WEST KERN WATER DISTRICT
2025 URBAN WATER MANAGEMENT PLAN

MAY 2026

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PROVOST & PRITCHARD

URBAN WATER MANAGEMENT PLAN

2025 UPDATE

West Kern Water District

May 2026

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Acronyms

AB	Assembly Bill
Act	California Urban Water Management Planning Act
ACWA	Association of California Water Agencies
AF	acre-feet
AFY	acre-feet per year
AWWA	American Water Works Association
BDCP	Bay Delta Conservation Plan
bgs	below ground surface
BMP	Best Management Practice
BVWSD	Buena Vista Water Storage District
CARB	California Air Resources Board
CASGEM	California Statewide Groundwater Elevation Monitoring Program
CAT	Climate Action Team
CCF	One Hundred Cubic Feet
CCR	Consumer Confidence Report
CDPH	California Department of Public Health
CEE	Consortium of Energy Efficiency
CEQA	California Environmental Quality Act
CII	Commercial, industrial and institutional
CIMIS	California Irrigation Management Information System
COG	Council of Governments
CRC	California Resources Corporation
CUWCC	California Urban Water Conservation Council
CVC	Cross Valley Canal
CVP	Central Valley Project
CWC	California Water Code
DBP	Disinfection by-products
DCR	Delivery and Capability Report
DDW	Division of Drinking Water
Delta	Sacramento-San Joaquin Delta
DHS	California Department of Health Services
DMM	Demand Management Measure
DOF	Department of Finance
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
eARDWP	electronic Annual Reports to the Drinking Water Program (SWRCB)
EC	Electrical conductivity
EDT	Electronic Data Transfer
ELT	Early Long-Term scenario
EPA	Environmental Protection Agency
ETo	reference evapotranspiration
FCTHSD	Ford City – Taft Heights Sanitation District
GIS	Geographic Information System
gpcd	gallons per capita per day
gpd	gallons per day

gpm	gallons per flush
gpm	gallons per minute
GSP	Groundwater Sustainability Plan
HCD	State Department of Housing and Community Development
HECW	High-Efficiency Clothes Washers
HET	High Efficiency Toilet
IRWM	Integrated Regional Water Management
IRWMP	Integrated Regional Water Management Plan
KCWA	Kern County Water Agency
KTWD	Kern Tulare Water District
LLC	limited liability company
LOC	level of concern
M&I	Municipal and Industrial
MAF	million acre-feet
MCL	Maximum Contaminant Limit
MG	million gallons
mg/L	milligrams per liter
mgd	million gallons per day
MOU	Memorandum of Understanding
NPDES	National Pollutant Discharge Elimination System
PG&E	Pacific Gas and Electric
psi	pounds per square inch
PWS	Public Water System
PWSS	Public Water System Statistics
R&E	Research & Evaluation
RHNA	Regional Housing Needs Allocation Plan
RRBWSD	Rosedale-Rio Bravo Water Storage District
RWQCB	Regional Water Quality Control Board
SB	State Senate Bill
SBX7-7	Senate Bill 7 of Special Extended Session 7
SCAG	Southern California Association of Governments
SGMA	Sustainable Groundwater Management Act
SMCL	Secondary Maximum Contaminant Limit
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TOC	Total Organic Carbon
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
UWUO	Urban Water Use Objectives
WDR	Waste Discharge Requirement
WHPA	Wellhead Protection Area
WKWD	West Kern Water District
WRR	Water Recycling Requirement
WSCD	Westside Cemetery District
WSCP	Water Shortage Contingency Plan
WSD	Water Storage District

WSRP	Water Shortage Response Plan
WSRPP	Westside Recreation & Parks District
WSS	WaterSense Specification
WWTF	wastewater treatment facility

LAY DESCRIPTION OF URBAN WATER MANAGEMENT IN WEST KERN WATER DISTRICT

This 2025 Urban Water Management Plan (UWMP) has been prepared for the West Kern Water District in Kern County, California and describes the District's water supply, water demands, water reliability, and water conservation efforts. This document provides estimated population growth and water demands through the year 2050 and serves as a long-range planning document for the District. This document is an update to the District's 2020 UWMP.

In 2025, the District had an estimated population of 21,771 and served water to 7,217 homes, businesses and industrial facilities. The cities and communities served by the District are considered Disadvantaged to Severely Disadvantaged. Annually, the District obtains its water supply from two primary sources: surface water imported from northern California through a series of canals and pipelines and previously stored surface water pumped to the surface using thirteen wells. Most of the imported surface water is recharged in large spreading areas providing long-term storage and then pumped and used when needed. These sources are expected to provide adequate water through the year 2050.

The State of California set a goal for all urban water agencies to reduce their water use by 20% and to achieve this goal by the year 2020. To reach this goal, the District needs to limit water use to 189 gallons per day for each person. The District did not meet this goal in 2020, but with continued conservation met it in 2025 with a use of 184 gallons/person/day. About 70 percent of the water in the District is used for industrial purposes, mainly power plants and oil field operations. These uses were not considered in estimating the daily per person (per capita) water use.

The District has special water conservation programs that can be implemented in the event of drought or other water supply shortages. The District is also prepared to respond to a water supply interruption from an emergency. These measures are described in -the Water Shortage Response Plan, which is included in this document. Under normal conditions, the District is unlikely to experience water shortages unless a catastrophic disruption to supply occurs. The amount of surface water recharged has grown to provide a twenty-year backup supply. As a result, the District is projected to have sufficient water supplies during droughts for the foreseeable future.

1 INTRODUCTION AND OVERVIEW

1.1 OVERVIEW

This document presents the 2025 Urban Water Management Plan (Plan or UWMP) for the West Kern Water District (District, WKWD) service area. This section describes the general purpose of the Plan, background information on UWMP requirements, and the organization of the UWMP. This Plan satisfies requirements for a retail UWMP and covers the years 2021 to 2025. This plan is also an update to the District's 2020 UWMP.

1.2 PURPOSE

An UWMP is a planning tool that generally guides the actions of water management agencies. It provides managers and the public with a broad perspective on a few water supply issues. It is not a substitute for project-specific planning documents, nor was it intended to be when mandated by the State Legislature. For example, the Legislature mandated that a plan include a section which "describes the opportunities for exchanges or water transfers on a short-term or long-term basis." (California Urban Water Management Planning Act, Article 2, Section 10630(d).) The identification of such opportunities, and the inclusion of those opportunities in a general water service reliability analysis, neither commits a water management agency to pursue a particular water exchange/transfer opportunity, nor precludes a water management agency from exploring exchange/transfer opportunities not identified in the plan. When specific projects are chosen to be implemented, detailed project plans are developed, environmental analysis, if required, is prepared, and financial and operational plans are detailed.

In short, this Plan is a management tool, providing a framework for action, but not functioning as a detailed project development or action. It is important that this Plan be viewed as a long-term, general planning document, rather than as an exact blueprint for supply and demand management. Water management in California is not a matter of certainty, and planning projections may change in response to a number of factors. In general, the Plan attempts to answer a series of planning questions including:

- What are the potential sources of supply and what is the reasonable probable yield from them?
- What is the probable demand, given a reasonable set of assumptions about growth and implementation of good water management practices?
- How well do supply and demand figures match up, assuming that the various probable supplies will be pursued by the implementing agency?

Using these "framework" questions and resulting answers, the implementing agency will pursue feasible and cost-effective options and opportunities to meet demands. WKWD explores enhancing basic supplies and banking of water from the State Water Project (SWP) as well as other options. These include groundwater extraction, water exchanges, and water banking/conjunctive use. Specific planning efforts will be undertaken to address each option and include a detailed evaluation of the following:

- how each option would fit into the overall supply/demand framework;
- how each option would impact the environment; and
- how each option would affect customers.

The objective of these more detailed evaluations would be to find the optimum mix of conservation and supply programs that ensure that the needs of the customers are met.

The California Urban Water Management Planning Act (Act) requires preparation of a plan that:

- Accomplishes water supply planning over a 20-year period in five-year increments. (WKWD is going beyond the requirements of the Act by developing a plan which spans 25 years.)
- Identifies and quantifies adequate water supplies for existing and future demands, in normal, single-dry, and multiple-dry years.
- Implements conservation and efficient use of urban water supplies.

In short, the Plan answers the question: *Will there be enough water for the customers of the West Kern Water District service area in future years, and what mix of programs should be explored for making this water available?*

It is the stated goal of WKWD to deliver a reliable and high-quality water supply for its customers, even during dry periods. Based on conservative water supply and demand assumptions over the next 25 years, in combination with conservation of non-essential demand during certain dry years, the Plan successfully achieves this goal.

1.3 BACKGROUND

1.3.1 URBAN WATER MANAGEMENT PLANNING ACT

The UWMP is a requirement of the California Urban Water Management Planning Act (Division 6, Part 2.6 of the CWC §10610-10656). The UWMPs must be filed every five years and submitted to the Department of Water Resources (DWR). The submittal is required to meet the requirements of the Act, including the most current amendments that have been made. The Act applies to urban water suppliers with 3,000 or more connections being served or supplying more than 3,000 acre-feet (AF) of water annually. As of December 2025, WKWD had 7,217 active water connections and is therefore required to prepare an UWMP. UWMP requirements differ for retail and wholesale water agencies; WKWD is a retail water agency and this UWMP satisfies the retail agency requirements. WKWD is also a wholesale agency, since it delivers water to California Resources Corporation (CRD), a non-transient, non-community water system. Deliveries to CRC are below the thresholds of 3,000 AF/yr that would require preparation of a wholesale UWMP.

In 1983, SB797 altered Division 6 of the CWC by producing the Act. Since 1983, several amendments to the original document have increased the requirements of UWMPs to include sections on recycled water use, demand management measures (DMMs), energy consumption, climate change, water shortage contingency plans, and other topics. See Table 1-1 for the changes to the Water Code since the 2010 UWMPs.

Table 1-1: Changes to the Water Code Since 2010 UWMPs

Bill	Requirements
SB610 and AB901	Consideration of water availability when reviewing new large developments
SB318	Investigate possibilities of developing desalinated water
AB105	Submit UWMP to State Library
Water Conservation Bill (2009)	Urban water suppliers to reduce the statewide average per capita daily water consumption by 20% by December 31, 2020
AB 2067	Revises requirements on Demand Management Measures
SB 1420	Requires electronic submittal, standard forms and tables, and a report on distribution system losses
SB 1036	Urban suppliers to include energy-related information (optional) and analyze and define artificial water features
SB 606	This bill added several new requirements including, changes to the stages required by the Water Shortage Contingency Plan from four to six, preparation of a drought risk assessment to be included in the UWMP, and addition of a Lay Description to the UWMP.
AB 1572	Prohibits the use of potable water for irrigating non-functional turf on commercial, municipal, and HOA managed properties to conserve water and promote sustainability.
SB 1157 (2022)	Establishes stricter indoor residential water use standards reducing per capita daily use from 47 gallons in 2025 to 42 gallons by 2030.

1.3.2 PREVIOUS URBAN WATER MANAGEMENT PLAN

The District previously prepared a 2020 UWMP which was approved and adopted by the Board of Directors in June 2021. Following adoption, the 2020 UWMP was submitted to DWR. The 2020 UWMP was resubmitted in 2023 with revisions requested by DWR and subsequently approved. A copy of this UWMP resides in the State Library.

This 2025 UWMP serves as an update to the 2020 UWMP and complies with all new requirements and regulations.

1.3.3 PLAN OVERVIEW AND ORGANIZATION

This 2025 UWMP describes the District's water demands and supplies, water reliability and water conservation strategies. The UWMP includes data covering the years from 2021 to 2025. The UWMP has been prepared to include the recommended sections, discussions and data reporting required by the CWC and is based on the 2025 UWMP Guidebook provided by DWR. A checklist demonstrating compliance with applicable codes and legislation is included in **Appendix A** of this UWMP. **Appendix B** includes a copy of the resolution adopting the UWMP.

1.3.4 UWMP ORGANIZATION

This 2025 UWMP is organized into the following sections.

- Section 1: Introduction and Overview

  This section provides a discussion of the purpose and content of the 2025 UWMP and the extent of the District's water management planning efforts.

- Section 2: Plan Preparation and Adoption

  This section provides information on the District's development of the 2025 UWMP including the basis for plan preparation, UWMP characteristics, data format and coordination and outreach to nearby agencies. This section also details the steps taken by the District to adopt the UWMP and make it available to the public.

- Section 3: System Description

  This section provides a description of the District's water system including service area maps, climate information, service area population and demographic information.

- Section 4: System Water Use

  This section describes the District's current and historic water uses, system losses, estimated water savings, and water use by lower income households.

- Section 5: Baselines and Targets

  This section includes a description of the District's chosen method for calculating its baseline water use, and compliance with the 2020 target.

- Section 6: System Supplies

  This section includes a discussion of the District's water system supplies including imported surface water previously stored through managed aquifer recharge activities, and surface water, the District's future water projects, a summary of existing and future water sources, and energy consumption.

- Section 7: Water Supply Reliability

  This section describes the reliability of the District's water supply including a supply and demand assessment, drought risk assessment, and regional reliability.

- Section 8: Water Shortage Contingency Planning

  This section provides a description of the District's Water Shortage Contingency Plan including stages of action, prohibitions, penalties, reduction methods, and catastrophic supply interruption.

- Section 9: Demand Management Measures

  This section explains the District's existing and historic efforts to promote water conservation and the District's plans to use Demand Management Measures to achieve its water use targets.

- Section 10: Bibliography/References

  List of relevant reports, studies, references, and data sources used in preparing the UWMP.

1.3.5 REPORT TABLES

DWR has developed standardized tables to assist water managers in calculating per capita consumption, baseline consumption, water reduction targets, water use, etc. These tables are a required attachment to the UWMP document. However, they are not required in the body of the text and can be altered in the body of the report as needed to better reflect the water system. When appropriate and relevant, these tables have been included in the body of this text, but some are only found in Appendix C. It should be noted that some of the tables in the body of this document are not identical to the tables provided by DWR. Titles and content may vary.

2 PLAN PREPARATION AND ADOPTION

2.1 PLAN CHARACTERISTICS

WKWD is a Public Water System (PWS), as defined by the California Health and Safety Code. The PWS number, the number of connections, and volume of water delivered in 2025 are shown in the table below.

Table 2-1: Retail: Public Water Systems

Public Water System Number	Public Water System Name	Number of Active Connections 2025[1]	Volume of Water Supplied 2025 (AF)[2]
15100222	West Kern Water District	7,178	12,371

1 – Includes residential, commercial, and industrial meters and system losses. Does not include fire protection meters.
2 – Includes treated well water and raw surface water deliveries and system losses.

WKWD participates in several regional water management programs, including the Kern Integrated Regional Water Management Plan, efforts of the Kern County Water Agency, and coordinated basin-wide Sustainable Groundwater Management Act (SGMA) compliance as a signatory to the Kern Subbasin Coordination Agreement and member of the Kern Non-Districted Land Authority (KNDLA) . WKWD decided that an individual UWMP was the best option for the following reasons: 1) WKWD is fairly isolated from other urban water agencies; 2) WKWD has a unique customer base and unique water conditions; and 3) WKWD desires to use the UWMP for internal planning purposes.

Table 2-2: Plan Identification

☒	Individual UWMP
☐	Regional UWMP
No	Does this Regional UWMP include a Regional Alliance?

WKWD delivers water directly to its customers and is therefore considered both a retail and wholesale water agency. Data in this UWMP is presented in acre-feet (AF) for each calendar year, which is consistent with the previous UWMP and the District's standard reporting procedures.

Table 2-3: Agency Identification

Name of Agency	
Select one or both	
☒	Agency is a wholesaler
☒	Agency is a retailer
Fiscal or Calendar Year	
☒	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Day that the Fiscal Year Begins	
Day	*Month*
Units of Measure	
☒	Acre Feet (AF)
☐	Million Gallons (MG)
☐	Hundred Cubic Feet (CCF)

2.2 COORDINATION

Legal Requirements:

§10620(d)(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

2.2.1 COORDINATION AND OUTREACH

Coordination for the UWMP and Water Shortage Contingency Plan (which is herein called the Water Shortage Response Plan and is a component of the UWMP) updates included two components: 1) coordination with the general public; and 2) coordination with other water agencies. The coordination efforts followed water code requirements for retail water agencies. These efforts included: 1) notifying agencies of the plan to update the UWMP; 2) collecting data from some agencies; 3) making the Draft UWMP available at the WKWD office; 4) soliciting input on the draft UWMP; 5) publishing notices in local newspapers; and 6) holding a public hearing to solicit comments and adopt the UWMP. Copies of the public outreach materials are included in **Appendix D**. **Table 2-4** presents the timeline for public participation. The UWMP was adopted on _____.

Table 2-4: Public Participation Timeline

May 23, 2026	Draft UWMP	Draft released to solicit input
May 23, 2026	Public Hearing/Adoption Hearing	Review contents of Draft UWMP and take comments/Adopt UWMP
Date	Submittal to State	Submittal to DWR and State Library

2.2.2 WHOLESALE AND RETAIL COORDINATION

The District has informed the following wholesale suppliers of projected water use in accordance with CWC §10631. The Kern County Water Agency provides SWP water to WKWD.

Table 2-5: Water Supplier Information Exchange

Wholesale Agency Name
Kern County Water Agency

2.2.3 COORDINATION WITH OTHER AGENCIES AND THE COMMUNITY

Table 2-6 summarizes the coordination efforts with other public agencies and the general public.

Table 2-6: Coordination with Appropriate Agencies

Coordinating Agencies	Participated in Developing the Plan	Was Sent a Copy of the Draft Plan	Commented on the Draft	Attended Public Meetings	Contacted for Assistance	Was Sent a Notice of Intention to Adopt
City of Taft		✓				
City of Maricopa		✓				
California Resources Corporation		✓				
Buena Vista WSD		✓				
Rosedale-Rio Bravo WSD		✓				
Kern County Water Agency		✓				
Kern Water Bank		✓				
County of Kern, Council of Governments		✓				
County of Kern		✓				
General Public						

2.3 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The process followed for adoption and submittal of the UWMP is described below.

2.3.1 NOTICE OF PUBLIC HEARING

Legal Requirements:

CWC 10621 (b)
Every urban water supplier required to prepare a plan shall… at least 60 days prior to the public hearing on the plan … notify any city or county within which the supplier provides waters supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.
CWC 10642
The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately-owned water supplier shall provide an equivalent notice within its service area.

The following table lists the agencies that were notified, via letters, that WKWD was updating the UWMP, and of the date of the public hearing. Copies of the notification letters are included in Appendix D.

Table 2-7: Notification to Water Agencies

Names of Cities and Counties	60 Day Notice (CWC 10621 (b))	Notice of Public Hearing (CWC 10642)
City of Taft	☒	☐
City of Maricopa	☒	☐
County of Kern, Council of Governments	☒	☐
County of Kern	☒	☐

2.3.2 PUBLIC HEARING AND ADOPTION

Legal Requirements:

CWC 10642
Prior to adopting a plan, the urban water supplier …shall hold a public hearing thereon.
CWC 10608.26
(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:
(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.
(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.
(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target.
CWC 10642
After the hearing, the plan shall be adopted as prepared or as modified after the hearing

The District held a public hearing and adopted the 2025 UWMP and WSCP on June 23, 2026. A copy of the adopting resolution is included in Appendix B. Prior to the public hearing, a notice was published in the Taft Midway Driller newspaper (which is only published once per week) on _____ and _____ informing the public of the pending hearing. _____ comments were received from the public prior to or at the public hearing.

2.3.3 PLAN SUBMITTAL

Legal Requirements:

CWC 10621(d)
An urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.
CWC 10644(a)
An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.
CWC 10635 (b)
The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

After the UWMP and WSCP were adopted, copies were submitted to DWR electronically, the State Library and the public agencies listed in Table 2-6.

2.3.4 PUBLIC AVAILABILITY

Legal Requirements:

> ***CWC 10645***
> *Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.*

The adopted UWMP and WSCP are available on the WKWD website at http://www.wkwd.org/. A copy of the UWMP and WSCP can also be viewed at the WKWD office during normal business hours.

2.3.5 CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

Legal Requirements:

> ***CWC §10652***
> *The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.*

The UWMP and WSCP have been prepared in conformance with legislative requirements. Pursuant to CWC Section 10652 the preparation and adoption of this plan, along with the implementation of the Water Shortage Contingency Plan, are exempt from the California Environmental Quality Act (CEQA). This plan does however present projects that reflect the District's long-term water supply strategy. These projects are in various stages of planning and have been or will be evaluated consistent with CEQA requirements.

3 SYSTEM DESCRIPTION

3.1 SERVICE AREA PHYSICAL DESCRIPTION

Legal Requirements:

§10631(a) Describe the service area of the supplier.
§10631(a) (Describe the service area) climate.

3.1.1 LOCATION

WKWD was formed in May 1959, and includes the incorporated cities of Taft and Maricopa, together with the Westside communities of Taft Heights, South Taft, Ford City, Tupman, Dustin Acres, Valley Acres, Derby Acres, Fellows, and McKittrick. The District has an irregular boundary and encompasses a service area of approximately 300 square miles. WKWD is located within the San Joaquin Valley approximately 30 miles west of metropolitan Bakersfield and 100 miles north of Los Angeles. A map of the District is shown below as Figure 3-1.

3.1.2 LAND USE

A summary of land use in WKWD by several categories is shown in the table below.

Table 3-1: Land Use Categories (2025)

Land use	Area (acres)	Percent of Total
Single Family Residential	2,724	1.3%
Multiple Dwelling	140	0.1%
Industrial	3,667	1.8%
Commercial	483	0.2%
Irrigated Agriculture	4,855	2.4%
Other Agriculture Lands[1]	146,442	72.2%
Government	38,034	18.8%
Natural Resources	1,313	0.6%
Miscellaneous/Vacant Land	5,029	2.5%
Waste Disposal	106	0.1%
Total	202,793	100%
Source: Kern County Assessor Records (2025)		

1 - These fall under the general category of Agriculture according to County Records. This includes dryland farming, undeveloped land with the potential for agriculture, livestock, and oilfields with the potential for agriculture. These are considered marginal farmland that are unlikely to be developed for agriculture.

Only a small portion of the District is developed for residential use. A significant percentage of the water supply (~70%) is delivered to industrial customers, primarily oil and gas development companies and power plants. Oil companies utilize the District's water to supplement their produced water supply for steam injection (referred to as "secondary recovery") which began during the mid-1960s. Electrical power generating companies began operation within the District service area during the late 1990s. Domestic

water sales account for the remaining 30% of the District annual sales. The District does not provide water for agriculture. Limited agricultural production that occurs in the District is irrigated with treated effluent from the local wastewater treatment plant. Most lands suitable for agriculture fall under the 'Other Agricultural Lands' category, and are considered marginal or uneconomical for agricultural production.

Historically, the District served two correctional facilities: the Taft Federal Correctional Institution (Federal prison) and the Taft Community Correctional Facility. Water deliveries to these facilities were classified as industrial and commercial, respectively. The Federal prison closed in April 2020. The Taft Community Correctional Facility (inmate detention facility) closed in May 2021 and reopened in 2023 with limited occupancy (currently 200 beds).

3.1.3 WATER FACILITIES

A map of the District's distribution system is found in **Appendix E**. The primary facilities in the District include the following:

- 13 active groundwater wells (1 well currently under repair)
- 25 above ground water storage tanks, and 1 temporary portable tank.
- 15 booster pump stations
- 306 miles of distribution pipelines
- Recharge basins of approximately 415 acres
- Recharge basins in project vicinity of approximately 6,862 acres
- Recharge basins in Tule Elk reserve of approximately 729 acres

The District primarily pumps previously stored, imported surface water and balances this extraction by recharging its SWP water and other supplemental water supplies. The District water supply for municipal, commercial and most industrial customers is recovered from wells located in the northeast corner of the district in the underflow area of the Kern River and from an area north and adjacent to the State of California's Tule Elk Reserve. One industrial customer is served by direct delivery from the California Aqueduct. The District meters 100 percent of its service connections.

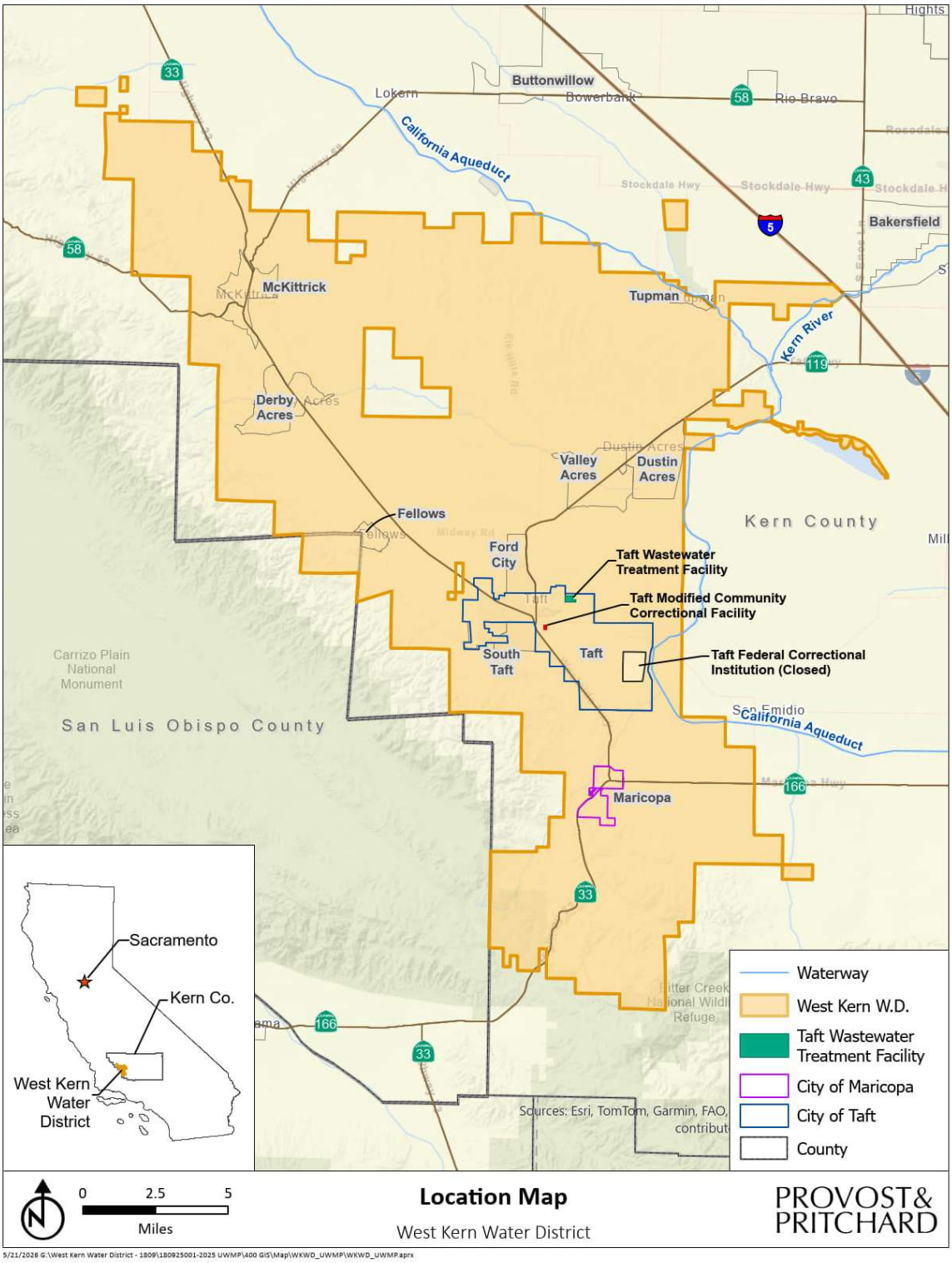

Figure 3-1: Location Map

3.1.4 CLIMATE

The greater Taft area, which functions as both the population and commercial center of the District, is located in the foothills of the Temblor Range in the Sierra Madre Mountains at an elevation varying from 900 to 1,200 feet above sea level. The highest facilities of the District (25 Hill tanks) are located in the foothills south of the City of Taft at an elevation of approximately 1,700 feet.

The climate of the southwestern San Joaquin Valley is semi-arid. The average maximum temperature in the City of Taft for the months of January and July are 58 and 98 degrees Fahrenheit, respectively. The average annual rainfall is 6.2 inches. Table 3-2 presents the area's annual average climate data.

Table 3-2: Climate Characteristics

	Jan	Feb	Mar	Apr	May	Jun
Standard Monthly Average ETo[(a)]	1.33	2.22	3.90	5.54	7.34	8.01
Average Rainfall (inches)[(b)]	1.13	1.32	1.07	0.56	0.35	0.07
Average Max. Temperature (Fahrenheit)[(c)]	58.2	63.0	68.8	75.1	83.0	91.6

	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Standard Monthly Average ETo[(a)]	8.21	7.44	5.68	3.90	2.03	1.32	56.92
Average Rainfall (inches)[(b)]	0.02	0.00	0.06	0.26	0.44	0.91	6.20
Average Max. Temperature (Fahrenheit)[(c)]	97.7	96.6	91.3	80.2	66.9	58.4	77.6

Notes:
(a) ETo (evapotranspiration) data: Station 5 Shafter/USDA station, http://www.cimis.water.ca.gov/
(b) PRISM 30-year precipitation normals from monthly rasters (1991-2020) https://prism.oregonstate.edu/normals/
(c) PRISM 30-year average maximum temperature normals from monthly rasters (1991-2020) https://prism.oregonstate.edu/normals/

3.2 SERVICE AREA POPULATION AND DEMOGRAPHICS

Legal Requirements:

> ***CWC Section 10631 (a)***
> *Describe the service area of the supplier, including current and projected population . . . The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

The District service area includes the cities of Taft and Maricopa, together with the Westside communities of Taft Heights, South Taft, Ford City, Tupman, Dustin Acres, Valley Acres, Fellows, Derby Acres, and McKittrick. The Taft Sphere of Influence (planning area) includes the City of Taft and the unincorporated communities of South Taft, Taft Heights, and Ford City. This Sphere of Influence area accounts for the majority of the District's domestic water deliveries. The District also provides water to one inmate detention facility. With few exceptions, WKWD provides water to all residents within the District boundary. As a result, the total district population represents the population served water.

The 2020 UWMP reported an estimated population of 22,172. 2020 census data was unavailable when the 2020 UWMP was prepared, due to the Covid pandemic. A recent analysis of 2020 census data reports a population of 20,351 (see Section 5.3 – Service Area Population for more details). This reflects a decrease of 404 residence since the 2010 census, representing a 0.19%/yr decline. This decline was driven, in part,

by reductions in the prison population at the Taft Community Correctional Facility, which fell from approximately 512 in the year 2020 to 200 estimated today.

Despite this decline, the 2025 UWMP projects the same modest population growth as the 2020 UWMP of approximately 0.4%/year going forward. This rate reflects several constraints on growth in the area. Available land for development is limited, as oil companies and government control most of the land surrounding Taft, and parcels are generally not offered for sale. While residential expansion remains unlikely, District staff have witnessed an increase in the number of residents per household, which may contribute incrementally to future population growth.

The 2025 population estimate is based on an evaluation of the "persons per active residential connection" population method. Based on the 2010 data, the persons per household was estimated at 3.49 residents per connection (20,760 residents for 5,947 residential connections). Using census data, this ratio decreased in 2020 to 3.2 residents per connection (20,351 residents for 6,353 connections), though the 2020 UWMP maintained the 3.49 ratio for projections. For projections beyond 2020, a ratio of 3.49 residents per connection is still applied for consistency, as the decline in prison population may have been offset by increased household density, driven by multiple families occupying single-family homes and an increase in accessory dwelling units. For 2025, this results in a population of 6,238 residential connections x 3.49 residents/connection = 21,771 people. The table below shows the anticipated District population through 2050, assuming a population growth rate of 0.4%, the same growth rate assumed in the 2020 UWMP.

Table 3-3: Population – Current and Projected

Year	2025	2030	2035	2040	2045	2050
Service Area Population[1]	21,771	22,210	22,657	23,114	23,580	24,055

[1]*Service area population is defined as the population served by the distribution system.*

The cities and communities in WKWD's service area are considered disadvantaged to severely disadvantaged (DAC). DAC maps and a discussion of the methodology for determining the DAC status are provided in **Appendix K**. The DAC status allows the District to be eligible for state grants and loans in years when its per capita water use goal is not met (See Chapter 5).

4 SYSTEM WATER USE

This section discusses current and anticipated water deliveries to different water use sectors, the methodology used in estimating future uses, a discussion on system water losses, and estimated water use for lower income households.

4.1 RECYCLED VERSUS POTABLE AND RAW WATER DEMAND

The District recharges and stores surface water in local aquifers. This water is recovered, disinfected, and delivered to residential, commercial and industrial customers. Raw water from the SWP is delivered directly to one industrial customer, the La Paloma Power Co. LLC (La Paloma). Wastewater effluent from the local wastewater treatment facility is currently used to irrigate fodder crops on adjacent agricultural land. The recycled water is not used to meet District demands, since the District does not provide irrigation water. The District evaluated a recycled water program but found it to be economically unfeasible (see Section 6.7). Table 4-1 shows the current and estimated future demands for potable, raw and recycled water through 2050.

Table 4-1: Retail: Total Water Demands (AF)

Description	2025	2030	2035	2040	2045	2050
Potable Water	10,709	12,057	12,147	12,239	12,332	12,428
Raw Water	1,542	1,800	1,800	1,800	1,800	1,800
Recycled Water Demand	0	0	0	0	0	0
Losses	120	579	582	586	590	594
TOTAL WATER DEMAND	12,371	14,436	14,529	14,625	14,722	14,822

1 – Potable Water Demands = Residential, commercial and treated industrial water uses
See Section 4.2 below for details on how future water demands were estimated.

4.2 WATER USE BY SECTOR

Legal Requirements:

CWC 10631(e)
(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:
(A) Single-family residential.
(B) Multifamily.
(C) Commercial.
(D) Industrial.
(E) Institutional and governmental.
(F) Landscape.
(G) Sales to other agencies.
(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
(I) Agricultural.
(2) The water use projections shall be in the same five-year increments described in subdivision (a).

This section describes historic and current water usage and the methodology used to project future demands within WKWD's service area. Water usage is divided into five sectors: residential, commercial, industrial (treated), industrial (raw water), and system losses. All water deliveries in WKWD are metered.

Figure 4-1 shows water usage in 2025 according to several water use categories. Deliveries to industrial customers accounted for about 70% of water demands from 2021-2025.

The District tracks some large landscape water usage under the Industrial billing category including the local golf course (club house and turf irrigation), A.W. Noon Park, and Buena Vista Lake Recreation Park. To be consistent with UWMP reporting criteria, these demands, along with smaller commercial uses (767 AF), were moved to the Commercial category for the per capita demand analysis presented in Section 5. Therefore, the values shown for 2025 differ slightly from official district records, however, they reflect the same overall water use. These landscape demands do not include all large landscape water usage already billed under the Commercial category, and some Commercial water users without dedicated irrigation meters.

Prisons historically housed over a tenth of WKWD's population, however, recent closures and reduction of inmates have reduced that contribution to just one percent. In the 2020 UWMP, the District served water to two prisons, one federal and one community facility. The Federal Prison had a population of about 2,260 inmates in 2015 and has steadily decreased since that time (based on personal communication with prison staff). The Federal Prison closed in April 2020 due to damage caused by localized ground settlement[1]. The Taft Community Correctional Facility is a 325-bed inmate detention facility operated in partnership with the United States Marshals Service. In 2025 the facility housed about 200 inmates at any one time. Water usage for this facility is included in the Commercial category.

[1] https://oig.justice.gov/reports/federal-bureau-prisons-efforts-maintain-and-construct-institutions/CI-Taft

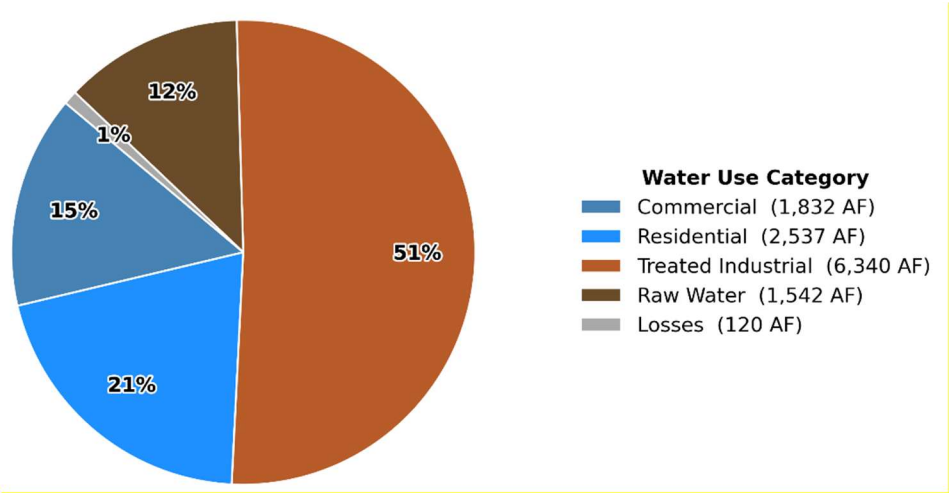

Figure 4-1: 2020 Annual Water Usage

Table 4-2 shows the actual 2025 water usage and projected demand for the planning period (up to 2050).

Table 4-2: Retail: Demands for Potable and Raw Water – Actual and Projected (AF)

Capita Use Type	2025 Actual			2030	2035	2040	2045	2050
	Number of Connections	Level of Treatment	Volume					
Residential	6,238	Disinfection	2,537	2,588	2,640	2,694	2,748	2,803
Commercial	597	Disinfection	1,832	1,869	1,907	1,945	1,984	2,024
Industrial –Treated	342	Disinfection	6,340	7,600	7,600	7,600	7,600	7,600
Industrial – Raw (La Paloma Deliveries)	1	None	1,542	1,800	1,800	1,800	1,800	1,800
Fire Protection	13	Disinfection	Not metered	-	-	-	-	-
Fire Hydrant	26	Disinfection	Not metered	-	-	-	-	-
Losses	NA	-	120	579	582	586	590	594
Total	**7217**	**-**	**12,371**	**14,436**	**14,529**	**14,625**	**14,722**	**14,822**

The 2025 data in Table 4-2 includes a breakdown of water use according to District records. For reference, the District does not track single-family home and multi-family home usage separately.

Future water demand estimates are based on the following criteria and assumptions:

1. Residential and commercial demands are based on the 2025 water usage multiplied by the population growth rate (0.4% per year).
2. The net population declined by 0.18% from 2010 to 2020 according to census data due, in part, to a reduction in prison population from over 2000 inmates in 2010 to approximately 200 currently With no foreseeable drastic cuts in inmates, population is expected to grow at a rate of 0.4% per year looking forward.
3. Raw water demands to La Paloma from 2021-2025 averaged approximately 1,800 AF/year and are projected to remain consistent through 2050. (La Paloma's current contracted supply is 5,500 AF/year)
4. Industrial demand for treated water is projected to remain stable, supported by conservation efforts and limited anticipated growth in the industrial sector. Demand for oil and gas production and power generation, has declined in recent years and is unlikely to recover significantly in the near future. The current five-year average for treated industrial deliveries is 7,600 AF per year compared to the average of 9,400 AF/yr reported in the 2020 UWMP).
5. Losses in 2025 were 1.2 percent of total deliveries, based on the actual loss rate in 2025 (groundwater pumping – deliveries). Future projections were based on the 5-year average of losses (4.2%) as calculated by AWWA Water Audit Software.

Several other factors can affect demand projections, which are not included in the estimate above, including:

- Land use revisions
- New regulations
- Consumer choice
- Economic conditions
- Oil and gas prices and consumer demand
- Transportation needs
- Highway construction
- Environmental factors
- Conservation programs
- Plumbing codes

The foregoing factors can affect the level of demand and the timing of demand. Past experience suggests economic factors can impact water demand projections. During an economic recession, there is often a major downturn in development and a subsequent reduction in demand for water.. The projections in this Plan do not attempt to forecast recessions or droughts. Likewise, no speculation is made about future plumbing codes or other regulatory changes. Also, much of the industrial water demand is used by oil and gas exploration companies. Predicting the oil economy and subsequent demand for water by the oil and gas industry is not feasible.

4.3 DISTRIBUTION SYSTEM WATER LOSSES

Legal Requirements:

CWC 10631(e)(1) and (2)
Quantify, to the extent records are available, past and current water use over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:…(J) Distribution system water loss
CWC 10631 (e)(3)
(A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.
(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

District water losses can be estimated using two different methodologies:

1. Difference in Well Pumping and Customer Meter Readings. This methodology was used resulting in the following estimated losses.

Table 4-3: System Losses (Groundwater Pumping minus Deliveries, AF)

Year	Losses (AF)	Percent Loss
2021	1,146	8.0%
2022	729	5.3%
2023	796	6.2%
2024	374	3.3%
2025	120	1.1%

The District is continuously looking for ways to reduce water losses by implementing new programs and techniques (annual in-field meter calibrations, leak detection, meter testing, data validation, etc.)

2. AWWA Water Audit Software. System water losses were calculated using AWWA Free Water Audit Software (see results in Appendix F). The software uses inputs from volume of water supplied, volume of water delivered, metering error percentage, and metering confidence levels to calculate apparent, unauthorized, and real losses.

   The software assumes 1.25% of the total volume supplied is used for authorized, unmetered activities such as line flushing of mainlines and hydrants and for firefighting.

   The difference between volume supplied and volume delivered plus the unmetered consumption is the calculated loss. This value is then broken into apparent loss (caused by metering errors and data handling inaccuracies) and real loss, leakage, and unauthorized unmetered water consumption.

The table below shows the estimated losses using the AWWA audits. The 2025 audit is not due until October 2026 and is therefore not available.

Table 4-4: AWWA Water Audit Results

Year	*Estimate Losses (AF/yr)*	*Losses (% of deliveries)*
2021	594	4.3%
2022	650	4.8%
2023	443	3.5%
2024	384	4.1%
2025[1]	452	4.2%
Average	505	4.2%

1 – The 2025 water audit was not completed yet and was based on the average losses from 2021-2024.

The District was also given Water Audit Data Validity Scores ranging from 58 to 73, with an average of 69. This index scores the validity of the water use data based on factors such as metering, meter calibration, data management, auditing of customer records, etc.

4.4 WATER SAVINGS FROM CODES, STANDARDS, ORDINANCES, OR TRANSPORTATION/LAND USE PLANS.

Legal Requirements:

CWC §10631 (e)(4)
(A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.
(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

The West Kern Water District has adopted policies and ordinances to reduce water waste. These ordinances and policies are better described in Sections 8 and 9. The District also meets its 2025 per capita goal, as described later in Section 5, and intends to continue meeting this goal.

Water savings from codes, standards, ordinances, or transportation and land use plans are also known as "passive savings." These various factors generally decrease the water use for new and future customers, compared to historical customers. These codes and ordinances may include implementation of a landscape ordinance, the California Energy Commission Title 20 appliances standards for toilets, urinals, faucets, and showerheads, CALGreen Building Code, etc. Enforcing some of these standards is outside the jurisdiction of WKWD.

Passive savings have not been specifically incorporated into projected water demands. Instead, future water demands are projected based on population and the District's target per capita water use, as documented in Section 5, and discussed above. However, the District does expect that passive savings, such as continued implementation of water conservation efforts, rebate programs and modern plumbing codes will help the District to meet its target per capita water demand in the future.

4.5 WATER USE FOR LOWER INCOME HOUSEHOLDS

Legal Requirements:

> ***CWC 10631.1(a)***
> *The water use projections required by Section 10631 shall include projected water use for single family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.*
> *California Health and Safety Code 50079.5 (a)*
> *"Lower income households" means persons and families whose income does not exceed the qualifying limits for lower income families… In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for lower income households for all geographic areas of the state at 80 percent of area median income, adjusted for family size and revised annually.*

Senate Bill 1087 requires that water use projections of an UWMP include the projected water use for single-family and multi-family residential housing for lower income households as identified in the local housing element or general plan.

Housing elements rely on the Regional Housing Needs Allocation Plan (RHNA) generated by the State Department of Housing and Community Development (HCD) to allocate the regional need for housing. Before the housing element is due, the HCD determines the total regional housing need for the next planning period for each region in the state, and allocates that need. The Kern Council of Governments (COG) then allocates to each local jurisdiction its "fair share" of the RHNA, broken down by income categories; very low, low, moderate, and above moderate, over the housing element's planning period. The current housing element (Kern COG, 2016) covers the planning period 2015-2023. Based on an evaluation of representative census block groups[2] that comprise more than half the population in WKWD, approximately 26% of the population are identified as low and very low income, lower than the 31% of residents that were classified as low and very low income in the 2020 UWMP.

Table 4-5 shows the current and estimated future water demands for low-income households.

Table 4-5: Low-Income Projected Water Demands (AF)

Low Income Water Demands	2025	2030	2035	2040	2045	2050
Total Residential Demand	2,537	2,588	2,640	2,694	2,748	2,803
Low Income Demand (26%)	660	673	686	700	714	729

[2] Census Tract 33.03, 33.04, 34, 36

5 BASELINE AND TARGETS

This section describes the baseline (base daily per capita) water use, the 2015 and 2020 water use targets, and the 2025 actual water use. The UWMPA requires that the UWMP identify a baseline water demand, urban water use target, and interim urban water use target for the District. For additional details on how the per capita goals were established refer to the District's 2015 UWMP.

Legal Requirements:

CWC § 10608.20
(e) An urban retail water supplier shall include in its urban water management plan . . . due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

The base daily per capita use was the first step in determining the District's urban water use target. The historical per capita use set the "baseline" on which the urban water use target was determined. The District established an Interim 2015 water use target and a subsequent 2020 urban water use target to judge compliance with the 2020 use reductions set forth in the Water Conservation Bill of 2009. There is no statutory obligation for the District to continue to meet the 2020 per capita use goal; however, the District will continue to use it as an internal goal.

5.1 SB X7-7 FORMS AND SUMMARY TABLES

The District calculated its baseline and targets in the 2010 and 2015 UWMPs and will use these previously calculated values to determine compliance with SB X7-7. The following subsections present the SB X7-7 Verification and Compliance forms, as discussed in the 2020 UWMP Guidebook.

The 2015 UWMP included a complete SB X7-7 Verification Form, which is provided for reference in Appendix C. The Verification Form is the set of spreadsheets documenting SB X7-7 calculations.

This UWMP includes a complete 2020 Compliance Form, as required, included in Appendix C. The District's 2020 Compliance Water Use Target was set in the 2015 UWMP at 189 gallons per capita per day (gpcd). The District does not need to modify that target based on any changes in the District and will use the target to document compliance with SB X7-7. The District achieved a per capita water use of 184 gpcd in 2025, and therefore met its per capita use goal of no more than 189 gpcd.

Tables, 5-1 and 5-2, outline the conservation goals and actual water usage in 2025.

Table 5-1: Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD	Confirmed 2020 Target
10-15 year	2000	2009	237	189
5 Year	2005	2009	248	

Table 5-2: 2025 Compliance

2025 GPCD			2025 Confirmed Target GPCD	Did Supplier Achieve Targeted Reduction for 2025? Y/N
Actual 2025 GPCD	2025 TOTAL Adjustments	Adjusted 2025 GPCD *(Adjusted if applicable)*		
184	0		189	Yes

5.2 BASELINE AND TARGET CALCULATIONS FOR 2020 UWMPS

WKWD has a unique water profile with approximately 70% of the water delivered to industrial customers. Per DWR guidelines for the calculation of gpcd, WKWD is permitted to subtract all industrial (process) deliveries to determine gross water use. Most industrial water supplies were therefore excluded in the per capita demand analyses, however, based on DWR revisions to the 2015 UWMP, water usage for the Federal Taft Correctional Institution and some landscape water demands were included in the per capita use analysis (see Section 4.2 for additional explanations). In addition, system losses for industrial water supplies cannot be subtracted from the per-capita water use analysis.

Thus, per capita demands were based on the commercial and residential demands (which included 767 AF moved from the industrial to commercial category) and 1.1 percent losses based on actual losses in 2025. Using a 2025 population of 21,771, the per capita water use is 184 gallons/day.

The District did not adjust its compliance GPCD using weather normalization, economic adjustment, distribution area expansion, distribution area contraction, or other extraordinary events. No deductions were made for exported water, change in distribution system storage, indirect recycled water, or water delivered for agricultural use. Gross water usage was based on customer meter readings and estimated losses.

5.3 HISTORICAL PER CAPITA WATER USE

Figure 5-1 below shows the per capita water use in WKWD from 2000 to 2025. The District has shown a gradual decline in per capita water use over the last 20 years. In 2025 the District met its goal with water use at 184 gpcd in 2025.

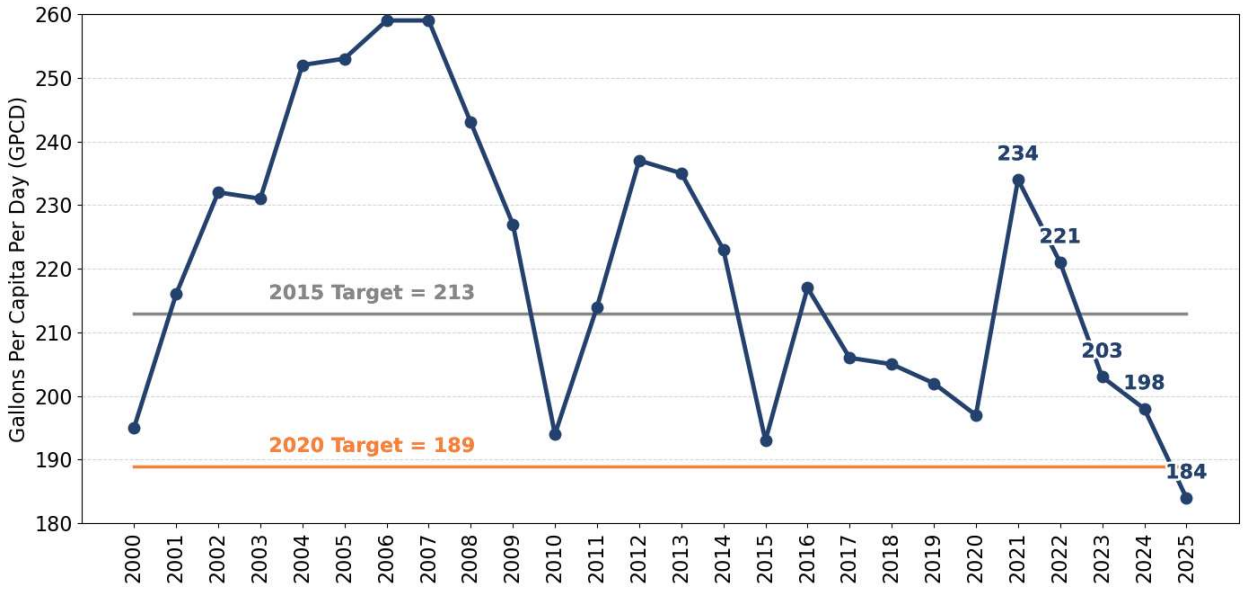

Figure 5-1: Daily Per Capita Water Use (2000-2025)

5.4 OTHER FACTORS AFFECTING WATER USAGE

Major factors that affect the District are the economy (see Section 4.2), weather, and the implementation of water conservation strategies. Historically, when the weather is hot and dry, water usage increases. The amount of increase varies according to the number of consecutive years of hot, dry weather and the conservation activities imposed. During cool-wet years, historical water usage has decreased to reflect reduced irrigation of outdoor landscaping. Water conservation measures employed within the WKWD service area will have a direct long-term effect on water usage.

In recent years, water conservation has become an increasingly important factor in water supply planning in California. The California plumbing code has instituted requirements for new construction that mandate the installation of ultra-low-flow toilets and low-flow showerheads. These code requirements are overseen by the City of Taft. WKWD continues to support the development of water conservation measures and continually improve upon its conservation plan. Programs supported by WKWD include public information and education programs, metering programs, conservation coordination, water waste prevention, implementation of AWWA M36 methodology (water audit and loss control programs), and conservation pricing. A complete description of these programs and their implementation can be found in Section 9.

Residential, commercial, and industrial usage can be expected to decrease as a result of the implementation of more aggressive water conservation practices. The greatest opportunity for

conservation is in developing greater efficiency and reduction in landscape irrigation especially in WKWD's service area where the evapotranspiration rate is high. The irrigation demand can represent as much as 50 percent of the water demand for residential customers depending upon lot size and amount of irrigated turf and plants.

5.5 URBAN WATER USE OBJECTIVES

Under California's "Making Conservation a California Way of Life" framework, urban retail water suppliers (not individual customers) must meet an Urban Water Use Objective (UWUO) that represents a customized, long-term water budget tailored to local conditions such as population, climate, and landscape area, with compliance beginning in 2027 and reporting starting earlier. Water Suppliers are not required to address these new regulations in 2025 UWMPs, but a brief description is provided below. This regulation will need to be fully addressed in the 2030 UWMP. The State of California has stated that the new UWUO will likely require greater conservation than the per capita water use goals described above.

The UWUO is calculated as the sum of several required conservation components, including (1) indoor residential water use efficiency based on gallons-per-capita-per-day standards, (2) outdoor residential landscape conservation using climate-based irrigation and landscape efficiency factors, (3) commercial, industrial, and institutional (CII) landscape irrigation efficiency – particularly for areas with dedicated irrigation meters, (4) reduction of real water loss through improved system management and leak control, and (5) supplier-level performance measures and adjustments, such as variances for unique land uses and incentives for potable recycled water.

6 SYSTEM SUPPLIES

Legal Requirements:

§10631(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

UWMPA requirements state that the water supplier must describe its existing and planned water supply sources for at least the next 20 years. The following description includes information on water contracts, surface water, stored surface water, water quality, recycled water, exchanges and transfers, future water projects, and future water supplies.

6.1 WATER SUPPLY FACILITIES

Water supply facilities in the District include 13 wells (5 in the North Well Field and 8 in the South Well Field), 25 water tanks, and about 346 miles of pipelines. Appendix C includes a map of the District's facilities. The facilities are spread out over the entire district, which covers over 300 square miles.

6.2 IMPORTED WATER

The District has a contract to receive surface water from the State Water Project (SWP). The SWP is the largest state-built, multi-purpose water project in the country. It was authorized by the California State Legislature in 1959, with the construction of most initial facilities completed by 1973. Today, the SWP includes 28 dams and reservoirs, 26 pumping and generating plants, and approximately 660 miles of aqueducts. The primary water source for the SWP is the Feather River, a tributary of the Sacramento River. Storage released from Oroville Dam on the Feather River flows down natural river channels to the Sacramento-San Joaquin River Delta (Delta). While some SWP supplies are pumped from the northern Delta into the North Bay Aqueduct, the vast majority of SWP supplies are pumped from the southern Delta into the 444-mile-long California Aqueduct. The California Aqueduct conveys water along the west side of the San Joaquin Valley to Edmonston Pumping Plant, where water is pumped over the Tehachapi Mountains and the aqueduct then divides into the East and West Branches.

In the early 1960s, DWR began entering into individual SWP Water Supply Contracts with urban and agricultural public water supply agencies located throughout northern, central, and southern California. Kern County Water Agency (KCWA) is one of 29 water agencies (commonly referred to as "contractors") that have an SWP Water Supply Contract with DWR. Each contractor's SWP Water Supply Contract contains a "Table A" quantity, which lists the maximum amount of water an agency may request each year throughout the life of the contract. Table A is used in determining each contractor's proportionate share, or "allocation," of the total SWP water supply DWR determines to be available each year. The total planned annual delivery capability of the SWP and the sum of all contractors' maximum Table A amounts was originally 4.23 million acre-feet (MAF). The initial SWP storage facilities were designed to meet contractors' water demands in the early years of the SWP, with the construction of additional storage facilities planned as demands increased. However, essentially no additional SWP storage facilities have been constructed since the early 1970s. SWP conveyance facilities were generally designed and have been constructed to deliver maximum Table A amounts to all contractors. After the permanent retirement of some Table A

amounts by two agricultural contractors in 1996, the maximum Table A amounts of all SWP contractors now total about 4.17 MAF.

WKWD contracted with KCWA in 1966 to receive an allotment of water through the SWP. KCWA holds a master contract with the State to receive water from the SWP. WKWD and 15 other local water districts, called member units, subcontract with KCWA. Currently, KCWA's annual Table A amount is 998,730 AF; of that amount WKWD is allocated 31,500 acre-feet per year (AFY). While these amounts represent the maximum amount of water that these two agencies can request, DWR determines the amount that will actually be delivered in a given year. The reliability of SWP is now estimated to be 54% in 2025 (see Section 7.3).

During wet years when high-flow water is available, up to 10,000 AFY of additional water is available to WKWD. Historically, this high-flow water has been purchased or exchanged by WKWD to increase storage in the water banking program. The surface water indirectly available to WKWD consists of in-lieu surface water delivered to Buena Vista Water Storage District (BVWSD) and credited to WKWD as a banked supply. This water is either SWP water or high-flow Kern River water. The surface water is not currently used as a direct domestic water supply source.

WKWD also has two turnouts along the California Aqueduct that have been used to deliver untreated water directly to industrial customers. Currently only one of the turnouts, which supplies untreated water to La Paloma, is operated by the District. An agreement was established in 2000 between WKWD and La Paloma for a maximum delivery of 6,500 AFY. Historically La Paloma has taken less than 6,500 AFY and WKWD utilizes the balance of the water for recharge to its water banking program or exchanges with other entities.

Appendix J includes a Reduced Delta Reliance analysis, which concludes that SWP reliability is expected to decline, but the District will still be able to meet local water demands, due to banked water, reductions in demands from changes in the commercial and industrial sectors, and water conservation efforts.

6.3 SURFACE WATER

There are no natural surface water features in WKWD, largely due to the arid conditions. Surface water used in WKWD is imported from the SWP in Northern California, or from the Kern River.

6.4 GROUNDWATER

This section presents information on WKWD's stored surface water supplies including the local hydrogeology, groundwater levels, groundwater wells, groundwater quality and monitoring.

6.4.1 GROUNDWATER BASIN DESCRIPTION

Legal Requirements:

> ***CWC 10631 (b)*** *If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan: (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater.*

WKWD is located within the Tulare Lake Hydrologic Region (Region), San Joaquin Valley Groundwater Basin (see Table 6-1). The Region has 12 distinct groundwater basins and 7 subbasins of the San Joaquin Valley Groundwater Basin: Kings, Westside, Pleasant Valley, Kaweah, Tulare Lake, Tule, and Kern County. The interconnected depositional basins are grossly separated by a basement high known as the Bakersfield Arch, which trends roughly along and parallel to the Kern River. The District is within the Kern County Groundwater Sub-basin. The Sub-basin encompasses roughly 3,040 square miles and is bounded by the Sierra Nevada foothills on the east, the Tehachapi and San Emigdio Mountains and White Wolf Subbasin on the south, the Temblor Range on the west, and portions of the KGA jurisdictional boundary to the north. The Kettleman Plain, Tulare Lake and Tule sub-basins border the KGA jurisdictional line to the north. The WKWD area overlies the southwestern portion of the Sub-basin, along the western edge of Kern County, roughly 30 miles west of metropolitan Bakersfield.

According to Department of Water Resources, California Bulletin 118, the basin is in a water-short condition. It is also a non-adjudicated basin. It receives its recharge from the Kern River which traverses through a wide, flat bed. In the riverbed are 500 to 2,000 foot thick poorly sorted deposits of silt, sand, gravels, and clay that originated from the Sierra Nevada, and provide moderate to high permeability through the riverbed. Historically, floodwaters that overflowed on lands on both sides of the river contributed further to groundwater recharge. Although natural recharge is primarily from stream seepage along the eastern subbasin and the Kern River; direct recharge of surface water and recharge of applied irrigation water are the largest contributor to the recharge of the subbasin.

Table 6-1: San Joaquin Valley Groundwater Basin

Groundwater Basin	DWR Groundwater Basin Number	Surface Area (acres)	Groundwater Storage Capacity (1,000 AF)
San Joaquin Valley Groundwater Basin	5-22.14	1,945,000	4,000

The San Joaquin Valley is surrounded on the west by the Coast Ranges, on the south by the San Emigdio and Tehachapi Mountains, on the east by the Sierra Nevada and on the north by the Sacramento-San Joaquin Delta and Sacramento Valley. The northern portion of the San Joaquin Valley drains toward the Delta by the San Joaquin River and its tributaries, the Fresno, Merced, Tuolumne, and Stanislaus Rivers. The southern portion of the valley is internally drained by the Kings, Kaweah, Tule, and Kern Rivers that flow into the Tulare drainage basin including the beds of the former Tulare, Buena Vista, and Kern Lakes.

The geologic history and geometry of the valley is one of a continually sinking basin being filled with sediment. The sediment was supplied to the basin by the rising Coast Ranges (San Emigdio Mountains), the Transverse Ranges (Tehachapi Mountains), and the Sierra Nevada. The District recovers previously stored surface water from its South Well Field in the Tupman area, about 15 miles northeast of Taft, and North Well Field, located about three miles northwest of the South Well Field. The geologic units underlying the valley, and which are present underneath the District's wellfield area, are generally grouped into three broad categories. These include the crystalline rocks of ·pre-Tertiary age (>65 million years old), the marine sedimentary rocks of Tertiary age (from 65 million to roughly 20 million years old), and the continental sedimentary deposits of Tertiary and Quaternary age (20 million years old to present). Generally, the crystalline rocks and the marine deposits are non-water bearing rocks in this area, and play no significant role in the ability of the District to recover stored surface water.

Overlying the crystalline rocks and the marine sedimentary rocks is a thick sequence of continental, semi-consolidated to unconsolidated sediments. These continental sediments are several thousand feet thick in the thickest portions of the basin, near the central part of the San Joaquin Valley. Along the fringe of the basin, or on top of the Bakersfield Arch, the sediments are considerably thinner.

In the area of the District's wellfield, the continental rocks consist of the Plio-Pleistocene Tulare Formation, a thick sequence of water-laden sands, silts, and clays. Throughout much of the San Joaquin Valley, the Tulare Formation contains a regionally extensive lacustrine or lakebed clay, generally referred to as Corcoran Clay, which serves as a confining layer separating the shallow semi-confined to unconfined aquifer system from a deeper confined aquifer system. The water-producing portion of the groundwater basin is within the upper sections of the continental deposits and the overlying alluvium. The hydrogeology of the basin above the base of fresh water is an alluvial fan complex deposited by the Kern River.

6.4.2 GROUNDWATER MANAGEMENT

Legal Requirements:

> ***CWC 10631 (b)*** *If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:*
> *A copy of any groundwater management plan adopted by the urban water supplier… or any other specific authorization for groundwater management.*
> *…For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.*

The 2015 Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California.

In 2016 the WKWD GSA was formed for the WKWD service area. The GSA was later expanded to include non-districted areas in and around the WKWD service boundary. DWR did not approve the initial Groundwater Sustainability Plans in Kern County resulting in several years of additional coordination,

revisions and GSP resubmittals in the Kern Subbasin. In August 2025 the Final Amended Kern County Subbasin GSP was submitted to the State Water Resources Control Board (State Board). After finding that the GSP substantially addressed the earlier deficiencies, the State Water Board began the process of transitioning the subbasin's jurisdiction back to the DWR for its review. A copy of the final GSP can be found here: https://kerngsp.com/wp-content/uploads/2025/09/Kern-County-Subbasin-Groundwater-Sustainability-Plan-2025-Clean.pdf

The WKWD GSA jurisdictional area is defined by the District service area boundary with some additional proximal parcels owned and operated by oil production companies and other private landowners.

Continuous review of recharge and recovery activities is necessary and enables the District to gain the maximum benefit of its surface water storage and water exchange efforts. WKWD continues to pursue active recharge programs that result in positive water level and water quality benefits. In an effort to expand the local recharge programs, evaluation of groundwater banking opportunities in areas surrounding the District's well fields and coordination with those entities is an on-going effort.

Water quality monitoring results will be used to augment the information obtained from historical water level readings. The combination of routine water quality monitoring and groundwater level measurements, allow the District to effectively manage its stored surface water supply.

Hydrogeologic Basin Assessment

The District is within the Kern Groundwater Sub-Basin. The WKWD MAP, which is part of an overall umbrella GSP for the entire Sub-basin, included a hydrogeologic assessment of WKWD's portion of the subbasin. Elements of the MAP included:

- Compilation of historical data;
- Determination of the hydraulic parameters and characteristics of the basin that govern groundwater flow (and contaminant transport); and
- Evaluation of the recharge and discharge components of the basin that affect the ability of the District to pump water

Conjunctive Use Program

WKWD has historically practiced conjunctive water use, integrating surface and stored surface water supplies, to meet current and future demand. Continuing this proactive approach will require an objective review of past and future procedures, including a review and assessment of:

- The effectiveness of past surface water recharge efforts.
- The effectiveness and impacts of recharge efforts conducted by neighboring groundwater users.
- The role WKWD will take in future conjunctive use programs.
- The continuing participation in banking and exchange programs currently in effect.
- The siting and construction of new or additional recharge facilities.
- WKWD efforts to maximize the amount and quality of surface water available for recharge purposes.
- Programs that stress water conservation efforts throughout WKWD.

- Existing and new domestic users landscape irrigation methods.
- Reuse of industrial water.
- Encouraging the use of domestic water saving devices.

Well Field Evaluation

The physical condition of WKWD's production wells is routinely evaluated and documented to identify potential issues related to the structural integrity and any change in production. WKWD maintains a regular rehabilitation maintenance program designed to effectively evaluate and enhance well performance. Identified issues are addressed immediately.

Monitoring Plan

In addition, as a member of the Kern Non-Districted Land Authority, WKWD participates in a coordinated groundwater monitoring program that requires participants measure groundwater levels and collect groundwater quality samples from January 15 through March 30, and again from August 15 to November 15. WKWD is also required to conduct routine monitoring under its drinking water permit.

Groundwater Contamination Management

Groundwater contamination from anthropogenic or natural sources is of paramount concern to WKWD. Sources of contamination include, but are not limited to, leaking petroleum storage and distribution facilities, fertilizers or pesticides and septic systems. Although WKWD continues to meet water quality requirements of the SWRCB Division of Drinking Water, Drinking Water Source Assessment Program, the District will continue to assess the potential for source water contamination. Effective control of contamination problems will require:

- Coordinated efforts between all regulatory agencies
- Source control
- A comprehensive understanding of the regional hydrogeology
- Identifying sources of contamination.

6.4.3 GROUNDWATER LEVELS AND OVERDRAFT CONDITIONS

Legal Requirements:

CWC 10631(b)(2).*For basins that have not been adjudicated, (provide) information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.*

The Kern Groundwater Sub-Basin was identified as being "critically overdrafted" by the California Department of Water Resources (DWR, 2003). DWR also identified the basin as "High Priority" (through the State's CASGEM Basin Prioritization Process) due to overdraft, land subsidence and groundwater quality degradation. Similarly, the Kern Groundwater Sub-basin has been designated by SGMA as a high priority.

Figure 6-1 is a representative hydrograph in the District's South Well Field. Water levels have been very cyclical based on SWP deliveries and climate. The water level in 2025 is near historical high levels reached around 2012 and 2019.

Figure 6-2 is a representative hydrograph in the District's North Well Field. Groundwater levels have remained relatively consistent since 2024, however they are still close to the highest levels in the past ten years.

WKWD recognizes the benefit of local banking operations and continues to support the efforts of sustainable groundwater management to further reduce declines.

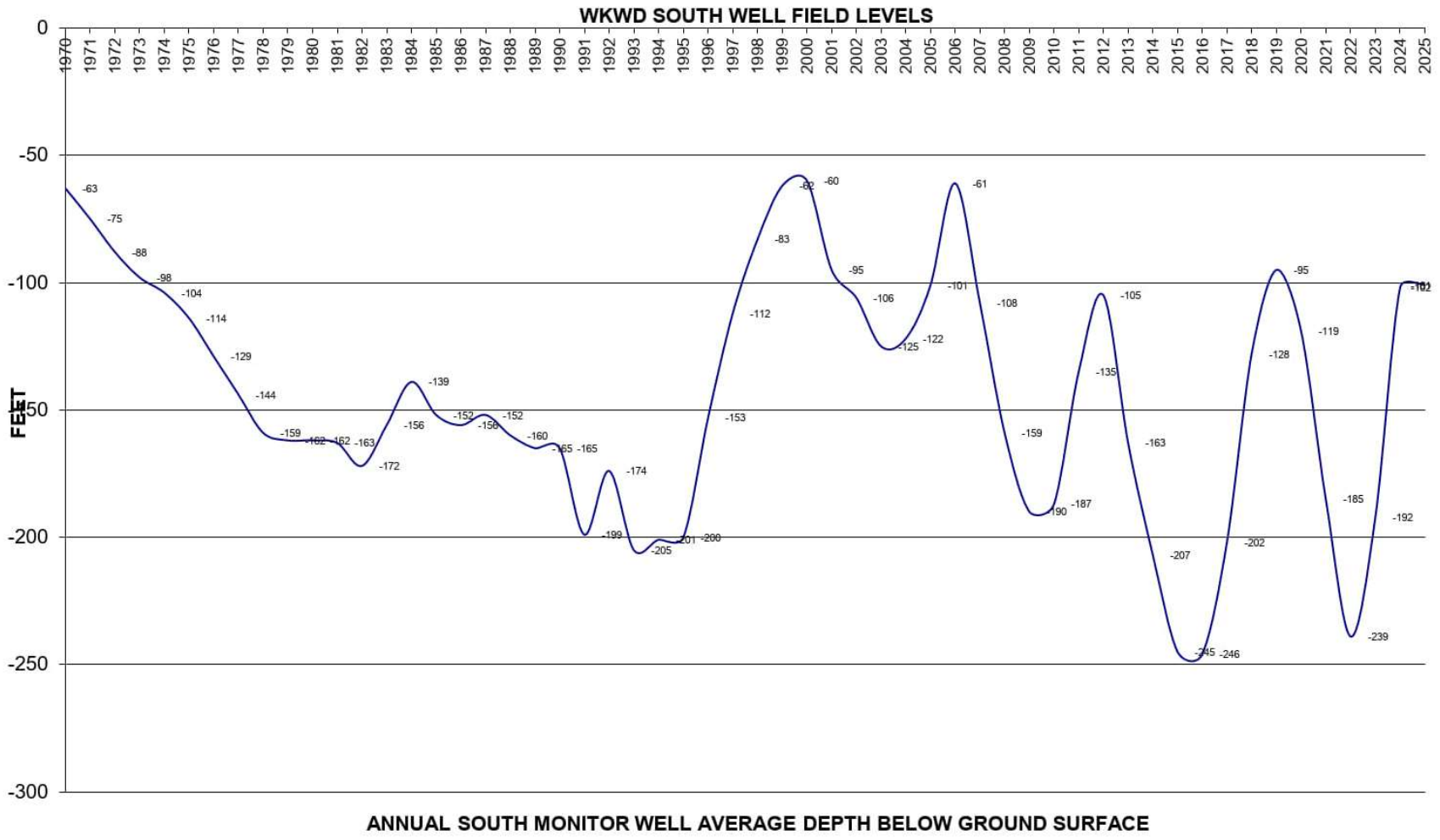

Figure 6-1: Historical Groundwater Levels – South Well Field

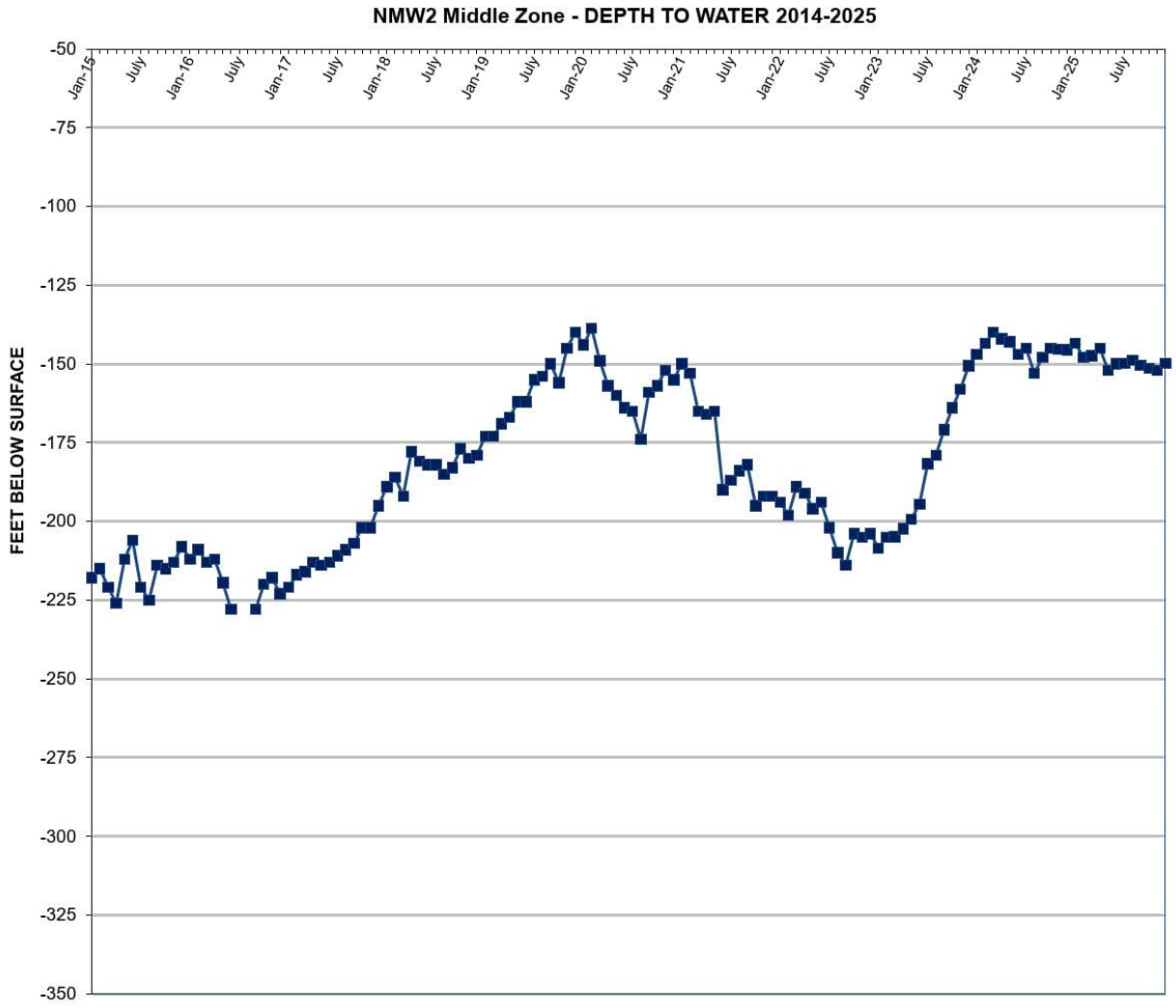

Figure 6-2: Historical Groundwater Levels – North Well Field (2015-2025)

6.4.4 HISTORICAL PUMPING

Legal Requirements:

> ***CWC 10631 (b)*** *If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:*
> *3) (Provide a) detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*

Metered recovery from WKWD's wells for 2021 to 2025 is shown in **Table 6-2**. Water is pumped from the North and South Well Fields, as shown on the map in **Appendix C**. Recovery of the District's stored water has declined due mainly to decreasing demands from oil and gas producers.

Table 6-2: Groundwater – Volume Pumped (AF, 2021-2025)

Basin	Sub-Basin	2021	2022	2023	2025	2025
San Joaquin Valley Groundwater Basin	Kern River Alluvial Basin	21,338	16,856	12,961	11,557	11,161
Units in Acre-Feet					Total	73,922

6.4.5 GROUNDWATER RECHARGE, STORAGE, AND BANKING

KCWA (according to DWR Bulletin 118) estimates total groundwater in storage in the Kern Groundwater Subbasin to be nearly 40,000,000 AF and dewatered storage to be 10,000,000 AF. Since 1966, WKWD has stored surface water in the Kern River Fan area. All the surface water deliveries to WKWD are banked and later recovered from wells, except for direct industrial water deliveries to La Paloma.

As part of the banking program WKWD has monitored and recorded groundwater levels in its production wells on a regular basis for several decades. DWR and the KCWA contribute additional water level data in the vicinity of the District's well fields. The compilation of WKWD, KCWA and DWR data provides an understanding of the groundwater flow patterns and trends in water levels.

WKWD delivers the majority of its SWP water by exchange with BVWSD as part of an in-lieu groundwater pumping/groundwater banking exchange program. In the exchange, BVWSD takes WKWD SWP water from the California Aqueduct for its in-district needs instead of pumping local groundwater. WKWD, in turn, can then pump or bank a volume of water equivalent to that which BVWSD would otherwise have pumped. This source of supply is typically stored Kern River water.

The total amount of water currently stored in WKWD's groundwater banking facilities is approximately 266,000 AF (see **Figure 6-3**). Currently, WKWD maintains a positive balance in its banking program and has approximately 20 years of supply banked. Therefore, while the Kern County Groundwater Sub-Basin is in a state of overdraft, WKWD has maintained a net positive balance and helped to reduce the overall overdraft.

Continued balanced pumping of groundwater and recharge of imported supplies has and will continue to be the operational norm for WKWD. Under this management action, recharge and recovery activity will continue to be monitored closely by WKWD to maintain balanced conditions.

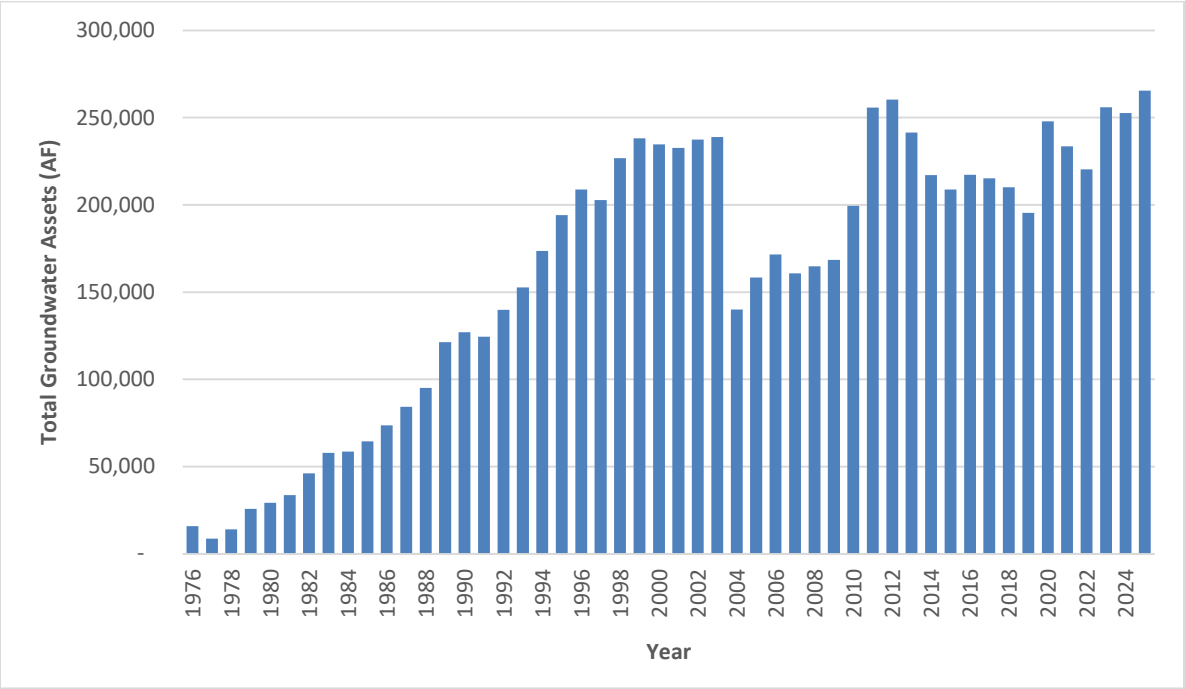

Figure 6-3: Historical Banking

6.5 STORMWATER

WKWD experiences low rainfall (about 6 inches/year) and stormwater volumes are typically small. In addition, only a small part of the District is urbanized and has a stormwater collection system. As a result, stormwater is not considered a potential water supply for the District.

6.6 WATER QUALITY

The quality of any natural water is dynamic in nature. This is true for the local groundwater of the Kern River Alluvial Fan Basin. During periods of intense rainfall or snowmelt, routes of surface water movement are changed; new constituents are mobilized that are often dependent on local land use and enter the water while other constituents are diluted or eliminated. The quality of water changes over the course of a year. These same basic principles apply to groundwater. Depending on water depth, groundwater will pass through different layers of rock and sediment and leach different materials from those strata. Water depth is a function of local rainfall and snowmelt. During periods of drought, the mineral content of groundwater can increase. Water quality is not a static feature of water, and these dynamic variables must be recognized.

Water quality regulations are dynamic and respond to the discovery of new contaminants, better understanding of health effects of known, as well as emerging contaminants, development of new laboratory analytical methods, and the introduction of new treatment technology. All water purveyors who provide water for human consumption are subject to drinking water standards set by the Federal EPA and the SWRCB DDW. WKWD pumps previously stored surface water to meet the potable water supply demands of its customers. An annual Consumer Confidence Report (CCR) is provided to all residents receiving water from WKWD. That report includes detailed information on water quality testing during the preceding year (WKWD, May 2024). WKWD's water supplies currently meet State and Federal drinking water standards.

This section provides a general description of the water quality of various water supplies. Water quality impacts on water reliability are discussed in Section 7.2.

6.6.1 IMPORTED WATER QUALITY

The District's primary supply is pumped previously stored surface water imported from the SWP and Kern River through the BVWSD Exchange Program and direct recharge. Water from the SWP is not directly delivered as a potable supply, but some SWP water is directly delivered to La Paloma for industrial use.

6.6.2 GROUNDWATER QUALITY

Overall, groundwater quality in the vicinity of the District well fields is excellent. The water quality of the District's wells represents a family of water that is typical of water recharged by the Kern River. The water is typically a sodium bicarbonate water of low Total Dissolved Solids (TDS), although the upper portion of the aquifer contains a thin interval of calcium bicarbonate water, as indicated in several of DWR's multiple completion monitoring wells (Groundwater Management Plan, 1997). The water chemistry of the Kern River water tends to be a calcium sodium bicarbonate type. The calcium bicarbonate water recharged from the river apparently undergoes an ion exchange process as it infiltrates the deeper parts of the aquifer, changing it to a sodium bicarbonate type.

Groundwater quality in other parts of the District, especially the western portion, has high salinity and is generally unusable. This includes groundwater in the vicinity of Taft and the Taft Wastewater Treatment Facility. Groundwater quality generally improves to the east, which explains why the wellfields are located on the far eastern end of the District, nearly fifteen miles from Taft, the largest urban area in the District.

The local groundwater generally does not have microbial water quality problems. Parasites, bacteria, and viruses are filtered out as the water percolates through the subsurface on its way to the aquifer. Even so, disinfectants are added to local groundwater when it is pumped by wells to protect public health. Local groundwater has very little TOC and generally has very low concentrations of bromide which minimizes the potential for DBP formation. Taste and odor problems from algae are not an issue with groundwater. The recharge waters and the local Kern River are very low in TDS thus the groundwater is also low.

Information in the WKWD GSA's MAP indicates that groundwater quality has generally been consistent in the past, including through the historically low groundwater levels of 2015. Groundwater quality does not appear to degrade with decreased groundwater elevations.

Water recovered by district wells have had occasional one-off detections of constituents of concern. In these instances, in cooperation with the State Water Resources Control Board, Division of Drinking Water, the district has operated under approved temporary blending programs to ensure drinking water standards are maintained for delivered water. One well currently has a blending plan due to arsenic, and several wells have increased monitoring due to on and off detection of radionuclides.

WKWD maintains a telemetry system which allows for automated control of pumping, flow, tank levels and numerous other system operations. Production wells are manually prioritized in sequence, allowing for dominant flows from select wells, if needed. Once established, the process is monitored to ensure that proper blending is occurring to protect public health. WKWD, at a minimum, maintains daily records of the flow and hours of operation of each well used for blending. WKWD's blending plan includes:

1. *WKWD shall maintain daily, theoretical blending calculations and submit a copy of the daily blending calculations for the month by the 10th day of the following month.*
2. *WKWD shall collect samples of the blended effluent for analysis by an approved laboratory monthly. Results must be submitted by the laboratory to SWRCB DDW using the Electronic Data Transfer (EDT) method.*
3. *WKWD shall collect a blended sample of all wells utilized in blending, for analysis by an approved laboratory, quarterly. Results shall be submitted by the laboratory to SWRCB DDW using the EDT method.*
4. *WKWD shall calibrate the flow meters on the wells and the blended effluent discharge line at least annually.*
5. *SWRCB DDW must be notified if there is a failure in the blending operation.*

6.6.3 AQUIFER PROTECTION

The District is working independently, and in cooperation with public agencies and oil and gas companies, to address and correct any contamination threats to its groundwater. However, to date no significant threat to the groundwater has occurred.

6.7 WASTEWATER AND RECYCLED WATER

6.7.1 RECYCLED WATER COORDINATION

Legal Requirements:

CWC 10633
The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.

The District has been interested in developing a recycled water program to provide water to large-landscaped areas in Taft and surrounding communities. Recycled water would be a new water source that could help the District meet sustainability requirements mandated by the Sustainable Groundwater Management Act. It would also be a firm water supply, available every year, and much more reliable than its SWP supply.

In 2018 the District participated in a feasibility evaluation for the use of recycled potable water produced by the Taft wastewater treatment facility in the City of Taft. The City of Taft and the Ford City-Taft Heights Sanitation District received a water recycling grant from the State Water Resources Control Board to assess the cost and feasibility of implementing tertiary treatment facilities and recycled water pipelines to irrigate large-landscaped areas. This would expand current uses of the secondary treated wastewater already taking place under an agreement with a local alfalfa farmer to distribute treated water on City owned farmland. The study area included the City of Taft, Taft Heights, and Ford City.

The market best considered for recycled water in the Taft study area is predominantly landscape irrigation for public spaces such as cemeteries, parks, play fields and schools. Additional uses may include dust control on roadways and streets as well as use on construction projects. The goal of the study was to expand the existing recycled water program in Taft to augment potable water supplies by substituting potable water with recycled water whenever possible. Multiple alternatives were explored including the consequences of not expanding the current recycling program. Additionally, the study explored use of recycled water from a tertiary treatment facility and secondary level recycled water for irrigation and the associated costs of each approach.

It was concluded that reuse of all water produced by the Taft WWTF for ongoing alfalfa production on the 135-acre City-owned property was the best alternative given the service area's needs and the associated cost of implementation. The use of recycled water for urban landscaping was deemed uneconomical for the following reasons: current effluent management practices, low associated costs with ongoing use as irrigation water, existing infrastructure, the City's added benefit of receiving 5% of the net alfalfa cultivation, and groundwater quality improvement caused by natural nitrogen uptake by the alfalfa crop. Since the District does not provide agricultural water, the current and future planned use of the wastewater effluent does not impact District supplies and demands.

6.7.2 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

Legal Requirements:

CWC 10633 (a) *(Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.*
CWC 10633 (b) *(Describe) the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.*

WKWD provides water supply but does not oversee sewage collection or treatment. Two wastewater treatment facilities are present in the District and are discussed below.

Taft Wastewater Treatment Facility

The City of Taft and Ford City-Taft Heights Sanitation District jointly own a Wastewater Treatment Facility (WWTF) just outside the Taft City limits. The WWTF treats wastewater from the City of Taft, Taft Heights, and Ford City (see location on Figure 3-1 in Section 3). The treatment plant is operated by the Kern Sanitation Authority. Wastewater flows are primarily domestic and commercial in nature. Annual wastewater treatment averages around 1,000 AF.

The WWTF currently provides secondary level treatment which includes two aerated ponds and two settling ponds; chlorine contact basin (not in service); holding pond and effluent pumping station; solar sludge drying beds, and a 12.8 AF capacity reservoir which provides effluent storage prior to discharge to the effluent disposal area. The WWTF has a capacity of 1.5 MGD. In 2017, improvements were completed through the installation of the Biolac treatment process. A tertiary treatment facility would be needed to provide recycled water for landscape uses.

The wastewater effluent is currently used in the vicinity of the WWTF for irrigating non-edible fodder crops. No wastewater effluent is discharged to any water bodies. Some of the effluent percolates to the groundwater during the irrigation process. Local groundwater near the WWTF is at an approximate depth of 400 to 800 feet below ground surface and is of poor mineral quality with EC (electro-conductivity at 25°C) of 4,000 to 6,000 µmhos/cm and TDS greater than 4,000 mg/l, which rapidly diminishes in quality with depth. As a result, wastewater effluent that percolates into the ground flows to a saline sink and is no longer usable.

Buena Vista Aquatic Recreation Area Wastewater System

The Buena Vista Aquatic Recreation Area Wastewater Treatment facility is owned by the County of Kern. The facility provides wastewater treatment for the recreation area which includes a 112-unit overnight campground and its accompanying car and boat parking lots.

A maximum of 200,000 gallons of wastewater, generated by visitors and staff, are treated each day at the Buena Vista Aquatic Recreation Area Wastewater Treatment Facility. Wastewater treatment is obtained in an extended aeration package plant that consists of an aeration chamber, a clarifier, and a digester. Effluent disposal is accomplished in two fenced percolation/evaporative ponds which total two acres.

Table 6-3 and Table 6-4 provide information on the existing treatment and water recycling program.

Table 6-3: Wastewater Generated within Service Area in 2025

Wastewater Collection Agency	Wastewater Treatment Agency	Treatment Plant Name	Is WWTP Located Within Service Area?	Is WWTP Operation Contracted to a Third Party?	Was Volume Measured or Estimated?	Volume of Wastewater Collected from the Service Area 2025
The City of Taft and Ford City-Taft Heights Sanitation District	The City of Taft & Ford City-Taft Heights Sanitation District	Taft Wastewater Treatment Facility	Yes	Yes	Measured	954 AF
Buena Vista Aquatic Recreation Area Wastewater System	County of Kern	Buena Vista Aquatic Recreation Area	Yes	Yes	Measured	4.65 AF
					Total Wastewater Collected from Service Area	958.65 AF

Table 6-4: Wastewater Treatment and Discharge within Service Area in 2025

Name of Wastewater Treatment Plant	Discharge Location Description	Method of Disposal	Does this Include Wastewater Generated Outside the Service Area?	Treatment Level	2025 Volumes (AF)			
					Waste water Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Taft Wastewater Treatment Facility	Adjacent agricultural fields	Land Disposal (Fodder irrigation)	No	Secondary, undisinfected	954	0	954	0
Buena Vista Aquatic Recreation Area	Ponds	Percolation and Evap.	No	Primary	4.65	4.65	0	0

6.7.3 RECYCLED WATER SYSTEMS

Legal Requirements:

CWC 10633(c) *(Describe) the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.*

The wastewater effluent from the Taft area is currently used in the vicinity of the WWTF for irrigating non-edible fodder crops. This water currently receives secondary level treatment.

6.7.4 RECYCLED WATER BENEFICIAL USES

Legal Requirements:

CWC 10633(d) *(Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses .*
CWC 10633(e) *(Describe) the projected use of recycled water within the supplier's service area at the end of 5, 10, 15 and 20 years…*
CWC 10633(e)
(Describe) the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

Currently, wastewater effluent is beneficially used to irrigate fodder crops near the wastewater treatment plant. However, this recycling does not beneficially impact the District's water supplies or demands since the District does not supply agricultural water. A 2018 Recycled Water Study by The Wallace Group that evaluated recycled water for urban uses and concluded that a recycled water system was economically unfeasible.

6.7.5 ACTIONS TO ENCOURAGE AND OPTIMIZE FUTURE RECYCLED WATER USE

Legal Requirements:

CWC 10633(f) *(Describe the) actions, including financial incentives, which 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.*
CWC 10633(g) *(Provide a) plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.*

In June 2015, the City of Taft, WKWD, West Side Cemetery District (WSCD), and the West Side Recreation & Park District (WSRPD) signed a Memorandum of Understanding (MOU) to explore water recycling opportunities (see Appendix G). The MOU outlines their common interest in recycled water, and the terms for securing a consultant to perform a recycled water study. This MOU exemplifies the level of cooperation and local interest in recycled water in the local community. The City of Taft also supports recycled water through long-term goals and inclusion within the City's General Plan as Policy PF-10. However, the District's 2018 recycled water study showed that recycled water was economically unfeasible.

While the recycled water study showed that recycled water was not economically feasible, WKWD is still open to exploring other options in the future if economic or water supply conditions change. While not a form of recycled municipal water, the District is also interested in reusing produced water brought to the surface in oil wells. This concept has been explored, however, similar to treated wastewater effluent, initial investigation showed reuse of produced water was economically unfeasible.

6.8 DESALINATED WATER OPPORTUNITIES

Legal Requirements:

§10631(i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

The California UWMP Act requires a discussion of potential opportunities for use of desalinated water (Water Code Section 10631[i]). WKWD has evaluated such opportunities, and they are described in the following section, including opportunities for desalination of brackish water, groundwater, oilfield produced water, and seawater.

6.8.1 BRACKISH WATER AND/OR GROUNDWATER DESALINATION

The sources of groundwater for WKWD include SWP and Kern River water recharged in the vicinity of the District's recovery wells. Neither of these supplies contain high TDS levels and therefore do not contribute significant amounts of TDS which would cause brackish groundwater.

The oil industry is prevalent in the District, and significant quantities of water are pumped from deep aquifers during oil recovery operations. This water, called 'produced water', is currently injected back into deep geologic formations through wells. The water is typically brackish and would require treatment for salinity, and possibly other constituents, before it could be reused. WKWD will continue to explore opportunities for using produced water, however, initial investigation showed treating produced water is costly and requires additional infrastructure to deliver.

6.8.2 SEAWATER DESALINATION

Because the WKWD service area is not in a coastal area, it is neither practical nor economically feasible for WKWD to implement a seawater desalination program. Therefore, WKWD has no current plans to pursue seawater desalination, and desalinated supplies are not included in the supply summaries in this Plan.

6.9 EXCHANGES OR TRANSFERS

Legal Requirements:

§10631(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

Important elements to enhancing the long-term reliability of water supplies are transfers and exchanges. These have been important supplies that supplement the District's SWP water. The primary transfers and exchanges for WKWD are summarized in the table below.

Table 6-5: Transfer and Exchange Opportunities

Transfer agency	Transfer or exchange	Short term or long term	Proposed Volume	Time Period
Kern Tulare Water District	2:1 Exchange	Short-Term	650 AF/year	Through 2036
Buena Vista WSD	Transfer	Long-term	6,500 AF/year	On-going
Total	-	-	7,150AF/year	-
Units : Acre-feet				

6.10 ENERGY CONSUMPTION

Energy intensity is defined as the amount of energy used to collectively divert, store, convey, treat, and distribute each unit volume of water and herein is reported as kilowatt hours per acre-foot (kW-hr/ac-ft). The analysis was performed using data for 2025.

WKWD utilizes two sources of water: groundwater, and raw water from the State Water Project. Raw water from the State Water Project is delivered directly to one of the District's customers with the use of WKWD pump stations. The customer directly pays these energy costs, and the energy usage is included in the analysis.

The energy intensity analysis is shown below in Table 6-6. The final calculated energy intensity is 4,777 kWh/AF. WKWD is different from many other retail urban water suppliers in that several facilities used for groundwater extraction, conveyance, and distribution are powered by natural gas from the SoCal Gas Company and PG&E. Natural gas wells and booster pumps operate at lower efficiencies than its electric counterparts, however, due to site location limitations, this is often the only practical power option. Natural gas use is metered and measured in units of Therms. To calculate Energy Intensity all energy units must be in the same units of kWh. The equation to convert Therms to kWh, provided by SoCal Gas, can be seen below. All other facilities are powered by electricity from PG&E or solar panels depending on location.

$$1\ Therm * \frac{100{,}000\ BTU}{Therm} * \frac{1\ kWh}{3412\ BTU}$$

Table 6-6: Energy Intensity (2025)

Description	Extract and Divert	Place into Storage	Distribution	Total Utility
Volume of Water Entering Process (AF)	12,371	1,423	10,829	12,371
Energy Consumed (kWh)	4,692,437	9,084	54,395,826	59,097,347
Energy Intensity (kWh/AF)	379	6	5,023	4,777

6.11 FUTURE WATER PROJECTS

Legal Requirements:

> ***CWC 10631(g)*** *…The urban water supplier shall include a detailed description of expected future projects and programs… that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.*

Table 6-7 summarizes proposed actions to improve water supplies and water management in WKWD. Implementation of each project will be dependent on available funding and staff time.

Table 6-7: Future Water Supply Projects

Action	Joint Project with other agencies		Description	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply (AF)
	Y/N	Agency				
Delta Conveyance Facility	Y	State of California	Through Delta conveyance to improve supply water reliability. Participation in the project is being discussed among KCWA and its Member Units	Unknown	Average	2,200 AF (7% of SWP contract)

6.12 SUMMARY OF EXISTING AND PLANNED SOURCES OF WATER

Legal Requirements:

> ***CWC 10631***
> *(b)Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision 10631(a). (4) (Provide a) detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*

WKWD is always interested in pursuing new water supplies through short and long-terms transfers, exchanges, or water banking agreements. Given potential impacts from climate change, and the gradual reduction in SWP reliability, new water sources may be needed in the future. No specific sources are currently known, but WKWD staff will stay apprised of opportunities to increase importation of water into the District.

Table 6-8 tabulates the existing and anticipated future water supplies for WKWD.

Table 6-8: Water Supplies — Current and Projected (AF)

Water Source	2025		2030	2035	2040	2045	2050
	Actual Volume	Level of Treatment of Source Water					
Purchased Water	65,00	-	0	0	0	0	0
Groundwater (recovered from local bank)	11,161	Disinfection	14,718	14,811	14,907	15,004	15,104
Imported Surface water	0	None	16,358	15,853	15,347	15,044	15,044
Recycled Water	0	-	0	0	0	0	0
Desalinated Water	0	-	0	0	0	0	0
Stormwater Use	0	-	0	0	0	0	0
Transfers		-					
Buena Vista WSD	6,000	None	6,500	6,500	6,500	6,500	6,500
Exchanges							
Santa Clarita Return	0						
Rosedale-Rio Bravo WSD	0	None	-	-	-	-	-
Kern Tulare WD	8,508	None	650	650	-	-	-
Total	32,169		38,226	37,814	36,754	36,548	36,648
Estimated Demands[2]	16,338		17,356	17,448	17,542	17,637	17,735

Notes:

1. *Previously stored surface water (recovered from local bank) reflected the total treated water (including pump-ins[3]) demands plus system losses, since the District could meet all treated water demands with banked groundwater for the foreseeable future. Pump-ins average 2,082 (2021-2025) of water that is pumped but not consumed locally.*
2. *For years 2030 to 2050, imported surface water based on the reliability in the 2019 SWP Delivery Capability Report, which varies from 53.5% in 2025 down to 47.8% in 2043, and assumed constant at 47.8% after 2043.*
3. *Demands based on assumptions and criteria described in Section 4 – Water Uses.*
4. *Some transfers are recovery of groundwater.*

[3] Pump-in's refer to the District's two turn-in facilities that allows recovered groundwater to be pumped into a surface water conveyance system (CA Aqueduct or the Cross Valley Canal) for delivery back to San Luis Reservoir or to return previously banked water to a groundwater banking partner.

7 WATER SUPPLY RELIABILITY

The UWMPA requires urban water suppliers to assess water supply reliability by comparing total projected water demands with the expected water supply over the UWMP planning period. The UWMPA requires this assessment for normal (average), single-dry and multiple-dry-years. This section presents the reliability assessment for WKWD's service area.

It is the stated goal of WKWD to deliver a reliable and high-quality water supply for its customers, even during dry periods. Based on conservative water supply and demand assumptions, in combination with conservation of non-essential demand during certain dry years, the District expects to continue achieving this goal over the next 25 years.

7.1 CONSTRAINTS ON WATER SOURCES

Legal Requirements:

CWC 10631(c)(2)
For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.
CWC Section 10634
The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

7.1.1 CONSTRAINTS ON SURFACE WATER SUPPLIES

Overview
The District's primary surface water supply comes from the SWP. The District has a contract amount of 31,500 AF, however SWP water deliveries are variable and typically less than the full contract amount.

The amount of SWP water allocated to contractors each year is dependent on a number of factors that can vary significantly from year to year. The primary factors affecting SWP supply include hydrologic conditions in northern California, the amount of water in SWP storage reservoirs at the beginning of the year, regulatory and operational constraints on SWP facilities, and the total amount of water requested by the contractors. On average the availability of SWP supplies to SWP contractors is generally less than their full Table A amounts in many years and can be significantly less in very dry years.

State Water Project Delivery Capability Report
DWR prepares a biennial report to assist SWP contractors and local planners in assessing the near and long-term availability of supplies from the SWP. DWR issued its most recent update, the 2025 DWR State Water Project Delivery Capability Report (DCR) - Draft, in December 2025. In this report, DWR provides SWP supply estimates for use in various planning efforts, including 2025 UWMP updates. Water availability estimates are provided for both current and future 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 assumptions and inputs to the model include the system facilities, hydrologic inflows, regulatory and operational constraints on system operations, climate change projections, and projected contractor demands for SWP water.

Beginning with the 2023 DCR, DWR replaced the use of unadjusted historical hydrology with adjusted hydrologic conditions. These adjustments reflect known differences between precipitation and inflow patterns observed over the most recent 30 years compared to the prior 100-year historical record, requiring modification of the historical dataset to better represent current and future conditions.

The 2025 DCR continued this adjusted historical hydrology approach and evaluated model current conditions, defined as existing facilities; hydrologic inflows based on 100 years of adjusted historical data (1922–2021); current regulatory and operational constraints; and contractor demands assumed at maximum Table A amounts. The DCR provides a reliability of about 54% for 2025, which equates to 17,000 AF/year for WKWD (31,500 AF (100% Table A amount) x 54% = 17,010 AF/year). For future conditions (year 2043) the reliability is 48%, resulting in a supply of 48% x 31,500 AF/yr = 15,120 AF/yr.

Delta Conveyance Project

An ongoing planning effort to increase long-term supply reliability for the SWP is taking place through the Delta Conveyance Project. The Delta Conveyance Project facilities would allow for greater flexibility in balancing the needs of the estuary (Delta) with the reliability of water supplies. The plan would also provide other benefits, such as reducing the risk of long outages from Delta levee failures.

Public negotiations between Department of Water Resources (DWR) and Public Water Agencies (PWAs) for the Delta Conveyance Project (DCP) began in 2019 and were completed in April 2020. These negotiations led to an Agreement in Principle (AIP) for an Amendment to the State Water Contract regarding the DCP. The Parties' goal was to equitably allocate costs and benefits of a DCP and to preserve State Water Project operational flexibility. The environmental review was completed in 2023.

While there is widespread support for the DCP, it is still in the planning and design phase. To date, WKWD has committed considerable resources to the DCP planning effort. West Kern and other Member Units of KCWA are currently discussing participation and opportunities to make the project more affordable.

7.1.2 CONSTRAINTS ON GROUNDWATER SUPPLIES

Three factors affect the availability of groundwater: 1) Sufficient recovery capacity (wells and pumps), 2) Sustainability of the groundwater resource to meet pumping demand on a renewable basis, and 3) Groundwater quality including protection of groundwater resources (wells) from known contamination, and provisions for treatment/blending in the event of contamination. These topics are addressed below:

Recovery Capacity

For many years the District's water supply came entirely from the South Well Field, located about 15 miles northeast of Taft. The wells were grouped in a small area, which began to impact local groundwater levels and total recovery capacity. Reductions in SWP supplies also created additional stress on the groundwater levels. As a result, the District constructed the North Well Field in 2013. Located about 3 miles northwest of the South Well Field, these facilities provide the District more flexibility and reliability for operations and increase access to its water supplies. The North Well Field project increased the number of production wells from 8 to 13.

Sustainability of Groundwater Resources

Previously stored surface water supplies in WKWD have provided a reliable buffer against drought and reduced surface water supplies. The District currently recharges much of its surface water supply (with the exception of up to 3,000 AF/year which is delivered directly to one industrial water user). This practice helps regulate water supplies and reduce the need for water-use restrictions in dry years and even multi-year droughts. The District currently has a net positive balance of about 266,000 AF of previously stored surface water in the local aquifer, which would provide about a twenty-year water supply, if necessary. The Sustainable Groundwater Management Act (SGMA) requires that WKWD manage its groundwater supplies sustainably with no net long-term overdraft or other undesirable results. More information on SGMA is provided in Section 6.4.2.

Groundwater Quality

Groundwater quality in the two well fields is generally excellent, with the exception of one well with slightly elevated arsenic concentrations. The District has enacted a blending program to address the arsenic. Several wells show the presence of radionuclides and monitoring has been expanded in these wells, but this has not impacted supplies thus far. Refer to Section 7.2 for more details.

7.1.3 CONSTRAINTS ON RECYCLED WATER SUPPLIES

The Taft metropolitan area currently recycles wastewater effluent for non-edible crop irrigation but does not have a recycled water program to help meet domestic water demands. The District investigated a program to recycle 400 AF/year for large landscape use but it was found to be uneconomical. Refer to Section 6.7 for more information on the proposed recycled water program. If economic conditions for recycled water change, it could be a reliable supply and provide the same quantity in every hydrologic year type. While indoor water usage (and hence wastewater effluent) can go down in dry years due to conservation efforts, the recycled water program would only use about 25% of the effluent (400 AF versus 1,460 AF), so the full amount could be available every year, and thus help to reduce demands for potable water, if it becomes economically viable in the future.

7.2 WATER QUALITY IMPACTS ON WATER RELIABILITY

The quality of the imported water and other recharge sources are not anticipated to reduce reliability. These waters come from high quality sources including the SWP and Kern River.

Overall, groundwater quality in the vicinity of the District well fields is excellent. The water quality of the District's wells represents a family of water that is typical of water recharged by high quality Kern River

water. Groundwater quality in other parts of the District, especially the western portion, has high salinity and is generally unusable. Groundwater quality generally improves to the east, which explains why the well fields are located at the far eastern end of the District. This has limited the area that can be developed for wells, but that has been partially rectified by the construction of the North Well field, which now supplements the South Well field, and provides greater pumping capacity and redundancy.

To ensure compliance with the MCL's of 15 pCi/L for gross alpha and 20 pCi/L for combined uranium, three wells are monitored quarterly due to elevated levels of gross alpha and combined uranium. The blended water at Station A is also sampled quarterly for the two contaminants. Additionally, an approved arsenic blending plan is on file at the State. In summary, water quality issues are not anticipated to have any significant impact on water reliability for the District.

7.3 RELIABILITY BY TYPE OF YEAR

Legal Requirements:

CWC 10631(c) (1)
Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following: (A) an average water year, (B) a single dry water year, (C) multiple dry water years.

The available supplies and water demands for WKWD's service area were analyzed for three scenarios: a normal water year, single-dry year, and multiple-dry years. Table 7-1 presents the base years for the development of water year data. The base years were determined from the historical SWP deliveries. The Average Water Year is simply the estimated long-term average conditions for the SWP.

The SWP reliability scenarios in the table below are from the 2025 State Water Project Delivery Capability Report (DWR, 2025) and represent current (2025) conditions. The reliability for the five-year drought are listed as 15%, and did not differ each year. The 5% reliability for the Single-Dry Year is based on the actual allocation in 2014.

Table 7-1: Bases of Water Year Data (AF)

Water Year Type	Base Year(s)	Available Supplies		
		Volume Availability	SWP Reliability	% of avg supply
Average Water Year	-	16,900	54%	100%
Single-Dry Water Year	2014	1,575	5%	10%
Multiple-Dry Water Years – 1st Year	1988	4,725	15%	31%
Multiple-Dry Water Years – 2nd Year	1989	4,725	15%	31%
Multiple-Dry Water Years - 3rd Year	1990	4,725	15%	31%
Multiple-Dry Water Years – 4th Year	1991	4,725	15%	31%
Multiple-Dry Water Years – 5th Year	1992	4,725	15%	31%

Note: WKWD's Table A amount is 31,500 AF/year. The supplies shown above are the Table A amount multiplied by the SWP Reliability.

7.4 SUPPLY AND DEMAND ASSESSMENT

Legal Requirements:

CWC 10635(a)
Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional or local agency population projections within the service area of the urban water supplier.

This section compares supplies and demands for normal, single-dry year, and multiple-dry year scenarios in WKWD. Also included are tables showing the source of the water, including surface water, transfers and exchanges, and pumping from the District's local groundwater banking project. The tables show current conditions in 2025 and projections in 5-year increments through 2050. All values in these tables are rounded to the nearest 100 AF.

Some of the tables show a water surplus in certain years. In these years, the surplus water will be banked for use in dry years. In all year types the District can meet demands; when water supplies are low due to dry conditions the balance can be made up with previously stored surface water.

Normal Year

Table 7-2: Normal Year Supply and Demand Comparison (AF)

Water Use	Water Use (AFY)					
	2025	2030	2035	2040	2045	2050
Surface Water (100% of Normal)	17,000	16,500	16,000	15,500	15,100	15,100
Surface Water Transfers/Exchanges	7,150	7,150	7,150	6,500	6,500	6,500
Total Supply	24,150	23,650	23,150	22,000	21,600	21,600
Total Demand	12,371	14,436	14,529	14,625	14,722	14,822
Difference (from previously stored surface water supplies)	0	0	0	0	0	0

Single Dry Year

Table 7-3: Single Dry Year Supply and Demand Comparison (AF)

Water Use	Water Use (AFY)					
	2025	2030	2035	2040	2045	2050
Surface Water (9% of Normal)	1,600	1,600	1,600	1,600	1,600	1,600
Surface Water Transfers/Exchanges	7,150	7,150	7,150	6,500	6,500	6,500
Total Supply	8,750	8,750	8,750	8,100	8,100	8,100
Total Demand	12,371	14,436	14,529	14,625	14,722	14,822
Difference (from Banked Groundwater)	3,621	5,686	5,779	6,525	6,622	6,722

Multiple Dry Years

The Multiple Dry Year analysis assumes that Stage I of the Water Shortage Response Plan (WSRP) will be enacted in the third year of a drought (see **Section 8** – Water Shortage Contingency Planning). This results in a demand that is 10% lower than those in other years.

Table 7-4: Multiple Dry Year Supply and Demand Comparison (AF)

Year	Description	Water Use (AFY)					
		2025	2030	2035	2040	2045	2050
Year 1	Surf. Water (5% of Normal)	4,700	4,700	4,700	4,700	4,700	4,700
	Surface Water Transfers/Exchanges	7,150	7,150	7,150	6,500	6,500	6,500
	Total Supply	11,850	11,850	11,850	11,200	11,200	11,200
	Total Demand	12,371	14,436	14,529	14,625	14,722	14,822
	Difference (from previously stored surface water)	521	2,586	2,679	3,425	3,522	3,622
Year 2	Surf. Water (5% of Normal)	4,700	4,700	4,700	4,700	4,700	4,700
	Surface Water Transfers/Exchanges	7,150	7,150	7,150	6,500	6,500	6,500
	Total Supply	11,850	11,850	11,850	11,200	11,200	11,200
	Total Demand	12,371	14,436	14,529	14,625	14,722	14,822
	Difference (from previously stored surface water)	521	2,586	2,679	3,425	3,522	3,622
Year 3	Surf. Water (5% of Normal)	4,700	4,700	4,700	4,700	4,700	4,700
	Surface Water Transfers/Exchanges	7,150	7,150	7,150	6,500	6,500	6,500
	Total Supply	11,850	11,850	11,850	11,200	11,200	11,200
	Total Demand	11,134	12,992	13,076	13,162	13,250	13,339
	Difference (from previously stored surface water)	-716	1,142	1,226	1,962	2,050	2,139
Year 4	Surf. Water (5% of Normal)	4,700	4,700	4,700	4,700	4,700	4,700
	Surface Water Transfers/Exchanges	7,150	7,150	7,150	6,500	6,500	6,500
	Total Supply	11,850	11,850	11,850	11,200	11,200	11,200
	Total Demand	11,134	12,992	13,076	13,162	13,250	13,339
	Difference (from previously stored surface water)	0	1,142	1,226	1,962	2,050	2,139
Year 5	Surf. Water (5% of Normal)	4,700	4,700	4,700	4,700	4,700	4,700
	Surface Water Transfers/Exchanges	7,150	7,150	7,150	6,500	6,500	6,500
	Total Supply	11,850	11,850	11,850	11,200	11,200	11,200
	Total Demand	11,134	12,992	13,076	13,162	13,250	13,339
	Difference (from previously stored surface water)	0	1,142	1,226	1,962	2,050	2,139

Summary of Comparisons

As shown in the analyses above, WKWD has adequate supplies to meet demand during normal, single-dry, and multiple-dry years throughout the 25-year planning period. WKWD will recover previously stored surface water supplies to meet demand when demand exceeds the surface water supply in single-dry and multiple-dry year periods. In times of excess, the water will be recharged for use in the future. Currently, WKWD has about 266,000 AF in storage which represents about 20 years of full annual demand and helps to ensure reliability in dry periods. Recharge of surface water often increases in wet years, therefore, the amount of surface water in storage is expected to last for several decades. WKWD's water reliability is stable, largely due to the long history of recharging surface water for use in dry years.

7.5 DROUGHT RISK ASSESSMENT

A drought risk assessment was completed to evaluate the District's ability to meet a 5-year drought if it occurred over the next five years. The assessment looks at current demands and effectiveness of water augmentation and water use reduction measures.

The assessment simulates the same 5-year drought (1988-1992) evaluated in **Section 7.3** and assumes similar estimated water demand over the next 5 years (2026-2030). The following methodology was used in developing the Drought Risk Assessment:

1. *Water demands were interpolated between current (2025) usage and anticipated 2030 demands.*
2. *SWP supplies are based on the values presented in* ***Table 7-1.***
3. *Water augmentation measures included the District's wells; demand reduction of 10% is assumed to occur in the third year of drought with implementation of Stage 1 of the District's Water Shortage Response Plan.*

The results of the Drought Risk Assessment are shown in **Table 7-5** below.

Table 7-5: Drought Risk Assessment (2026-2030)

Description	Water Use (AFY)				
	2026	2027	2028	2029	2030
Water Demands	12,784	13,197	13,610	14,023	14,436
SWP Allocation	15%	15%	15%	15%	15%
SWP Supplies	4,700	4,700	4,700	4,700	4,700
Shortfall	8,084	8,497	8,910	9,323	9,736
Water Conservation Measures	0	0	1,361	1,402	1,444
Recovery of previously stored surface water	8,084	0	7,549	7,920	8,292
Revised Surplus/(shortfall)	0	0	0	0	0
Resulting % Use Reduction from WSCP action	0%	0%	10%	10%	10%

The Drought Risk Assessment shows that supply augmentation and water use reduction savings can adequately address water shortage in the simulated drought and allow urban water needs to be met.

7.6 REGIONAL SUPPLY RELIABILITY

Legal Requirements:

> ***CWC 10620 (f)***
> *An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.*

Each water supply source has its own reliability characteristics. In any given year, variability in weather patterns around the state may affect the availability of supplies to the Kern River drainage and SWP. For example, California experienced dry conditions from 2013 through 2015. WKWD was able to provide sufficient water due to agreements with local agencies and an active surface water recharge program. To ensure reliability, WKWD intends to increase its water reliability by maximizing recharge of available surface water.

WKWD recovers previously stored surface water supplies from the SWP and Kern River. The District began storing surface water on the Kern River Fan in 1966. This practice has resulted in a positive balance and long-term sustainable supply to meet demand. WKWD is required to maintain a positive balance according to local agreements, and the amount of stored surface water exceeds annual demand. Many other agencies in the Kern Groundwater Subbasin also recharge and recover available surface water supplies to stabilize groundwater levels and augment supplies.

Storm water and imported surface water contribute to the recharge of the Basin. Storm water recharge is affected by changes in the local hydrology and is highly limited to the dry climate of the region. The amount of SWP water allocated to contractors each year is dependent on a number of factors that can vary significantly from year to year. The primary factors affecting SWP supply availability include hydrologic conditions in northern California, the amount of water in SWP storage reservoirs at the beginning of the year, regulatory and operational constraints on SWP facilities, and the total amount of water requested by the contractors. The availability of SWP supplies to SWP contractors is generally less than their full Table A amounts in most years and can be significantly less in very dry years.

Recharge operations on the Kern River Alluvial Fan depend on local and imported supplies from two distinct hydrologic regions of the state. Weather patterns can impact Southern California differently than Northern California. Drought in Northern California impacts SWP supplies and surface water reliability to WKWD. While surface water reliability may be impacted by drought, WKWD maximizes recharge of it SWP and other surface water supplies to maintain reliability.

Table ***7-6*** summarizes factors resulting in inconsistent supplies for WKWD's various water supplies.

Table 7-6: Factors Resulting in Inconsistency of Supply

Water supply sources	Limitation quantification	Legal	Environmental	Water quality	Climatic	Additional information
Surface Water						
Kern County Water Agency (SWP)	X		X			Dependent on SWP deliveries and export restrictions in the Delta
Groundwater						
Kern River Alluvial Fan (WKWD Stored Surface Water Recovery)	X					Dependent on SWP deliveries and other surface water supplies. May be impacted by SGMA in the future.
Transfers / Exchanges						
Rosedale-Rio Bravo		X				Time limit on agreement
Kern-Tulare Water District		X				Time limit on agreement
Buena Vista Water Storage District		X				Time limit on agreement

7.7 CLIMATE CHANGE IMPACTS ON WATER DEMANDS, SUPPLIES, AND RELIABILITY

DWR guidelines require urban water suppliers to consider potential effects related to climate change in the UWMP as it relates to water demands, water supply, and water supply reliability. These three topics are provided below after a general discussion on climate change impacts.

General Impacts from Climate Change

Climate change model projections indicate that California in general can expect to be impacted by the following:

- Increased temperatures
- Decrease in snowpack due to increasing winter temperatures
- More precipitation falling as rain and less as snow
- More winter runoff and less spring/summer runoff due to warmer temperatures
- Greater water demand for crop and landscape irrigation
- Greater extremes in flooding and droughts
- Sea level rise, which could impact Delta water quality and Delta water deliveries

The Tulare Lake Basin portion of the Kern County Integrated Regional Water Management Plan prepared a Climate Change Vulnerability Assessment in August 2014 (Kennedy/Jenks, 2014). Kern County updated its IRWMP in 2020, but it did not include a detailed Climate Vulnerability Assessment. This technical memorandum identifies the potential climate change vulnerabilities in the Kern Region and potential future actions to mitigate the vulnerabilities. The Vulnerability Assessment is an extensive document and should be referenced for more detailed information. The assessment prioritized the vulnerabilities in Kern County as follows (1 being the sector most prioritized [high risk] and 4 being the sector least prioritized [low risk] with respect to climate change vulnerability):

1. Water Supply; Water Quality
2. Water Demand; Flooding
3. Ecosystem and Habitat
4. Sea Level Rise and Hydropower

Climate Change Impact to Water Demands

One of the primary effects expected from climate change in the future is an increase in average global temperature. According to the Western Region Climate Center, California has experienced an increase of 1.1 to 2 degrees Fahrenheit (°F) in mean temperature in the past century. Both minimum and maximum annual temperatures have increased, with the minimum temperatures (+1.6 to 2.5 °F) increasing more than maximums (+0.4 to 1.6 °F). The average annual temperature of Kern County is expected to rise 3.5-6.3˚F by the end of the 21st Century (DWR, June 2015). As a result, summer dryness is predicted to start earlier and last longer than it has historically. This change in temperature will increase evaporation, lengthen growing seasons, intensify evapotranspiration, and will lead to drier soils which will require more irrigation water.

Increases in temperature may be expected to impact water resources through changes to precipitation patterns, evapotranspiration rate increases, increased customer water use, increased wildfire potential, and faster snowmelt. These potential impacts are likely to impact the State Water Project supplies.

As climate change becomes more evident and quantifiable, WKWD's response will need to include reducing demands to match possible reduction of water supplies from the SWP. At this point, impacts from possible climate change are not quantifiable. Reduction of the per capita demands in the system can help respond to climate change in two ways. Reduced water demands equate to less energy used to recover stored surface water and/or movement of water supplies through the system. Further reduction of per capita water demands may be challenging to achieve, as WKWD has already implemented many demand management or conservation methodologies.

It is anticipated that climate change induced increases in temperatures and more hot days will impact landscape water demands by WKWD municipal/domestic customers; however, as WKWD has goals to maintain its per capita use goal, urban water demands are not anticipated to increase. Temperature rises will translate to increased evapotranspiration rates. Mitigating possible increased water demands for landscape may require less landscaping, increased use of drought tolerant plantings, or more efficient irrigation strategies within the District.

Warmer temperatures will result in a shift towards more rain and less snow, resulting in less snowpack storage. DWR (June 2015) states that most climate model precipitation projections for the state anticipate

drier conditions in Southern California, with heavier and warmer winter precipitation in Northern California. On average, projections indicate little change in total annual precipitation in California (Kennedy/Jenks, August 2014). However, the distribution, timing and type of precipitation may vary. Even modest changes in California would have a significant impact because California ecosystems are conditioned to historical precipitation levels and water resources are nearly fully utilized. Within the WKWD service area, local rainfall provides only a small contribution to landscape irrigation demands and groundwater recharge, but any reduction would be detrimental. Precipitation that impacts SWP supplies is more important to WKWD's water supplies.

Climate Change Impacts to Water Supplies

Because the Kern Region relies heavily on imported supplies, any reduction or change in the timing or availability of those supplies could have negative impacts on the water supplies of the Region. Reductions in imported water supplies would lead to increased reliance on local groundwater, recycled water, or other sources of supplies if demand was not reduced. WKWD is highly reliant on SWP contract water originating from Northern California and receives Kern River water through exchanges and transfers. As the northern Sierra's peaks are relatively lower than the southern Sierra, a warmer climate is projected to cause greater snowpack reduction in the state's northern Mountains, which provide much of the SWP water delivered from the Delta. Climate change could cause earlier runoff in the Delta, and result in water supplies being available during months when Delta pumping restrictions are more severe. The timing and availability of these supplies could be impacted by climate change.

Oil and gas drilling in Kern County could be impacted by decreasing water availability, particularly in times of drought by limiting the amount of water available for cooling, fuel extraction, and power generation. The effects of climate change and water availability on the oil and gas sector include a combination of potential direct and indirect impacts. Water is required in many different stages of the oil and gas value chain, from exploration to processing to transport, and the volume of water used in these activities varies, with the largest volume used in the refining process. Among exploration and production processes, the largest volume of water is used as a supplemental source. Industrial water accounts for about 70% of the water use in WKWD in 2025, so this sector could be significantly impacted.

The Kern Region is not directly subject to sea level rise. However, sea level rise would affect imported water supplies. The principal concern is the potential for sea water intrusion that would increase Delta salinity. Climate change could adversely impact Delta water quality through the following:

- Reduce surface water flows into the Delta
- Raise sea level and cause sea water intrusion into the Delta
- Require more freshwater releases from reservoirs to maintain Delta water quality, thereby reducing water available for urban uses
- Increase water temperatures in the Delta and rivers/streams flowing into the Delta
- Increase sediment loading in the Delta (because of increased wildfires and more extreme precipitation events)
- Threaten the stability of Delta levees, whose failure would impact water quality and Delta conveyance capacity

Also, changes in local hydrology could affect natural recharge to the local groundwater aquifers and the quantity of groundwater that could be pumped sustainably over the long-term. Decreased inflow from runoff, increased evaporative losses, and warmer and shorter winter seasons can alter natural recharge of groundwater. Furthermore, additional reductions in the imported water imposed by climate change would lead to more reliance on local groundwater, resulting in reductions in base flows, reduced groundwater outflows, increased depth to groundwater, and increased land subsidence.

WKWD will need to address these potential reductions in SWP surface water supplies by improved water efficiency measures, additional surface water recharge or reduced recovery of stored surface water supplies in wet years to leave water in the aquifer for drier years.

Climate Change Impact on Water Supply Reliability

The state is already experiencing decreases to natural snowpack in the Sierra Nevada, which has implications for SWP deliveries. Climate change will likely cause more precipitation to fall as rain, and warmer temperatures will cause snowpack to melt 4 to 14 days earlier in the season. DWR is predicting that the Sierra snowpack will experience a 25% to 40% reduction by 2050 based on historical modeling, with additional decreases caused by warmer storms due to climate change. At the local level, changes in the timing and intensity of precipitation could negatively affect groundwater recharge, runoff flowing to rivers and reservoirs, flooding frequency, and length of the dry season and resulting increased risk of wildfires and vegetation die off.

Average monthly runoff is a critical component of California's water supply planning. Flood protection and water supply infrastructure have been designed and optimized for historical conditions. However, the timing of peak monthly runoff in the Sacramento River between 1906-1955 and 1956-2007 has shifted nearly a month earlier indicating that this key hydrology metric is no longer stationary (DWR, June 2015). Timing is projected to continue to move earlier in the year, further constraining water management by reducing the ability to refill reservoirs after the flood season has passed.

The Sacramento–San Joaquin River Delta is the central hub of the SWP. Potential impacts to the Delta resulting from climate change include increased risk of levee failure, reduced water quality, and reduced water supply, all of which could significantly impact SWP operations, and the reliability of the supply of water delivered through the Kern County Water Agency. Sea-level rise threatens to disrupt deliveries from the SWP if saltwater advances into the Delta and increased quantities of fresh water would need to be released to protect water quality.

WKWD plans to adapt to climate change using a variety of strategies. Most of these strategies are considered "no-regret strategies." In other words, if climate change does not occur, or the impacts are less than expected, WKWD would have no regrets from implementing the adaptation strategies, since they would still benefit overall water reliability.

Proposed strategies to adapt to climate change essentially include projects/programs that the District is already pursuing, but perhaps more aggressively as funding and staffing availability permit. These strategies include:

- Urban water conservation
- Water transfers
- Conjunctive use programs (primarily groundwater storage within WKWD)
- Support projects that could improve the reliability of imported SWP water

8 WATER SHORTAGE CONTINGENCY PLANNING

The Urban Water Management Planning Act requires that the UWMP include an urban water shortage contingency analysis that addresses stages of action to be undertaken by the urban water supplier in response to water supply shortages, including more than a 50 percent reduction in water supply. In addition, the District is required to develop mandatory water conservation measures to implement during each water shortage stage.

The District's Water Shortage Response Plan (WSRP), which is synonymous with a Water Shortage Contingency Plan (WSCP), is an independent document from the UWMP and can be found in Appendix H. There are no new requirements for WSCPs in 2025. Minor updates were made to the WSCP prepared in 2020. Some of the main topics covered in the updated WSCP include:

- Procedures for evaluating water supplies
- Criteria for declaring a water shortage
- Water shortage levels
- Shortage response actions
- Seismic risk and mitigation actions
- Community outreach
- Customer compliance and enforcement
- Revenue impacts
- Monitoring and reporting requirements
- Monitoring and evaluating the WSCP

9 DEMAND MANAGEMENT MEASURES (DMMS)

Legal Requirements:

CWC 10631 (f)
(A) …A narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.
(B)The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:
(i) Water waste prevention ordinances.
(ii) Metering.
(iii) Conservation pricing.
(iv) Public education and outreach.
(v) Programs to assess and manage distribution system real loss.
(vi) Water conservation program coordination and staffing support.
(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.
CWC 10631
(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
(1) (A) … a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years.

9.1 DMMS

The District recognizes that conserving water is an integral component of a responsible water strategy, and is committed to providing education, tools, and incentives to help its customers reduce the amount of water they use. The following sections review compliance with the existing Demand Management Measures (DMMs) and provide an implementation plan for compliance with the UWMP Act. The District plans to expand demand management measures to help ensure that every year it stays within its goal of 189 gpcd. Implementing DMMs, however, may be dependent on available funding and staff time to execute the programs.

9.1.1 WATER WASTE PREVENTION ORDINANCES

The District actively pursues incidents of water waste. District supervisors, Customer Service Representative, meter readers, and the flushing and sampling crews inspect customer usage routinely for anomalies. Incidents of waste are investigated and recommendations for correction are provided. Water sources are regulated and can be disconnected in cases of excessive leakage and/or facilities failure.

Appendix H includes the District's WSRP, which was first adopted in 2010, and was readopted as part of this UWMP update. The WSRP establishes six levels of response actions to be implemented in times of shortage (Response Level 1 through Response Level 6), with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies. The policy establishes progressive response levels including regulations to be implemented during times of declared water shortages to attain escalating conservation goals.

Penalties for water waste are discussed in the WSRP. Customers are given a warning after their first water waste violation. Subsequent violations can include a $300 Administrative Fee, $600 Administrative Fee (third offense), and finally Discontinuance of Service (fourth offense).

9.1.2 METERING

The District boundary encompasses 300 square miles with approximately 300 miles of transmission and distribution lines. All water deliveries provided through the District's system are metered and all new water service accounts require meters which are installed, maintained and read for billing purposes by the District. Applicable source and high-volume meters are calibrated on a periodic basis. Meters that are not performing adequately are replaced.

All residential and commercial customers are billed by volume. Some industrial customers are billed by volume and some, accounting for about 40 percent of deliveries, have long-term "take or pay" contracts. (See Conservation Pricing section below for more information.) The District monitors its system in a number of different ways.

Most of the large landscapes in the District's service area have dedicated irrigation meters, including greenbelts, park accounts and a golf course (which has four meters and is classified as an Industrial account). Public school accounts have mixed use meters, but District staff are currently working with the local school district to explore the possibility of installing dedicated meters on school play fields. One dedicated irrigation meter has been installed recently at a school with more planned for the future.

The District also has meters on all of its productions wells. Beginning in 2015, the District implemented a program for annual testing of the flow meters at each well (as required by the District's State Operating Permit).

Acoustic and propeller meters are used to measure deliveries from the SWP.

The District completed installation of Advanced Metering Infrastructure (AMI) on all connections in 2023.

9.1.3 CONSERVATION PRICING

The District has different pricing structures, depending on customer type:

1. Residential/Commercial Rate

   Residential and Commercial customers are classified as "Domestic" customers in the District's billing system and are billed at the same rate on a monthly basis. In 2023, the District eliminated an initial allotment of 10 HCF of customer usage and converted to a volumetric pricing structure. In addition, the District changed to a new two-tier pricing structure wherein the Tier 2 rate is higher than the Tier 1 rate rather than the previous two tier structure wherein Tier 2 rate was lower than the Tier 1 rate, which encourages wasteful water use. (Table 9-1).

Table 9-1: Residential and Commercial Volumetric Rates (per HCF)

Volume	2025
Up to 1,500 ft^3	$1.45
>1,500 ft^3	$1.73

2. Industrial Rate

Industrial water use accounts for about 70 percent of the District's annual water demand; customers are subject to one of two rate structures:
Metered potable water: $4.02 /HCF (2025)
Metered raw water: $2.58/HCF (2025)

Meter charges are not included in the rates above.

a. Fixed Rate "Take or Pay" contracts: Most of the industrial customers have long term "Take or Pay" contracts which guarantee customers an agreed upon amount of water (Base Supply). Should the customer take less than the Base Supply, they must still pay one-half of the contract price for the water not taken. For any purchases beyond the Base Supply, the customer is required to pay for such water that is actually delivered and is billed volumetrically.

For those customers holding "Take or Pay" contracts (which do not conform to the requirements of the DMM), the District claims a legal exemption. The "Take or Pay" contracts are legally binding; some have expiration dates, others do not. Contracts with expirations expire in various stages, the latest of which is in 2036. As these contracts begin to expire the District is shifting those customers to a negotiated volumetric rate structure with no "Take or Pay" clause and a standard volumetric rate structure that does conform to the requirements.

Most Take or Pay contracts were executed in 1988, long before the DMM requirements were developed, and are legally binding. The District does not have the legal authority to change the terms and conditions of these contracts prior to expiration.

Appendix I includes a summary of water rates and fees in WKWD.

9.1.4 PUBLIC EDUCATION AND OUTREACH

The District promotes water conservation efforts in coordination with AWWA, ACWA, KCWA and Water Association of Kern County programs. The District distributes public information through brochures, local speaking engagements, its website (www.wkwd.org) and special events such as community and street fairs.

WKWD's education and outreach activities support conservation programs and enhance customer awareness of conservation. WKWD offers water conservation programs and services for all residential and commercial accounts. Programs and services include general and targeted promotions, presentations, workshops, free water savings devices, incentives for installing water-saving fixtures and equipment, as well as other education and outreach programs.

Conservation practices are communicated through a variety of educational publications and brochures. Some brochures include charts for quick references relative to indoor and outdoor conservation techniques, lists of appropriate plants for weather zones and landscape design tips.

Marketing techniques used include a specific approach for individual customers and a broad approach to communities, and include the following:

- Advertisements
- Public Service Announcements
- Bill Inserts
- Door Hangers
- District Office Displays
- Newspaper and Magazine Ads
- Pamphlets
- Community Billboards
- Newsletters/Brochures/Magazines distributed around communities at other business offices
- Radio
- Taft Community Gardens leases District property for gardening, WKWD assists with functions, and conservation is promoted.
- Spray nozzles for new customers
- Booths at service clubs and fairs
- Various events with the West Side Recreation and Park District, The Westside Oil Museum, Water Association of Kern County, Taft Chamber of Commerce, City of Taft and Oildorado. At these events the District promotes water conservation, hands out shower timers, spray nozzles, and water conservation coloring books.
- Special Events – Media
- School education programs (see Section 9.1.7.1)
- Programs coordinated with other agencies and public interest groups
- Educational/informational sessions for commercial, industrial and landscape irrigation customers

As part of these efforts, the District General Manager provided education on water conservation, and handed out conservation items at various schools, clubs, meetings and community events. District staff attended various community events where they handed out nozzles, educational materials and spoke to the community about saving water throughout the year.

The District has been meeting the goal of at least four contacts/year with the public and four contacts/year with the media.

More information on water conservation education in schools is provided in Section 9.1.7.1.

The budget for these conservation-related public information programs averaged $22,100 per year from 2021 to 2025, with maximum annual spending of $29,226.

Quantifying water savings through education and outreach is not feasible, however these efforts make a significant contribution towards promoting conservation efforts.

9.1.5 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

The District has conducted pre-screening system audits of its distribution system and leak detection since 1990 as part of its regular operation and maintenance procedures. These audits are conducted each month and at the end of each year. The District reports its metered monthly well production and monthly system wide water deliveries to DWR each year as part of our Public Water System Statistics Report. Reports covering the past five years indicate the District's system has an annual water loss of less than 4 to 5 percent of total annual production.

In the past, this loss rate fell below the threshold that required action, but that standard has been replaced by a new requirement that specifies implementation of the AWWA M36 Standard Water Audit methodology. Implementation of the M36 methodology requires a specific set of information on authorized and unauthorized consumptions, metering inaccuracies and more; most of this data is being collected through the District's current program. The District implemented the AWWA M36 Standard Water Audit methodology for Calendar Years 2020 through 2024. The District's water audit data validity score for 2022 to 2024 averaged 72 out of 100.

As part of the State regulation called Making Conservation a California Way of Life, the District is required to reduce system losses and meet a System Loss Standard by 2027. The standard requires an 82 percent reduction in real losses, and an apparent loss standard of 40.8 gallons per service connection per day. West Kern Water District views this goal as unreasonable and unattainable, and is seeking an alternative compliance pathway. The District covers a large area and water is delivered through an extensive pipeline network that serves industrial customers. In addition, over 70% of deliveries are sent to industrial customers, so the overall losses appear high on a per customer basis. The District has made efforts to improve water loss monitoring, including the installation of AMI on all connections, which was completed in 2023.

9.1.6 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

The District has four staff responsible for various conservation-related tasks. The General Manager, Regulatory Administrator, and Administrative Assistant work on conservation part-time and are in charge of program planning, development and administration. A Water Service Technician responds to customer issues such as high bills, leaks, and water waste.

9.1.7 OTHER DEMAND MANAGEMENT MEASURES

Following are discussions on other DMMs that WKWD implements but are not required components of an UWMP.

9.1.7.1 SCHOOL EDUCATION

WKWD recognizes the importance of educational benefits and has developed a program to provide local students and teachers a variety of education programs and tools. WKWD designed a water education curriculum for elementary schools in the District that meets Common Core standards. The curriculum is

district specific and was created for 2nd/3rd and 5th/6th graders. A book was provided to each classroom and it will become part of the regular curriculum. The District has added some new outreach components including a video, activity books and incentives for teachers to participate.

4,922 students from five different schools participated in the program from 2021 to 2025. A summary of the students reached is shown in Table 9-2.

Other educational events include career days at the local junior high and high school, where the District gives out about 500 water conservation pamphlets and other free promotional items, and discusses how the District system works, career opportunities and water conservation with students.

Table 9-2: School Education Activities

	Mckittrick Elementary No. Students		Midway School District No. Students		Taft City School District No. Students		Maricopa Unified School District No. Students		Elk Hills School District No. Students		Total Students
	2nd	5th	2nd	5th	2nd	5th	2nd	5th	2nd	5th	
2020/21	6	10	4	9	256	248	23	23	22	20	621
2021/22	5	10	6	6	276	270	33	28	20	22	676
2022/23	10	10	9	11	256	210	29	29	18	17	599
2023/24	5	6	7	5	265	256	34	32	15	20	645
Totals	**26**	**36**	**26**	**31**	**1053**	**984**	**119**	**112**	**75**	**79**	**2541**
	K-3rd		K-3rd		K-3rd		K-3rd		K-3rd		
2024/25	22		27		986		99		55		1189
2025/26	29		24		1000		80		59		1192
	51		**51**		**1986**		**179**		**114**		**2381**
										Total	**4922**

9.1.7.2 INDOOR AND OUTDOOR WATER SURVEYS FOR SINGLE/MULTI-FAMILY RESIDENTIAL CUSTOMERS RESIDENTIAL PLUMBING RETROFITS

The District has combined the Residential Assistance and Landscape Water Survey programs into a single analysis because the program is implemented as a single audit program with indoor and landscape elements. This is expected to improve efficiency and result in cost savings.

The District offers free water use surveys to residential and commercial customers designed to help customers use water more efficiently. The surveys range from self-evaluations to on-site consultation of usage focused on large residential and commercial landscape irrigators. Customers are also provided with educational materials and water-saving devices to improve water use efficiency. Examples include free low-flow shower heads, shower timers and aerators for inside fixtures and for outside use, and water shut-off nozzles for hose bibs. WKWD also provides Indoor Water Conservation Kits to residential users upon

request and at community outreach events. The kits provide customers information to help assess current practices and how to detect leaks.

Statistics on the number of water surveys have not been tracked closely in recent years, but the District will begin tracking them in 2026. Fixture giveaways are on-going.

The District currently has one full-time employee who is assigned, among other things, to respond to customer issues such as high bills, leaks and water waste. The employee also provides low-flow devices to customers as appropriate.

9.1.7.3 RESIDENTIAL PLUMBING CODES

There is very little new development in the District's service area; it's estimated to be on the order of about 1 percent growth per year or less. See Section 2 for discussion of service area characteristics.

The DMM requires that the District provide incentives such as rebates, recognition programs, or reduced connection fees, or ordinances requiring residential construction meeting water sense specifications (WSS) for single and multi-family housing until a local, state or federal regulation is passed requiring water efficient fixtures. The 2019 California Green Building Standards Code (CAL Green Code, CALGreenCode.pdf) addresses these WSS requirements.

The 2010 CAL Green Code originally set mandatory green building measures, including a 20 percent reduction in indoor water use, as well as dedicated meter requirements and regulations addressing landscape irrigation and design. The 2019 Code identifies voluntary measures that set a higher standard of efficiency. The District, in collaboration with local planning departments is reviewing the proposed standards to determine the most appropriate direction. The District is also supporting implementation and monitoring of the Code by incorporating the new rules into its water service or "will serve" requirements.

9.1.7.4 HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAMS

The District began offering High-Efficiency Clothes Washers (HECW) rebates in 2013. The District offers $200 per washing machine that is on the Consortium for Energy Efficiency (CEE) approved list. Applications are available at the main district office and on the District website.

The District has a goal of providing 70 rebates per year, for a total savings of about 2 gpcd for each new washing machine.

Washing machine rebates from 2021 to 2025 and rebate expenditures (not including staff salary costs) included:

- 2021 – 25 rebates ($5,000)
- 2022 – 18 rebates ($3,600)
- 2023 – 4 rebates ($800)
- 2024 - 3 rebates ($600)
- 2025 - 4 rebates ($800)

The District plans to continue outreach in an effort to increase and maintain participation. The District will also look for local program partners such as Pacific Gas and Electric (PG&E) and/or the wastewater utility to combine marketing, outreach and administrative costs, and potentially increase incentive amounts.

The District would like to evaluate a tiered rebate system, based on the potential water savings from three different levels of washing machine efficiency listed by the CEE.

9.1.7.5 RESIDENTIAL ULFT REPLACEMENT PROGRAMS

The District began offering High Efficiency Toilet (HET) rebates in 2012. The program was initially called the 'Junk your John Kickoff' program. Rebates are $150 per toilet. The toilets must be on the EPA WaterSense approved list and replace a toilet using 3.5 gallons/flush or higher. Applications are available at the main district office and on the District website.

Based on a resale rate for the City of Taft of 4 percent[4], the program goal is a replacement of 260 units per year over 10 years. The savings would be about 3.2 gpcd for each new toilet.

Toilet rebates from 2021 to 2025 and rebate expenditures (not including staff salary costs) included:

- 2021 – 45 rebates ($6,750)
- 2022 – 26 rebates ($3,900
- 2023 – 26 rebates ($3,900
- 2024 – 14 rebates ($2,100
- 2025 – 18 rebates ($2,700)

Customers have been notified of the program through several forms of media, but the program has not yet reached its annual goal of 260 units per year. WKWD will increase outreach efforts to increase participation.

The District plans to explore revisions to the toilet rebates so they are tiered for different uses. For example, hotel toilets are used less often than residential toilets since there are less users per toilet and hotel rooms are often vacant. Alternatively, toilets at restaurants and other public areas are used more often than residential toilets and offer more potential water savings.

The District also provides toilet dye kits at its front counter year-round, to help customers identify leaks in existing toilets.

Program participation is currently tracked through the billing system; water savings will either be estimated based on standard assumptions or through the billing system if the capacity can be developed.

[4] City of Taft, Assessor's Office. Conversation 10/22/10.

9.1.7.6 SMART IRRIGATION CONTROLLER REBATE PROGRAM

The District offers rebates of up to $125 for customers that purchase and install a smart irrigation controller. From 2021 to 2025, 12 rebates were issued. This is a newer program and the District is working to expand it. In the future, the District may consider rebates for installing xeriscape or artificial turf, to supplement the smart irrigation controller program.

9.1.7.7 CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL

The District offers several conservation programs to commercial and institutional customers. Current and future efforts will focus on commercial and institutional customers, since verifying industrial savings is difficult or impossible as water usage depends on the market conditions for oil and gas and demands for power generation.

Commercial and Institutional

Commercial and institutional water conservation efforts will include a combination of other DMMs including large landscape conservation, education and rebates. These water users fall into the same billing category as residential customers, and water conservation will be achieved through similar measures.

Industrial

The District set an internal goal in 2015 of reducing industrial water usage by 10% over 10 years. Currently, about 70% of water deliveries in the District go to industrial customers. Based on 2015 deliveries of 16,970 AF, the industrial sector would reduce consumption 170 AF/year for a period of ten years through 2025 to meet this goal. Industrial water use has reduced more than 50% in the last ten years, from 16,970 AF in 2015 to 7,882 AF/year in 2025. Much of this drop is attributed to restrictions put on the oil and gas industry, and it's unknown how much is due to water conservation and efficiency efforts.

Industrial water is primarily supplied to oil and gas producers and power plants. Water usage typically varies with the market for crude oil and natural gas and power demands across the state, therefore, conservation efforts are difficult, if not impossible to track. However, one improvement the District has made is the installation of automatic meters that allow industrial customers to track water usage, on a daily basis, instead of waiting for their monthly bill. This data provides more detailed information that can help better track, manage and conserve water usage. Industrial customers are also asked to reduce water usage on landscaping to conserve water during droughts.

The primary industries classified as industrial accounts are oil and gas production and electrical power generation; each account for almost 50% of industrial water usage. More information on each is provided below:

- Oil and gas Industry. Oil and gas producers have accounted for the majority of the District's water sales for more than forty years. Oil and gas production in western Kern County relies heavily on the injection of steam into oil bearing formations to enhance oil recovery. Steam injection is required to lift the low gravity oil to the surface. After recovery, the oil and water are separated and the water is either recycled for steaming or reinjected into the formation for disposal.
- Electrical Generation. The electrical generation industry utilizes, among other things, steam or natural gas to power turbines that generate electricity. Both systems require a large amount of

water for cooling tower operations. Where steam is used to turn a turbine, it will pass through the system up to seven times before degrading to a quality at which it can no longer be used. Once the steam becomes unsuitable, additional water is required to maintain a source of steam. If the power plant is located near an oil and gas field, the steam can be injected to enhance oil recovery.

- Golf Courses. Golf courses are also classified as "industrial" use in the District's billing system, however, DWR requires golf course usage be reported in the Residential/Commercial category in this UWMP. Golf course water conservation is discussed below in the DMM for Large Landscape Conservation.

To meet and maintain ten percent industrial water savings, the District will continue direct outreach to its largest customers, most of which are longtime customers of the District. Both oil and gas producers and electricity generators employ technical personnel with a high level of expertise who are dedicated to exploring methods to enhance production and reduce operational costs. The District is somewhat limited in the added value it can provide in terms of providing technical assistance to these industries for reducing water consumption, however it is actively exploring new opportunities. Recent discussions have explored using "produced water" to meet certain potable demands.

Produced water is a term used in the oil and gas industry to describe water that is produced during oil recovery. Oil reservoirs typically contain large volumes of water (i.e., formation water). As mentioned previously, additional water/steam is often injected into the reservoirs to maximize oil recovery. Once separated from the oil, formation and injected water, when properly treated, could be used for certain landscape applications or other outdoor applications.

Historically, produced water was disposed of in large evaporation ponds, however there is an increased focus on beneficial re-uses for produced water. Produced water is considered an industrial waste with associated water quality and environmental concerns. Currently, oil companies are not permitted to use produced water for dust control, however, other re-use options are being explored. Understanding customer processes and water quality needs will help the District evaluate alternative water supplies and whether customer produced water can be utilized to offset potable supplies elsewhere in the service area.

9.1.7.8 LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES

About one-third of domestic use goes to large landscape irrigation. The District has dedicated meters on all of its parks accounts and four at the golf course while the 11 schools are on mixed use meters. Consumption information is available for each location. The District has installed a landscape dedicated meter at one school with plans to install dedicated landscape meters at locations, currently with mixed use meters, with large landscaping demands. This will allow the District to gather the information required to better understand the landscape uses, and perform a proper assessment of potential efficiency improvements.

Since 2023, the District has helped the West Side Recreation and Park District develop xeriscape projects in the community to save water.

The District plans to develop an ETo based water budget for its irrigation accounts at a rate of four per year starting in 2026. The District will include the budget information with the customer's bills and provide technical support as required.

The Jr. College, High School, Grammar Schools, and Park District each employ individuals trained in landscape water efficiency. The District will work with staff from those entities to explore further opportunities to promote efficient water use.

The District has also been working with one golf course in the service area to explore conservation options. To conserve water, the golf course has allowed fairways to go fallow, and installed ground moisture sensors. As a result, the golf course has seen an overall average water savings of 11% per year when compared to 2015 volumes.

Future goals also include:

1. *Irrigation water use surveys for 1.5% of mixed-use meter commercial accounts/year.*
2. *Implement and maintain a customer incentive program for irrigation equipment retrofits.*
3. *Install dedicated irrigation meters at large landscape connections*
4. *Assisting with large landscape water budgets for customers. This will be needed to comply with the District's Urban Water Use Objectives*

Increasing water use efficiency on large landscapes is a high priority for the District. The District is already in direct contact with most of its landscape customers. The District will continue to work with these customers, identify efficiency opportunities and support implementation through upgrades, rebates, metering or in other ways that are determined to be most effective. Consumption patterns will be more closely tracked and communicated with the customer, and water savings will be measured through the billing system.

9.1.7.9 WHOLESALE AGENCY ASSISTANCE PROGRAMS

WKWD is a wholesale water agency since they provide water to California Resources Corporation, however the District is not implementing any wholesale assistance programs at this time.

9.2 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

Legal Requirements:

CWC 10631
(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
(1) (A) …The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

The District recognizes the need to expand conservation programs and efforts in order to continue to maintain its future water conservation goals. The District plans to implement all of the aforementioned

DMMs in an effort to conserve as much water as feasible, and provide a full portfolio of water conservation measures and opportunities.

The District is in the process of identifying programs and preparing implementation plans. In addition to the activities identified for DMM implementation, the District is considering implementation of the following programs:

1. Landscape: The District will work with the School District to install dedicated irrigation meters and identify appropriate efficiency options. The District will also work with the Parks to identify opportunities to improve irrigation efficiency. The District will provide the School District and Parks with financial and technical support as needed.

2. The District will continue to work with the golf course to identify and implement water saving opportunities.

3. The District now offers rebates for smart irrigation controllers and will work to expand the program.

10 BIBLIOGRAPHY/REFERENCES

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4. *California Department of Water Resources, Climate Change Handbook for Regional Water Planning, November 2011.*
5. *California Department of Water Resources, The State Water Project Draft Delivery Capability Report 2025, December 2025.*
6. *Kenned/Jenks Consultants, Vulnerability to Climate Change Technical Memorandum – Kern IRWMP, August 2014.*
7. *State of California, 20x2020 Water Conservation Plan, February 2010.*
8. *California Energy Commission, Public Interest Energy Research Program, The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California, May 2009.*
9. *West Kern Water District, 2024 Consumer Confidence Report.*
10. Kern County Subbasin Groundwater Sustainability Agencies, *Kern County Subbasin Groundwater Sustainability Plan 2025 – Amended Final Version,* August 2025.

Appendices

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX A – UWMP CHECKLIST

Appendix A: UWMP Checklist 2025

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and overview	Ch 6 and Ch 9
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the Supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a Supplier may also choose to include a simple description at the beginning of each chapter.	Plan preparation	Lay Description
x	x	Section 2.1	10620(b)	Every person that becomes a Supplier shall adopt UWMP within one year after it has become a Supplier.	Plan preparation	N/A
x	n/a	Section 2.5	10644	Supplier shall report the Public Water Systems number, volume of delivered water, and number of connections that are included in this UWMP.	Plan preparation	Section 2.1
x	x	Section 2.5	10644	Supplier shall report if this UWMP is an individual UWMP and whether the Supplier belongs to a regional UWMP or regional alliance.	Plan preparation	Section 2.1

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 2.5	10644	Supplier shall report whether the data is in fiscal or calendar years and the units of measure used for reporting water volumes.	Plan preparation	Section 2.1
x	x	Section 2.4	10642	Provide supporting documentation that the Supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan preparation	Section 2.2
x	x	Section 2.4.2	10620(d)(3)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other Suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan preparation	Section 2.2.3
x	n/a	Section 2.4.1	10631(h)	Retail Suppliers will include documentation that they have provided their Wholesale Supplier(s)—if any—with water use projections from that source.	Plan preparation	Section 2.2.2
n/a	x	Section 2.4.1	10631(h)	Wholesale Suppliers will provide their Suppliers with identification and quantification of the existing and planned sources of water available from the Wholesale Supplier to the Supplier during various water year types.	Plan preparation	N/A

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Chapter 3.0	10631(a)	Describe the Supplier service area.	System description	Section 3.1
x	x	Section 3.3	10631(a)	Describe the climate of the Supplier's service area.	System description	Section 3.1.4
x	x	Section 3.4.1	10631(a)	Provide the current and projected service area populations for 2030, 2035, 2040, 2045 and optionally 2050.	System description	Section 3.2
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the Supplier's water management planning.	System description	Section 3.2
x	x	Section 3.5	10631(a)	Describe the land uses within the service area… include the current and projected land uses within the existing or anticipated service area affecting the Supplier's water management planning. Describe the land uses within the service area.	System description and baselines	Section 3.1.2
x	Optional	Sections 4.2.3 and 4.2.4	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System water use	Section 4.1
x	Optional	Section 4.3.1	10631(d)(3)(A)	Report the distribution system water loss for each of the five years preceding the plan update.	System water use	Section 4.3
x	n/a	Section 4.3.2	10631(d)(3)(C)	Retail Suppliers shall provide data to show the distribution loss standards were met.	System water use	Section 4.3
x	n/a	Section 4.2.5.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the Supplier.	System water use	Section 4.5

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	n/a	Section 4.2.5.3	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System water use	Section 4.4
x	n/a	Section 4.2.5.3	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System water use	Section 4.4
x	n/a	Section 4.2.5.3	10631(d)(4)(B)(ii)	To the extent that a Supplier reports the information described in subparagraph (A), an urban water Supplier shall… Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.	System water use	Section 4.4
x	x	Section 4.2.5.6	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System water use	Section 7.7
n/a	x	Section 5.1	10608.36	Wholesale Suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their Retail Suppliers achieve targeted water use reductions.	Baselines and targets	N/A

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	n/a	Section 5.2	10608.4	Retail Suppliers shall report on their compliance in meeting their water use targets. Reporting requirements will vary depending on whether the Supplier: - Was considered an urban retail water supplier in 2020, - Met its 2020 target in 2020, or - Was part of a merger or consolidation since 2020. Chapter 5 Subsections 5.2.1, 5.2.2, and 5.2.3 address each of these situations.	Baselines and targets	Section 5.3
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System supplies	Sections 6.2 – 6.4
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System supplies	Sections 7.3 – 7.4

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 6.2.2	10631(b)(4)(C)	Indicate whether groundwater is an existing or planned source of water available to the Supplier. If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	Water supplies and recycled water	Section 6.4
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the Supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System supplies	Section 6.4.2
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System supplies	Section 6.4.1
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the Supplier has the legal right to pump.	System supplies	Section 6.4.1
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… (include) information as to whether DWR has identified the basin as a high- or medium-priority basin in the most current official departmental bulletin…	Water supplies and recycled water	Section 6.4.1

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 6.2.2	10631(b)(4)(B)	For unadjudicated basins… describe efforts by the Supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	Water supplies and recycled water	Section 6.4.2
x	x	Section 6.2.2.	10631(b)(4)(C)	If groundwater is identified as an existing or planned source of water… (include) a detailed description and analysis of the location, amount and sufficiency of groundwater pumped by the Supplier for the past five years.	System supplies	Section 6.4.3
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System supplies	Section 7.4
x	x	Section 6.1	10631(b)	Identify and quantify the existing and planned sources of water available for 2025, 2030, 2035, 2040, 2045 and optionally 2050.	System supplies	Section 7.4
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System supplies	Section 6.9
x	n/a	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the Supplier's service area with quantified amount of collection and treatment and the disposal methods.	System supplies (recycled water)	Section 6.7.2

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System supplies (recycled water)	Section 6.7
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the Supplier's service area.	System supplies (recycled water)	Section 6.7
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System supplies (recycled water)	Section 6.7
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the Supplier's service area at the end of 5, 10, 15, and 20 years, and describe the actual use of recycled water in comparison to uses previously projected.	System supplies (recycled water)	Section 6.7
x	x	Section 6.2.5	10633(f)	Describe the actions that may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System supplies (recycled water)	Section 6.7.5
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the Supplier's service area.	System supplies (recycled water)	Section 6.7.5
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System supplies	Section 6.8

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 6.2.10	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water Supplier to address water supply reliability in average, single-dry, and for a period of drought lasting five consecutive water years.	System supplies	Section 7.3
x	x	Section 6.3 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a Supplier can readily obtain.	System suppliers, energy intensity	Section 6.10
x		Section 7.1	10634	Provide information on the quality of existing sources of water available to the Supplier and the manner in which water quality affects water management strategies and supply reliability.	Water supply reliability assessment	Section 6.6
x	x	Section 7.2	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the Supplier with the total projected water use over the next 20 years.	Water supply reliability assessment	Sections 7.3 - 7.4
x	x	Section 7.2.3	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water supply reliability assessment	Section 7.1.1

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water supply reliability assessment	Section 7.5
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive years.	Water supply reliability assessment	Section 7.5
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water supply reliability assessment	Section 7.3
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the Supplier with the total projected water use for the drought period.	Water supply reliability assessment	Section 7.5
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water supply reliability assessment	Sections 7.6-7.7
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water shortage contingency planning	Section 8
x	x	Chapter 8	10632(a)(1)	Provide an analysis of water supply reliability (from Guidebook Chapter 7) in the WSCP.	Water shortage contingency planning	Appendix H

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the Supplier will use each year to determine its water reliability.	Water shortage contingency planning	Appendix H
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the Supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water shortage contingency planning	Appendix H
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10%, 20%, 30%, 40%, 50% shortage, and greater than 50% shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water shortage contingency planning	Appendix H
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing WSCP that uses different water shortage levels must cross reference their categories with the six standard categories.	Water shortage contingency planning	Appendix H
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with WSCPs that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water shortage contingency planning	Appendix H

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water shortage contingency planning	Appendix H
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water shortage contingency planning	Appendix H
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to State-mandated prohibitions are appropriate to local conditions.	Water shortage contingency planning	Appendix H
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water shortage contingency planning	Appendix H
x	x	Section 8.4.6	10632.5	The UWMP shall include a seismic risk assessment and mitigation plan.	Water shortage contingency plan	Appendix H
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water shortage contingency planning	Appendix H
x	x	Section 8.5	10632(a)(5)(B), 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water shortage contingency planning	Appendix H
x	n/a	Section 8.6	10632(a)(6)	Retail Supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water shortage contingency planning	Appendix H

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the Supplier to enforce shortage response actions.	Water shortage contingency planning	Appendix H
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the Supplier will declare a water shortage emergency per Water Code Chapter 3. *Water Shortage Emergencies*.	Water shortage contingency planning	Appendix H
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the Supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water shortage contingency planning	Appendix H
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	Appendix H
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water shortage contingency planning	Appendix H
x	n/a	Section 8.8	10632(a)(8)(C)	Retail Suppliers must describe the cost of compliance with Water Code Chapter 3.3, *Excessive Residential Water Use During Drought*.	Water shortage contingency planning	Appendix H

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	n/a	Section 8.9	10632(a)(9)	Retail Suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data are collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water shortage contingency planning	Appendix H
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the WSCP to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water shortage contingency planning	Appendix H
x	n/a	Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water shortage contingency planning	Appendix H
x	x	Section 8.12	10632(c)	Make available the WSCP to customers and any city or county where it provides water within 30 days after adoption of the plan.	Water shortage contingency planning	Section 2.3
x	n/a	Sections 9.1	10631(e)(1)	Retail Suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand management measures	Chapter 9

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
n/a	x	Sections 9.2	10631(e)(2)	Wholesale Suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and Supplier assistance program.	Demand management measures	N/A
x	n/a	Chapter 10	10608.26(a)	Retail Suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan adoption, submittal, and implementation	Section 2.3.2
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the Supplier provides water that the Supplier will be reviewing the UWMP and considering amendments or changes to the plan.	Plan adoption, submittal, and implementation	Appendix D
x	x	Section 10.4	10621(f)	Each urban water Supplier shall update and submit its 2025 plan to DWR by July 1, 202 6.	Plan adoption, submittal, and implementation	Section 2.3.3
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the Supplier made the UWMP and WSCP available for public inspection, published notice of the public hearing, and held a public hearing about the UWMP and WSCP.	Plan adoption, submittal, and implementation	Section 2.3.1
x	x	Section 10.2.2	10642	The Supplier is to provide the time and place of the hearing to any city or county within which the Supplier provides water.	Plan adoption, submittal, and implementation	Section 2.3.1

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 10.3.2	10642	Provide supporting documentation that the UWMP and WSCP has been adopted as prepared or modified.	Plan adoption, submittal, and implementation	Appendix B
x	x	Section 10.4	10644(a)	Provide supporting documentation that the Supplier has submitted their UWMP to the California State Library.	Plan adoption, submittal, and implementation	Section 2.3.3
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the Supplier has submitted their UWMP to any city or county within which the Supplier provides water no later than 30 days after adoption.	Plan adoption, submittal, and implementation	Section 2.3.3
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The UWMP, or amendments to the UWMP, submitted to DWR shall be submitted electronically.	Plan adoption, submittal, and implementation	Section 2.3.3
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the WSCP to DWR within 30 days of adoption.	Plan adoption, submittal, and implementation	Section 2.3.3
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its UWMP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	Section 2.3.4
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its WSCP with DWR, the Supplier has or will make the plan available for public review during normal business hours.	Plan adoption, submittal, and implementation	Section 2.3.4

Retail	Wholesale	2025 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2025 UWMP Location
x	x	Section 10.6	10621(c)	If Supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan adoption, submittal, and implementation	N/A

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX B – ADOPTION RESOLUTION

The final resolution for adopting the UWMP will be placed here

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX C – STANDARDIZED DWR TABLES

Submittal Table 2-1 Retail: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2025	Volume of Water Supplied 2025 (AF)
Add additional rows as needed			
CA1510222	West Kern Water District	7,178	12,371
	Total	7,178	12,371

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 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 Retail: Water Supplier Information Exchange **Water Code Section 10631(h)**
The retail Supplier has informed the following wholesale supplier(s) of projected water use.
Wholesale Water Supplier Name
Add additional rows as needed
Kern County Water Agency
NOTES:

10631(h) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available.

Submittal Table 3-1 Retail: Population - Current and Projected Water Code Section 10631(a)						
Population Served	2025	2030	2035	2040	2045	2050(opt)
	21,771	22,210	22,657	23,114	23,580	24,055
NOTES:						

CWC 10631(a) describe the current and projected population of the service area including current and projected population…

Submittal Table 4-1 Retail: 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			
Other (optional)	Residential - single family and multi-family		2,537
Commercial			1,832
Industrial	Treated		6,340
Industrial	Raw Water		1,542
Other (optional)	Fire Protection		
Other (optional)	Fire Hydrant		
Distribution System Water Loss			120
		Subtotal Potable	0
		Subtotal Non-Potable	0
		Total	12,371
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:			

CWC 10631(d)(1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use…identifying the uses among water use sectors including but not limited to:
(A) Single-family residential.
(B) Multifamily.
(C) Commercial.
(D) Industrial.
(E) Institutional and governmental.
(F) Landscape.
(G) Sales to other agencies.
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(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
(I) Agricultural.
(J) Distribution system water loss

Submittal Table 4-2 Retail: Total Uses for Potable, and Non-Potable Water — Projected Water Code Section 10631(d)(1)							
Use Type	Additional Description (as needed)	**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		**Potable or Non-Potable** (OPTIONAL) Drop down list	**2030 (AF)**	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 opt (AF)**
Add additional rows as needed.							
Other (optional)	Residential - single family and multi-family		2,588	2,640	2,694	2,748	2,803
Commercial			1,869	1,907	1,945	1,984	2,024
Industrial	Treated		7,600	7,600	7,600	7,600	7,600
Industrial	Raw Water		1,800	1,800	1,800	1,800	1,800
Other (optional)	Fire Protection						
Other (optional)	Fire Hydrant						
Distribution System Water Loss			579	582	586	590	594
		Subtotal Potable	0	0	0	0	0
		Subtotal Non-Potable	0	0	0	0	0
		Total	14,436	14,529	14,625	14,722	14,821
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:							

CWC 10631(d)(1) For an urban retail water supplier, quantify, to the extent records are available... projected water use…identifying the uses among water use sectors…

Submittal Table 4-3 Retail: Inclusion in Water Use Projections Water Code Section 10631 (a), 10631 (d)(4)(A), and 10631 (d)(4)(B)	
Are Future Water Savings Included in Projections? **Drop down list (y/n)**	No
If "Yes" to above, **state the section or page number**, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found. ***Optional*** Suppliers may complete Optional Submittal Table 4-4 R to quantify the expected savings.	
Are Lower Income Residential Demands Included In Projections? **Drop down list (y/n)**	Yes
Optional If the method for accounting Lower Income Residential Demands has been included, provide page number where this accounting can be found.	
DWR NOTES: Additional guidance is provided in Appendix K.	
NOTES:	

CWC10631 (d) (4) (A) Water use projections, where available, shall display and account for water savings estimated to result from adopted codes, standards, ordinances, or transpotation and land use plans identified by the urban water supplier, as applicable to the service area.

CWC 10631 (d) (4) (B) to the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances or transportation and land use plans utilized in making the projections.
(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.
CWC 10631(a) Water use projections required by section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county, in the service area of the supplier .

Submittal Table 4-5 Retail: Water Loss Audit Reporting Water Code Section 10631(d)(3)(A)		
Public Water System ID # Reported in Table 2-1 R	Reporting Period	Submitted to DWR Water Loss Audit Program (yes/no)
Report submittal status for all five years for each Public Water System as available. Add rows as needed		
	2020	Yes
	2021	Yes
	2022	Yes
	2023	Yes
	2024	Yes
DWR NOTES: Suppliers will provide a link to the WUEdata submittals of their Water Loss Audit Reports.		
NOTES: Water Loss aufits in Appendix F and on the DWR WUE portal: https://wuedata.water.ca.gov/		

CWC 10631(d)(3) (A) The distribution system water loss shall be quantified for each of the five years preceding the plan update, in accordance with rules adopted pursuant to Section 10608.34.

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

Public Water System ID # Reported in Submittal Table 2-1 R	Did the Water Board Calculate a Water Loss Standard for this Public Water System? (y/n) If no, Supplier will not complete this row.	Real Water Loss					Apparent Water Loss				
		State Water Board Standard		Most Recent AWWA Water Loss Audit			State Water Board Standard		Most Recent AWWA Water Loss Audit		
		2028 Real Water Loss Standard per Unit per day	Units for Real Water Loss Drop down list	Number of Units (Connections or Miles corresponding with units selected)	Volume of Total Real Loss (from AWWA Water Loss Audit) (AF)	Real Water Loss Per Unit per Day	2028 Apparent Water Loss Standard per Unit per Day	Units for Apparent Water Loss	Number of Connections	Volume of Total Apparent Loss (from AWWA Water Loss Audit) (AF)	Apparent Water Loss Per Unit per Day
Add additional rows as needed.											
CA1510222	Yes	544.4	Gallons per Mile per Day (GPMD)	315	1043.4	2,957.1	40.8	Gallons per Service Connection per Day (GPSCD)	7178	346.9	43.1
								Gallons per Service Connection per Day (GPSCD)			
								Gallons per Service Connection per Day (GPSCD)			

Water Board's Calculated Water Loss Standards

DWR NOTES: Units of measure (AF, CCF, MG) for Water Loss **MUST** remain consistent with units reported in Submittal Table 2-3. The units reported in Submittal Table 2-3 are used in this table's calculations.

NOTES:

CWC 10631(d)(3)(C) In the plan due July 1, 2021, and in each update thereafter, data shall be included to show whether the urban retail water supplier met the distribution loss standards enacted by the board pursuant to Section 10608.34.

Submittal Table 5-1 Retail: SB X7-7 2020 Target Progress Water Code Section 10608.40						
☐	Check the box if the Supplier was not an Urban Water Supplier during or before the 2020 UWMP reporting cycle. Proceed to the next table.					
Was Supplier part of a merger or consolidation since 2020?	Regional Alliance Target or Individual Target? Drop down list	2020 Target	Actual 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?	Only for suppliers that did not meet the Target in 2020 See DWR NOTES below. Actual 2025 GPCD (From SB X7-7 Compliance Form)	Did Supplier meet the 2020 Target in 2025?
No	Individual Target	189	197	No	184	Yes

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

NOTES:

10608.40 Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans submitted pursuant to Section 10631.

Submittal Table 6-1 Retail: Groundwater Volume Pumped Water Code Section 10631(4) and 10631(4)(c)							
☐	Check the box if the Supplier does not pump groundwater. Proceed to the next table.						
☐	Check the box if all or part of the groundwater described below is desalinated. (OPTIONAL)						
Groundwater Type **Drop Down List** May use each category multiple times	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		Kern County Subbasin	21,338	16,856	12,961	11,557	11,161
		Total	21,338	16,856	12,961	11,557	11,161
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							

10631(4) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information:

(C) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area Water Code Section 10633(a)				
☐	Check the box if there is no wastewater collection system. Proceed to the next table.			
	Percentage of 2025 service area served by wastewater collection system (OPTIONAL)			
	Percentage of 2025 service area population served by wastewater collection system (OPTIONAL)			
Wastewater Collection			**Recipient of Collected Wastewater**	
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? OPTIONAL **Drop Down List**	Volume of Wastewater Collected from UWMP Service Area 2025 (AF)	Name of Wastewater Treatment Plant (WWTP) and Place ID Number **Drop down list**	Is WWTP Located Within UWMP Area? **Drop Down List**
Add additional rows as needed				
City of Taft and Ford City - Taft Heoghts Sanitation District	Metered	954	Taft WWTF, Place ID 214665	Yes
Buena Vists Aquatic Recreation Area Wastewater System	Metered	5	Other (provide name and ID in "NOTES" field)	Yes
Total Wastewater Received from UWMP Service Area in 2025:		959		
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: Other = Buena Vista Aquatic Recreation Area				

CWC 10633(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

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

☐ **Check the box if no wastewater is treated or disposed of within the UWMP service area.**
Proceed to the next table.

Wastewater Treatment Plant Name and Place ID Number **Drop down list**	Does This Plant Treat Wastewater Generated Outside the UWMP Service Area? (OPTIONAL) **Drop down list**	2025 Volume of Wastewater Received from UWMP Service Area (As Reported in Submittal Table 6-2 R) (AF)	Total 2025 Volume of Water Treated (AF)	2025 Outcomes of Treated Wastewater										
				Water Recycled Within UWMP Service Area (enter data as applicable)		**Water Recycled Outside of UWMP Service Area** (enter data as applicable)		**Effluent Discharge that is not a Permitted Recycled Water Use** (enter data as applicable)		**Required Discharge for Instream Flow** (enter data as applicable)		**Delivered to Another Entity for Additional Treatment** (enter data as applicable)		
				Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Treatment Level **Drop down list**	Volume (AF)	Name of other entity
Add additional rows as needed														
Taft WWTF, Place ID 214665	No	954	954					Secondary, Undisinfected	954					
Other (provide name and ID in "NOTES" field)	No	5	5					Secondary, Undisinfected	5					
Total		959	959		0		0		959		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: Other = Buena Vista Aquatic Recreation Area

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier...and shall include all of the following:
(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area
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) :	

Use Type **Drop down list**	**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	Narrative page number (OPTIONAL)
Add additional rows as needed										
		Subtotal Potable	0	0	0	0	0	0	0	
		Subtotal Non-Potable	0	0	0	0	0	0	0	
		Total	0	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.
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:

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier... and shall include...
(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use
d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.
(e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

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

☑	Check the box if recycled water was not used in 2025 nor previously projected for use in 2020. Proceed to the next table.

Use Type Drop Down list	2020 Projection for 2025 (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 reported in Submittal Table 2-3
Additional Guidance: See Appendix M, Section M.21 for detailed guidance on this table.

NOTES:

Submittal Table 6-6 Retail: Methods to Encourage Future Recycled Water Use Water Code Section 10633(f)			
☑	Check the box if the Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in the UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use (AF)
Add additional rows as needed			
		Total (AF)	0
		Unit Conversion to AF	0
DWR NOTES: **Units of measure** (AF, CCF, MG) MUST remain consistent with units reported in Submittal Table 2-3. This table identifies the unit of measure selected in Submittal Table 2-3. **The unit conversion to Acre Feet** addresses the Water Code's requirement that this value be provided in acre-feet.			
NOTES:			

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:
(f) a description of actions, including financial incentives, which 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.

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs Water Code Section 10631(f)							
☐	Check the box if there are no expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Proceed to the next table.						
☐	Check the box if some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.						
	Provide page location of narrative in the UWMP						
Name of Future Projects or Programs	Joint Project with other suppliers?		Additional Description (as needed)	**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							
Delta Conveyance Facility	Yes	State of California	Through Delta conveyance to improve supply water reliability. Support for the project is on-hold until subsidence issues can be resolved.		Unknown	Average	2,200 AF (7% of SWP contract)
Automatic Meter Reading	No		Install new automatic reading digital meters at all customer turnouts. Some have already been installed on existing customers.		In progress	All	Unknown. Some increase in efficiency with better data is expected.
`							
NOTES:							

10631 (f) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in normal and single-dry water years and for a period of drought lasting five consecutive water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

Submittal Table 6-8 Retail: Water Supplies — Actual Water Code Section 10631(b)				
Water Supply		**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	Additional Description (as needed)	**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	State Water Project	Non-Potable	1,542	
Groundwater (not desalinated)	Banked Groundwater	Potable	10,829	
		Subtotal Potable	10,829	0
		Subtotal Non-Potable	1,542	0
		Total	12,371	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:

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following... (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a), providing supporting and related information...

Submittal Table 6-9 Retail: 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		16,358		15,853		15,347		15,044		15,044	
Groundwater (not desalinated)			14,718		14,811		14,907		15,004		15,104	
Transfers	Buena Vista WSD		6,500		6,500		6,500		6,500		6,500	
Exchanges	Kern Tulare WD		650		650							
		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	38,226	0	37,814	0	36,754	0	36,548	0	36,648	0

DWR NOTES:

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

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

NOTES:

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following... (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year

Submittal Table 7-2 Retail: 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 R)	38,226	37,814	36,754	36,548	36,648
Use totals (autofill from Submittal Table 4-2 R)	14,436	14,529	14,625	14,722	14,821
Surplus/(shortfall)	23,790	23,285	22,129	21,826	21,827
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

Submittal Table 7-3 Retail: Single Dry Year Supply and Use Comparison Water Code Section 10635(a)					
	2030 (AF)	**2035 (AF)**	**2040 (AF)**	**2045 (AF)**	**2050 (AF)**
Supply totals	14,436	14,529	14,625	14,722	14,822
Use totals	14,436	14,529	14,625	14,722	14,822
Surplus/(shortfall)	0	0	0	0	0
OPTIONAL Planned WSCP Actions					
WSCP - supply augmentation benefit					
WSCP - use reduction savings benefit					
Revised Surplus/(shortfall)					
DWR NOTES : Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Use Comparison
Water Code Section 10635(a)

		2030 (AF)	2035 (AF)	2040 (AF)	2045 (AF)	2050 (AF)
First year	Supply totals	14,436	14,529	14,625	14,722	14,822
	Use totals	14,436	14,529	14,625	14,722	14,822
	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	14,436	14,529	14,625	14,722	14,822
	Use totals	14,436	14,529	14,625	14,722	14,822
	Surplus/(shortfall)	0	0	0	0	0
	OPTIONAL WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					
Third year	Supply totals	14,436	14,529	14,625	14,722	14,822
	Use totals	14,436	14,529	14,625	14,722	14,822
	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	12,992	13,076	13,162	13,250	13,339
	Use totals	12,992	13,076	13,162	13,250	13,339
	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	12,992	13,076	13,162	13,250	13,339
	Use totals	12,992	13,076	13,162	13,250	13,339
	Surplus/(shortfall)	0	0	0	0	0
	OPTIONAL Planned WSCP Actions					
	WSCP - supply augmentation benefit					
	WSCP - use reduction savings benefit					
	Revised Surplus/(shortfall)					

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

NOTES:

Submittal Table 7-5 Retail: Five-Year Drought Risk Assessment Water Code Section 10635(b)(3)	
2026	**Total**
Total Water Use (AF)	12,784
Total Supplies (AF)	4,700
Surplus/Shortfall w/o WSCP Action	(8,084)
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	8,084
WSCP - use reduction savings benefit (AF)	0
Revised Surplus/(shortfall)	0
2027	**Total**
Total Water Use (AF)	13,197
Total Supplies (AF)	4,700
Surplus/Shortfall w/o WSCP Action	(8,497)
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	8,497
WSCP - use reduction savings benefit (AF)	0
Revised Surplus/(shortfall)	0
2028	**Total**
Total Water Use (AF)	13,610
Total Supplies (AF)	4,700
Surplus/Shortfall w/o WSCP Action	(8,910)
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	7,549
WSCP - use reduction savings benefit (AF)	1,361
Revised Surplus/(shortfall)	0
2029	**Total**
Total Water Use (AF)	14,023
Total Supplies (AF)	4,700
Surplus/Shortfall w/o WSCP Action	(9,323)
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	7,921
WSCP - use reduction savings benefit (AF)	1,402
Revised Surplus/(shortfall)	0
2030	**Total**
Total Water Use (AF)	14,436
Total Supplies (AF)	4,700
Surplus/Shortfall w/o WSCP Action	(9,736)
OPTIONAL Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit (AF)	8,292
WSCP - use reduction savings benefit (AF)	1,444
Revised Surplus/(shortfall)	0
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%		
2	Up to 20%		
3	Up to 30%		
4	Up to 40%		
5	Up to 50%		
6	>50%		
NOTES:			

Submittal Table 8-2 Retail: Supply Augmentation and Other Actions Water Code Section 10632(a)(4)(A),(C) and (E)				
	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				
1-6	Stored Emergency Supply			Retrieved banked groundwater
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.				
NOTES:				

10632(a)(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

(A) Locally appropriate supply augmentation actions.

(C) Locally appropriate operational changes.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

Submittal Table 8-3 Retail: Demand Reduction Actions **Water Code Section 10632(a)(4)(B),(D), and (E)**					
	Is the Supplier completing this table using the standard six levels? (yes/no)				
Shortage Level	Demand Reduction Actions **Drop down list** These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.	How much is this going to reduce the shortage gap?		Additional Explanation or Reference (OPTIONAL)	Penalty, Charge, or Other Enforcement? **For Retail Suppliers Only** Drop Down List
		Volume or Percentage Drop down	Shortage Gap Reduction Value (May be a range) (AF)		
Add additional rows as needed					
1-6	Expand Public Information Campaign				
DWR NOTES: Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Submittal Table 2-3.					
NOTES:					

10632(a)(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

(B) Locally appropriate demand reduction actions to adequately respond to shortages.

(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

Submittal Table 10-1 Retail: Notification to Cities and Counties Water Code Section 10621(b) and 10642		
City Name	60 Day Notice **Drop Down (yes/no)**	Notice of Public Hearing **Drop Down (yes/no)**
Add additional rows as needed		
Taft	Yes	Yes
Maricopa	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
NOTES:		

CWC 10621 (b)Notify at least 60 days prior to the public hearing any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

CWC 10642 The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
Acre Feet
NOTES: None

SB X7-7 Table 2: Method for 2020 Population Estimate	
Method Used to Determine 2020 Population (may check more than one)	
☐	**1. Department of Finance** (DOF) or **American Community Survey** (ACS)
☑	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: 2020 Service Area Population	
2020 Compliance Year Population	
2020	22,172
NOTES: None	

SB X7-7 Table 4: 2020 Gross Water Use							
		2020 Deductions					
Compliance Year 2020	**2020 Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Exported Water ***	**Change in Dist. System Storage*** (+/-)	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use***	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	**2020 Gross Water Use**
	16,338			-	-	11,738	**4,600**
NOTES:							

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s), Meter Error Adjustment

Complete one table for each source.

Name of Source	Groundwater and Raw Water
This water source is *(check one)* **:**	
☑	The supplier's own water source
☐	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
	16,338	-	16,338

NOTES

SB X7-7 Table 4-A: 2020 Volume Entering the Distribution System(s) Meter Error Adjustment

Complete one table for each source.

Name of Source	State Water Allocation
This water source is *(check one)* **:**	
☐	The supplier's own water source
☑	A purchased or imported source

Compliance Year 2020	Volume Entering Distribution System [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
			0

NOTES:

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C: 2020 Process Water Deduction Eligibility (For use only by agencies that are deducting process water) Choose Only One	
☑	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.1: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 1)*

Criteria 1
Industrial water use is equal to or greater than 12% of gross water use

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction	2020 Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
	16,338	11,753	72%	YES

NOTES: Industrial water = Treated water deliveries + 3.2% losses + La Paloma deliveries - Industrial water deliveries moved to the commercial category.

Data from this table will not be entered into WUEdata.
Instead, the entire table will be uploaded to WUEdata as a separate upload in Excel format.

SB X7-7 Table 4-C.3: 2020 Process Water Deduction Eligibility *(For use only*
by agencies that are deducting process water using Criteria 3)

Criteria 3
Non-industrial use is equal to or less than 120 GPCD

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	2020 Industrial Water Use	2020 Non-industrial Water Use	2020 Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
	16,338		16,338	22,172	658	NO

NOTES:

Data from these tables will not be entered into WUEdata. Instead, the entire tables will be uploaded to WUEdata as a separate upload in Excel format.

This table(s) is only for Suppliers that deduct process water from their 2020 gross water use.

SB X7-7 Table 4-D: 2020 Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer	*La Paloma*				
Compliance Year 2020	Industrial Customer's Total Water Use *	Total Volume Provided by Supplier*	% of Water Provided by Supplier	Customer's Total Process Water Use*	Volume of Process Water Eligible for Exclusion for this Customer
	1,571	1,571	100%	1,571	1,571

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES: La Poloma received raw untreated water

SB X7-7 Table 4-D: 2020 Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*

Name of Industrial Customer	*Numerous other power and oil companies*				
Compliance Year 2020	Industrial Customer's Total Water Use *	Total Volume Provided by Supplier*	% of Water Provided by Supplier	Customer's Total Process Water Use*	Volume of Process Water Eligible for Exclusion for this Customer
	10,167	10,167	100%	10,167	10,167

*** Units of measure (AF, MG , or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.

NOTES: There are too many industrial customers to list. These customers received treated potable water. Volume includes industrial deliveries plus 3.2% for losses

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)		
2020 Gross Water *Fm SB X7-7 Table 4*	**2020 Population** *Fm SB X7-7 Table 3*	**2020 GPCD**
4,600	22,172	**185**
NOTES:		

SB X7-7 Table 9: 2020 Compliance

Actual 2020 GPCD[1]	Optional Adjustments to 2020 GPCD (Enter "0" if Adjustment Not Used)			TOTAL Adjustments[1]	Adjusted 2020 GPCD [1] *(Adjusted if applicable)*	2020 Confirmed Target GPCD [1, 2]	**Did Supplier Achieve Targeted Reduction for 2020?**
	Extraordinary Events[1]	Weather Normalization[1]	Economic Adjustment[1]				
185	-	-	-	-	185	189	**YES**

[1] *All values are reported in GPCD*

[2] ***2020 Confirmed Target GPCD*** *is taken from the Supplier's SB X7-7 Verification Form Table SB X7-7, 7-F.*

NOTES:

WUEdata Entry Exceptions

The data from the tables below will not be entered into WUEdata tables (the tabs for these tables' worksheets are colored **purple**). These tables will be submitted as separate uploads, in Excel, to WUEdata.

Process Water Deduction

SB X7-7 tables 4-C, 4-C.1, 4-C.2, 4-C.3, 4-C.4 and 4-D A supplier that will use the process water deduction will complete the appropriate tables in Excel, submit them as a separate upload to the WUE data tool, and include them in its UWMP.

Target Method 2

SB X7-7 tables 7-B, 7-C, and 7-D

A supplier that selects Target Method 2 will contact DWR (gwen.huff@water.ca.gov) for SB X7-7 tables 7-B, 7-C, and 7-D.

Target Method 4

These tables are only available online at http://www.dwr.water.ca.gov/wateruseefficiency/sb7/committees/urban/u4/ptm4.cfm A supplier that selects Target Method 4 will save the tables from the website listed above, complete the tables, submit as a separate upload to WUE data, and include them with its UWMP.

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	21,788	Acre Feet
	2008 total volume of delivered recycled water	-	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	2000	
	Year ending baseline period range[3]	2009	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2005	
	Year ending baseline period range[4]	2009	

[1] If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. *[2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.*

[3] The ending year must be between December 31, 2004 and December 31, 2010.

[4] The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☐	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☑	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☑	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	2000	16,778
Year 2	2001	17,176
Year 3	2002	17,574
Year 4	2003	17,973
Year 5	2004	18,371
Year 6	2005	18,769
Year 7	2006	19,167
Year 8	2007	19,565
Year 9	2008	19,964
Year 10	2009	20,362
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2005	18,769
Year 2	2006	19,167
Year 3	2007	19,565
Year 4	2008	19,964
Year 5	2009	20,362
2015 Compliance Year Population		
2015		20,591
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *								
Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Deductions**					**Annual Gross Water Use**
			Exported Water	**Change in Dist. System Storage** (+/-)	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use**	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	2000	15,906			-		12,233	3,673
Year 2	2001	16,236			-		12,073	4,163
Year 3	2002	17,574			-		13,011	4,563
Year 4	2003	18,911			-		14,262	4,649
Year 5	2004	20,883			-		15,692	5,191
Year 6	2005	21,239			-		15,914	5,325
Year 7	2006	22,457			-		16,907	5,550
Year 8	2007	22,612			-		16,941	5,671
Year 9	2008	21,788			-		16,351	5,437
Year 10	2009	21,740			-		16,567	5,173
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**4,939**
5 Year Baseline - Gross Water Use								
Year 1	2005	21,239			-		15,914	5,325
Year 2	2006	22,457			-		16,907	5,550
Year 3	2007	22,612			-		16,941	5,671
Year 4	2008	21,788			-		16,351	5,437
Year 5	2009	21,740			-		16,567	5,173
5 year baseline average gross water use								**5,431**
2015 Compliance Year - Gross Water Use								
2015		16,542	-		-		12,508	**4,034**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES: Exludes direct raw water deliveries to La Paloma Powerplant

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	District wells and banked groundwater
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	2000	15,906		15,906
Year 2	2001	16,236		16,236
Year 3	2002	17,574		17,574
Year 4	2003	18,911		18,911
Year 5	2004	20,883		20,883
Year 6	2005	21,239		21,239
Year 7	2006	22,457		22,457
Year 8	2007	22,612		22,612
Year 9	2008	21,788		21,788
Year 10	2009	21,740		21,740
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2005	21,239		21,239
Year 2	2006	22,457		22,457
Year 3	2007	22,612		22,612
Year 4	2008	21,788		21,788
Year 5	2009	21,740		21,740
2015 Compliance Year - Water into Distribution System				
2015		16,542		16,542

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES: Excludes raw water deliveries to La Paloma Powerplant

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

Baseline Year *Fm SB X7-7 Table 3*		**Surface Reservoir Augmentation**					**Groundwater Recharge**			**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	2000			-		-			-	-
Year 2	2001			-		-			-	-
Year 3	2002			-		-			-	-
Year 4	2003			-		-			-	-
Year 5	2004			-		-			-	-
Year 6	2005			-		-			-	-
Year 7	2006			-		-			-	-
Year 8	2007			-		-			-	-
Year 9	2008			-		-			-	-
Year 10	2009			-		-			-	-
Year 11	0			-		-			-	-
Year 12	0			-		-			-	-
Year 13	0			-		-			-	-
Year 14	0			-		-			-	-
Year 15	0			-		-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2005			-		-			-	-
Year 2	2006			-		-			-	-
Year 3	2007			-		-			-	-
Year 4	2008			-		-			-	-
Year 5	2009			-		-			-	-
2015 Compliance - Indirect Recycled Water Use										
2015				-		-			-	-

**Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

NOTES:

SB X7-7 Table 4-C: Process Water Deduction Eligibility *(For use only by agencies that are deducting process water) Choose Only One*	
☑	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility

Criteria 1
Industrial water use is equal to or greater than 12% of gross water use

Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	2000	15,906	12,233	77%	YES
Year 2	2001	16,236	12,073	74%	YES
Year 3	2002	17,574	13,011	74%	YES
Year 4	2003	18,911	14,262	75%	YES
Year 5	2004	20,883	15,692	75%	YES
Year 6	2005	21,239	15,914	75%	YES
Year 7	2006	22,457	16,907	75%	YES
Year 8	2007	22,612	16,941	75%	YES
Year 9	2008	21,788	16,351	75%	YES
Year 10	2009	21,740	16,567	76%	YES
Year 11	0	-			NO
Year 12	0	-			NO
Year 13	0	-			NO
Year 14	0	-			NO
Year 15	0	-			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2005	21,239	15,914	75%	YES
Year 2	2006	22,457	16,907	75%	YES
Year 3	2007	22,612	16,941	75%	YES
Year 4	2008	21,788	16,351	75%	YES
Year 5	2009	21,740	16,567	76%	YES
2015 Compliance Year - Process Water Deduction Eligiblity					
2015		16,542	12,508	76%	YES

NOTES:

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility

Criteria 2

Industrial water use is equal to or greater than 15 GPCD

Baseline Year *Fm SB X7-7 Table 3*		Industrial Water Use	Population	Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	2000		16,778	-	NO
Year 2	2001		17,176	-	NO
Year 3	2002		17,574	-	NO
Year 4	2003		17,973	-	NO
Year 5	2004		18,371	-	NO
Year 6	2005		18,769	-	NO
Year 7	2006		19,167	-	NO
Year 8	2007		19,565	-	NO
Year 9	2008		19,964	-	NO
Year 10	2009		20,362	-	NO
Year 11	0		-		NO
Year 12	0		-		NO
Year 13	0		-		NO
Year 14	0		-		NO
Year 15	0		-		NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2005		18,769	-	NO
Year 2	2006		19,167	-	NO
Year 3	2007		19,565	-	NO
Year 4	2008		19,964	-	NO
Year 5	2009		20,362	-	NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015			20,591	-	NO

NOTES:

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility

Criteria 3

Non-industrial use is equal to or less than 120 GPCD

Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	Industrial Water Use	Non-industrial Water Use	Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	2000	15,906		15,906	16,778	846	NO
Year 2	2001	16,236		16,236	17,176	844	NO
Year 3	2002	17,574		17,574	17,574	893	NO
Year 4	2003	18,911		18,911	17,973	939	NO
Year 5	2004	20,883		20,883	18,371	1,015	NO
Year 6	2005	21,239		21,239	18,769	1,010	NO
Year 7	2006	22,457		22,457	19,167	1,046	NO
Year 8	2007	22,612		22,612	19,565	1,032	NO
Year 9	2008	21,788		21,788	19,964	974	NO
Year 10	2009	21,740		21,740	20,362	953	NO
Year 11	0	-		-	-		NO
Year 12	0	-		-	-		NO
Year 13	0	-		-	-		NO
Year 14	0	-		-	-		NO
Year 15	0	-		-	-		NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	2005	21,239		21,239	18,769	1,010	NO
Year 2	2006	22,457		22,457	19,167	1,046	NO
Year 3	2007	22,612		22,612	19,565	1,032	NO
Year 4	2008	21,788		21,788	19,964	974	NO
Year 5	2009	21,740		21,740	20,362	953	NO
2015 Compliance Year - Process Water Deduction Eligiblity							
2015		16,542		16,542	20,591	717	NO

NOTES:

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility

Criteria 4
Disadvantaged Community
Use IRWM DAC Mapping tool http://www.water.ca.gov/irwm/grants/resources_dac.cfm

California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
2015 Compliance Year - Process Water Deduction Eligibility				
2010	$53,046		0%	YES

A "Disadvantaged Community" is a community with a median household income less than 80 percent of the statewide average.

NOTES:

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Total for 283 industrial meters*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	2000	12,233	12,233	100%	12,233	12,233
Year 2	2001	12,073	12,073	100%	12,073	12,073
Year 3	2002	13,011	13,011	100%	13,011	13,011
Year 4	2003	14,262	14,262	100%	14,262	14,262
Year 5	2004	15,692	15,692	100%	15,692	15,692
Year 6	2005	15,914	15,914	100%	15,914	15,914
Year 7	2006	16,907	16,907	100%	16,907	16,907
Year 8	2007	16,941	16,941	100%	16,941	16,941
Year 9	2008	16,351	16,351	100%	16,351	16,351
Year 10	2009	16,567	16,567	100%	16,567	16,567
Year 11	0					-
Year 12	0					-
Year 13	0					-
Year 14	0					-
Year 15	0					-
5 Year Baseline - Process Water Deduction						
Year 1	2005	15,914	15,914	100%	15,914	15,914
Year 2	2006	16,907	16,907	100%	16,907	16,907
Year 3	2007	16,941	16,941	100%	16,941	16,941
Year 4	2008	16,351	16,351	100%	16,351	16,351
Year 5	2009	16,567	16,567	100%	16,567	16,567
2015 Compliance Year - Process Water Deduction						
2015		12,508	12,508	100%	12,508	12,508
NOTES:						

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	2000	16,778	3,673	195
Year 2	2001	17,176	4,163	216
Year 3	2002	17,574	4,563	232
Year 4	2003	17,973	4,649	231
Year 5	2004	18,371	5,191	252
Year 6	2005	18,769	5,325	253
Year 7	2006	19,167	5,550	259
Year 8	2007	19,565	5,671	259
Year 9	2008	19,964	5,437	243
Year 10	2009	20,362	5,173	227
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**237**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2005	18,769	5,325	253
Year 2	2006	19,167	5,550	259
Year 3	2007	19,565	5,671	259
Year 4	2008	19,964	5,437	243
Year 5	2009	20,362	5,173	227
5 Year Average Baseline GPCD				**248**
2015 Compliance Year GPCD				
2015		20,591	4,034	**175**
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	237
5 Year Baseline GPCD	248
2015 Compliance Year GPCD	175
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
237	**189**
NOTES:	

SB X7-7 Table 7-B: Target Method 2 Target

Landscape Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-C: Target Method 2

Target CII Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-D: Target Method 2 Summary

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**0**
NOTES:				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
248	236	189	**189**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline GPCD *[2] 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.*

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
189	237	**213**
NOTES:		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used: Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
175	213	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	175	175	**YES**
NOTES:								

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX D - NOTICE OF PUBLIC HEARINGS & NOTIFICATION LETTERS

January 28, 2026

Mr. Eric Ziegler
City Administrator
City of Maricopa
PO Box 550
Maricopa, CA 93252
lrobison_com@bak.rr.com

Subject: West Kern Water District – Notification of Urban Water Management Plan Update

Dear Mr. Ziegler:

West Kern Water District (WKWD) wishes to inform you that we are updating our Urban Water Management Plan (UWMP) to comply with 2025 guidelines in accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10656). The UWMP update will evaluate existing water conservation measures, as well as water supply, water demand and water supply reliability over the next 25 years.

We anticipate completing the UWMP update in May or June of 2026. We will formally notify you when a draft UWMP update is available. The public and all interested agencies will have 14 days to provide comments before the Draft is considered for adoption by the WKWD Board of Directors.

Please feel free to contact me at (661) 763-3151 or ghammett@wkwd.org if you would like to provide input or participate in the UWMP development.

Sincerely,

Greg A. Hammett
General Manager

January 28, 2026

Ms. Nadine Storey
Planning & Development Services Technician
City of Taft
209 E. Kern
Taft, CA 93268
nstorey@cityoftaft.ca.gov

Subject: West Kern Water District – Notification of Urban Water Management Plan Update

Dear Ms. Storey:

West Kern Water District (WKWD) wishes to inform you that we are updating our Urban Water Management Plan (UWMP) to comply with 2025 guidelines in accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10656). The UWMP update will evaluate existing water conservation measures, as well as water supply, water demand and water supply reliability over the next 25 years.

We anticipate completing the UWMP update in May or June of 2026. We will formally notify you when a draft UWMP update is available. The public and all interested agencies will have 14 days to provide comments before the Draft is considered for adoption by the WKWD Board of Directors.

Please feel free to contact me at (661) 763-3151 or ghammett@wkwd.org if you would like to provide input or participate in the UWMP development.

Sincerely,

Greg A. Hammett
General Manager

January 28, 2026

Mr. Craig Murphy
Director, Planning & Natural Resources
County of Kern
2700 M Street, Ste 250
Bakersfield, CA 93301-2370
murphyc@kerncounty.com

Subject: West Kern Water District – Notification of Urban Water Management Plan Update

Dear Mr. Murphy:

West Kern Water District (WKWD) wishes to inform you that we are updating our Urban Water Management Plan (UWMP) to comply with 2025 guidelines in accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10656). The UWMP update will evaluate existing water conservation measures, as well as water supply, water demand and water supply reliability over the next 25 years.

We anticipate completing the UWMP update in May or June of 2026. We will formally notify you when a draft UWMP update is available. The public and all interested agencies will have 14 days to provide comments before the Draft is considered for adoption by the WKWD Board of Directors.

Please feel free to contact me at (661) 763-3151 or ghammett@wkwd.org if you would like to provide input or participate in the UWMP development.

Sincerely,

Greg A. Hammett
General Manager

January 28, 2026

Ms. Rochelle Invina-Jayasiri
Regional Planner
Kern Council of Governments
1401 19th St., Ste 300
Bakersfield, CA 93301
rinvina@kerncog.org

Subject: West Kern Water District – Notification of Urban Water Management Plan Update

Dear Ms. Invina-Jayasiri:

West Kern Water District (WKWD) wishes to inform you that we are updating our Urban Water Management Plan (UWMP) to comply with 2025 guidelines in accordance with the Urban Water Management Planning Act (California Water Code Sections 10610 to 10656). The UWMP update will evaluate existing water conservation measures, as well as water supply, water demand and water supply reliability over the next 25 years.

We anticipate completing the UWMP update in May or June of 2026. We will formally notify you when a draft UWMP update is available. The public and all interested agencies will have 14 days to provide comments before the Draft is considered for adoption by the WKWD Board of Directors.

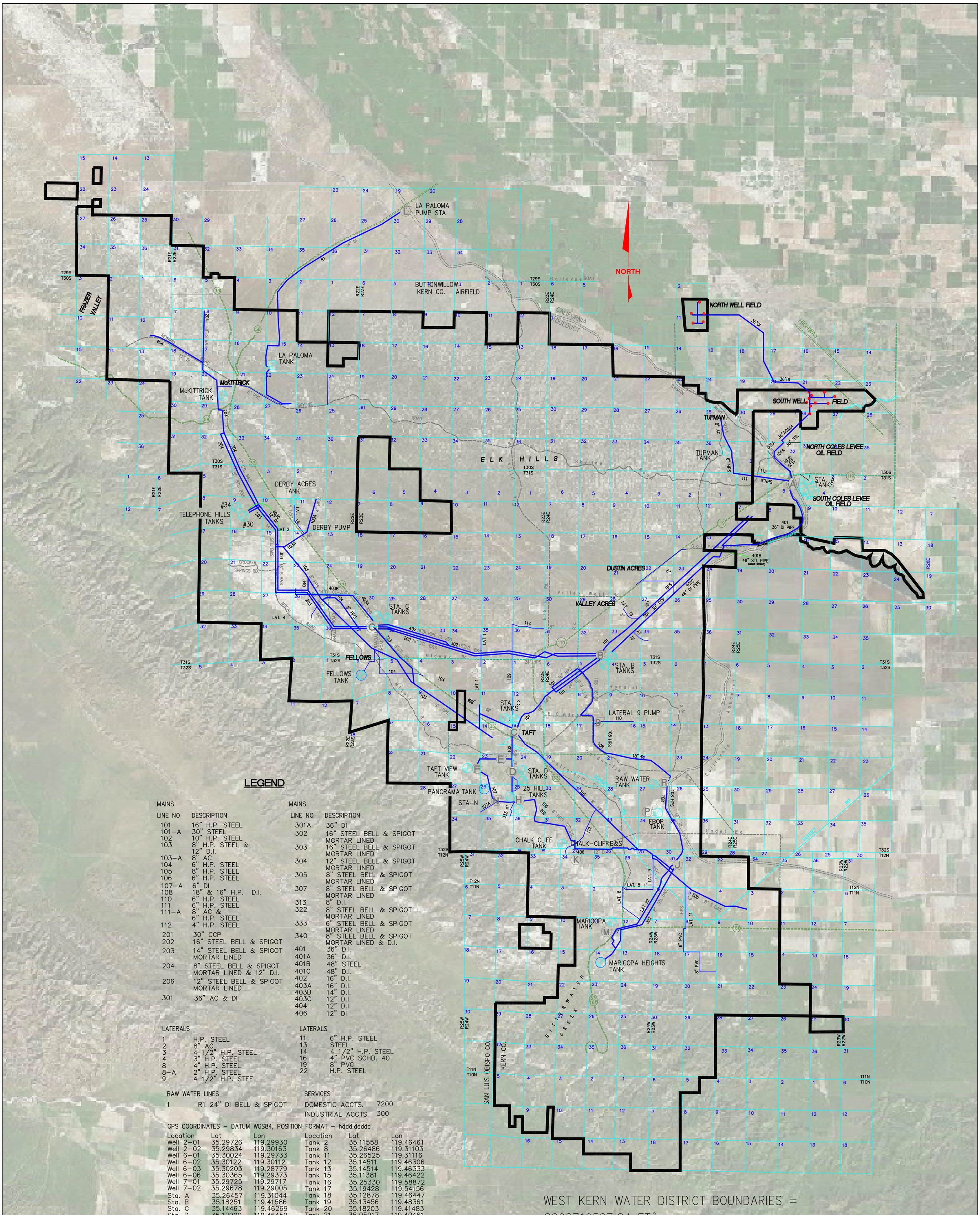
Please feel free to contact me at (661) 763-3151 or ghammett@wkwd.org if you would like to provide input or participate in the UWMP development.

Sincerely,

Greg A. Hammett
General Manager

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX E – DISTRIBITION SYSTEM MAP



LEGEND

MAINS

LINE NO	DESCRIPTION
101	16" H.P. STEEL
101-A	30" STEEL
102	10" H.P. STEEL
103	8" H.P. STEEL & 12" D.I.
103-A	8" AC
104	6" H.P. STEEL
105	8" H.P. STEEL
106	6" H.P. STEEL
107-A	6" DI
108	18" & 16" H.P. D.I.
110	6" H.P. STEEL
111	6" H.P. STEEL
111-A	8" AC & 6" H.P. STEEL
112	4" H.P. STEEL
201	30" CCP
202	16" STEEL BELL & SPIGOT
203	14" STEEL BELL & SPIGOT MORTAR LINED
204	8" STEEL BELL & SPIGOT MORTAR LINED & 12" D.I.
206	12" STEEL BELL & SPIGOT MORTAR LINED
301	36" AC & DI

MAINS

LINE NO	DESCRIPTION
301A	36" DI
302	16" STEEL BELL & SPIGOT MORTAR LINED
303	16" STEEL BELL & SPIGOT MORTAR LINED
304	12" STEEL BELL & SPIGOT MORTAR LINED
305	8" STEEL BELL & SPIGOT MORTAR LINED
307	8" STEEL BELL & SPIGOT MORTAR LINED
313	8" D.I.
322	8" STEEL BELL & SPIGOT MORTAR LINED
333	6" STEEL BELL & SPIGOT MORTAR LINED
340	8" STEEL BELL & SPIGOT MORTAR LINED & D.I.
401	36" D.I.
401A	36" D.I.
401B	48" STEEL.
401C	48" D.I.
402	16" D.I.
403A	16" D.I.
403B	14" D.I.
403C	12" D.I.
404	12" D.I.
406	12" DI

LATERALS

1	H.P. STEEL
2	8" AC
3	4 1/2" H.P. STEEL
4	3" H.P. STEEL
8	4" H.P. STEEL
8-A	2" H.P. STEEL
9	4 1/2" H.P. STEEL

LATERALS

11	6" H.P. STEEL
13	STEEL
14	4 1/2" H.P. STEEL
16	4" PVC SCHD. 40
19	8" PVC
22	H.P. STEEL

RAW WATER LINES

1	R1 24" DI BELL & SPIGOT

SERVICES

DOMESTIC ACCTS.	7200
INDUSTRIAL ACCTS.	300

GPS COORDINATES – DATUM WGS84, POSITION FORMAT – hddd.ddddd

Location	Lat	Lon
Well 2-01	35.29726	119.29930
Well 2-02	35.29834	119.30163
Well 6-01	35.30024	119.29733
Well 6-02	35.30122	119.30112
Well 6-03	35.30203	119.28779
Well 6-06	35.30365	119.29373
Well 7-01	35.29725	119.29717
Well 7-02	35.29678	119.29005
Sta. A	35.26457	119.31044
Sta. B	35.18251	119.41586
Sta. C	35.14463	119.46269
Sta. D	35.12900	119.46459
Sta. G	35.19437	119.54095
La Paloma	35.39047	119.54557

Location	Lat	Lon
Tank 2	35.11558	119.46461
Tank 8	35.26486	119.31103
Tank 11	35.26525	119.31116
Tank 12	35.14511	119.46306
Tank 13	35.14514	119.46333
Tank 15	35.11381	119.46422
Tank 16	35.25330	119.58872
Tank 17	35.19428	119.54156
Tank 18	35.12878	119.46447
Tank 19	35.13456	119.48361
Tank 20	35.18203	119.41483
Tank 21	35.05917	119.40461
Tank 22	35.12792	119.48131
Tank 24	35.04683	119.41517
Tank 25	35.19442	119.54175
Tank 26	35.28317	119.34769
Tank 27	35.18180	119.41497
Tank 28	35.29731	119.62991
Tank 29	35.17144	119.54961
Tank 30	35.24711	119.61922
Tank 31	35.19428	119.54156
Tank 32	35.31097	119.60550
Tank 33	35.26475	119.31000
Tank 34	35.24750	119.61994
Tank 35	35.12822	119.46392

WATER LINE

EXISTING WKWD BOUNDARY

PUMP STATION

TANK

WEST KERN WATER DISTRICT BOUNDARIES =
8808716587.84 FT²
315.969 MILES²
202,220.31 ACRES

8 0 8 16 32
HORIZONTAL SCALE IN THOUSAND FEET

WEST KERN WATER DISTRICT FACILITIES MAP

CAD FILENAME:	DRAWN BY:	DATE:	SCALE:
FACILITIES	WLB	6/8/99	1"=8000'

SHEET 1 OF 1
JOB NO.: N/A

	D. JAMESON	H. O. STARKEY
	T. TURLEY	JD. BRAMLET

westkern water district
P.O. Box 1105 • Taft, CA 93268
661 763-3151 • FAX 661 765-5435

REV. NO.	DATE	DESCRIPTION	DRAWN BY	CHK'D BY
2	10/18/99	DISTRIBUTION SYSTEM	WLB	TTT
3	9/12/00	DISTRIBUTION SYSTEM	ZCC	FJ
4	1/7/02	LA PALOMA	ZCC	TTT
5	7/15/02	ELK HILLS ANNEXATION	DCJ	TTT
6	1/21/08	ANNEXATION #14	DCJ	JDB
7	7/24/12	NWF/TANK GIS/LAYOUT UPDATE	DCJ	

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX F - ESTIMATED DISTRIBUTION SYSTEM WATER LOSSES

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: West Kern Water District (1510022)
Reporting Year: 2020 1/2020 - 12/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	9	14,732.400	acre-ft/yr	8	-5.15%		acre-ft/yr
Water imported:	n/a		acre-ft/yr				acre-ft/yr
Water exported:	n/a		acre-ft/yr				acre-ft/yr
WATER SUPPLIED:		**15,532.314**	acre-ft/yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	8	14,487.660	acre-ft/yr			
Billed unmetered:	n/a		acre-ft/yr			
Unbilled metered:	2	18.000	acre-ft/yr			
Unbilled unmetered:	5	38.831	acre-ft/yr		38.831	acre-ft/yr
AUTHORIZED CONSUMPTION:		**14,544.491**	acre-ft/yr			

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

987.823 acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		38.831	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	2	146.522	acre-ft/yr	1.00%	acre-ft/yr
Systematic data handling errors:	5	36.219	acre-ft/yr	0.25%	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **221.572** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **766.252** acre-ft/yr

WATER LOSSES: **987.823** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **1,044.654** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	10	306.0	miles
Number of active AND inactive service connections:	8	7,378	
Service connection density:		24	conn./mile main
Are customer meters typically located at the curbstop or property line?		Yes	
Average length of customer service line:			(length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	60.0	psi

COST DATA

Total annual cost of operating water system:	10	$18,668,470	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$2.00	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	8	$148.18	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 73 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Unbilled metered
2: Customer metering inaccuracies
3: Volume from own sources

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: West Kern Water District (CA1510022)
Reporting Year: 2021 1/2021 - 12/2021

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	5	13,828.080	acre-ft/yr	3			acre-ft/yr
Water imported:	n/a		acre-ft/yr				acre-ft/yr
Water exported:	n/a		acre-ft/yr				acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 13,828.080 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	6	13,181.000	acre-ft/yr			
Billed unmetered:	n/a		acre-ft/yr			
Unbilled metered:	2	19.000	acre-ft/yr			
Unbilled unmetered:	5	34.570	acre-ft/yr		34.570	acre-ft/yr

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 13,234.570 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) 593.510 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		34.570	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	4	133.333	acre-ft/yr	1.00%		acre-ft/yr
Systematic data handling errors:		32.953	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 200.856 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 392.654 acre-ft/yr

WATER LOSSES: 593.510 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 647.080 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	10	306.0	miles
Number of active AND inactive service connections:	8	7,629	
Service connection density:		25	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	7	60.0	psi

COST DATA

Total annual cost of operating water system:	10	$17,258,321	$/Year	
Customer retail unit cost (applied to Apparent Losses):	9	$2.00	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	6	$158.21	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 58 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Unbilled metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association.

Water Audit Report for: West Kern Water District
Audit Year: 2022 | Jan 01 2022 - Dec 31 2022 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade
To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

WATER SUPPLIED

Water Supplied Error Adjustments — choose entry option:

		n	g				n	g					
VOS	Volume from Own Sources:	n	g	7	13,554.000	Acre-ft/Yr	n	g	8	volume	115.000	acre-ft/yr	under-registration	VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr								WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr								WEEA
	WATER SUPPLIED:				13,669.000	Acre-ft/Yr								

AUTHORIZED CONSUMPTION

choose entry option:

		n	g					
BMAC	Billed Metered:	n	g	8	12,981.000	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	4	5.170	Acre-ft/Yr		
UUAC	Unbilled Unmetered:	n	g	3	32.453	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 13,018.623 Acre-ft/Yr

WATER LOSSES

650.378 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

		n	g						
SDHE	Systematic Data Handling Errors:	n	g	3	32.453	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	6	131.173	Acre-ft/Yr	1.00%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	32.453	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 196.078 Acre-ft/Yr

Real Losses

Real Losses: 454.299 Acre-ft/Yr

WATER LOSSES: 650.378 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 688.000 Acre-ft/Yr

SYSTEM DATA

		n	g				
Lm	Length of mains:	n	g	8	306.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	7,212		(active *and* inactive)
	Service connection density:				24	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp — n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

		n	g			
AOP	Average Operating Pressure:	n	g	7	60.0	psi

COST DATA

		n	g					
CRUC	Customer Retail Unit Charge:	n	g	9	$1.87	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$302.69	$/acre-ft	$18,660,799	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Unauthorized Consumption (UC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.0
American Water Works Association.

Water Audit Report for: West Kern Water District
Audit Year: 2023 | Jan 01 2023 - Dec 31 2023 | Calendar

Click 'n' to add notes
Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

		n	g				n	g		choose entry option:		
VOS	Volume from Own Sources:	n	g	7	12,642.000	Acre-ft/Yr	n	g	10	0.00%	percent	VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr						WIEA
WE	Water Exported:	n	g	n/a	0.000	Acre-ft/Yr						WEEA
	WATER SUPPLIED:				12,642.000	Acre-ft/Yr						

AUTHORIZED CONSUMPTION

BMAC	Billed Metered:	n	g	8	12,164.000	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	4	4.520	Acre-ft/Yr	choose entry option:	
UUAC	Unbilled Unmetered:	n	g	3	30.410	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 12,198.930 Acre-ft/Yr

WATER LOSSES

443.070 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

							choose entry option:		
SDHE	Systematic Data Handling Errors:	n	g	3	30.410	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	6	122.914	Acre-ft/Yr	1.00%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	30.410	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 183.734 Acre-ft/Yr

Real Losses

Real Losses: 259.336 Acre-ft/Yr

WATER LOSSES: 443.070 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 478.000 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	308.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	7,550		(active *and* inactive)
	Service connection density:				25	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp		n	g	10			

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP	Average Operating Pressure:	n	g	5	60.0	psi	

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	9	$2.21	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$291.91	$/acre-ft	$21,494,114	$/yr (optional input)

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Billed Metered (BMAC)
3: Unauthorized Consumption (UC)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

AWWA Free Water Audit Software: Worksheet

FWAS v6.1

American Water Works Association.

Water Audit Report for: West Kern Water District

Audit Year: 2024 | Jan 01 2024 - Dec 31 2024 | Calendar

Click 'n' to add notes

Click 'g' to determine data validity grade

To edit water system info: go to start page

To access definitions, click the input name

All volumes to be entered as: ACRE-FEET PER YEAR

Water Supplied Error Adjustments

WATER SUPPLIED

choose entry option:

VOS	Volume from Own Sources:	n	g	7	11,393.810	Acre-ft/Yr	n g 10	volume		acre-ft/yr	VOSEA
WI	Water Imported:	n	g	n/a	0.000	Acre-ft/Yr					WIEA
WE	Water Exported:	n	g	6	2,128.060	Acre-ft/Yr	n g 4	volume		acre-ft/yr	WEEA

WATER SUPPLIED: 9,265.750 Acre-ft/Yr

AUTHORIZED CONSUMPTION

choose entry option:

BMAC	Billed Metered:	n	g	9	8,848.660	Acre-ft/Yr		
BUAC	Billed Unmetered:	n	g	n/a	0.000	Acre-ft/Yr		
UMAC	Unbilled Metered:	n	g	4	10.850	Acre-ft/Yr		
UUAC	Unbilled Unmetered:	n	g	3	22.122	Acre-ft/Yr	0.25%	default

Default option selected for Unbilled Unmetered, with automatic data grading of 3

AUTHORIZED CONSUMPTION: 8,881.632 Acre-ft/Yr

WATER LOSSES

384.118 Acre-ft/Yr

Apparent Losses

Default option selected for Systematic Data Handling Errors, with automatic data grading of 3

choose entry option:

SDHE	Systematic Data Handling Errors:	n	g	3	22.122	Acre-ft/Yr	0.25%	default	
CMI	Customer Metering Inaccuracies:	n	g	6	89.490	Acre-ft/Yr	1.00%	percent	under-registration
UC	Unauthorized Consumption:	n	g	3	22.122	Acre-ft/Yr	0.25%	default	

Default option selected for Unauthorized Consumption, with automatic data grading of 3

Apparent Losses: 133.733 Acre-ft/Yr

Real Losses

Real Losses: 250.385 Acre-ft/Yr

WATER LOSSES: 384.118 Acre-ft/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 417.090 Acre-ft/Yr

SYSTEM DATA

Lm	Length of mains:	n	g	10	321.0	miles	(including fire hydrant lead lengths)
Nc	Number of service connections:	n	g	10	7,554		(active *and* inactive)
	Service connection density:				24	conn./mile main	

Are customer meters typically located at the curbstop/property line? Yes

Lp n g 10

Average length of customer service line has been set to zero and a data grading of 10 has been applied

AOP Average Operating Pressure: n g 5 60.0 psi

COST DATA

CRUC	Customer Retail Unit Charge:	n	g	9	$2.42	$/100 cubic feet (ccf)	Total Annual Operating Cost	
VPC	Variable Production Cost:	n	g	8	$219.00	$/acre-ft	$23,181,670	$/yr (optional input)

Click here to calculate carbon emissions ---> carbon

WATER AUDIT DATA VALIDITY TIER:

***** The Water Audit Data Validity Score is in Tier IV (71-90). See Dashboard tab for additional outputs. *****

go to dashboard

A weighted scale for the components of supply, consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION TO IMPROVE DATA VALIDITY:

Based on the information provided, audit reliability can be most improved by addressing the following components:

1: Volume from Own Sources (VOS)
2: Unauthorized Consumption (UC)
3: Systematic Data Handling Errors (SDHE)

KEY PERFORMANCE INDICATOR TARGETS:

OPTIONAL: If targets exist for the operational performance indicators, they can be input below:

Unit Total Losses:		gal/conn/day
Unit Apparent Losses:		gal/conn/day
Unit Real Losses[A]:		gal/conn/day
Unit Real Losses[B]:		gal/mile/day

If entered above by user, targets will display on KPI gauges (see Dashboard)

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX G – MEMORANDUM OF UNDERSTANDING ON WATER RECYCLING

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is executed as of June 16, 2015, by and among **City of Taft** ("Taft"), **West Side Recreation & Park District** ("WSRPD"), **West Side Cemetery District** ("WSCD"), and **West Kern Water District** ("WKWD").

RECITALS

A. California is in the middle of an historic drought and state officials have mandated that Californians conserve water and develop new water use patterns that will reduce total demand over the medium and long terms.

B. Taft owns and operates a sewage treatment plant east of Taft. WSRPD operates parks and recreational facilities and WSCD operates a cemetery, all of which facilities consume a total of approximately 200 acre feet of water per year for watering lawns and landscaping. WKWD provides potable water service to the facilities operated by WSRPD and WSCD, as well as nearly all other urban consumers in the Taft area.

C. WSRPD and WSCD do not need potable water for landscape irrigation. If non-potable water from a source other than WKWD's existing supplies could be substituted for the potable water now used by WSRPD and WSCD for irrigation, it would be equivalent to reducing consumption of potable water within the WKWD service area. Water from the treatment plant treated to tertiary standards would likely be usable for irrigation, but the parties do not currently know if that idea is practical. Therefore, they have agreed to study the concept.

UNDERSTANDINGS AND AGREEMENTS

1. WKWD will retain a qualified consultant to study and produce a report on the issues, cost and practicality of treating effluent at the Taft Municipal Wastewater Treatment Plant to tertiary standards and then delivering the treated water to WSRPD and WSCD for use in irrigating their parks, recreational facilities and cemetery. Issues to be considered by the consultant will include:

(a) the practicality of providing tertiary treatment of a specified quantity of effluent at the treatment plant and required improvements to do so,

(b) regulatory and safety issues that might be raised by using tertiary treated gray water at the specified facilities,

(c) how gray water would be delivered from the treatment plant to end use facilities,

(d) work that would be required to segregate new gray water from existing potable water at those facilities, and

(e) the capital and operating costs of such a project.

WKWD shall advise the other parties of the consultant that WKWD intends to retain and solicit their comments on the appropriateness of the particular consultant. WKWD shall then provide the other parties with the agreement retaining the consultant and will provide a reasonable opportunity for them to comment or object to the consultant or the agreement. WKWD will not proceed to enter into an agreement with a consultant if a party objects. WKWD will not agree to any amendment of the consultant's agreement without first obtaining the approval of the other parties. If the parties cannot reach agreement on the consultant or the consultant's agreement, including the cost, then this Memorandum of Understanding will terminate.

2. District and Taft will cooperate with the consultant retained by WKWD in conducting this study, including providing the consultant with reasonable access to (a) the treatment plant, (b) existing delivery systems, (c) plant personnel, and (d) records of treatment plant operations such as quantities of effluent treated, test results, equipment specifications, and maintenance and repair records.

3. WSRPD and WSCD will cooperate with the consultant retained by WKWD in conducting this study, including providing the consultant with reasonable access to (a) plans for irrigation systems, (b) water use records and (c) operational personnel.

4. WKWD will (a) provide its consultant with any records in its possession requested by the consultant, access to district personnel, and information on its existing water delivery system, (b) provide supervision and oversight of the consultant, and (c) administer the consultant's contract for services and pay the consultant.

5. All parties agree to provide such other reasonable assistance or agreements as may be needed for the proper conduct of the study, at no material cost to such party.

6. The parties agree to provide the following contributions toward the cost of the consulting contract as finally approved by all of the parties:

WKWD: Remaining Balance TBD
Taft: $2,000
WSRPD: $1,000
WSCD: $1,000.

The parties other than WKWD will pay their share of the study cost to WKWD within thirty (30) days of WKWD executing the agreement to retain the consultant. WKWD shall apply all funds received toward the cost of the consulting contract. Each party will bear its own incidental out of pocket costs and staff time associated with providing the

consultant with requested information and documents. A party's share of the cost may not be increased without the written consent of that party.

7. WKWD will provide the other parties with a working draft of the consultant's report for their review and correction of factual errors before it is finalized. Each party will receive several copies of the final report.

8. Any party may withdraw its cooperation from the conduct of this study on thirty (30) days' prior written notice to the other parties. No governing body of a party shall be required to accept or otherwise acknowledge the report prepared by the consultant. No party is agreeing to participate in or pay for any recommendations that may be contained in the report, and specifically, no party is agreeing to undertake a project for the tertiary treatment of effluent and use of gray water.

9. The memorandum of understanding will terminate upon the consultant rendering its final report. The parties will not be obligated to enter into any future agreements.

[Signatures on next page]

The parties have executed this Memorandum of Understanding as of the date first above written.

City of Taft

By: _____
Name: Randy Miller
Title: Mayor

West Side Recreation and Park District

By: _____
Name: Donald F Koenig
Title: District Administrator

West Side Cemetery District

By: _____
Name: Joel Bauer
Title: District Manager

West Kern Water District

By: _____
Name: HARRY O. STARKEY
Title: GENERAL MANAGER

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX H - WATER SHORTAGE RESPONSE PLAN

WATER SHORTAGE RESPONSE PLAN

FOR

WEST KERN WATER DISTRICT

May 2021

Prepared By:

Provost & Pritchard Consulting Group

Table of Contents

List of Tables

Attachments

1 – Matrix of Water Use Restrictions by Water Shortage Stage
2 – Financial Impact of Water Shortage Reduction

Definitions

The following words and phrases whenever used in the Water Shortage Response Plan will have the meaning defined in this Section:

"Customer" means any person, business, corporation, public or private entity, public or private association, public or private agency, government agency or institution, school district, college, or any other user of water provided by West Kern Water District.

"Days" are defined as calendar days, unless otherwise indicated.

"District" means the West Kern Water District.

"Drought" will mean any shortage in water supply based upon expected demands that are caused by hydrological, environmental, legislative, judicial actions, or by infrastructure failure.

"Reasonable Probability" refers to potential reductions due to shortages due to drought conditions, regulatory restriction enacted upon imported supplies, catastrophic emergencies, and other factors.

"Waste/Unreasonable Use" means among other things, violations of the restrictions set forth in this policy at each specific response level.

"Water Conservation" means the efficient management of water resources for beneficial uses, preventing waste, or accomplishing additional benefits with the same amount of water.

"Water" will refer to potable water, unless otherwise specified.

"WSRP" refers to West Kern Water District's Water Shortage Response Plan in existence on the effective date of this ordinance and as readopted or amended from time to time, or an equivalent plan of the District to manage or allocate supplies during shortages. The Water Shortage Response Plan is the same as a Water Shortage Contingency Plan.

1 - PURPOSES AND PRINCIPLES OF PLAN

The purpose of the West Kern Water District (WKWD or District) Water Shortage Response Plan (WSRP) is to provide a methodology for analyzing water supply reliability, establish water shortage levels, identify appropriate response actions, and document protocols for enforcing the WSRP. This WSRP was prepared according to requirements in Sections 10632 & 10635 of the California Water Code. **Table 1** below shows the required components of a WSRP, the relevant water code section, and where they are found in this document.

Table 1: Water Shortage Response Plan Requirements

Topic	CA Water Code Section	WSRP Section
Water Supply Reliability Analysis	WC 10632 (a.1)	Section 2
Annual Assessment Procedures	WC 10632 (a.2)	Section 2
Water Shortage Levels	WC 10632 (a.3)	Section 3 Table 2
Shortage Response Actions	WC 10632 (a.4) WC 10632 (b)	Section 4
Communication Protocols	WC 10632 (a.5)	Section 5
Compliance and Enforcement	WC 10632 (a.6)	Section 6
Legal Authority	WC 10632 (a.7)	Section 7
Financial Consequences of WSRP	WC 10632 (a.8)	Section 8
Monitoring and Reporting	WC 10632 (a.9)	Section 9
WSRP Refinement Procedures	WC 10632 (a.10)	Section 10

2 - PROCEDURES FOR CONDUCTING ASSESSMENT

2.1 Decision Making Process

Regulatory Requirement

§10632(a.2.A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.
§10632 (a.2.B) (iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.

The District's Operations Staff and Regulatory Administrator are responsible for collecting and analyzing various hydrologic datasets, assessing water demands, and assessing system capacities versus anticipated supplies. The General Manager will be updated regularly, and the District Board of Directors will also be provided informative briefings at monthly Board meetings. Please be advised that the levels below correspond to the required Water Shortage Levels outlined in WC 10632.

Response Level 1
The existence of a Water Shortage Response Level 1 shall be ongoing when declared by Board action. Declaration of Level 1 may be implemented upon reaching:

1. Three-years of consecutive state-wide drought; and
2. Significant reduction in groundwater levels, as deemed by the Board of Directors; and
3. Significant reduction in groundwater storage, as deemed by the Board of Directors.

Response Level 1 can also be declared if there are facility or infrastructure issues (such as well failure, pipeline failure, aqueduct breach, etc.) that reduce water supplies.

Response Levels 2 to 6 & 6a
Response Levels 2 to 6 & 6a shall be enacted only after situations occur that are more severe than those needed to enact Response Level 1 & 1a. These Response Levels can only be declared after the Board of Directors has first declared a 'Water Shortage Emergency'.

WKWD recharges most of their surface water, creating a storage buffer to help deal with droughts and other water supply interruptions. These reserves have proven to be very effective and have historically eliminated the need for water use restrictions in WKWD for many years. Current groundwater storage can meet demands for approximately ten years.

As a result, hard triggers for implementing Response Levels 2 to 6 & 6a are not considered practical. Instead, these levels will be enacted by the Board of Directors based on a subjective evaluation of the following factors:

1. Assessing three years of unconstrained supply to the District
2. Local drought conditions
3. General Statewide drought conditions
4. Groundwater depths, including recent changes
5. Total banked groundwater storage, including recent changes
6. Changes in well capacity due to groundwater level declines
7. Recent allocation of surface water

8. Short-term ability to purchase water from other sources
9. Water quality issues impacting the water supply
10. Infrastructure issues (such as well failure, pipeline failure, aqueduct breach, etc.) that could significantly reduce water supplies

The existence of Water Shortage Response Level 2 or Level 3 conditions may be declared by resolution of the WKWD Board of Directors and adopted at a regular or special public meeting held in accordance with state law. The mandatory conservation measures applicable to Response Level 2 or Level 3 conditions shall take effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, the District shall publish a summary of the resolution in one or more newspapers. The District may also post notice of the condition on its website. Lastly, the District does currently maintain an automated robocalling system that may be utilized to alert all water users within the District's service area.

Water Shortage Response Levels 4 through Level 6 may be declared as deemed necessary by the Board of Directors. The mandatory conservation measures applicable to Response Levels 4 through 6 shall take effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, the District shall publish a summary of the resolution in one or more newspapers. The District may also post notice of the condition on its website. The most restrictive Water Shortage Response Level 6a is only to be implemented in very extreme conditions. This Level is designed to be implemented on a short-term basis no longer than 45 days. These extreme conditions could call for a complete prohibition on all water use throughout the District and would require water tanks to be brought into the District for emergency situations of health and safety. Both Levels 6 and 6a will be implemented in accordance with the procedures specified in California Water Code Sections 351 and 352. These sections indicate the protocol for publicly noticing the public hearing that is needed when implementing or declaring a water shortage emergency.

The District's Board of Directors may declare an end to a Water Shortage Response Level 2 or higher by the adoption of a resolution at any regular or special meeting held in accordance with state law.

2.2 Data Inputs and Assessment Methodology

Current Year Demand

Regulatory Requirement

§10632 (a.2.B) (i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.

The District currently delivers disinfected groundwater to residential, commercial, and industrial customers. In addition, Raw water from the State Water Project (SWP) is delivered to one industrial customer in the District, the La Paloma Power Co. LLC (La Paloma). The District provides water to the local wastewater treatment facility but does not oversee sewage collection or treatment. The recycled water from this facility is used to irrigate fodder crops on adjacent agricultural land The District's current and projected water demand is broken down into three categories: Potable Water, Raw Water, and Recycled Demand. This demand summary can be found in **Table 2** below.

Table 2: Total Water Demands

Description	2015	2020
Potable Water	16,542	14,767
Raw Water	4,461	1,571
Recycled Water Demand	0	0
TOTALWATER DEMAND	21,003	16,338

Future water demand estimates will typically be based on the following criteria and assumptions:

1. Future population growth is 0.4% per year, which is consistent with the population growth rate that was assumed in the 2010 UWMP.
2. In 2020 and beyond, residential, and commercial demands are based on the District meeting its 2020 per capita goal of 189 gallons/capita/day.
3. Raw water demands to La Paloma have fluctuated over the years with an average usage of 3000 AF/yr. their total contract supply is 5,500 AF/year).
4. Treated industrial demands after 2020 are based on the average water use from 2016 to 2020, which is 10,400 AF/year.

Several other factors can affect demand projections, which are not included in the estimate above, including:

- Land use revisions
- New regulations
- Consumer choice
- Economic conditions
- Oil prices and oil demand
- Transportation needs
- Highway construction
- Environmental factors
- Conservation programs
- Plumbing codes

The foregoing factors affect the amount of water needed, as well as the timing of when it is needed. Past experiences have indicated that the economy is the biggest factor in determining water demand projections. During an economic recession, there is a major downturn in development and a subsequent slowing of the projected demand for water. The projections in this Plan do not attempt to forecast recessions or droughts. Likewise, no speculation is made about future plumbing codes or other regulatory changes. Also, much of the industrial water demand is used by oil exploration companies. Predicting the oil economy and subsequent demand for water in the oil fields is not feasible.

Quantification of Water Supply

Regulatory Requirement

§10632 (a.2.B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year.
§10632 (a.2.B) (iii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.
§10632 (a.2.B) (v) A description and quantification of each source of water supply.

Water supply facilities in the District include 13 wells (5 in the North Well Field and 8 in the South Well Field), 26 water tanks, and approximately 346 miles of pipelines. The facilities are spread out over the entire district, which covers over 300 square miles.

Imported Water Supply
The District maintains a contract for surface water from the State Water Project (SWP) in conjunction with the Kern County Water Authority (WKWA) of an annual amount of 31,500 acre-feet per year (AFY). The 2020 UWMP analysis estimated that the long-term reliability of this SWP supply is estimated to be approximately 60%

During wet years when high-flow water is available, an additional 10,000 AFY is available to WKWD. Historically, this high-flow water has been purchased or exchanged by WKWD to increase the water banking program. The surface water indirectly available to WKWD consists of in-lieu surface water delivered to Buena Vista Water Storage District (BVWSD) and credited to WKWD for recharge. This water is either SWP water or high-flow Kern River water. The surface water is not currently used as a direct domestic water supply source.

WKWD also has two turnouts along the California Aqueduct that have been used to deliver untreated water directly to industrial customers. Currently only one of the turnouts is operated by the District, which supplies untreated water to La Paloma. An agreement was established in 2001 between WKWD and La Paloma for a maximum delivery of 6,500 AFY, with the Agreement being amended in 2018 for an annual delivery of 5,500 AF.. Historically La Paloma has taken less than their contract amount and WKWD utilizes the balance of the water for recharge to its water banking program or exchanges with other entities.

Delta Conveyance Facility Supply
The District plans to participate in the Delta Conveyance Facility project and is hopeful that this will drastically improve and sustain their long-term water reliability. However, this project is not scheduled to be implemented for several years.

Groundwater Supplies
The District has two well fields that primarily pump groundwater that has been banked over several decades. The pumping capacity is capable of meeting the District's peak summertime demands. The amount of groundwater in storage fluctuates based on hydrologic conditions, but currently represent about a 10-year supply. This is the source directly used to meet most District demands.

Existing Infrastructure Constraints

Regulatory Requirement

§10632 (a.2.B) (iii) Existing infrastructure capabilities and plausible constraints.

The District maintains an existing distribution system. The primary facilities in the District include the following:

- 13 active groundwater wells (1 inactive well)
- 26 above ground water storage tanks
- 15 booster pump stations
- 346 miles of distribution pipelines
- Recharge basins of approximately 415 acres
- Recharge basins in project vicinity of approximately 6,862 acres
- Recharge basins in Tule Elk reserve of approximately 729 acres
- 2 Aqueduct Turnouts (1 active)

Possible infrastructure constraints include problems with State Water Project facilities or internal well and conveyance facilities. If there are problems with the Delta, California Aqueduct, or Aqueduct Turnouts, then the District could rely on the large volume of groundwater banked to meet demands. The District currently has excess capacity in their wellfields and conveyance facilities; however, any number of conditions could constrain capacity of existing infrastructure in a manner than would require the District to declare a water shortage and enforce water conservation measures.

3 - WATER SHORTAGE LEVELS

Regulatory Requirement

§10632 (a.3.A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.

As outlined in the new Water Code requirements (10632 a & b.), Water Shortage Contingency Plans must include or be adapted to the six standard water shortage levels, which correspond to the progressive conservation ranges of <10%, 10-20%, 20-30%, 30-40%, 40-50% and 50+%. These six levels are described in **Table 2.** The various Response Actions that correspond with these levels are addressed in **Section 4** of this plan.

Table 2: Updated Levels of Water Shortage

RESPONSE LEVELS	DESCRIPTION	RESTRICTIONS	CONSERVATION TARGET[2]
Level 1	Water Awareness	Voluntary	0 to 10%
Level 2	Moderate Water Shortage	Mandatory	10% - 20%
Level 3	Severe Water Shortage	Mandatory	20% - 30%
Level 4	Extreme Water Shortage	Mandatory	30% - 40%
Level 5	Critical Water Shortage	Mandatory	40% - 50%
Level 6	Emergency Water Shortage	Mandatory	Greater than 50%
Level 6a Short Term[2]	Short-Term Water Emergency	Mandatory	Greater than 50%

Notes:
1 – Short term conditions occur for 45 days or less and may be attributed to infrastructure, water quality or power issues, as well as hydrologic conditions.
2 – 'Normal Water Production' refers to the average water production during the last 3 years with unconstrained supplies.

These water shortage stages each include specific water use restrictions that will be adopted and enforced. The following should also be noted regarding these water shortage stages:

- This policy establishes water management requirements necessary to conserve water, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, prevent unreasonable use of water within the District in order to assure adequate supplies of water to meet the needs of the public, and further the public's health, safety, and welfare, recognizing that water is a limited natural resource that requires careful management not only in times of drought but at all times.

- This policy establishes progressive response levels including regulations to be implemented during times of declared water shortages or declared water shortage emergencies. It establishes six levels of response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies.

- Level 1 shortage response measures are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by the District. During response condition Levels 1 through 6 & 6a, the District Board of Directors will determine the necessity for each conservation measures and water-use restriction, which become increasingly restrictive to attain escalating conservation goals.

  Detailed descriptions of each water shortage stage and their associated water use restrictions are provided in the following section.

4 - SHORTAGE RESPONSE ACTIONS

4.1 Response Actions by Water Shortage Level

Regulatory Requirement

§10632 (a.4) Shortage response actions that align with the defined shortage levels

While there are six different water shortage levels with varying response actions, there are several response actions that are considered permanent and are always implemented. Each Water Shortage Level must adhere to these response actions as well as any additional actions that are pertinent to that level.

Permanent Response Actions

- All hoses shall be equipped with a shut-off nozzle. Hosing down driveways, streets, parking lots, sidewalks or buildings is prohibited unless required for health and safety.
- Excessive watering or over-saturation causing water to run off onto sidewalks, streets, or gutters is prohibited.
- Residential and commercial landscape irrigation shall not take place between the hours of 10am and 6pm. (Consider adjusting the landscape irrigation run time)
- Washing of motor vehicles, trailers, boats and other types of equipment shall only be done using a bucket and/or a hand-held hose that has a shut-off nozzle, a high pressure/low volume wash system, or be conducted at a commercial site that recirculates water on-site. Washing during hot weather conditions shall be avoided as additional water then becomes required due to evaporation.
- Eating or drinking establishments, including but not limited to: Restaurants, cafes, cafeterias, bars or other public places where food or drink are served and/or purchased, shall serve water only upon request.
- Operators of hotels and motels shall offer patrons the option of not having their towels and linens washed daily.
- Pools, spas, and ornamental fountains/ponds should have recirculation and be leak proof. Draining and refilling is only permitted for health, maintenance, or structural reasons.
- Stop use of potable water for compaction or dust control where non-potable or recycled water is available.
- Repair all leaks within twenty-four (24) hours of notification by the District unless other arrangements are made with the General Manager.
- Users of construction meters and fire hydrant meters will be monitored for efficient water use.

Water Shortage Response Levels

Following are response actions for each of the six water shortage stages that can be declared by the District. These response actions are also illustrated in a matrix included as **Attachment 1**. The District has the authority to be flexible when selecting which response actions to require, but the following are recommended guidelines for each stage.

When the State mandates specific response actions during a Water Shortage Emergency they will be added to the lists below.

Level 1. Water Awareness (90% to 100% of Normal Water Production)

Level 1. Below Normal Water Supply is categorized with a possible reduction percentage of up to 10%. A Level 1 condition applies when there is reasonable probability that there will be supply reduction but is considered a voluntary level. Existence of a Response Level 1 condition is considered on-going, and the District shall take action to implement the Level 1 conservation practices identified in this Plan. These actions may include:

- Increased public education and outreach efforts to emphasize public awareness of the need to implement voluntary water conservation practices.

Level 2. Moderate Water Shortage (80% to 90% of Normal Water Production)

Level 2. Moderate Water Shortage is categorized with a possible reduction percentage of 10-20%. A Level 2 condition applies when the District notifies its customers to reduce water usage due to drought or other reduction supplies. The WKWD Board of Directors shall declare the existence of a Response Level 2 condition and implement selected mandatory Level 2 conservation measures identified in this Plan. These actions may include:

- Reduce large & significant landscape watering by 25%
- Eliminate all over-use of water by contracted industrial customers
- Reduce non-contracted industrial water use by 15%

Level 3. Severe Water Shortage (70% to 80% of Normal Water Production)

Level 3. Severe Water Shortage is categorized with a possible reduction percentage of 20-30%. A Level 3 condition applies when increasing cutbacks are necessary due to continued drought or disaster. The WKWD Board of Directors shall declare the existence of a Response Level 3 condition and shall implement selected actions from Levels 1 & 2 as well as additional actions outlined below pursuant to this Plan. These actions may include:

- Reduce non-contracted industrial water use by 60%
- Lawn watering and landscape irrigation shall be limited to no more than 10 minutes per water station per assigned day as follows: Residents with even street number addresses water on Wednesday, Friday, and Sunday. Residents with odd number addresses may water on Tuesday, Thursday, and Saturday. NO watering is allowed on Monday. (These restrictions apply to manual and automatic watering.) Irrigation run time shall be adjusted to avoid runoff.

Upon declaration of a Response Level 3 condition, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided, and no statement of immediate ability to serve or provide potable water service such as will serve letters shall be issued, except under the following circumstances:

- A valid, unexpired building permit has been issued for the project;
  or
- The Project is necessary to protect the public's health, safety, and welfare; or
- The applicant provides substantial evidence to the District, of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District.

Level 4 Extreme Water Shortage (60% to 70% of Normal Water Production)

Level 4. Extreme Water Shortage is categorized with a possible reduction percentage of 30-40%. A Level 4 condition applies when the District's Board of Director's declares a water shortage emergency pursuant to this Plan and notifies its customers that Level 4 requires a demand reduction in order for the District to have supplies available to meet basic needs. The WKWD Board of Directors shall declare the existence of a Response Level 4 condition and implement selected actions from Levels 1 through 3 as well as additional actions outlined below. These actions may include:
All the Response Actions in Level 3 plus the following new Response Actions:

- Reduce large and significant landscape watering by 35%
- Eliminate all over-use of water by contracted industrial customers
- Eliminate non-contracted industrial water use
- Reduce contracted industrial customers, excluding large landscape watering by 10%
- Reduce California Resources Corporation water use by 10%
- Reduce Elk Hills Power water use by 10%
- Limit residential and commercial landscape irrigation to no more than once per week. Residents and commercial businesses with odd street number addresses water on Tuesdays. Residents and commercial businesses with even street number addresses water on Wednesdays. No watering is allowed on Monday, Thursday, Friday, Saturday or Sunday. (These restrictions apply to manual and automatic watering.) Irrigation run time shall be adjusted to avoid runoff.
- Washing of motor vehicles, trailers, boats, and other types of equipment is prohibited unless required for health and safety.
- The application of potable water to driveways and sidewalks is prohibited.
- The installation of new turf or landscaping is prohibited.
- No irrigation with potable water of ornamental turf on public street medians
- New connections to the District's water distribution system will be allowed but their water use shall be restricted to the minimum requirements for personal health and safety.

Level 5 Critical Water Shortage (50% to 60% of Normal Water Production)

Level 5 Critical Water Shortage is categorized with a possible reduction percentage of 40-50%. A Level 5 condition applies when the District's Board of Director's declares a water shortage emergency pursuant to this Plan and notifies its customers that Level 5 requires a demand reduction in order for the District to have supplies available to meet basic needs. All the Response Actions in Levels 1 through 4 are required plus the following new Response Actions:

- Reduce large and significant landscape watering by 50%
- Reduce contracted industrial customers, excluding large landscape watering by 20%
- Reduce California Resources Corporation water use by 20%
- Reduce Elk Hills Power water use by 20%
- Water use for ornamental ponds and fountains is prohibited.

The following Response Actions replace previous less stringent actions:

- Water for flow testing and construction purposes from water agency fire hydrants and blow-offs is prohibited.

- Water use exceedance tiered pricing and/or excessive water use fines will be implemented.

Level 6 Emergency Water Shortage (>50% of Normal Water Production)

Level 6 Critical Water Shortage is categorized with a possible reduction percentage of 40-50%. All the Response Actions in Level 5 are required plus the following and those that replace previous less stringent actions:

- Motor vehicles and equipment shall be washed only at commercial establishments that use recycled or reclaimed water.
- Import water tanks into the District's service area to provide potable water
- Reduce large and significant landscape watering by 75%
- Reduce contracted industrial customers, excluding large landscape watering by 40%
- Reduce potable water deliveries for power generation by 40%
- Reduce Elk Hills Power water use by 40%

The following Response Actions replace previous less stringent actions:

- Water use exceedance tiered pricing and/or excessive water use fines will be increased.
- No commitments ("will serves") will be made to provide service for new water service connections.

Level 6a Emergency Water Shortage Short-Term (>50% of Normal Water Production)

Level 6 Critical Water Shortage is categorized with a possible reduction percentage of >50%+. A short-term declaration is for water shortage conditions expected for a duration of less than 45 days. Level 6a is the most critical and restrictive Water Shortage Level and is considered an Emergency Shortage. All the Response Actions through Level 6 are required plus the following:

- Motor vehicles and equipment shall not be washed under any circumstances
- Eliminate all landscape watering
-
- Reduce contracted industrial customers, excluding large landscape watering by 80%
- Reduce California Resources Corporation water use by 50%
- Reduce Elk Hills Power water use by 50%

The following Response Actions replace previous less stringent actions:

- All non-emergency or water use not defined in this Plan will be prohibited

4.2 Locally Appropriate Supply Augmentation Actions

Regulatory Requirement

§10632 (a.4.A) Locally appropriate supply augmentation actions.

If surface water supplies are limited, there may be other options through transfer, exchanges or open-market water purchases to secure additional surface water from the State Water Project of Kern River

In the event of a water shortage, the District has significant reserves of groundwater that can be used if surface water supplies are low. The current reserves can provide ten years of the District's annual water demands.

4.3 Locally Appropriate Demand Reductions

Regulatory Requirement

§10632 (a.4.B) Locally appropriate demand reduction actions to adequately respond to shortages.

The demand reductions in this plan address the unique water use characteristics in the District where about 80% of the water is used for industrial purposes, including oil field operations and power plants. The demand reductions also focus on the priorities of the water supplies. Some industrial water users are not contracted, and they have lower priority over contracted industrial water users. Municipal use is a higher priority than industrial use, but outdoor watering is considered lower priority than indoor use.

4.4 Locally Appropriate Operational Changes

Regulatory Requirement

§10632 (a.4.C) Locally appropriate operational changes.

During a water shortage operational changes are generally not needed, unless there is a catastrophic interruption in supply. This may require modifying the wells typically used or redirecting through different routes if a pipeline is non-operational.

4.5 Gap Between Supply and Demand

Regulatory Requirement

§10632 (a.4.E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

Each Water Shortage Level includes response actions that are estimated to provide the needed water savings required. These response actions have also been refined over time and proven to generally provide the reductions needed. If prohibitions at any level do not result in the required water savings, the District can simply go to the next level. The District also has flexibility to enforce only some of the response actions in a level, providing the opportunity to make small adjustments when needed.

5 - COMMUNITY OUTREACH

5.1 Current and Predicted Shortages

Regulatory Requirement

§10632 (a.5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all the following:
(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.

The WKWD has identified the four following categories as significant points of discussion, regarding current and predicted drought shortages.

- Various causes of drought in the area
- Regulatory impacts on water supplies
- Drought impacts on water supplies
- Constraints on deliveries, transfers and exchanges

Should a potential shortage be anticipated, the public and WKWD customers will be notified of the potential for a drought declaration and water conservation measures via public notices, announcements on the District's web page, (www.wkwd.org) and in their billing statements.

5.2 Shortage Response Actions

Regulatory Requirement

§10632 (a.5.B) Any shortage Response Actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.
Any other relevant communications.

The District's Board of Directors will be kept informed of water shortage conditions to enable them to make timely and appropriate decisions on the following actions:

- Coordination with customers on the development and implementation of plans
- Frequent assessment of water shortage status
- Adoption of resolutions to change water shortage levels
- Declaration of a water shortage emergency
- Adoption of an Emergency Water Reduction Plan

These actions may be communicated to District customers by way of billing inserts, newspaper advertising, on the District's webpage (www.wkwd.org) and by verbal communication with District personnel

6 - CUSTOMER COMPLIANCE AND ENFORCEMENT

Regulatory Requirement

§10632 (a.6) For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage Response Actions as determined pursuant to Section 10632.2.

Any person, who uses, causes to be used, or permits the use of water in violation of this policy is guilty of an offense punishable as provided herein. Each day that a violation of this policy occurs is a separate offense.

Violation of a provision of this policy may be subject to enforcement through installation of a flow-restricting device in the service meter. If a flow-restrictor is placed in the service, the violator shall pay the cost of the material and labor for device installation and removal.

Willful violations of the mandatory conservation measures and water use restrictions as set forth in this policy may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code Section 356. Violations may also be subject to criminal, civil, and administrative penalties and remedies specified in this policy. If water service is disconnected, restoration shall be according to the District's Rules and Regulations. All remedies provided for herein shall be cumulative and not exclusive for the duration of the declared water shortage emergency.

First Violation

Upon notification or observation of waste or misuse of water, the District shall:

a. Make a photographic and written record of the violation; and
b. Provide notice to the customer in writing and/or by means of a door tag; and
c. Log the warning in the customer's account record.

Second Violation - $300.00 Administrative Fee

In the event a second violation occurs, the District shall:

a. Make a photographic and written record of the violation; and
b. Assess an administrative fee of $300.00 upon the customer for the second offense; and
c. Give notice to the customer in writing that if such waste or misuse continues or subsequent violation occurs, the consumer will be subjected to escalating administrative fees and potential discontinuance of service; and
d. Log the warning in the customer's account record.

Third Violation - $600.00 Administrative Fee

Upon a third offense the District shall:

a. Make a photographic and written record of the violation; and
b. Assess an administrative fee of $600.00 upon the customer for the third offense; and
c. Give notice to the customer in writing that if such waste or misuse continues or subsequent violation occurs, the consumer will be subject to discontinuance of service; and
d. Log the warning in the customer's account record; and
e. Report violation to appropriate law enforcement for possible criminal prosecution.

Fourth Violation – Discontinuance of Service

Upon a fourth offense the District shall:

a. Make a photographic and written record of the violation;
b. Give written notice to the customer that disconnection of the service will occur within five (5) working days of the date of the notice;
c. Disconnect the customer's service; and
d. Restoration and reconnection fees will be charged in accordance with the District's Rules and Regulations. Service will be restored only when the customer has provided satisfactory evidence to the District indicating waste and unreasonable use of water will no longer occur.

Appeals

The District recognizes there may be mitigating or intervening circumstances bearing upon a customer's apparent misuse of water. Upon receipt of any notice regarding purported misuse or waste of water, the customer shall have five (5) working days within which to file a written request for reconsideration with the General Manager. If the customer is not satisfied with the General Manager's decision, the customer shall have fifteen (15) days after the General Manager's decision within which to file a written appeal to the Board of Directors. The Board shall conduct a hearing on the appeal at the next regularly scheduled Board meeting immediately following the appeal. The Board's decision following such hearing shall be final and conclusive.

7 - LEGAL AUTHORITY OF THE PLAN

Regulatory Requirement

§10632 (a.7.A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage Response Actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.

This WSRP adheres with the California Water Code 10632. This document is also required by State law as outlined in the Water Code, which states that, "Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan…" (WC 10632). As an established California Water District, WKWD has the authority to implement the WSRP, declare water shortages, and implement shortage response actions including statutory authorities, ordinances, resolutions, and contract provisions.

This Policy shall be known as the West Kern Water District Water Shortage Response Plan ("WSRP" or "Policy"). Article 10, Section 2 of the California Constitution declares that waters of the state are to be put to beneficial use, that waste, unreasonable use, or unreasonable method of use of water be prevented, and that water be conserved for public welfare.

West Kern Water District may experience shortages due to drought conditions, regulatory restriction enacted upon imported supplies, catastrophic emergencies, and other factors. Conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety, and welfare. Regulation of the time of certain water use, manner of certain water use, design of rates, method of application of water for certain uses, and installation and use of water-saving devices provide an effective means of conserving water.

In addition, California Water Code Sections 375 et seq. authorizes a water supplier to adopt and enforce a comprehensive water conservation program. Adoption and enforcement of a comprehensive water conservation program will allow the District to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code Sections 350 et seq.

The District has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of its programs to provide a reliable supply of water to meet the needs of the public within its service territory. The District's Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This WSRP is consistent with the Urban Water Management Plan adopted by the District.

7.1 Declaring a Water Shortage Emergency

Regulatory Requirement

§10632 (a.7.B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1.

The WKWD will follow the protocols outlined in this Plan should it become necessary to declare a water shortage emergency. The process will follow the pertinent sections of the California Water Code and be noticed for a public hearing, typically at a Board of Directors meeting.

7.2 Supplier Coordination

Regulatory Requirement

§10632 (a.7.C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

The General Manager or designated staff will be available and responsible for coordinating with City and County officials within the District's service area should there be a necessary proclamation for a local water emergency.

8 - REVENUE REDUCTIONS AND EXPENSE INCREASES

The various revenue sources available to the District during droughts include, but are not limited to water sales, system connection fees, interest income, special assessments, reserves, and other non-operating revenues such as grant funding when available. In addition, there may be special outside funding sources made available to water agencies during a water emergency (e.g., Levels 4 through 6a). Following are discussions on potential revenue reductions during droughts and how they will be addressed.

8.1 Potential Revenue Reductions and Expense Increases

Regulatory Requirement

§10632 (a.8) A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:
(A) A description of potential revenue reductions and expense increases associated with activated shortage Response Action described in paragraph (4)

Potential revenue reductions include lost water sales to any of the customer categories served by WKWD including oil companies, power companies, golf courses, agriculture, domestic, commercial and industrial water users. All water users are billed volumetrically, so a drought or water shortage could cause a revenue reduction in the District.

Potential expense increases may include, but are not limited to:

- Higher SWP water costs due to reduced water deliveries
- Due to the proximity of the active well field, increased demand could exacerbate existing pumping depressions, resulting in increased lifts and increased pumping costs
- Purchases of higher priced transfer water

Attachment 2 includes tables estimating the potential revenue impacts from implementing the six water shortage stages.

8.2 Mitigation Actions

Regulatory Requirement

§10632 (a.8.B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage Response Actions described in paragraph (4).

Currently, WKWD has sufficient funds in their operating reserves to supplement deficiencies in revenue caused from a water shortage. Additionally, water shortages will require additional pumping of groundwater, which is the most cost effective water sources for WKWD. WKWD has substantial groundwater reserves that can meet District's water needs for about ten years.

8.3 Cost Compliance

Regulatory Requirement

§10632 (a.8.C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.

The District Rules and Regulations address penalties for wasteful use of water. Declaring a water shortage and enforcing response actions can be performed by existing staff with no significant increases in operating cost.

9 - MONITORING AND REPORTING REQUIREMENTS

Regulatory Requirement

§10632 (a.9) For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

WKWD has and will continue to comply with State reporting requirements. The District meters all water deliveries to its customers, which assists in assuring customer compliance. Additionally, the District maintains a protocol for receiving and addressing complaints of non-compliance and misuse.

Production

Under normal water supply conditions, potable water production figures are recorded daily. An accounting sheet of water owed to WKWD, carryover from the previous year, and totals in the ground that have been banked are also reviewed daily and tallied monthly.

Disaster Shortage

During emergency shortages, production figures are reported to the Supervisor hourly and to the Manager and the Water Shortage Response Team daily. Daily reports will also be provided to the Board of Directors.

10 - MONITORING AND EVALUATING THE PLAN

Regulatory Requirement

§10632 (a.10) Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.

This WSRP is in update to a previous 2016 WSRP. This update satisfies new State requirements for WSRPs, and reflects the refinements and improvements deemed necessary to adequately address the District's needs. In addition, this WSRP incorporates important lessons learned during the historic drought of 2013-2015. The WSRP will be re-evaluated at least every five years and at the end of each major drought period to assess its performance. If deemed necessary, it will be modified and improved based on lessons learned. The Plan may also be updated in the middle of a drought year if needed.

ATTACHMENT 1

West Kern Water District - Water Use Restrictions by Water Shortage Stage

Water Supply Reduction %	Permanent Response Actions	Stage 1 < 10%	Stage 2 Up To 20%	Stage 3 Up To 30%	Stage 4 Up To 40%	Stage 5 Up To 50%	Stage 6 >50%	Stage 6A* >50% short term
Hoses equipped with a shut-off nozzle	●	●	●	●	●	●	●	●
Excessive watering on streets & sidewalks prohibited	●	●	●	●	●	●	●	●
Residential & commercial landscape irrigation restrictions	●	●	●	●	●	●	●	●
Restrictions for washing outdoor vehicles, trucks or boats	●	●	●	●	●	●	●	●
Restaurants shall serve water only upon request	●	●	●	●	●	●	●	●
Hotels shall have opt-out linen service	●	●	●	●	●	●	●	●
Restrictions for spas, pools & fountains	●	●	●	●	●	●	●	●
Use of potable water for compaction or dust control	●	●	●	●	●	●	●	●
Repair all leaks within 24 hours	●	●	●	●	●	●	●	●
Monitor users of construction meters or fire hydrant meters	●	●	●	●	●	●	●	●
Increased public education		●	●	●	●	●	●	●
Reduce large & significant landscape watering			25%	25%	35%	50%	75%	100%
Eliminate industrial water use above contracted amounts			●	●	●	●	●	●
Reduction of non-contracted industrial water			15%	60%	100%	100%	100%	100%
Stop use of potable water for sewer system maintenance or fire protection				●	●	●	●	●
Restrictions on new connections				●	●	●	●	●
Reductions for contracted industrial customers					10%	20%	40%	80%
Reduce California Resources Corporation & Elk Hills Power water use					10%	20%	40%	50%
No irrigation with potable water of ornamental turf or public street medians					●	●	●	●
Water flow testing of fire hydrants or blow offs is prohibited						●	●	●
Water exceedance tiered pricing and fines						●	●	●
All non-emergency water use not defined in the WSCP is prohibited								●
Import water tanks to provide potable water								●

* Level 6a is a short term declaration less than 45 days.

Note: At any time the District may choose to increase these efforts to promote water savings, based on the current implemented Stage. Additionally, all regulations associated with a State Drought Emergency Declaration may become mandatory at any given Stage.

ATTACHMENT 2

WEST KERN WATER DISTRICT - WATER SHORTAGE RESPONSE PLAN

TABLE 1 - ENTITLEMENT / BANKED WATER OVERVIEW

(all units in AF)

RESPONSE LEVEL	% REDUCTION	DISTRICT DEMAND Historical High 2007 (1)	DEMAND MINUS REDUCTION	REDUCTION	CUSTOMER REDUCTION[2]	DISTRICT FROM BANKED WATER	DISTRICT BANKED WATER ACCOUNT IN 2020	YEARS UNTIL CURRENT BANK IS DEPLETED
I	10%	27,700	24,900	2,800	-	2,800	180,000	64
II	20%	27,700	22,200	5,500	2,750	2,750	180,000	65
III	30%	27,700	19,400	8,300	4,150	4,150	180,000	43
IV	40%	27,700	16,600	11,100	5,550	5,550	180,000	32
V	50%	27,700	13,900	13,800	6,900	6,900	180,000	26
VI	60%	27,700	11,100	16,600	8,300	8,300	180,000	22

(1) Based on 2007 (which was a high water use year) plus supplying La Paloma 4,500 AF/year

(2) Stage 1 requests a 10% voluntary customer reduction, and the District will supply any shortfall from the banked water account. In Stages 2 through 4 the shortfall will be split 50% with customer reduction and 50% from District banked water

WEST KERN WATER DISTRICT
WATER SHORTAGE RESPONSE PLAN
TABLE 2 - WATER SHORTAGE ACTIONS

ATTACHMENT 2

RESPONSE LEVEL	ACTION
	1 BOD determines which stage to implement based on consideration of climate, surface water deliveries, overall drought conditions, groundwater levels, and volume of groundwater banked.
	2 BOD adopts conservation measures of "Water Shortage Response Plan"
	3 In order to enact Stage 2 or higher, the BOD will need to adopt Resolution declaring a Water Shortage Emergency
	4 Reduce by 25% or 35% large landscape watering (parks, schools, ball fields, golf course, cemetery, green belt)
	5 Eliminate all over-use of water to industrial customers
	6 Eliminate water deliveries by 15%, 60% or 100% to non-contracted industrial customers
	7 Reduce by 10%, contracted industrial customers, excluding large landscape watering
I	Public conservation education program/request customer voluntary reduction
II	Public conservation education program/request customer voluntary reduction
II	Enforce Residential/Commercial conservation measures of Water Shortage Response Plan
II	Reduce by 25% large landscape watering
II	Eliminate all over-use of water by industrial customers
II	Reduce by 15% non-contracted industrial water use
III	Public conservation education program/request customer voluntary reduction
III	Enforce Residential/Commercial conservation measures of Water Shortage Response Plan
III	Reduce by 25% large landscape watering
III	Eliminate all over-use of water by industrial customers
III	Reduce by 60% non-contracted industrial water use
IV	Public conservation education program/request customer voluntary reduction
IV	Enforce Residential/Commercial conservation measures of Water Shortage Response Plan
IV	Reduce by 35% large landscape watering
IV	Eliminate all over-use of water by industrial customers
IV	Eliminate non contracted industrial water use
IV	Reduce by 10% contracted industrial customers, excluding large landscape watering
IV	Reduce by 10% California Resources Corporation
IV	Reduce by 10% Elk Hills Power

WEST KERN WATER DISTRICT
WATER SHORTAGE RESPONSE PLAN
TABLE 3 - 2007 WATER USAGE

Description	2007 Water Demand (AF)
Residential / Commercial	4,200
Large Landscape	800
Contracted Industrial	5,100
Overuse of Industrial Supplies	1,200
Non-Contracted Industrial	3,300
California Resources Corporation	2,200
Elk Hills	3,000

Note: 2007 water usage data is used in evaluating total water usage and conservation requirements. 2007 was selected since it was a high water use year.

WEST KERN WATER DISTRICT - WATER SHORTAGE RESPONSE PLAN

ATTACHMENT 2

TABLE 4 - WATER SAVINGS AND REVENUE IMPACTS

(all units in acre-feet)

RESPONSE LEVEL I 0-10%	District Can Meet Current Demands	REDUCTION %	ESTIMATED ACRE FEET	ESTIMATED REDUCED REVENUE $ Annual Revenue[1]	Reduction
Public conservation education program		-	-	$11,000	$11,000
RESPONSE LEVEL II 20%	**2,750 Customer Reduction Required**				
Public conservation education program		-	-	$11,000	$11,000
Enforce conservation measures on Residential/Commercial customers		20%	840	$4,200,000	$840,000
Reduce large landscape watering		25%	200	$800,000	$200,000
Eliminate over-use of water by industrial customers		100%	1,200	$1,200,000	$1,200,000
Reduce non-contracted industrial water use		15%	495	$3,300,000	$495,000
			2,735		$2,746,000
RESPONSE LEVEL III 30%	**4,150 Customer Reduction Required**				
Public conservation education program		-	-	$11,000	$11,000
Enforce conservation measures on Residential/Commercial customers		20%	840	$4,200,000	$840,000
Reduce large landscape watering		25%	200	$800,000	$200,000
Eliminate over-use of water by industrial customers		100%	1,200	$1,200,000	$1,200,000
Reduce non-contracted industrial water use		60%	1,980	$3,300,000	$1,980,000
			4,220		$4,231,000
RESPONSE LEVEL IV 40%	**6,900 Customer Reduction Needed**				
Public conservation education program		-	-	$11,000	$11,000
Enforce conservation measures on Residential/Commercial customers		25%	1,050	$4,200,000	$1,050,000
Reduce large landscape watering		35%	280	$800,000	$280,000
Eliminate over-use of water by industrial customers		100%	1,200	$1,200,000	$1,200,000
Eliminate non-contracted industrial water use		100%	3,300	$3,300,000	$3,300,000
Reduce contracted industrial water use		10%	510	$5,100,000	$510,000
Reduce California Resources Corporation water use		10%	220	$2,200,000	$220,000
Reduce Elk Hills Power water use		10%	300	$3,000,000	$300,000
			6,860		$6,871,000
RESPONSE LEVEL V 50%	**6,900 Customer Reduction Needed**				
Public conservation education program		-	-	$11,000	$11,000
Enforce conservation measures on Residential/Commercial customers		25%	1,050	$4,200,000	$1,050,000
Reduce large landscape watering		50%	400	$800,000	$400,000
Eliminate over-use of water by industrial customers		100%	1,200	$1,200,000	$1,200,000
Eliminate non-contracted industrial water use		100%	3,300	$3,300,000	$3,300,000
Reduce contracted industrial water use		20%	1,020	$5,100,000	$1,020,000
Reduce California Resources Corporation water use		20%	440	$2,200,000	$440,000
Reduce Elk Hills Power water use		20%	600	$3,000,000	$600,000
			8,010		$8,021,000
RESPONSE LEVEL VI 60%	**6,900 Customer Reduction Needed**				
Public conservation education program		-	-	$11,000.00	$11,000.00
Enforce conservation measures on Residential/Commercial customers		25%	1050	$4,200,000	$1,050,000.00
Reduce large landscape watering		75%	600	$800,000	$600,000.00
Eliminate over-use of water by industrial customers		100%	1200	$1,200,000	$1,200,000.00
Eliminate non-contracted industrial water use		100%	3300	$3,300,000	$3,300,000.00
Reduce contracted industrial water use		40%	2040	$5,100,000	$2,040,000.00
Reduce California Resources Corporation water use		40%	880	$2,200,000	$880,000.00
Reduce Elk Hills Power water use		40%	1200	$3,000,000	$1,200,000.00
			10270		$10,281,000.00

1 - Water costs assumed to be $1,000/AF

WEST KERN WATER DISTRICT
WATER SHORTAGE RESPONSE PLAN
TABLE 5 - ACTIONS TO OVERCOME REVENUE IMPACTS

RESPONSE LEVEL I	**District Can Meet Current Demands**	
REPSONSE LEVEL II	Water Use Reduction (AF)	2,750
	Impacts to Revenue	$2,746,000
Miscellaneous expenditure reduction		$650,000
Capital and equipment reduction		$800,000
Power costs will reduce		$900,000
SWP costs/miscellaneous water purchases will reduce		$450,000
	Total	$2,800,000
RESPONSE LEVEL III	Water Use Reduction (AF)	4,150
	Impacts to Revenue	$4,231,000
District will require monetary adjustments		
Miscellaneous expenditure reduction		$800,000
Capital and equipment reduction		$1,200,000
Power costs will reduce		$1,350,000
SWP costs/miscellaneous water purchases will reduce		$900,000
	Total	$4,250,000
RESPONSE LEVEL IV	Water Use Reduction (AF)	5,550
	Impacts to Revenue	$6,871,000
District will require monetary adjustments		
Miscellaneous expenditure reduction		$1,400,000
Capital and equipment reduction		$1,700,000
Power costs will reduce		$2,400,000
SWP costs/miscellaneous water purchases will reduce		$1,400,000
	Total	$6,900,000
RESPONSE LEVEL V	Water Use Reduction (AF)	6,900
	Impacts to Revenue	$8,021,000
District will require monetary adjustments		
Miscellaneous expenditure reduction		$2,100,000
Capital and equipment reduction		$2,400,000
Power costs will reduce		$3,000,000
SWP costs/miscellaneous water purchases will reduce		$2,100,000
	Total	$9,600,000
RESPONSE LEVEL VI	Water Use Reduction (AF)	8,300
	Impacts to Revenue	$1,200,000
District will require monetary adjustments		
Miscellaneous expenditure reduction		$2,800,000
Capital and equipment reduction		$3,100,000
Power costs will reduce		$4,000,000
SWP costs/miscellaneous water purchases will reduce		$2,800,000
	Total	$12,700,000

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX I - WATER RATE SCHEDULE

WEST KERN WATER DISTRICT

RESIDENTIAL AND COMMERCIAL/PUBLIC ENTITY RATE

Applicability

Applicable to all metered water service other than for industrial purposes.

Territory

Area within the West Kern Water District boundaries.

MONTHLY RATES

	1/2023	1/2024	1/2025	1/2026	1/2027
Water Use Rates (PER METER):					
First 1500 cu. ft. or less, per 100 cu. ft.	$1.30	$1.38	$1.45	$1.53	$1.60
Over 1500 cu. ft., per 100 cu. ft.	$1.55	$1.64	$1.73	$1.81	$1.90
Minimum Charge:					
For 3/4-inch meter	$9.50	$11.88	$14.25	$16.63	$19.00
For 1-inch meter	$15.87	$19.83	$23.80	$27.76	$31.73
For 1-1/2-inch meter	$31.64	$39.54	$47.45	$55.36	$63.27
For 2-inch meter	$50.64	$63.29	$75.95	$88.61	$101.27
For 3-inch meter	$95.00	$118.75	$142.50	$166.25	$190.00
For 4-inch meter	$158.37	$197.96	$237.55	$277.14	$316.73
For 6-inch meter	$316.64	$395.79	$474.95	$554.11	$633.27
For 8-inch meter	$506.64	$633.29	$759.95	$886.61	$1,013.27

Board has discretion to not implement full increase each year based upon financial review and inflation rate.

WEST KERN WATER DISTRICT
INDUSTRIAL METERED SERVICE

Applicability

Applicable to all metered water service furnished for industrial purposes.

Territory

Area within the West Kern Water District Boundaries.

BILLED MONTHLY

	1/2023	1/2024	1/2025	1/2026	1/2027
Water Use Rates (per 100 cu. ft.):					
Schedule IW – General Industrial	$3.27	$3.65	$4.02	$4.40	$4.78
Minimum Charge Per Meter Per Month:					
For 3/4-inch meter	$9.50	$11.88	$14.25	$16.63	$19.00
For 1-inch meter	$15.87	$19.83	$23.80	$27.76	$31.73
For 1-1/2-inch meter	$31.64	$39.54	$47.45	$55.36	$63.27
For 2-inch meter	$50.64	$63.29	$75.95	$88.61	$101.27
For 3-inch meter	$95.00	$118.75	$142.50	$166.25	$190.00
For 4-inch meter	$158.37	$197.96	$237.55	$277.14	$316.73
For 6-inch meter	$316.64	$395.79	$474.95	$554.11	$633.27
For 8-inch meter	$506.64	$633.29	$759.95	$886.61	$1,013.27

Board has discretion to not implement full increase each year based upon financial review and inflation rate.

WEST KERN WATER DISTRICT

INDUSTRIAL METERED RAW WATER SERVICE

Applicability

Applicable to all metered raw water service furnished for M&I purposes.

Territory

All California Aqueduct water (raw water) sold to customers within District boundaries. Additional pumping costs may be applicable

	1/2023	1/2024	1/2025	1/2026	1/2027
Quantity Rates:					
Per 100 cu. ft	$2.07	$2.33	$2.58	$2.84	$3.10

Board has discretion to not implement full increase each year based upon financial review and inflation rate.

WEST KERN WATER DISTRICT
FIRE PROTECTION SERVICE

Applicability

Applicable to all water service furnished for all fire protection systems attached to District mains.

Territory

Area within the West Kern Water District boundaries.

BILLED MONTHLY - CHARGE PER CONNECTION

	1/2023	1/2024	1/2025	1/2026	1/2027
Rates					
For 2-inch connection or smaller	$6.55	$7.21	$7.86	$8.52	$9.18
For 3-inch connection	$12.29	$13.52	$14.75	$15.97	$17.20
For 4-inch connection	$20.48	$22.53	$24.58	$26.62	$28.67
For 6-inch connection	$40.96	$45.06	$49.15	$53.25	$57.34
For 8-inch connection	$65.54	$72.09	$78.64	$85.20	$91.75
For 10-inch connection	$94.21	$103.63	$113.05	$122.47	$131.89
For 12-inch connection	$176.13	$193.74	$211.35	$228.97	$246.58
For 14-inch connection	$262.14	$288.36	$314.57	$340.79	$367.00
For 16-inch connection	$375.19	$412.71	$450.23	$487.75	$525.27

Board has discretion to not implement full increase each year based upon financial review and inflation rate.

Special Conditions

1. There shall be no connections between this fire protection system and any other water distribution system on the premises. There shall be no water used through the fire protection service, except to extinguish fires and for testing fire fighting equipment. If the District does not require a meter, and if water is used through a fire service connection for any purpose other than extinguishing fires, the District shall have the right to place a meter on the fire service connection at the owner's expense. If water is used from a private fire service in violation of these regulations, the District may, at its option, discontinue the service.

2. Water delivered for purposes other than fire protection will be billed at the applicable rate.

3. Connections for fire protection systems must be equipped with backflow prevention assemblies. Type of device is determined by the West Kern Water District as a result of the degree of hazard. The District may conduct a site survey to determine degree of hazard. The cost of the assembly and appurtenant structures shall be paid, without refund, by the applicant.

4. If a distribution main of adequate size to serve a fire protection connection, in addition to all other normal service, does not exist in the street adjacent to the premises to be served, then a service main from the nearest existing distribution or transmission main of adequate capacity will be installed by the District at the cost of the applicant. The amounts paid by the applicant to establish fire protection service shall not be subject to a refund.

5. The District will supply water at available pressure, which may change as a result of demand throughout the system. The District assumes no responsibility for loss or damage due to lack of water or pressure. The service is subject to shutdowns and variations required by the operation of the system.

6. The District reserves the right to install meters on a fire protection service, at the owner's expense, if the service is being used for other purposes than fire protection.

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX J – REDUCED DELTA RELIANCE ANALYSIS

West Kern Water District
Reduced Delta Reliance Analysis – 2025 Update

The Sacramento-San Joaquin Delta Reform Act of 2009 established a new state agency, the Delta Stewardship Council (DSC), to develop a Delta Plan that ensures coordinated action at the state, federal and local levels in meeting ecosystem health and water supply reliability needs in the Sacramento-San Joaquin Delta. The Delta Plan, adopted by the DSC in 2013, includes a policy (WR-P1) to Reduce Reliance on the Delta Through Improved Regional Water Self Reliance. Projects that are "covered actions" affecting the Delta (e.g., transfers of water from North of the Delta) must demonstrate that they are consistent with the policies in the Delta Plan, including WR-P1.

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) defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above as:

c) *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 technical feasible which reduced 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 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 purposes of reporting, water efficiency is considered a new source of supply, consistent with Water Code section 1011(a).*

West Kern Water District
Reduced Delta Reliance Analysis – 2025 Update

The analysis provided here provides documentation related to compliance with WR-P1 for the West Kern Water District (WKWD). The approach taken is somewhat simplified from the detailed analysis identified in Appendix C of DWR's Urban Water Management Plan Guidebook (Guidebook Appendix C). The analysis uses the following steps:

1. Identify Delta Water Supply Baseline;
2. Qualitatively identify water management measures and increased regional self-reliance within WKWD;
3. Indicate projected use of Delta water supplies within WKWD for projection periods; and
4. Quantify the reduction in reliance on the Delta for projection periods.

Delta Water Supply Baseline

The Sacramento-San Joaquin Delta Reform Act went into effect in 2010, which is proposed for use as the baseline. The most representative analysis of the Delta supply available to Kern County Water Agency (KCWA) as of 2025 is DWR's State Water Project (SWP) 202023 Delivery Capability Report (DCR). The 2023 SWP DCR identified a SWP average reliability of 53% of SWP contractors' Table A amounts (Table 6.3). Based on WKWD's Table A Allocation through the KCWA contract with DWR, the estimated baseline supply available for WKWD through the KCWA contract is 16,695 acre-feet. This reflects a reduction from the 18,900 acre-feet Delta water supply baseline used in the 2015 UWMP and the 2020 UWMP.

Water Management Measures and Increased Regional Self Reliance

As described in Chapter 9 of the 2020 UWMP, WKWD has implemented significant demand reduction measures. The demand reduction These measures include the following:

- Water Waste Prevention ordinances
- Metering
- Conservation Pricing
- Public Education and Outreach
- Programs to Assess and Manage Distribution System Real loss
- Water Conservation Program Coordination and Staffing Support
- School Education
- Indoor and Outdoor Water Surveys for Single/Multi-Family Residential Customers Residential Plumbing Retrofits
- Residential Plumbing Codes
- High-Efficiency Washing Machine Rebate Programs
- Residential ULFT Replacement Programs
- Conservation Programs for Commercial, Industrial and Institutional Customers
- Large Landscape Conservation Programs and Incentives
- Wholesale Agency Assistance Programs

These measures will be implemented and supplemented with additional demand reduction measures as those measured are demonstrated to be technologically feasible. Currently WKWD is considering implementing the following programs:

- Work with Park and School Districts to install dedicated Irrigation meters and identify appropriate efficiency options
- Continue to work with golf courses to identify and implement water saving opportunities
- Offer rebates for smart irrigation controllers.

Projected use of Delta Water Supplies by West Kern Water District

Based on projected WKWD water use and the availability of other resources, average WKWD use of imported water from KCWA to meet customer demands is projected to remain below the 2023 SWP DCR supply level of 16,695 acre-feet or over 2,205 acre-feet below its 2010 water supply baseline of 18,900 acre-feet. This projected water use reflects a reduction in demand, particularly from commercial customers and water conservation and water management actions implemented by WKWD water conservation program measures.

WEST KERN WATER DISTRICT
URBAN WATER MANAGEMENT PLAN

APPENDIX K – DISADVANTAGED COMMUNITY DOCUMENTATION

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Memorandum

To:	Greg Hammett, West Kern Water District
From:	Owen Kubit
Subject:	West Kern Water District – Disadvantaged Community Status
Date:	October 21, 2022

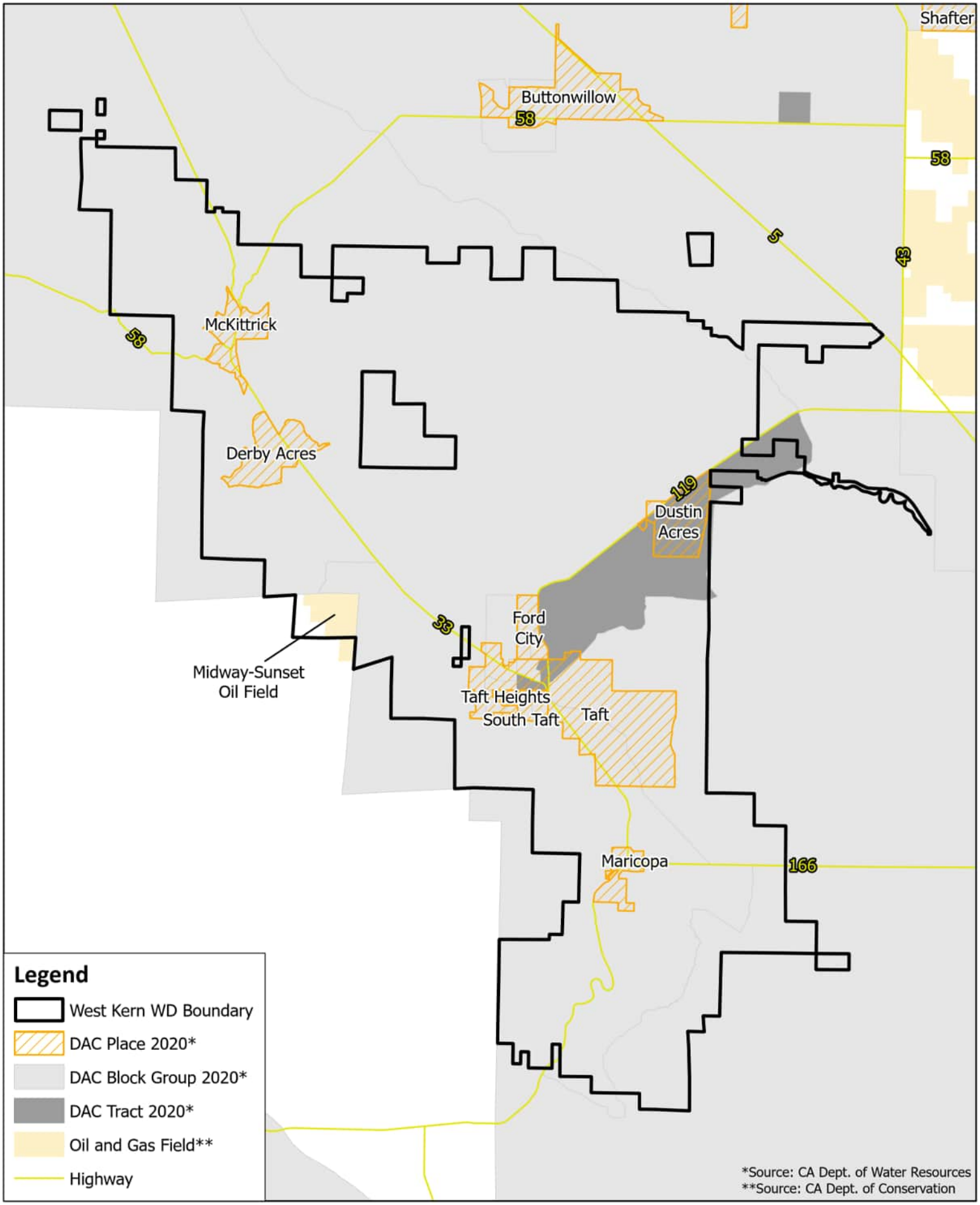
This memorandum documents an analysis of Disadvantaged Community (DAC) status for the service area of West Kern Water District. The State of California defines a disadvantaged community as a census designated area with household income less than 80% of the State's median household income. This designation can be an important factor in securing from the State of California. Having status as a DAC can provide more opportunities for funding, reduce the required cost share for some grant programs, is often a scoring-criteria in grant programs. In addition, water agencies are not eligible for certain funding if they do not meet their State per capita water use goal, but are exempt from this requirement if they are 100% DAC.

The DAC status of WKWD was evaluated using the State DAC Mapping Tool (https://water.ca.gov/Work-With-Us/Grants-And-Loans/Mapping-Tools). **Figure 1** shows the entire district and those areas considered DACs. Most of WKWD is within Kern County, and all of these areas are considered DACs based on income data for census places, tracts and block groups. A small part of WKWD is located in San Luis Obispo County in the central western part of the District (see **Figure 2**). This area, which includes only 0.9% of the WKWD area, is not considered a DAC based on census data.

A review of aerial photographs and other maps of the San Luis Obispo County area show no residences, and therefore no population, in this area. The area is desert land developed principally as The Midway-Sunset Oilfield. The area has no services or known potable water supply. In fact, the area does not have the facilities for even developing a transient non-community water supply. In addition, this area is not expected to be developed for any habitation in the foreseeable future. The non-DAC status appears to be based on demographic data for communities many miles away in San Luis Obispo County.

Since the land within San Luis Obispo County has no population, no data for calculating mean income, no services, no potable water supply, and is not expected to be developed for habitation in the near future, WKWD has excluded it from their DAC analysis, and as a result, 100% of the WKWD service area is considered DAC.

The Department of Water Resources (DWR) reviewed the District's DAC analysis, including the proposal to exclude the area within San Luis Obispo County. In an email dated July 29, 2022, Gwen Huff of DWR responded "*We have reviewed your DAC assessment and find that it appropriately documents that the entire service area is a Disadvantaged Community (DAC). The DAC assessment and DWR's approval make the Water District eligible to apply for state funded water grants or loans*."



West Kern Water District

Figure 1- Disadvantaged Communities- 2020 Census Data

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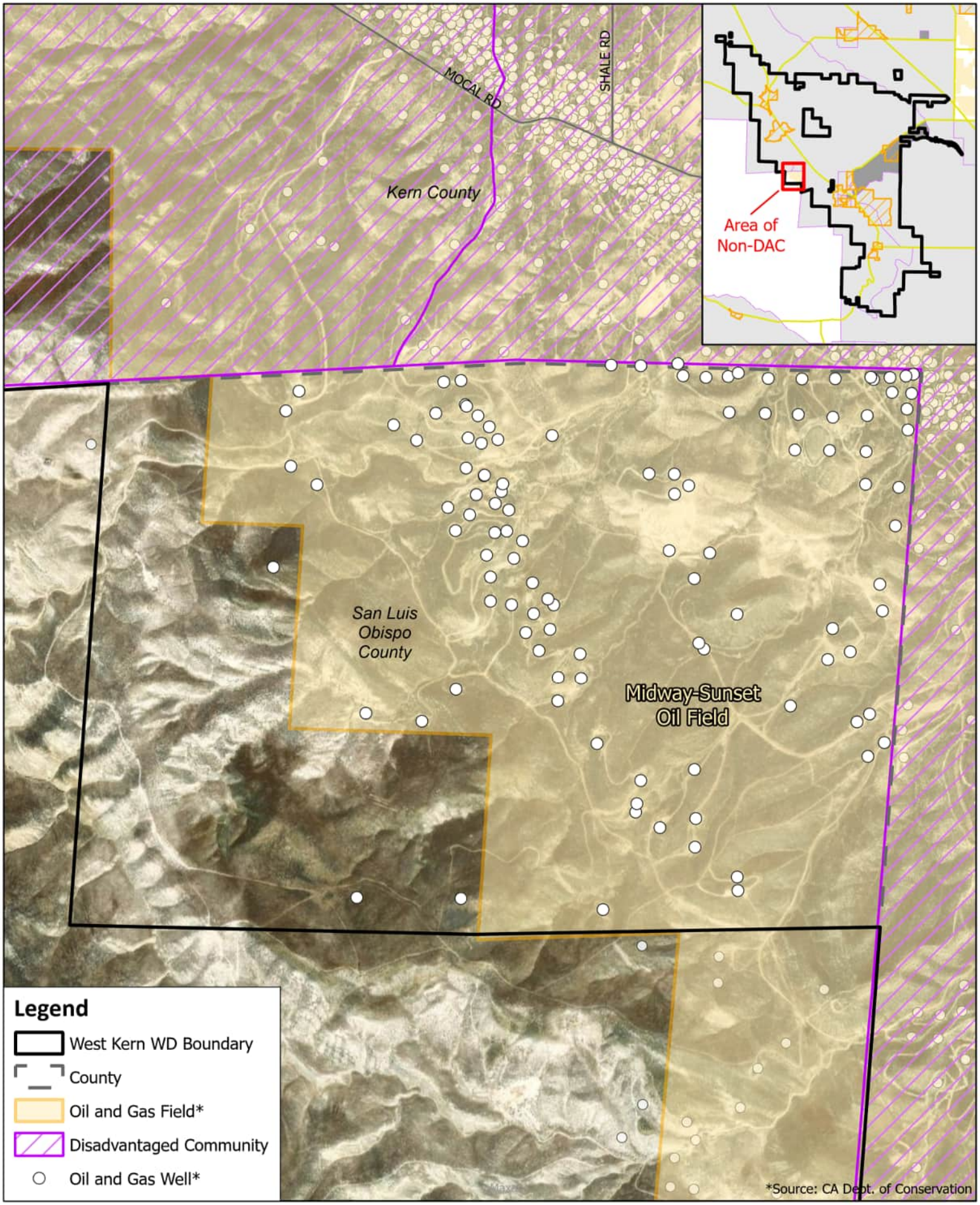

West Kern Water District

Figure 2- Non-DAC Area in San Luis Obispo County

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