potential that the amount of SWP Water made available to AVEK by DWR may not satisfy the demands for SWP Water by AVEK's customers (even though such demand for SWP water has only exceeded the available supply of SWP Water once since AVEK was formed).

2. The WSC Plan complies with all applicable laws and regulations, including but not limited to the UWMP Act, the AVEK Enabling Act, and the Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan issued by

DWR and dated as of January 18, 2005.

3. AVEK finds that the WSC Plan is fair and equitable.

4. The WSC Plan is consistent with the intent and terms of the AVEK's Water Supply Agreement and the AVEK Enabling Act.

5. Each of the recitals contained in the Ordinance is approved as a finding of fact.

III.
ADOPTION OF WATER SHORTAGE CONTINGENCY PLAN

Therefore, be it resolved and ordained by the AVEK Board as follows:

1. AVEK adopts a WSC Plan that would be implemented when the aggregate amount of SWP Water reasonably ordered by AVEK's customers in any water year exceeds the amount of SWP Water that DWR makes available to AVEK on that same water year (a "SWP Water Shortage Year"). When that contingency occurs (which contingency will be deemed to occur under both stages listed in Appendix 1 hereto), AVEK plans to allocate that amount of available SWP Water as follows:

(a) The available SWP Water shall first be allocated per each county (the "County Allocation of SWP Water") in AVEK's Jurisdictional Boundaries based on a running historical average of the amount of taxes paid to AVEK by entities in each particular county since the formation of AVEK in 1959. (Attached as Exhibit B to this Ordinance is the historical amount of such taxes paid by county through June 30, 2005.) AVEK shall annually update and publish that running historical average of taxes paid to AVEK by county.

(b) Each County's Allocation of SWP Water shall be further allocated to each AVEK customer within that particular county based on its average annual percentage of SWP Water received in the two water years prior to the SWP Water Shortage Year relative to the amount of SWP Water received by all other AVEK customers in that particular county in those two prior water years. (For illustrative purposes, attached as Exhibit C to this Ordinance is a list of such relative percentages by AVEK customers by county for 2004.)

(c) In determining the amount of SWP Water that should be delivered by AVEK to any customer in any SWP Water Shortage Year, AVEK will fill orders for SWP Water that will be used by the AVEK customer(s) for consumptive or agricultural uses in

that same water year prior to filling any order for SWP Water that would be used by an AVEK customer for banking or storage purposes.

(d) AVEK reserves the right to allocate SWP Water that it receives from DWR in a SWP Water Shortage Year in a manner that differs from the provisions of this WSC Plan based on a finding by the AVEK Board of unique or unusual circumstances or needs.

This Ordinance shall be in full force and effect upon the date of adoption, and shall be published in full in a newspaper of general circulation within ten (10) days from the date of adoption.

Passed and adopted this 19th day of June, 2007, by the following vote:

AYES: 6 **NOES:** 0 **ABSENT:** 1 **ABSTAIN:** 0

Andy D. Rutledge, President
Board of Directors
Antelope Valley-East Kern Water Agency

ATTEST: _____ **Agency Secretary**

EXHIBIT A

§ 61.1 Distribution and apportionment of water purchased from State, etc. The agency shall whenever practicable, distribute and apportion the water purchased from the State of California or water obtained from any other source as equitably as possible on the basis of total payment by a district or geographical area within the agency regardless of its present status, of taxes, in relation that such payment bears to the total taxes and assessments collected from all other areas. It is the intent of this section to assure each area or district its fair share of water based upon the amounts paid into the agency, as they bear relation to the total amount collected by the agency.

EXHIBIT B

AVEK Water Agency
Taxes Collected from Inception through 06/30/07

Description	Los Angelas City Taxes collected by Fiscal Year	Kern Cty Taxes collected by Fiscal Year	Ventura County Taxes collected by Fiscal Year	TOTALS
FYE 06/30/1961	58,306.69	20,846.13		79,152.82
FYE 06/30/1962	55,138.24	19,372.90		74,511.14
FYE 06/30/1963	156,220.27	53,906.15		210,126.42
FYE 06/30/1964	221,396.82	81,444.27		302,841.09
FYE 06/30/1965	174,560.93	69,835.70		244,396.63
FYE 06/30/1966	195,498.90	97,105.93		292,604.83
FYE 06/30/1967	417,054.54	234,620.40	201.75	651,876.69
FYE 06/30/1968	787,195.00	371,132.00	3,066.00	1,161,393.00
FYE 06/30/1969	969,673.00	396,253.00	3,319.00	1,369,245.00
FYE 06/30/1970	1,227,682.00	547,964.00	4,642.00	1,780,288.00
FYE 06/30/1971	1,233,111.00	600,115.00	3,555.00	1,836,781.00
FYE 06/30/1972	1,825,460.00	854,406.00	4,560.00	2,684,426.00
FYE 06/30/1973	1,948,561.00	862,025.00	2,512.00	2,813,098.00
FYE 06/30/1974	2,047,586.00	806,490.00	2,309.00	2,856,385.00
FYE 06/30/1975	2,586,924.00	890,533.00	9,396.00	3,486,853.00
FYE 06/30/1976	2,029,787.00	862,676.00	3,821.00	2,896,284.00
FYE 06/30/1977	1,720,809.00	721,466.00	3,770.00	2,446,045.00
FYE 06/30/1978	1,607,785.00	774,212.00	5,121.00	2,387,118.00
FYE 06/30/1979	1,784,843.00	997,363.00	3,663.00	2,785,669.00
FYE 06/30/1980	4,171,081.00	892,189.00	3,511.00	5,066,781.00
FYE 06/30/1981	4,995,491.00	1,351,056.00	4,834.00	6,351,381.00
FYE 06/30/1982	3,115,496.00	1,222,927.00	6,544.00	4,344,967.00
FYE 06/30/1983	4,311,370.00	1,722,635.00	8,196.00	6,042,201.00
FYE 06/30/1984	5,689,690.00	1,501,127.00	4,279.00	7,195,096.00
FYE 06/30/1985	9,769,574.00	3,575,437.00	18,208.00	13,363,219.00
FYE 06/30/1986	12,776,020.00	3,633,507.00	13,154.00	16,422,681.00
FYE 06/30/1987	12,730,936.00	3,073,228.00	10,767.00	15,814,931.00
FYE 06/30/1988	12,076,802.00	2,805,666.00	5,427.00	14,887,895.00
FYE 06/30/1989	13,700,634.00	2,928,709.00	48,066.00	16,677,409.00
FYE 06/30/1990	16,387,060.00	2,924,143.00	3,950.00	19,315,153.00
FYE 06/30/1991	14,757,446.00	3,236,690.00	0	17,994,136.00
FYE 06/30/1992	14,730,588.00	2,987,854.00	722.00	17,719,164.00
FYE 06/30/1993	14,795,789.00	2,895,327.00	722.00	17,691,838.00
FYE 06/30/1994	10,374,526.00	2,408,372.00	732.00	12,783,630.00
FYE 06/30/1995	11,757,593.00	2,215,878.00	747.00	13,974,218.00
FYE 06/30/1996	11,705,148.00	1,445,898.00	730.00	13,151,776.00
FYE 06/30/1997	9,078,884.00	1,843,601.00	721.00	10,923,206.00
FYE 06/30/1998	10,297,806.00	1,890,125.00	734.00	12,188,667.00
FYE 06/30/1999	8,893,825.00	2,623,064.00	674.00	11,517,563.00
FYE 06/30/2000	15,687,808.00	2,094,870.00	676.00	17,783,352.00
FYE 06/30/2001	10,233,359.00	2,184,568.00	685.00	12,418,602.00
FYE 06/30/2002	10,098,249.00	2,069,703.00	353.00	12,168,305.00
FYE 06/30/2003	10,853,001.00	3,394,512.00	269.00	14,247,782.00
FYE 06/30/2004	12,011,832.00	1,987,130.00	280.00	13,999,242.00
FYE 06/30/2005	12,275,847.00	2,290,255.00	0.00	14,566,102.00
FYE 06/30/2006	12,375,800.89	2,467,682.61	0.00	14,843,483.50
FYE 06/30/2007	12,548,965.69	2,783,514.23	260.29	15,332,740.21
FYE 06/30/2008	13,061,271.22	3,259,389.60	263.62	16,320,924.44
FYE 06/30/2009	14,660,938.81	3,615,857.26	269.44	18,277,065.51
FYE 06/30/2010	11,621,708.76	3,347,303.49	230.39	14,969,242.64
	362,591,932.76	86,933,874.67	166,040.49	448,711,847.92

EXHIBIT C

Kern County	%
Billiton Exploration U.S.A.	0.24
Boron CSD	4.66
City of California City	9.88
Desert Lake CSD	1.47
Desert Sage Apartments	0.09
Edgemont Acres MWC	0.31
Edwards AFB	37.79
Mojave Public Utility District	1.01
Rosamond CSD	17.88
US Borax	26.67

Los Angeles County	%
Antelope Valley Country Club	0.35
California Water Service Co	0.58
Landale MWC	0.13
Los Angeles County Waterworks Districts	84.98
Palm Ranch Irrigation District	0.71
Quartz Hill Water District	8.42
Shadow Acres MWC	0.61
Sunnyside Farms MWC	0.59
White Fence Farms MWC	1.71
Lake Elizabeth MWC	1.91

Appendix 1 to the Water Shortage Contingency Plan

Water Supply Shortage Stages and Conditions

Stage No.	Water Supply Conditions	% Shortage
1	Reduction in SWP Allocation Below Current Demand	1 %
2	Reduction in SWP Allocation Below Current Demand	50%

Attachment B – Notifications and Notification List

[Will be attached to Final Document]

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Attachment C – Resolution of Adoption

[Will be attached to Final Document]

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