

ANTELOPE VALLEY-EAST KERN WATER AGENCY

2021 Water Shortage Contingency Plan

AUGUST 2021



Prepared by Water Systems Consulting, Inc.



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Water Shortage Contingency Plan

This WSCP is a detailed plan for 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 Water Shortage Contingency Plan (WSCP) is used to provide guidance by identifying response actions to allow for efficient management of any water shortage with predictability and accountability. The tools in the WSCP enable the Antelope Valley-East Kern Water Agency (AVEK or Agency) to maintain reliable supplies and reduce the impact of supply interruptions due to extended drought or catastrophic supply interruptions.

The WSCP describes the following:

- **Water supply 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 levels and response actions.
- **Standard 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 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 ordinance that grants AVEK 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 2020 Urban Water Management Plan (UWMP) and is a stand-alone document that can be modified as needed. This document is compliant with 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.

1.1 Water Supply Reliability

Water supply reliability reflects the Agency's ability to meet the water needs of its retailers 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 2020 UWMP describes the reliability of the water supply by comparing supply and demand projections through 2045 for normal, single dry, and multiple dry years. The section also assesses the drought risk over the next five years (2021 to 2025) assuming the driest five-year period is repeated over the next five years. Refer to the 2020 UWMP for the full assessment. As demonstrated in this section, AVEK has sufficient supplies to meet demand in normal year, single dry, and multiple dry years.

As a wholesale water supplier, AVEK provides 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 2017 long-term lease for 1,700 acre-feet, 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 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 City's supplies:

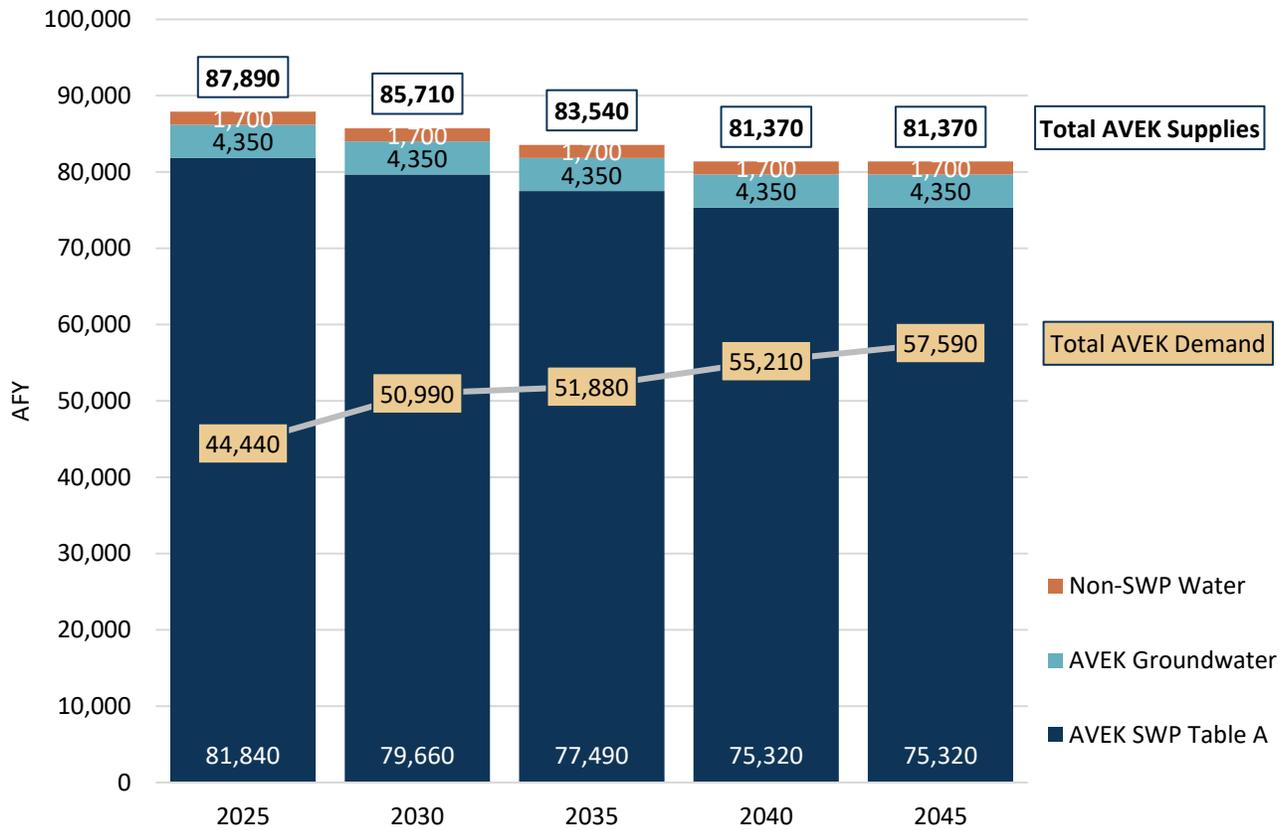
- **Normal Year:** Average yield based on DWR 2019 SWP Delivery Capability Report (DCR) (California Department of Water Resources 2020).
- **Single Dry Year:** The lowest Table A allocation was 5% in 2014 and 2021 (as of June 2021).
- **Multiple Dry Year:** The five-year historical sequence with the lowest available supply in the 2019 DCR was 1988 to 1992.

AVEK groundwater supplies are assumed to consist of 3,550 acre-feet per year (AFY) of production rights from the adjudication and 800 AFY of imported water return flows based on 2016 to 2020 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 supplies.

1.1.1 Normal Year

Average SWP Table A allocation is projected to decrease from 58% in 2020 to 52% in 2040 (California Department of Water Resources, 2020). Total normal year AVEK supplies are shown in **Figure 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.

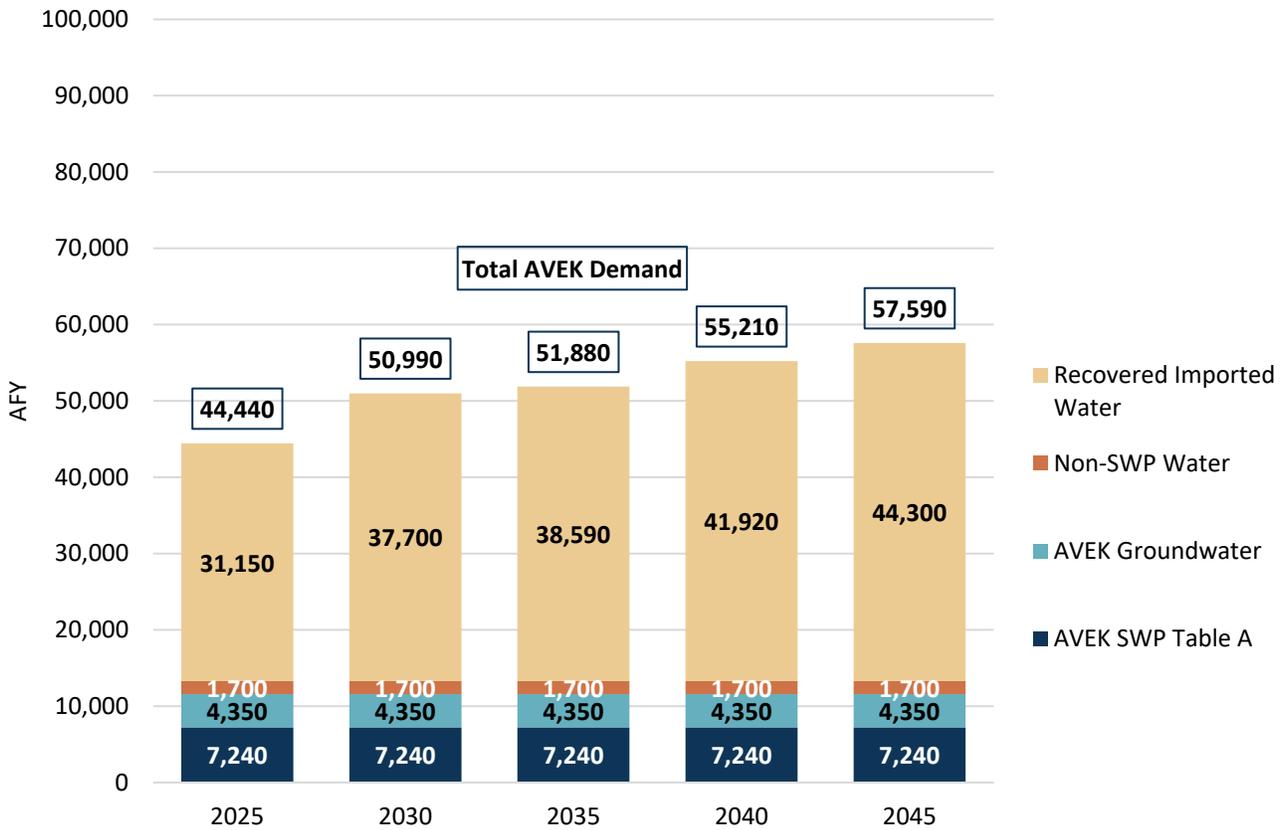
Figure 1. AVEK Supply and Demand Projections, Normal Year



1.1.2 Single Dry Year

Single dry year yield for SWP water is based on actual 2014 and 2021 allocations (as of June 2021) of 5%. 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**, recovered imported water from AVEK groundwater banks enable AVEK to meet its demands in a single dry year.

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



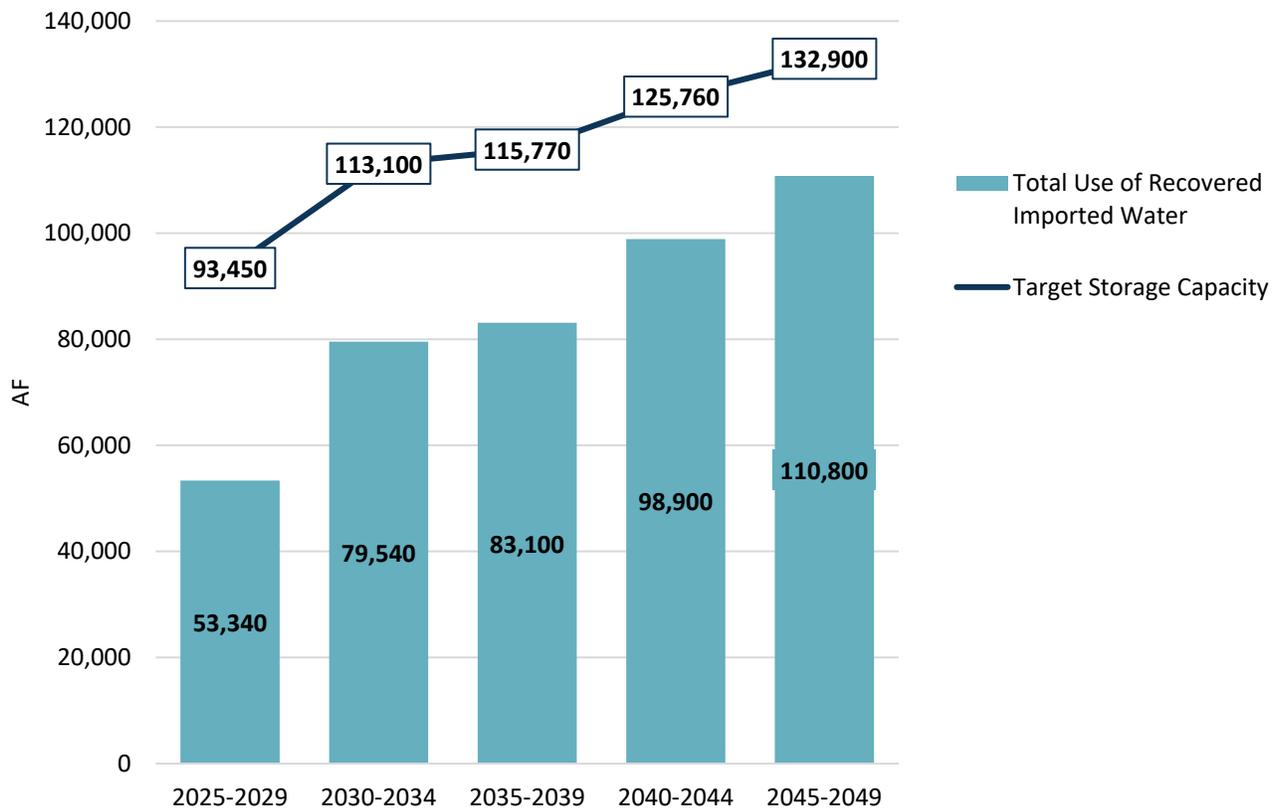
1.1.3 Five Consecutive Dry Years

For multiple dry years, SWP water availability is based on the five-year period with the lowest SWP simulated yield from the 2019 SWP DCR (1988–1992) and the following annual Table A allocation:

- **Year 1 (1988)** 12.3%
- **Year 2 (1989)** 32.2%
- **Year 3 (1990)** 13.3%
- **Year 4 (1991)** 25.6%
- **Year 5 (1992)** 18.0%

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 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, additional recovery of imported water from AVEK groundwater banks would be available if the five-year drought continued.

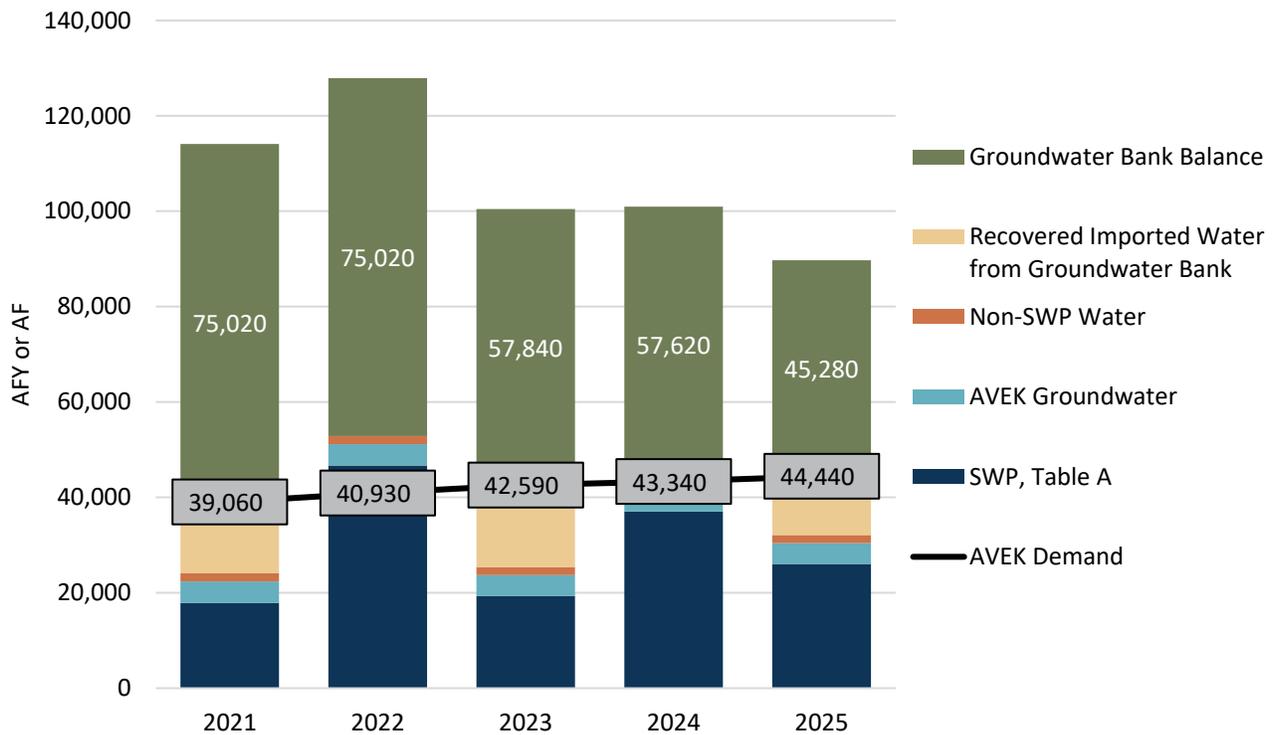
Figure 3. AVEK Groundwater Bank Use vs. Storage Capacity during Five Consecutive Dry Years



1.1.4 2021-2025 Drought Risk Assessment

The Drought Risk Assessment for the upcoming five years (2021–2025) is based on the five-year period with the lowest SWP simulated yield from the 2019 SWP DCR (1988–1992). **Figure 4** presents the projected supplies used to meet demands and the remaining available supply each year. AVEK currently has roughly 90,000 acre-feet (AF) of imported 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 the figure, AVEK still would have over 45,000 AF of imported water remaining in storage at the end of a five-year drought that starts in 2021.

Figure 4. 2021–2025 AVEK Drought Reliability Assessment



1.2 Annual Water Supply and Demand Assessment

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. Beginning July 1, 2022, AVEK must prepare 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 assess 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 10% 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 Manager, 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.

1.3 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 1**. Actions to be taken as a result of a catastrophic water supply shortage are discussed in **Section 1.4.4**.

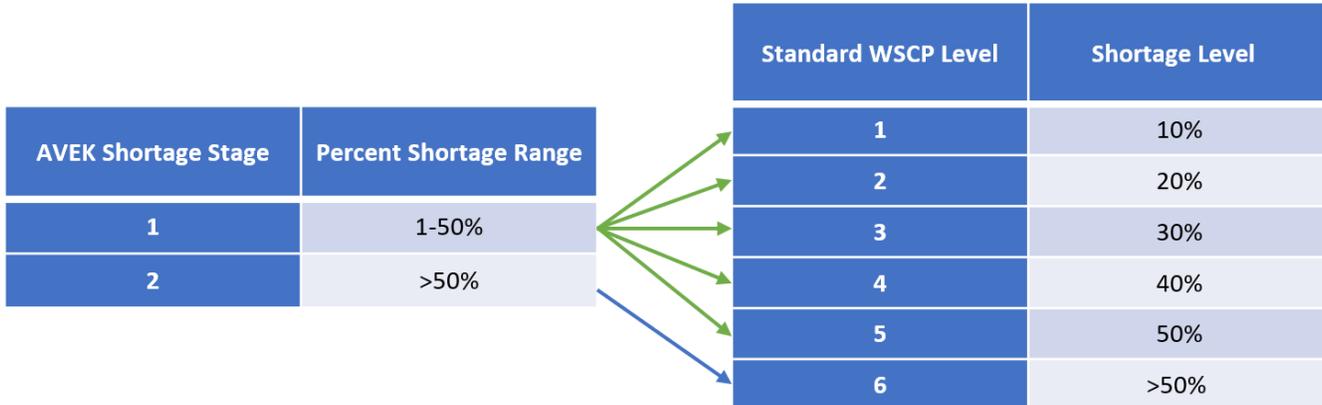
Table 1. WSCP Levels (DWR Table 8-1)

Shortage Level	Percent Shortage Range (Numerical Value as a Percent)	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

1.3.1 Standard Water Shortage Level Crosswalk

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 5**.

Figure 5. Water Shortage Level Crosswalk



1.4 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 1** and **Figure 5**. 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.

1.4.1 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 2** and described in more detail in the 2020 UWMP Chapter 9, Demand Management Measures.

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

SHORTAGE LEVEL	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP? ¹	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:

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

1.4.2 Supply Augmentation

The SWP conveyance infrastructure enables AVEK to convey supplemental water purchases to augment drought year supplies. Refer to the 2020 UWMP Section 6.2 for more information on supplemental water purchases and transfers. Supply augmentation actions are described in **Table 3**. 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 3. 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

1.4.3 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 (ERP) in alignment with America’s Water Infrastructure Act of 2018. An ERP describes strategies, resources, plans, and procedures

Water Shortage Contingency Plan

utilities can use to prepare for and respond to an incident, natural or man-made, that threatens life, property, or the environment. The ERP is 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 (M&I) 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 (M&I 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.

Water Shortage Contingency Plan

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 (CVP) 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.

1.4.4 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, September 2020). These documents, along with the AVEK ERP (discussed in the previous section) address the risk assessment and emergency response requirements for UWMPs in the water code.

1.5 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, 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.

1.6 Legal Authorities

In the event of water supply shortages, the Agency will make water delivery reduction per the Agency law for allocations and the Agency's water shortage contingency ordinance (Ordinance O-07-2), which is included in **Attachment 1**.

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).

1.7 Financial Consequences of WSCP

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.

1.8 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.

1.9 Plan Adoption, Submittal, and Availability

Per CWC Section 10632 (a)(c), AVEK sent letters of notification of preparation of the 2021 WSCP to all necessary cities, counties, retail water agencies, and interested parties within its service areas 60 days prior to the public hearing. Copies of the notification letter and distributions list is included in **Attachment 2**. AVEK made the draft 2021 WSCP available for public review and held a public hearing on June 8, 2021. The notice of the public review hearing (**Attachment 2**) was advertised in the Valley Press on May 26, 2021 and June 2, 2021. The 2020 UWMP, 2021 WSCP, and 2015 UWMP addendum were adopted by AVEK's Board of Directors on June 22, 2021. A copy of the Resolution of Adoption is included as Attachment 3.

Once the 2021 WSCP is adopted, a copy will be submitted to the California State Library, DWR, and all cities and counties within 30 days of adoption. The Agency will also have a physical copy of the 2021 WSCP available for public review at the AVEK Office (see address below) during normal business hours.

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

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

Based on DWR's review of the WSCP, AVEK may make any amendments in its adopted WSCP as required and directed by DWR. If AVEK revises its WSCP after it is approved by DWR, an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

1.10 References

California Department of Water Resources. (2020). *2019 State Water Project Delivery Capability Report*.

Carollo. (September 2020). *DRAFT AVEK Water System Master Plan*.

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

1

Attachment 1: AVEK Water Shortage Contingency Ordinance

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 the 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 Angeles City	Kern Cty	Ventura County	TOTALS
	Taxes collected by Fiscal Year	Taxes collected by Fiscal Year	Taxes collected by Fiscal Year	
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	53,806.15		210,026.42
FYE 06/30/1964	221,386.82	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	87,105.93		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	854,408.00	4,560.00	2,684,426.00
FYE 06/30/1973	1,848,561.00	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	9,386.00	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	997,383.00	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	4,854.00	6,351,381.00
FYE 06/30/1982	3,115,496.00	1,222,927.00	6,514.00	4,344,967.00
FYE 06/30/1983	4,311,370.00	1,722,635.00	8,186.00	6,042,201.00
FYE 06/30/1984	6,689,690.00	1,501,127.00	4,279.00	7,195,096.00
FYE 06/30/1985	9,769,574.00	3,575,437.00	13,208.00	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	12,790,936.00	3,073,228.00	10,767.00	15,874,931.00
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	2,921,143.00	3,950.00	19,311,153.00
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	2,887,854.00	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	10,374,528.00	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	10,297,808.00	1,800,125.00	734.00	12,108,667.00
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	2,084,870.00	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	14,860,938.81	3,615,857.26	269.44	18,277,065.51
FYE 06/30/2010	11,821,706.76	3,347,303.49	230.39	14,999,242.64
	<u>362,591,932.76</u>	<u>86,933,874.67</u>	<u>186,040.49</u>	<u>448,711,847.92</u>

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%

2

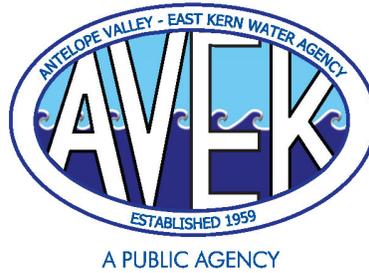
Attachment 2: Notifications and Notification List

OFFICERS

DWAYNE CHISAM, P.E.
General Manager
and Chief Engineer

MATTHEW KNUDSON
Assistant General Manager

HOLLY H. HUGHES
Secretary-Treasurer

BOARD OF DIRECTORS

KEITH DYAS
Division 2
President

FRANK S. DONATO
Division 3
Vice President

SHELLEY SORSABAL
Division 1

GEORGE M. LANE
Division 4

ROBERT A. PARRIS
Division 5

AUDREY T. MILLER
Division 6

GARY VAN DAM
Division 7

April 6, 2021

NOTICE OF PUBLIC HEARING ON THE ANTELOPE VALLEY-EAST KERN WATER AGENCY DRAFT 2020 URBAN WATER MANAGEMENT PLAN, DRAFT 2021 WATER SHORTAGE CONTINGENCY PLAN, AND DRAFT APPENDIX J TO THE 2015 UWMP

Dear Recipient,

The Antelope Valley-East Kern Water Agency (AVEK) is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP) as required by the Urban Water Management Planning Act (Act). In addition, AVEK is preparing an Appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

AVEK is required to notify its retailers as well as cities, and counties within its service areas that it is preparing its 2020 UWMP, 2021 WSCP, and Appendix J of the 2015 UWMP at least 60 days prior to holding a public hearing. The public hearing is scheduled as part of a regularly scheduled AVEK Board meeting on **June 8, 2021 at 5:30 p.m.**

This serves as your official public hearing notice and intent to adopt the 2020 UWMP, 2021 WSCP and Appendix J of the 2015 UWMP before the July 1, 2021 deadline. A draft of each document will be available for review by May 25, 2021. AVEK will distribute a public draft review notification on or before May 25, 2021 with information on how to access the draft documents. Until that time, if you have any questions or comments regarding the documents or this process, please contact me at (661) 943-3201 or mknudson@avek.org.

Very truly yours,

Matthew Knudson,
Assistant General Manager

From: Tom Barnes <tbarnes@avek.org>

Date: May 25, 2021 at 6:52:00 PM PDT

Subject: AVEK Water Agency 2020 UWMP-Notice of Public Hearing/Public Draft Documents

May 25, 2021

RE: NOTICE OF PUBLIC HEARING AND RELEASE OF PUBLIC DRAFT OF THE ANTELOPE VALLEY-EAST KERN WATER AGENCY DRAFT 2020 URBAN WATER MANAGEMENT PLAN, DRAFT 2021 WATER SHORTAGE CONTINGENCY PLAN, AND DRAFT APPENDIX J TO THE 2015 UWMP

Dear Recipient,

The Antelope Valley-East Kern Water Agency (AVEK) is releasing its Public Draft 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP) as required by the Urban Water Management Planning Act (Act). In addition, AVEK has prepared an Appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

AVEK is notifying its retailers as well as cities, and counties within its service areas that it is releasing its 2020 UWMP, 2021 WSCP, and Appendix J of the 2015 UWMP for public review and comment prior to holding a public hearing. The public hearing is scheduled as part of a regularly scheduled AVEK Board meeting on June 8, 2021 at 5:30 p.m. online via teleconference.

A copy of the Public Draft 2020 UWMP and mentioned documents will also be made available for public review on the Agency website at: www.avek.org<<http://www.avek.org>>.

This notice serves as your official public hearing notice and intent to adopt the 2020 UWMP, 2021 WSCP and Appendix J of the 2015 UWMP before the July 1, 2021 deadline. If you have any questions or comments regarding the documents or this process, please contact Matt Knudson/Tom Barnes at 661-943-3201 or info@avek.org<<mailto:info@avek.org>>.

Sincerely,

Dwayne Chisam
General Manager

Tom Barnes | Resources Manager
Antelope Valley-East Kern Water Agency
6450 West Avenue N, Palmdale, CA 93551
Main: 661-943-3201 | fax: 661-943-3204
Direct: 661-234-8437 | mobile: 661-810-9440
Email: tbarnes@avek.org<<mailto:tbarnes@avek.org>> | website: www.avek.org<<http://www.avek.org>>

**AVEK 2020 UWMP, 2021 WSCP, and 2015 UWMP Appendix J
PUBLIC HEARING NOTIFICATION (April 5, 2021)
PUBLIC DRAFT NOTIFICATION (May 25, 2021)
RECIPIENT LIST**

Water Retailer Notification Letter:

- Antelope Valley Country Club
- Boron Community Services District
- California Water Service Company
Antelope Valley District
- City of California City
- Desert Lake Community Services
District
- Desert Sage Apartments c/o Rex
Nishimura
- Edgemont Acres Mutual Water Co.
- Edwards Air Force Base
- El Dorado Mutual Water Co.
- Lake Elizabeth Mutual Water Co.
- Landale Mutual Water Co.
- Los Angeles County Waterworks
Districts - Alhambra
- Los Angeles County Waterworks
Districts - Lancaster
- Mojave Public Utility District
- Palm Ranch Irrigation District
- Quartz Hill Water District
- Rosamond Community Services
District
- Shadow Acres Mutual Water Co.
- Sunnyside Farms Mutual Water Co.
- West Side Park Mutual Water Co.
- White Fence Farms Mutual Water
Co.
- White Fence Farms Mutual Water
Co. #3

Customer Notification Letter:

- Antelope Valley Water Storage, LLC
c/o WDS
- CA Dept of Parks & Recreation
(Poppy Reserve)
- Rancho Vista Golf Club
- Tejon Ranch Company
- US. Borax (Rio Tinto Minerals)

Public Notification Letter:

- Antelope Valley Watermaster
- Building Industry Association
- Littlerock Creek Irrigation District
- Mojave Water Agency
- North Edwards Water District
- Palmdale Water District

Cities/Counties Notification Letter:

- City of Lancaster Planning Division
- City of Lancaster City Manager
- City of Palmdale Planning Division
- City of Palmdale Public Works
- Kern County Planning Department
- Los Angeles County Department of
Regional Planning Division
- Supervisor Kathryn Barger Antelope
Valley Field Office
- Ventura County Resource
Management Agency Planning
Division

Valley Press Ad**NOTICE OF PUBLIC HEARING
ANTELOPE VALLEY-EAST KERN WATER AGENCY**

NOTICE is hereby given that a Public Hearing will be held by the Antelope Valley-East Kern Water Agency (AVEK) on Tuesday, June 8, 2021 at 5:30 PM, as part of a regularly scheduled AVEK Board meeting on-line via teleconference.

The Board of Directors of AVEK will receive public comment regarding the Agency's adoption of its 2020 Urban Water Management Plan (2020 UWMP) and 2021 Water Shortage Contingency Plan (WSCP), which have been prepared in compliance with the Urban Water Management Planning Act. In addition, Appendix J of the AVEK 2015 UWMP, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003), will be amendment. A Draft copy of the 2020 UWMP and related documents are available for public review on the Agency website at: www.avek.org.
Publish: May 26 and June 2, 2021

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Attachment 3: Resolution of Adoption

