1 June 2021

Job #: 2044237*00

2020 Urban Water Management Plan

Waterworks District No. 8

City of Simi Valley

City of Simi Valley
Waterworks District No. 8

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2020 Urban Water Management Plan

Waterworks District No. 8

June 1 2021

Prepared for

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Table of Contents

List of Tables

Table of Contents (cont'd)

List of Figures

List of Appendices

List of Acronyms

Act .....Urban Water Management Plan Act
AF.....Acre-Feet
AFY .....Acre Feet Per Year
CAL Green.....2010 California Green Building Standards Code
Calleguas.....Calleguas Municipal Water District of Southern California
CCR.....Consumer Confidence Report
CII.....Commercial, Industrial, and Institutional
CIMIS .....California Irrigation Management Information System
City .....City of Simi Valley
Cu. Ft.....cubic foot
DCR.....State Water Project Delivery Capability Report
DMM.....Demand Management Measures
DMV .....Department of Motor Vehicle
DOE.....Department of Energy
DWR.....California Department of Water Resources
EAS .....Eagle Aerial Solutions
EPA .....Environmental Protection Agency
ETo.....evapotranspiration
FAR .....floor area ratio
Gal.....gallon
GIS .....Geographic Information System
GPCD .....Gallons per capita per day
GPD.....gallons per day
GPF .....gallons per flush
GPM .....gallons per minute
GPS.....global positioning system
GWMP.....Groundwater Management Plan
GSWC .....Golden State Water Company
KWh .....kilowatt hour
MCL.....Maximum Contaminant Level
MCLG .....Maximum Contaminant Level Goal
MGD.....million gallons per day
MWD .....Metropolitan Water District of Southern California
MWQI .....Municipal Water Quality Investigations Program
PHG.....Public Health Goal

Table of Contents (cont'd)

Plan..... Urban Water Management Plan
PWS..... Public Water Systems
SB ..... Senate Bill
SBx7-7 ..... Senate Bill 7 of Special Extended Session 7
SCAG..... Southern California Association of Governments
SGMA ..... Sustainable Groundwater Management Act
SMP ..... Salinity Management Pipeline
Sq. Ft. ..... Square Foot
SWP..... State Water Project
TCGWTP ..... Tapo Canyon Groundwater Treatment Facility
TDS..... total dissolved solids
TOC ..... total organic carbon
UWMP..... Urban Water Management Plan
USEPA..... United States Environmental Protection Agency
WSCP ..... Water Shortage Contingency Plan
WWD8..... Ventura County Waterworks District No. 8

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Executive Summary

This document presents the Urban Water Management Plan 2020 (Plan) for the Ventura County Waterworks District No. 8 (WWD8). The State of California mandates that all urban water suppliers within the state prepare an Urban Water Management Plan (UWMP). Detailed information on what must be included in these plans as well as whom must complete them can be found in California Water Code sections 10610 through 10657. According to the Urban Water Management Planning Act of 1983 (Act), an urban water supplier is defined as a supplier, either public or private, that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplies more than 3,000 acre-feet per year (AFY).

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 several 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. It is appropriate to look at the UWMP as a general planning framework, not a specific action plan. It is an effort to generally 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, WWD8 will pursue feasible and cost-effective options and opportunities to meet demands.

The Act requires preparation of a plan that:

- Evaluates water supply planning over a 20-year period in five-year increments. (WWD8 is going beyond the requirements of the Act by developing a plan which spans twenty-five years.)
- Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years.
- Implements conservation and efficient use of urban water supplies.

Additionally, Senate Bill 7 of Special Extended Session 7 (SBX7-7) was signed into law in November 2009, which calls for progress towards a 20 percent reduction in per capita water use statewide by 2020. As a result, the legislation mandates each urban retail water supplier to develop and report a water use target and achievements in the retailer’s 2020 UWMP. The legislation further requires that retailers report a water use target, their baseline daily per capita use and 2020 compliance daily per capita use, along with the basis for determining those estimates.

Beginning in 2016, retail water suppliers are required to report on their compliance with the water conservation requirements in SBX7-7 in order to be eligible for State grants and loans.

Water Use

This UWMP describes historic and current water usage and the methodology used to project future demands within the WWD8 service area. Water usage is divided into sectors including residential, commercial, industrial, landscape, and other. To undertake this evaluation, existing land use data and new housing construction information were compiled by WWD8. Based on average water consumption documented from 2016 to 2020, ultimate water demands were projected to be approximately 26,341 AFY. Projected demands are provided in Table ES-1.

Table ES-1 Project Water Demands 2020 to 2045 (AF)

Water Use	2025	2030	2035	2040	2045
Total Water Deliveries (see Section 2)	19,031	20,618	22,336	24,198	24,198
Sales to Other Water Agencies (see Section 2)	1,099	1,099	1,099	1,099	1,099
Distribution System Water Losses (see Section 2)	820	890	964	1,044	1,044
Total	**20,950**	**22,606**	**24,399**	**26,341**	**26,341**

Actions to Manage Demand

WWD8 has a variety of programs to manage water demand including water waste prohibitions, public education, and outreach, monitoring and repairing system leaks, and improving irrigation efficiency within the water service area. As a retailer of Calleguas Municipal Water District (Calleguas), who is a member agency of the Metropolitan Water District of Southern California (MWD), WWD8 has worked cooperatively with Calleguas and MWD to take advantage of those agency's water conservation programs. WWD8 customers may be eligible for many conservation programs, including residential rebates such as high-efficiency washing machine rebates, high efficiency toilets, weather-based irrigation controllers, soil moisture sensors, rain barrels, cisterns, and low-flow sprinkler nozzles. Additionally, commercial, industrial, and institutional customers may be eligible for a greater variety of efficient plumbing fixture rebates, customized water-saving incentive programs, landscape irrigation surveys and more.

Compliance with Water Use Targets

From 1999 to 2008 average potable water use was approximately 244 gallons per capita per day (GPCD). The SBX7-7 reduction interim target for year 2015 was 219 GPCD and the Compliance Target for year 2020 was 195 GPCD. WWD8 had a GPCD of 168 in 2020, which means WWD8 has exceeded the reductions required by the 2015 Interim Target and 2020 Compliance Target. WWD8 plans to maintain an efficient GPCD by continuing implementation of demand management measures and water shortage contingency planning.

Supply Reliability

Water Supply

Imported water purchased from Calleguas makes up the majority of the supply, approximately 99 percent, available in WWD8's service area. WWD8's local sources include groundwater and recycled water. Groundwater is pumped from the Gillibrand subbasin of the Simi Valley Basin. WWD8 is currently delivering approximately 57 AFY of recycled water. A summary of current and future supplies is provided in Table ES-2 below; these supplies are anticipated to be available in a normal year, a single-dry year, and during multiple-dry years.

Table ES-2 Water Supplies 2020 to 2045 (AF)

Water Supply Source	2025	2030	2035	2040	2045
Imported Water (see Section 3)	21,370	23,152	25,081	27,172	27,172
Groundwater (see Section 3)	1,100	1,100	1,100	1,100	1,100
Recycled Water (see Section 3)	76	76	80	80	80
Total Supplies	**22,546**	**24,328**	**26,261**	**28,352**	**28,352**

Water Quality

Based on current conditions and knowledge, water quality is not anticipated to affect water supply reliability. However, water quality issues are constantly evolving. It is understood that water quality treatment can have significant costs. WWD8 is committed to and will continue to work proactively to address water quality concerns in a timely manner to ensure safe drinking water is available to their customers.

Fundamental Findings of the UWMP

It is the stated goal of WWD8 to deliver a reliable and high-quality water supply to its customers, even during dry periods. Based on conservative water supply and demand assumptions over the next twenty-five years, the UWMP successfully achieves this goal. WWD8 anticipates having adequate supplies, even during dry periods, to meet customer demands.

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Section 1: Introduction/Lay Description

1.1 Overview

This document presents the Urban Water Management Plan 2020 (Plan) for the Ventura County Waterworks District No. 8 (WWD8) service area (Figure 1-1). This chapter describes the general purpose of the Plan, discusses Plan implementation, and provides general information about WWD8 and service area characteristics.

The State of California mandates that all urban water suppliers within the state prepare an Urban Water Management Plan (UWMP). Detailed information on what must be included in these plans as well as whom must complete them can be found in California Water Code sections 10610 through 10657. According to the Urban Water Management Planning Act of 1983 (Act), an urban water supplier is defined as a supplier, either public or private, that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplies more than 3,000 acre-feet (AF) annually.

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 number of 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.

"A plan is intended to function as a planning tool to guide broad-perspective decision making by the management of water suppliers." (Sonoma County Water Coalition v. Sonoma County Water Agency (2010) 189 Cal. App. 4th 33, 39.) 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. From this perspective, it is appropriate to look at the UWMP as a general planning framework, not a specific action plan. It is an effort to generally 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, WWD8 will pursue feasible and cost-effective options and opportunities to meet demands, as needed.

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

- Evaluates water supply planning over a 20-year period in five-year increments. (WWD8 is going beyond the requirements of the Act by developing a plan which spans twenty-five years.)
- Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years.
- Implements conservation and efficient use of urban water supplies.

State legislation, Senate Bill 7 of Special Extended Session 7 (SBX7-7) was signed into law in November 2009, which calls for progress towards a 20 percent reduction in per capita water use statewide by 2020. The legislation mandated each urban retail supplier develop and report an interim 2015 water use target (in the 2015 UWMP), their baseline daily per capita use and 2020 compliance daily per capita use, along with the basis for determining those estimates (in the 2020 UWMP). This UWMP reports on WWD8 final progress in meeting the SBX7-7 targets.

It is the stated goal of WWD8 to deliver a reliable and high-quality water supply to its customers, even during dry periods. Based on conservative water supply and demand assumptions over the next twenty-five years in combination with conservation of non-essential demand during normal water years, the UWMP successfully achieves this goal.

1.2.1 Relationship to Other Planning by Water Agency

WWD8 has developed plans and reports to maximize the use of available resources. Studies and documents include prior Urban Water Management Plans (RBF, 2010 and Kennedy Jenks, 2015), Recycled Water Master Plan (Kennedy Jenks, 2008), Characterization and Water Supply Assessment for the Simi Valley Basin (Todd Groundwater, 2016), Geohydrologic Evaluation of Maximum Perennial Yield, Tapo Canyon Tributary subareas (Geoscience, 2006), and other reports. WWD8 also is an active participant in the Watershed's Coalition Ventura County Integrated Regional Water Management Plan (WCVC, 2019). WWD8 has undertaken actions to encourage water conservation and resource conservation within their service area (as discussed in Section 4. These actions, and the preparation of the 2020 UWMP, enable WWD8 to maximize the use of available resources.

1.2.2 Relationship to Water Shortage Contingency Plan

Water supplies may be interrupted or reduced significantly in a number of ways, such as a drought that limits supplies, an earthquake that damages water delivery or storage facilities, a regional power outage, or a chemical spill that affects water quality. WWD8 has in place a collection of Water Conservation Program ordinances and policies that guides WWD8 actions in the event of a water shortage emergency. This UWMP identifies six Water Shortage Contingency Planning (WSCP) Stages, which correlate with the Water Conservation Program

Ordinance Water Supply Shortage Levels and defines the demand reduction actions that will go into effect for each Stage/Level. The WSCP is included as Appendix J and summarized in Section 7.

1.3 Structure and Organization of the Plan

This plan is organized as follows:

- Section 1: Introduction
- Section 2: Water Use
- Section 3: Water Supply
- Section 4: Demand Management Measures
- Section 5: Water Quality
- Section 6: Reliability Planning
- Section 7: Water Shortage Contingency Plan
- References

The following Appendices are included to provide supporting information:

- Appendix A: UWMP Checklist
- Appendix B: Standardized Tables
- Appendix C: Ventura County Waterworks District No. 8 Adoption of the 2020 UWMP
- Appendix D: Outreach Materials
- Appendix E: Water System Audit Output
- Appendix F: SBx7-7 Verification Tables and DWR Population Tool Output
- Appendix G: Groundwater Management Plan for Gillibrand Subbasin
- Appendix H: Data to Document Consistency with Delta Plan WR P1
- Appendix I: Reporting on Energy Intensity of Water
- Appendix J: 2020 Water Shortage Contingency Plan

This plan is being prepared for WWD8 and is an individual UWMP, rather than regional UWMP. Data provided in this report are for calendar year rather than fiscal year. To the extent possible water volumes are reported in acre-feet (AF). Table 1-1, Table 1-2, and Table 1-3 document the structure of this plan.

Table 1-1 Public Water System Covered by This Plan

(DWR Table 2-1)

Public Water System Number	Public Water System Name	Number of Municipal Connections	Volume of Water Supplied
CA5610023	Ventura County Waterworks District No. 8 – Simi Valley	26,438	19,192
	Total	**26,438**	**19,192**

Notes: Number of municipal connections and volume of water supplied represent calendar year 2020.
Volume supplied includes potable and non-potable water.

Table 1-2 Urban Water Management Plan Identification

(*DWR Table 2-2)*

Select Only One	Type of Plan	Name of RUWMP or Regional Alliance
X	**Individual UWMP**	
	Water Supplier is also a member of a RUWMP	n/a
	Water Supplier is also a member of a Regional Alliance	n/a
	Regional Urban Water Management Plan (RUWMP)	n/a

Table 1-3 Urban Water Supplier Identification

(DWR Table 2-3)

	Type of Supplier
	Supplier is a wholesaler
X	Supplier is a retailer
	Fiscal or Calendar Year
X	UWMP Tables are in calendar years
	UWMP Tables are in fiscal years
	Units of measure used in UWMP
Acre-Feet	Unit

1.4 Implementation of the Plan

This Plan has been prepared for WWD8, a retail agency of Calleguas Municipal Water District (Calleguas), who is a member agency of the Metropolitan Water District of Southern California (MWD). This section provides the cooperative framework within which the Plan will be implemented including agency coordination, public outreach, and resources maximization. WWD8 has informed the wholesale water supplier of project water use as summarized in Table 1-4.

Table 1-4 Water Supplier Information Exchange

(DWR Table 1-4)

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

Wholesale Water Supplier Name
Calleguas Municipal Water District

1.4.1 Joint Preparation of the Plan

The UWMP Act requires water suppliers to coordinate the preparation of its plan with other appropriate agencies in the area. This includes other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable. Various agencies are involved in supplying water to the City of Simi Valley, or having jurisdiction over a portion of the water resources. This section briefly discusses each one and summarizes the efforts the WWD8 has taken to include the various City departments, neighboring agencies, and customers in the preparation of this document.

1.4.2 Plan Adoption

WWD8 began preparation of this Plan in November 2020. The final draft of the Plan was adopted by the WWD8 Board on May 17, 2021 and submitted to DWR within 30 days of Board approval. This plan includes all information necessary to meet the requirements of SBX7-7 (Wat. Code, §§ 10608.12-10608.64) and the Urban Water Management Planning Act (Wat. Code, §§ 10610-10656). Plan Adoption documents are included in Appendix C.

1.4.3 Public Outreach

WWD8 has encouraged community participation in water planning. Interested groups were informed about the development of the Plan and its amendment along with the schedule of public activities. Notices of public meetings were published in the local press and on the City of Simi Valley website.

Copies of the draft UWMP and draft amended UWMP were sent to Calleguas, Las Virgenes Municipal Water District, Ventura County Waterworks District No. 17, Golden State Water Company (GSWC), Ventura County Resource Management Agency, County of Ventura Water and Sanitation Department, and the City of Simi Valley Environmental Services Department for review and comment as noted in Table 1-5. Table 1-6 presents a timeline for public participation during the development of the Plan. A copy of the public outreach materials, including paid advertisements, newsletter covers, website postings and invitation letters are attached in Appendix D.

Table 1-5 Urban Water Management Plan Distribution List

Agency	Notice Dates
Calleguas Municipal Water District	12/28/2020; 04/07/2021
Las Virgenes Municipal Water District	12/28/2020; 04/07/2021
Golden State Water Company	12/28/2020; 04/07/2021
Ventura County Waterworks District 17	12/28/2020; 04/07/2021
City of Simi Valley Environmental Services Department	12/28/2020; 04/07/2021
County of Ventura Resource Management Agency	12/28/2020; 04/07/2021
County of Ventura Water and Sanitation Department	12/28/2020; 04/07/2021

Table 1-6 Public Participation Timeline

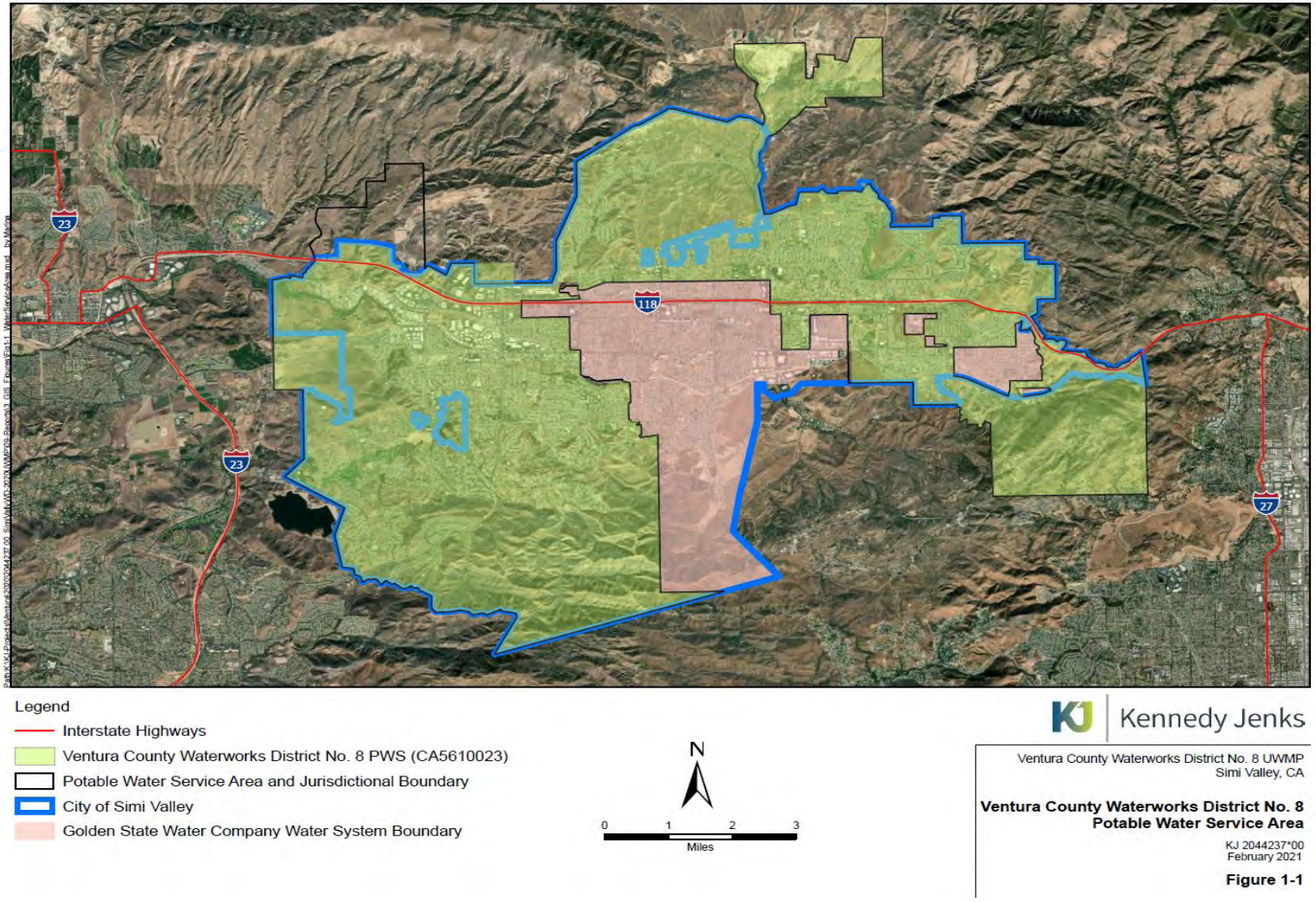
Public Workshops and Hearings	Date	Public Participation Task
Draft Available	3/30/2021	UWMP Available for Public Review
Notice of Draft UWMP and Public Hearing	3/30/2021	Review of UWMP
Public Hearing and Adoption	05/17/2021	Review Comments from the Board and Adopt Final UWMP

1.5 System Description

Incorporated in 1969, the City of Simi Valley is located in the southeastern corner of Ventura County adjacent to Los Angeles County. It is situated between the civic centers of the City of Ventura and the City of Los Angeles. Simi Valley is located in a valley nine miles along its east west axis and varies in width from one to three miles. The Ventura County Board of Supervisors originally formed WWD8 in the 1960's in order to provide water service to the Simi Valley area. The responsibility for administering this function was transferred to the City of Simi Valley from the County of Ventura on July 1, 1977. Approximately 68 percent of the developed portion of Simi Valley is served by WWD8. WWD8 also serves unincorporated areas located southeast and north of the City boundary. The remainder of Simi Valley not served by WWD8 is served by the Golden State Water Company (GSWC). The water service area is shown on Figure 1-1.

The potable water distribution system includes 43 storage facilities, 2,600 fire hydrants,22 pump stations, 2 production wells, 15 pressure reducing stations, and 5 groundwater management wells that discharge to the Arroyo Simi. The main source of water for WWD8 service area is imported water supplied by Calleguas. WWD8 owns the Tapo Canyon Treatment Plant, which treats groundwater pumped from the Gillibrand Groundwater Subbasin. The City of Simi Valley's Water Quality Control Plant also produces recycled water, which WWD8 distributes to the Simi Valley Landfill and an industrial complex. Over the period of 2016 to 2020, WWD8 delivered an average of 19,829 AF potable water and 32 AF recycled water, annually.

Figure 1-1 WWD8 Potable Water Service Area



1.6 Population

To prepare population projections for the water service area, WWD8 consulted with the City of Simi Valley Planning Division. The Planning Division recommended use of the growth forecast contained in the Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan (April 2016), as this is a newer evaluation of population growth than that contained in the City of Simi Valley General Plan. Based on the SCAG projections, it is anticipated that population in WWD8 service area will grow by approximately 0.5% per year. The service area projected population growth is shown in Table 1-7.

Table 1-7 Population Projections

(DWR Table 3-1)

Population Served	2020[1]	2025	2030	2035	2040	2045[2]
	94,738	97,059	99,437	101,873	104,369	104,369

Notes:
[1] 2020 Population from DWR Population Tool
[2] 2020 to 2045 Growth rates based on growth rate for City of Simi Valley, SCAG 2016 - 2040

1.7 Demographics and Socioeconomics

The following information has been taken from the 2019 Local Profile for Simi Valley prepared by the SCAG. The 2019 Local Profile was the most recent information that could be obtained for the WWD8 service area.

- Between 2000 and 2018, the total population of the City of Simi Valley increased by 17,409 to 128,760. During this 18-year period, the City of Simi Valley's population growth rate was higher than the Ventura County rate. The City of Simi Valley makes up 15 percent of the total population of Ventura County.
- Between 2000 and 2018, the 65+ age group experienced the largest increase in share of the city's population, growing from 7.6 to 13.9 percent. Conversely, the 5-20 age group declined as percent of the population from 24.8 to 19.3 percent.
- In this same timeframe, the share of Hispanic population in the City of Simi Valley increased from 16.8 to 25.7 percent and the share of Non-Hispanic White population in the City of Simi Valley decreased from 72.7 to 60.3 percent. The share of Non-Hispanic Asian population in the City of Simi Valley increased from 6.2 to 9.6 percent as did the share of the Non-Hispanic Black population (1.2 to 1.3 percent). There was a modest decline in the share of Non-Hispanic American Indian or Alaska Native population in the City from 0.4 percent to 0.2 percent.
- Between 2000 and 2018, the total number of households in the City of Simi Valley increased by 5,603 units, or 15.4 percent, higher than the county growth rate of 12.5 percent.
- As of 2018 the City's average household size was 3.0, slightly less than the county average of 3.1. Seventy percent of all city households had 3 people or fewer and about 19 percent of the households were single-person households. A small percentage of households, about 14 percent had 5 people or more.

- Between 2000 and 2018, homeownership rates decreased, and the share of renters increased. In 2018, approximately 28.2 percent of households were renters and 71.8 were owners.
- In 2018, the median home sales price in the city was $565,000, lower than the county average of $573,000.
- The housing stock consists primarily of single-family detached homes with limited amounts of multi-family housing.

1.8 Land Uses in the Service Area

WWD8 serves 68% of the City of Simi Valley and a portion of unincorporated Ventura County. The majority of land use designations within the City of Simi Valley are residential and public/semi-public land, which consists of 58% and 17% of city water demands, respectively. Additional land uses include mixed use, commercial, and industrial.

The City of Simi Valley Planning Division estimates that the City will reach buildout before the year 2040. Most new development opportunities lie within the GSWC water service area. WWD8 anticipates some growth, mostly in the residential sectors with typically low water demand.

The small portions of Ventura County that lie within the WWD8 service area consist of open space and rural land use designations. It is anticipated that there will not be any future development within these sections.

1.9 Climate

The climate in WWD8's water service area is arid with average annual rainfall of less than eleven inches, most of which occurs during the winter months.

Temperatures range in average from 43 to 68°F during the winter and from 58 to 94°F degrees during the summer. Table 1-8 presents the region's annual average climate data. The temperature, rainfall, and standard monthly average evapotranspiration (ETo) is provided from CIMIS Station Number 219 in West Hills and Station No 204 in Santa Clarita provided similar surrogates for Simi Valley climate conditions.

Table 1-8 Annual Climate Information

	Jan	Feb	Mar	Apr	May	Jun
Standard Monthly Average ETo	2.44	3.18	4.08	5.59	5.93	7.16
Average Rainfall (in)	3.22	1.98	2.00	0.41	0.30	0.04
Average High Temperature (ºF)	66.06	68.10	69.72	76.29	77.23	87.07
Average Low Temperature (ºF)	44.00	43.44	45.84	50.04	51.89	58.07

	Jul	Aug	Sept	Oct	Nov	Dec
Standard Monthly Average ETo	8.33	7.71	5.83	4.80	3.21	2.75
Average Rainfall (in)	0.13	0.11	0.15	0.31	0.82	1.88
Average High Temperature (ºF)	94.35	94.55	90.33	84.12	76.16	67.06
Average Low Temperature (ºF)	62.66	62.95	59.28	54.38	47.62	45.06

Source:
California Irrigation Management Information System (CIMIS) data provided from Station No. 219, Los Angeles region and Station No. 204, January 2016 to November 2020. http://wwwcimis.water.ca.gov/cimis/welcome.jsp.

1.10 Potential Effects of Climate Change

Climate change is presenting California with tough challenges - extended periods of drought and fierce, unpredictable rainfall. A topic of growing concern for water planners and managers is global warming and the potential impacts it could have on California's future water supplies. Climate change models have predicted that potential effects from climate changes will result in increased temperature, early snow melt, and a rise in sea level.

DWR's California Water Plan Update 2013 considers how climate change may affect water availability, water use, water quality, and the ecosystem. In the 2013 update of the DWR California Water Plan, the implications of future climate conditions are evaluated. These changing hydrological conditions could affect future planning efforts, which are typically based on historic conditions. The California Water Plan identifies the following probably impacts due to change in temperature and precipitation:

- More winter runoff and less spring/summer runoff due to warmer temperatures.
- Greater extremes in flooding, droughts, and wildfires
- Greater water demand for irrigation and landscape water due to increased temperatures and their impacts on plant water needs.
- Increased sea level rise, increased threat of coastal flooding, and saltwater intrusion into coastal groundwater aquifers.

Volume 1, Chapter 5 of the California Water Plan, "Managing an Uncertain Future," evaluated three different scenarios of future water demand based on alternative but plausible assumptions on population growth, land use changes, water conservation, and the effects climate change might have on future water demands. Future updates will test different response packages, or combinations of resource management strategies, for each future scenario. These response packages help decision-makers, water managers, and planners develop integrated water management plans that provide for resources sustainability and investments in actions with more sustainable outcomes. Further detailed guidance is currently being developed by the State

of California and the United States (US) Environmental Protection Agency for use in water management planning.

The California Office of Environmental Health Hazard Assessment published the 2018 Indicators of Climate Change in California Report. This report identified several climate change impacts that are hazardous to human health, including:

- Increasing annual average air temperatures.
- Extremely hot days and nights
- Increasing drought periods

Temperatures are currently rising at a faster rate of 1.3 degrees Fahrenheit. Temperatures at night have increased more than during the day and have increased at a rate of 2.3 degrees Fahrenheit. Warmer air temperatures alter precipitation and runoff patterns, affecting the availability of freshwater supplies. Warmer temperatures also increase the risk of severe weather events and can increase water demand. Extreme heat days and nights have also increased in frequency. Periods of extremely high temperatures have significant public health, ecological, and economic impacts, including increased water demand. A universally used indicator of drought, the Palmer Drought Severity Index, shows that California has become drier over time. Drought has major repercussions on the availability of water for human use and ecosystems. The Indicators Report identified that drinking water shortages primarily occur among small drinking water systems and place a disproportionate burden on lower income households, as financial costs of providing water services tends to rise during droughts.

In the 2019 report of Projected Changes in Ventura County Climate, the implications of future climate conditions are evaluated. These changing hydrological conditions could affect future planning efforts, which are typically based on historic conditions. The report of *Projected Changes in Ventura County Climate* identifies the following probable impacts due to changes in temperature, precipitation, evaporative demand, and other variables:

- Increases in both maximum and minimum temperatures and heat extremes
- More intense precipitation focused during the winter season
- Increased evapotranspiration
- Increased drought risk
- Potential for longer wildfire season with more ignitions as population growth continues
- Reduced marine stratus
- Reduction in Sierra Nevada snowpack
- Longer duration of storms and more intense atmospheric rivers

In its 2019 State Water Project Delivery Capability Report (DCR), DWR included the potential effects of climate change in its analysis of imported delivery reliability under future conditions. The reliability of water from the delta is uncertain. Complications induced by climate change, pose the threat of droughts and projected sea level rise. Higher ocean levels could result in

more frequent water quality degradation in the Delta channels, requiring additional flow from the Delta to maintain water quality, which could result in reduced delivery capability.

Even without population changes, all climate change indicators listed above could increase water demand. Extreme weather events can increase water demand in indoor settings. Precipitation and temperature influence water demand for outdoor landscaping and irrigated agriculture. Outdoor water use is a large component of water demands in WWD8's service area. Lower spring rainfall increases the need to apply irrigation water. Further, warmer temperatures increase crop evapotranspiration, which increases water demand.

Section 2: Water Use

2.1 Overview

This chapter describes historic and current water usage and the methodology used to project future demands within the WWD8 service area. Water usage is divided into sectors such as residential, commercial, landscape, and other categories. To undertake this evaluation, existing land use data and new housing construction information were compiled by WWD8. This information was then compared to historical trends for new water service connections and customer water usage information. In addition, weather and water conservation effects on historical water usage were factored into the evaluation.

2.2 Historical Water Use

Water use sectors tracked by the WWD8 fall into the following categories:

- Single-Family Residential
- Multi-Family Residential
- Commercial/Institutional
- Industrial
- Landscape Irrigation
- Agricultural Irrigation
- Other Uses

2.2.1 Historical Deliveries

WWD8 currently serves approximately 24,589 water customer accounts. The largest demand comes from residential uses, the next highest demand from landscape uses, with only minor demands from commercial, industrial, and agricultural uses. Actual water deliveries in 2020 are provided in Table 2-1.

Table 2-1 Demands for Potable and Non-Potable Water - 2020

(Modified from DWR Table 4-1)

Use Type	Level of Treatment	Volume (AF)
Single Family	Drinking Water	10,752
Multi-Family	Drinking Water	1,118
Commercial	Drinking Water	1,019
Industrial	Drinking Water	54
Institutional/Governmental	Drinking Water	475
Landscape	Drinking Water	3,750
Agricultural irrigation	Drinking Water	120
Total Potable and Raw Water Demand		**17,288**
Recycled Water	Recycled Water	57
	TOTAL WATER DEMAND	**17,345**

Notes: Recycled water customers include the Simi Valley Landfill and an industrial complex.
Water Demands do not include "other" water uses (sales and water system loss).

2.2.2 Historical Other Water Uses

WWD8 sells water to Ventura County Waterworks District No. 17 and Las Virgenes Municipal Water District. Ventura County Waterworks District No. 17 serves the Bell Canyon portion of unincorporated Ventura County. From 2016 to 2020, WWD8 sold an average of 626 AFY of potable water to Waterworks District No. 17 and the Las Virgenes Municipal Water District.

WWD8 has not had water use related to groundwater recharge, long-term system storage, saline water barriers, or wetlands. However, WWD8, like all water agencies, does have some system losses. Unaccounted water is the difference between the amount of water produced and the amount of water billed to customers. As required by DWR as part of this UWMP, WWD8 performed a distribution system water audit (see outputs provided in Appendix E). The latest available water audit shows over 12 months (January 2019 to December 2019) system losses were 5.6 percent of produced water within the WWD8 system. Apparent loss (loss due to meter reading inaccuracies) was .9% percent while "real loss" (actual leaks) was 4.7 percent. Water loss information for calendar year 2020 was not available at the time of this UWMP. WWD8 assumes an average 4.31% water loss for years 2020 – 2045, based on the 3-year average water loss from 2016, 2017, and 2019. Water loss percentages from 2018 were abnormally low and were not included in this average. Sales and system losses from 2020 are reflected in Table 2-2.

At the current time, a water loss standard has not been adopted by the State of California. Future UWMPs prepared by WWD8 will report on compliance with any State water loss standards.

Table 2-2 Historic "Other" Water Uses - 2020

(Modified from DWR Table 4-1)

Use Type	2020 Estimated Volume (AF)
Sales to other agencies	1,099
Losses	748
TOTAL	**1,847**

2.2.3 Total Historical Water Use

Table 2-3 presents total historical water use over the last 10 years. Section 6 discusses demands in a normal year, dry year, and multiple dry years.

Table 2-3 Historic Total Water Use (AF) – 2010 to 2020

(Modified from Table 4-3)

Water Use	2010	2015	2020
Total Water Deliveries (from Tables 2-1 and 2-2)	18,322	16,241	17,345
Sales to Other Water Agencies (from Table 2-3)	1,020	1,050	1099
Additional water uses and losses (from Table 2-4)	532	1,033	748
Total	**19,874**	**18,323**	**19,192**

2.3 Existing and Targeted Per Capita Water Use

SBX7-7 was enacted as part of the November 2009 Comprehensive Water Package (Special Session Policy Bills and Bond Summary). SBX7-7 provides the regulatory framework to support the statewide reduction in urban per capita water use described in the *20 by 2020 Water Conservation Plan*. Consistent with SBX7-7, each water supplier must determine and report its existing baseline water consumption and establish water use targets in gallons per capita per day (GPCD), and compare actual water use against the target; reporting began with the 2010 UWMP and calculations were provided in the 2015 UWMP. The primary calculations required by SBX7-7 are summarized in Table 2-4.

Table 2-4 SBX-7 Calculation

	2010 UWMP	2015 UWMP	2020 UWMP
Base Daily Water Use calculation (average GPCD used in past years)	First calculated and reported in 2010 plan	244 GPCD	NA
Interim Water Use Target (target GPCD in 2015)	First calculated and reported in 2010 plan	219 GPCD	NA
Compliance Water Use Target (target GPCD in 2020)	First calculated and reported in 2010 plan	195 GPCD	NA
Actual 2015 Water Use	NA	168 GPCD	NA
Actual 2020 Water Use	NA	NA	168 GPCD

In the 2015 UWMP a water supplier must have demonstrated compliance with the Interim Water Use Target and demonstrate that it was on track to achieve its 2020 target. Compliance was done through review of the SBX7-7 verification tables submitted with the 2015 Plan.

WWD8 first reported its Base Daily Water Use in its 2010 UWMP. However, at the time the 2010 UWMP was prepared, full Census data was not available. WWD8 was therefore required to recalculate the Base Daily Water Use in the 2015 UWMP. New calculations were not required for the 2020 UWMP.

2.3.1 Base Daily Per Capita Water Use

Figure 1-1 illustrates WWD8 service area used to estimate the Base Daily Per Capita Water Use. Table 2-5 summarizes the Base Daily Water Use calculation for WWD8 that was completed in 2015. The period 1999 to 2008 was selected for calculation of the 10-year base period while the period 2004 to 2008 was selected for calculation of the 5-year base period.

Table 2-5 Baseline Period Ranges

(DWR SBX7-7 Table 1)

Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	24,103	AFY
	2008 total volume of delivered recycled water	11	AFY
	2008 recycled water as a percent of total deliveries	0.05	Percent
	Number of years in baseline period[1]	10	Years
	Year beginning baseline period range	1999	-
	Year ending baseline period range[2]	2008	-
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	-
	Year ending baseline period range[3]	2008	-

Notes:
[1] If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a contiguous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a contiguous 10-to-15-year period.
[2] The ending year must be between December 31, 2004 and December 31, 2010.
[3] The ending year must be between December 31, 2007 and December 31, 2010.

In order to calculate Base Daily Per Capita Water Use for past years, it was necessary to develop population estimates for past years. The population for WWD8 was estimated using the DWR online population tool as provided in Appendix F. Shape files documenting WWD8's service area boundaries in 1990, 2000, 2010 were uploaded to the DWR Population Tool. The population tool then uses a Geographic Information System (GIS) interface to compare the service area boundary against Census tract information and estimate population in Census years. The tool estimates a growth rate between Census Years and applies this to get population in non-Census years.

As shown in the top portion of Table 2-6, WWD8's Baseline GPCD is estimated to be 244. As shown in the lower portion of Table 2-6, WWD8's 5-year Baseline GPCD is 246.

Table 2-6 Gallons Per Capita Per Day

(SBX7-7 Table 5)

Year		Service Area Population [1]	Gross Water Use ((AF)	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
1	1999	76,773	21,531	250
2	2000	77,912	23,462	269
3	2001	78,975	19,938	225
4	2002	80,052	22,053	246
5	2003	81,144	19,911	219
6	2004	82,251	22,016	239
7	2005	83,373	21,891	234
8	2006	84,510	23,498	248
9	2007	85,663	24,824	259
10	2008	86,831	24,103	248
10 to 15 Year Average Baseline GPCD				***244***
5 Year Baseline GPCD				
Year		**Service Area Population [1]**	**Gross Water Use (gallons per day)**	**Daily Per Capita Water Use (GPCD)**
1	2004	82,251	22,016	239
2	2005	83,373	21,891	234
3	2006	84,510	23,498	248
4	2007	85,663	24,824	259
5	2008	86,831	24,103	248
5 Year Average Baseline GPCD				***246***
2020 Compliance Year GPCD				
2020		94,738	17,481	***165***

Notes: [1]Service area population differs from that estimated in the 2010 Urban Water Management Plan. The 2010 Urban Water Management Plan utilized year 2000 Census and Department of Finance data to estimate population. This UWMP utilized the DWR Population Tool, based on the 2010 Census, to estimate service area population.

2.3.2 Compliance Water Use Targets

In addition to calculating base gross water use, SBX7-7 requires that a retail water supplier identify its demand reduction targets. The methodologies for calculating demand reduction targets were described above. WWD8 is choosing to meet SBX7-7 targets as an individual agency rather than as part of a regional alliance. WWD8 has selected Method 1, reducing baseline demand (244 GPCD) by 20 percent. This makes WWD8's Compliance (2020) Water Use Target 195 GPCD.

As shown in Table 2-7, WWD8's 5-year Baseline GPCD is 246. As described earlier, the Maximum Allowable GPCD is 95 percent of the 5-year Baseline GPCD or 233. The Compliance Water Use Target, under Method 1 (195 GPCD) is less than the Maximum Allowable GPCD and

therefore no adjustments to the Compliance Water Use Target are needed. The Interim (2015) Water Use Target, the halfway point between the 10-year Baseline Water Use (244 GPCD) and the 2020 Compliance Water Use Target (195 GPCD), is 219 GPCD.

Table 2-7 Components of Target Daily Per Capita Water Use

Period	Value		Unit	
10-year period selected for baseline GPCD	*First Year*	1999	*Last Year*	2008
5-year period selected for maximum allowable GPCD	*First Year*	2004	*Last Year*	2008
Highest 10-year Average	244		GPCD	
Highest 5-year Average	246		GPCD	
Compliance Water Use Target	195		GPCD	
Maximum Allowable Water Use Target (5% Reduction 5yr)	233		GPCD	
2020 Target	**195**		GPCD	
2015 Interim Target	**219**		GPCD	
Methodology Used	Option #1			
2015 GPCD	**168**		**GPCD**	
Actual 2020 GPCD	**165**		**GPCD**	

2.3.3 Achievement of Interim Target

WWD8's 2015 GPCD was calculated by using the DWR Population Tool. The DWR Population Tool assumes persons per connection in 2015 is the same as in 2010. Using information on residential connections in 2015, the tool estimated the 2015 population in the service area. As shown in Table 2-7. WWD8 achieved a 2015 GPCD of 168, which means WWD8 has exceeded the reductions required by the 2015 Interim Target and the 2020 Compliance Target shown in Table 2-8.

Table 2-8 Baseline Targets Summary

(DWR Table 5-1)

Baseline Period	Start Year	End Year	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*1998*	*2008*	*244*	*195*
5 Year	*2004*	*2008*	*246*	*195*

Notes: *All values are in Gallons per Capita per Day (GPCD)

2.3.4 Achievement of 2020 Compliance Target

WWD8 has met the 2020 Compliance Target of 195 GPCD, with the 2015 GPCD of 168. WWD8 plans to keep GPCD low by continuing demand management measures. As shown in Table 2-9, WWD8 achieved a 165 GPCD in 2020 with no adjustments for extraordinary events, economic adjustments, or weather normalization. SBX7-7 Tables are provided in Appendix F.

Table 2-9 2020 Compliance

(Modified from SBX7-7 Table 9; DWR Table 5-2)

Actual 2020 GPCD	Target GPCD	Total Adjustments*	Adjusted 2020 GPCD	Did Supplier Achieve Targeted Reduction for 2020?
165	195	0	165	Yes

Notes: *All values are in Gallons per Capita per Day (GPCD)*
* In 2020 there were not extraordinary events, economic adjustments, or weather normalization.

2.4 Projected Water Use

2.4.1 Purveyor Projections

As part of its 2030 General Plan Update (City of Simi Valley, 2012), a Water Supply Assessment was prepared. This Water Supply Assessment evaluated ultimate buildout of WWD8 service area in 2040. Future land use acreages were determined using the 2030 General Plan for all areas within WWD8. A small portion of WWD8 falls within the County of Ventura and for this portion the land use acreages were determined using the Ventura County General Plan Land Use Element (April 2010).

The Water Supply Assessment assumed buildout of the City within WWD8 would occur as early as 2030; this UWMP assumes buildout by year 2040. The Water Supply Assessment assumed that the portion of WWD8 in the County of Ventura would not develop until sometime after 2035; consistent with the County of Ventura General Plan, this UWMP assumes that the portion of WWD8 in the County would have only minimal development by year 2040 (County of Ventura 2013; City of Simi Valley 2012). Land use at buildout and an estimate of water demands are shown in Table 2-10.

The water demand estimate shown in Table 2-10 is based on WWD8's historical water usage and water demand factors developed by the City of Simi Valley Planning Division.

Table 2-10 Estimated Land Use/Demands 2020 to 2040

Land Use	Assigned Water Duty Factor (GPD/Acre) [a]	Acres[d]	Water Demand	
			GPD	*AFY*
Within City of Simi Valley				
Residential				
Open Space (1 unit/40 AC)	34	7,894.69	268,419	301
Residential Estate (0-1 DU/AC)	1,331	335.45	446,484	500
Very Low Density (0-2 DU/AC)	1,331	1,377.54	1,833,506	2,053
Low Density (2.1 - 3.5 DU/AC)	1,331	981.71	1,306,656	1,463
Medium Density (3.6 - 5.0 DU/AC)	1,693	2,446.40	4,141,755	4,683
Moderate Density (5.1 - 10 DU/AC)	1,693	759.39	1,285,647	1,440
High Density (10.1-20 DU/AC)	6,895	299.77	2,066,9148	2,0333
Very High Density (20.1-35 DU/AC)	6,895	168.94	1,164,481	1,305
Mobile Home (0-8 DU/AC)	1,693	16.87	28,561	32

Land Use	Assigned Water Duty Factor (GPD/Acre) [a]	Acres[d]	Water Demand GPD	Water Demand AFY
Commercial				
Neighborhood Commercial (0.2 FAR)	2,117	12.87	27,246	311
Office Commercial (0.5 FAR)	2,419	69.56	168,266	188
Commercial Recreation (0.10 FAR)	2,117	18.82	39,842	45
General Commercial (0.3 FAR)	2,117	308	652,036	730
Industrial				
Business Park (0.5 FAR)	2,419	355.18	859,180	962
Industrial (0.32 FAR)	2,359	439.20	1,036,073	1,161
Mixed Use				
Mixed Use (up to 1.5 FAR) [e]	6,895	383.98	2,647,542	2,965
Public/Semi-Public				
Civic Center	1,633	42.58	69,533	78
Public Services Center	1,633	28.84	47,096	53
Cemetery	1,331	236.55	314,848	353
Regional Park [f]	333	51.74	17,229	19
Community Park	1,331	803.16	1,069,006	1,197
Neighborhood Park	1,331	79.17	105,375	118
Golf Course	1,331	745.54	992,314	1,111
Schools - Outdoor	1,451	350.00	507,850	569
Schools - Indoor	1,451	350.00	507,850	569
Other				
Landfill	0	0.67	0	0
Transportation	0	2,571.57	0	0
University	1,633	0.00	0	0
Water Body	0	318.70	0	0
Total WWD8 Demand within City of Simi Valley				*24,193*
Outside City Limits/ County of Ventura				
Agriculture General [b]	2,419	44.24	1,070	1.20
Commercial [b]	2,419	0.94	23	0.03
Industrial [b]	2,419	0.04	1	0.00
Landscaping [b]	1,331	17.75	236	0.26
Open Space [b]	0	1888.22	0	0.00
Schools/Institutions [b]	1,452	4.51	65	0.07
Single-Family Residential [b]	1,693	206.36	3,495	3.91
Utilities [b]	1,633	0.44	7	0.01
			Total	***24,198***

[a.] Water Duty Factors set at 84% of WWD8 design criteria (April 29, 2003) in recognition of on-going conservation and documented water use reduction of 16% since 2003.
[b.] Assumes only 1% of water demand realized by 2040.
[c.] Includes anticipated orchard water demand of 3,000 AFY.
[d.] 2010 Urban Water Management Plan Table III-2.
[e.] 84 percent of high density residential.
[f.] 25% of Community Park demand to account for non-irrigation demands of Regional Parks

Table 2-11 provides estimates of demands in each year from 2020 to 2045 assuming consistent growth in the service area. The starting point for projections was the average water use from 2016 – 2020.

Table 2-11 Estimated Demands 2020 to 2045 (AF)

(Modified from DWR Table 4-2)

Use Type	Projected Water Use				
	2025	**2030**	**2035**	**2040**	**2045**
Single Family	12,119	13,140	14,243	15,441	15,441
Multi-Family	1,518	1,646	1,784	1,934	1,934
Commercial	877	951	1,031	1,118	1,118
Industrial	51	55	60	65	65
Institutional/Governmental	516	559	606	657	657
Landscape	3,754	4,070	4,412	4,783	4,783
Groundwater recharge					
Saline water intrusion barrier					
Agricultural irrigation	120	120	120	120	120
Other Potable					
Recycled Water	76	76	80	80	80
Other					
TOTAL	**19,031**	**20,618**	**22,336**	**24,198**	**24,198**

2.4.2 Projected Sales and Other Water Uses

WWD8 anticipates continued sales to Ventura County Waterworks District No. 17 and Las Virgenes Municipal Water District (see section 2.2.2). WWD8 expects sales of approximately 1,099 AFY. These sales are reflected in Table 2-12. As in the past, WWD8 does not anticipate future water use related to groundwater recharge, long-term system storage, saline water barriers, or wetlands. For the purpose of projections, water loss is assumed to be four-point three percent of total potable demand and is shown in Table 2-12 as 'system loss'.

Table 2-12 Future Sales and "Other" Water Uses (AF)

(Modified from DWR Table 4-2)

Water Use	2025	2030	2035	2040	2045
Sales	1,099	1,099	1,099	1,099	1,099
Groundwater Recharge/Storage/Banking	0	0	0	0	0
Long Term System Storage	0	0	0	0	0
Saline Water Intrusion Barrier	0	0	0	0	0
Other	0	0	0	0	0
System Losses	820	890	964	1,044	1,044
Total	**1,919**	**1,989**	**2,063**	**2,143**	**2,143**

2.4.3 Total Projected Water Use

Table 2-13 presents information on all projected water uses for the years 2020 to 2045. Future water savings due to codes, standards, ordinances, or transportation and land use plans are not specifically factored into these water use projections.

Table 2-13 Total Projected Water Use (AFY)

(Modified from DWR Table 4-3)

Water Use	2025	2030	2035	2040	2045
Total Water Deliveries	19,031	20,618	23,336	24,198	24,198
Sales to Other Water PWS	1,099	1,099	1,099	1,099	1,099
System Losses	820	890	964	1,044	1,044
Total	**20,950**	**22,606**	**24,399**	**26,341**	**26,341**

2.4.4 Projected Water Use during Normal, Single-Dry and Multiple-Dry Years

A major factor that affects water usage is typically weather. 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, reflecting less water usage for exterior landscaping. Water use in the WWD8 service area did not significantly increase in the last single-dry year. However, water use increased by approximately 5 percent on average in the last five-year drought. For the purposes of this UWMP, it has been assumed demand does not increase in a single-dry year but increases by five percent in multiple-dry years.

2.4.4.1 Normal Year

Projected water demands in a normal year are shown in Table 2-14. Table 2-14 provides estimates of demands in each year from 2020 to 2045 assuming growth in the service area consistent with land use-based water demand projections. Projections assume similar customer water use as occurred 2016 to 2020.

The projections in Table 2-14 assume a “normal” water year.

Table 2-14 Normal/Average Year Demand Projections (AFY)

(Modified from DWR Table 7-2)

	2025	2030	2035	2040	2045
Potable Water, Raw, Other Non-Potable *(from DWR Tables 4-1 and 4-2)*	20,874	22,530	24,319	26,261	26,261
Recycled Water Demand *(from DWR Table 6-4)*	57	76	76	80	80
Total Water Demand	**20,950**	**22,606**	**24,399**	**26,341**	**26,341**

2.4.4.2 Single Dry-Year

Projected water demands in a single dry year are shown in Table 2-15. Table 2-15 provides estimates of demands in each year from 2020 to 2045 assuming growth in the service area consistent with land use-based water demand projections. Projections assume similar customer water use as occurred 2016 to 2020.

Table 2-15 Single-Dry Year Demand Projections (AFY)

(Modified from DWR Table 7-3)

	2025	2030	2035	2040	2045
Potable Water, Raw, Other Non-Potable *(from DWR Tables 4-1 and 4-2)*	20,874	22,530	24,319	26,261	26,261
Recycled Water Demand *(from DWR Table 6-4)*	57	76	76	80	80
Total Water Demand	**20,950**	**22,606**	**24,399**	**26,341**	**26,341**

2.4.4.3 Multiple-Dry Year

Projected water demands in a multiple-dry year situation are shown in Table 2-16. Table 2-16 provides estimates of demands in each year from 2020 to 2045 assuming growth in the service area consistent with land use-based water demand projections. Projections assume similar customer water use as occurred 2016 to 2020, which includes a 5% increase in demand.

Table 2-16 Multiple-Dry Year Demand Projections (AFY)

(Modified from DWR Table 7-4)

	2025	2030	2035	2040	2045
Total Potable and Non-Potable Water Demand	21,943	23,676	25,554	27,587	27,587

2.4.5 Other Factors Affecting Water Usage

2.4.5.1 Effects of Codes, Standards, and Ordinances

The earliest codes and standards for water fixtures and appliances came from the Federal Energy Policy Act of 1992 (taking effect in 1994). Besides Department of Energy (DOE) regulations, the codes and standards affecting water use in California are contained primarily in the CALGreen Building Code, the California Plumbing Code, California Water Code, and California Appliance Efficiency Standards.

The 2010 California Green Building Standards Code (CALGreen) set new standards for the flow rates of plumbing fixtures in new construction. The 2010 CALGreen Code went into effect on January 1, 2011 and its purpose was to reduce indoor water use in California buildings by 20%. The code also required that for buildings over 50,000 sq ft separate water meters be provided (e.g., required that multifamily dwellings have individual rather than master meters). The 2010 CALGreen Building code included some provisions for outdoor water use including a requirement for automatic irrigation systems utilizing weather and/or soil moisture-based irrigation controllers and a requirement that new landscapes of a given size conform to water budgets of either local ordinance or the State Model Water Efficient Landscape Ordinance.

Updates to the CALGreen code in 2012 expanded the scope of CALGreen to include not just new construction but additions and alterations to existing buildings. During the 2015-2016 drought, CALGreen was amended to require that new landscapes of a given size conform to water budgets of either local ordinance or the State Model Water Efficient Landscape, whichever is more stringent. In addition, the Code was amended to further reduce the allowable flow rate of faucets and urinals. Subsequently the CALGreen Code was revised to reduce the maximum flow rate of showerheads to align with Appliance Efficiency Regulations. This included a requirement that for all newly constructed residential developments, including hotels and motels, where disinfected tertiary recycled water was available from a municipal source, include provisions for potable water supply and a recycled water supply.

Starting January 1, 2017, California regulation required that upon sale, all single-family, multifamily, and commercial real property disclose all noncompliant plumbing fixtures. Effectively, as a condition of sale all residential and commercial properties built prior to January 1, 1994, will need to replace all noncompliant plumbing fixtures with water conserving plumbing fixtures including toilets, shower heads, and faucets.

Unlike showerheads, faucets, and toilets, clothes washers are not covered by the California Plumbing Code, but rather regulated by the DOE. The current standards for residential clothes washers took effect in 2018. The standards, which were based on a consensus agreement between manufacturers and efficiency advocates, specify minimum energy and water efficiency levels. The metric for water efficiency is the integrated water factor (IWF), which is expressed in terms of gallons of water consumed per cubic foot of washer capacity. A lower IWF indicates better water efficiency. The standards specify an IWF of 6.5 for top-loading machines and 4.7 for front loading machines. Standard residential clothes washers have a capacity of approximately 4 cubic feet. Table 2-17 summarizes fixture and appliance standards over time.

Table 2-17 Fixture and Appliance Standards Over Time

	1975	1980	1992	2009	2011	2013	2016	2018
Shower (gpm)	3.5	2.5	2.5	2.5	2.0	2.0	2.0	1.8
Toilets (gpf)	5.0	3.6	1.6	1.6	1.28	1.28	1.28	1.28
Kitchen Faucet/ Lavatory Faucet (gpm)	2.5	2.5	2.5	2.2	1.8	1.8/1.5	1.8/1.2	1.8/1.2
Clothes Washers (gal/cycle/cu. ft)	15.0	15.0	15.0	9.5	9.5	9.5	9.5	6.5/4.7*

Notes: Data for 1975 to 2013 from Consol and California Homebuilding Foundation. 2014. Codes and Standards Research Report, California's Residential Indoor Water Use.
Data for 2016 and 2018 from Appliance-Standards.org.
*top loading machine/front-loading machine

Table 2-17 illustrates that there is limited water savings potential in new California homes; existing homes, particularly those built prior to 1980 represent a huge source of potential water savings. The age of the housing stock is an indication of the affect that codes and standards likely have on water demands. If the majority of the housing stock is older, the effect of the codes and standards is limited. If the growth rate of the service area is slow, the effect of codes and standards is also limited.

The City of Simi Valley has approximately 43,469 housing units; 63% of which were built before 1980. Since 2014 it is estimated that certificates of occupancy have been issued for less than

435 housing units. This means new housing meeting the newest water efficiency standards makes up less than 1% of the residences. However, with rebate programs, natural replacement of old or malfunctioning appliances, retrofit upon resale, or remodels, some of the older housing is likely to become more water efficient.

The water demands for this UWMP utilize water demand factors developed for buildout. These water demand factors have been applied to the existing and anticipated land uses in the WWD8 service area. A review of the water demand factors included a review of the WWWD billing data for various uses. A water loss factor was applied to the raw factor and a planning-level contingency factor was applied to account for variability due to weather and drought. The water demand factors capture changes in demand due to water conservation and revisions to codes and standards, that have occurred overtime. Because growth in the WWD8 service area is minimal (approximately 0.5% a year) it is not necessary to apply a different water demand factor to new dwellings. Applying an optimistically "low" water demand factor on new development could skew demand trends when it is uncertain if (a) the development will truly occur and (b) the development will have a truly low water demand.

2.4.5.2 Effects of Climate Change on Water Use

WWD8 receives 99% of its potable water from Calleguas and MWD. There are many uncertainties regarding the timing and magnitude of temperature and precipitation changes resulting from climate change. According to Calleguas MWD, potential impacts to MWD supplies include:

- Reduction in Sierra Nevada snowpack;
- Increased intensity and frequency of extreme weather events;
- Prolonged drought periods;
- Water quality issues associated with increase in wildfires;
- Changes in runoff pattern and amount; and
- Rising sea levels

To mitigate for these potential impacts, MWD has established an intensive, comprehensive, technical process to identify key vulnerabilities to regional reliability. The Robust Decision Making (RDM) approach utilized the Delta Method to examine climate change impacts to MWD's water supplies across its three basins. This methodology can show how vulnerable the region's reliability is to longer-terms risks such as climate change and establish "signposts" that can be monitored when critical changes are happening. MWD uses this information in their 2020 Integrated Resource Plan modeling to determine impacts to annual water deliveries to retailers, such as WWD8.

2.5 Low Income Projected Water Demands

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 housing element of any city, county, or city and county in the service area of the supplier. The City of Simi Valley last updated its housing element in 2019. The housing element estimates that 30 percent of households in the City are low-income. Despite this, the housing

element does not provide any information that can be used to develop trends to calculate the future number of low-income household units or associated water demand specific to WWD8 service area.

Table 2-18 shows the inclusion of lower income in water use projections. Table 2-19 depicts a projection of future low-income household water demands in WWD8 service area and assumes a similar occurrence of low-income households in WWD8 service area as in the City of Simi Valley (i.e., 30 percent). These demands are included (and are not in addition to) in the water demands described in Table 2-11 through Table 2-16.

Table 2-18 Low Income Inclusion in Water Use Projections

(Modified from DWR Table 4-5)

Low Income Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections?	No
Are Lower Income Residential Demands Included in Projections?	Yes

Table 2-19 Projections of Future Low-Income Household Water Use (AF)

Water Use [a]	2025	2030	2035	2040	2045
Estimated Low-Income Household Water Use	4,091	4,436	4,508	5,216	5,216

Note:
a Assumes 30 percent all future households in WWD8 water service area qualify as "low" income per the definition provided in Senate Bill 1087.

Further, WWD8 will not deny or condition approval of water services, or reduce the amount of services applied for by a proposed development that includes housing units affordable to lower income households unless one of the following occurs:

- WWD8 specifically finds that it does not have sufficient water supply;
- WWD8 is subject to a compliance order issued by the State Water Resources Control Board Division of Drinking Water that prohibits new water connections; or
- The applicant has failed to agree to reasonable terms and conditions relating to the provision of services.

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Section 3: Water Supply

3.1 Overview

This section describes the water resources available to WWD8 for the 25-year period covered by this Plan. Currently available and projected supplies are summarized in Table 3-1 and Table 3-2, respectively. Imported water from Calleguas represents approximately 99% of WWD8's current supply, which is supplemented with groundwater from the Gillibrand Groundwater Subbasin, and recycled water filling less than 1% of the remaining supply.

Table 3-1 Summary of 2020 Water Supplies (AF)

(*Modified from DWR Table 6-8)*

Existing Water Supplies	2020 Actual Volume	% of Total Supplies
Imported Water	19,726	99.2%
Groundwater	100	0.5%
Recycled Water	57	0.3%
Total Existing Supplies	**19,883**	**100%**

Groundwater pumped from the Gillibrand Groundwater Subbasin is treated at the Tapo Canyon Treatment Plant, which has a capacity of 1 mgd, and could produce 1,100 AFY if run at full capacity. Historically the Tapo Canyon Treatment Plant has been used to supplement WWD8's potable water supply in the summer months when water demand is at the highest. If needed in the future, the plant could be operated year-round to reduce reliance on imported water purchases. The perennial yield of the Gillibrand Groundwater Subbasin is estimated to be 1,350 AFY (Geoscience, 2006).

Currently, WWD8 serves recycled water to the Simi Valley Landfill for dust control and industrial/commercial complex for landscape irrigation. WWD8 may consider supplying recycled water where existing recycled water pipelines are located, however, WWD8 does not anticipate expanding the recycled water system. This section assesses supplies in an average year, a single dry year, and during multiple dry years.

- An average year (also called normal year) is the average supply over a range of years and represents the median water supply available to WWD8.
- The single dry year is the year that represents the lowest water supply available to WWD8.
- The multiple dry year is the lowest average water supply available to WWD8 for five or more consecutive dry years.

Table 3-2 Summary of Projected Water Supplies (AFY)

(Modified from DWR Table 6-9)

Water Supply Source	2025	2030	2035	2040	2045
Existing Supplies					
Imported Water [a]	21,370	23,152	25,081	27,172	27,172
Groundwater [b]	1,100	1,100	1,100	1,100	1,100
Recycled Water [c]	76	76	80	80	80
Total Existing Supplies	**22,546**	**24,328**	**26,261**	**28,352**	**28,352**
Planned Supplies					
N/A	0	0	0	0	0
Total Existing and Planned Supplies	**22,546**	**24,328**	**26,261**	**28,352**	**28,352**

3.2 Imported Water Supplies

Approximately 99 percent of water consumed in WWD8 service area is imported water. Under normal operations imported water received by WWD8 is exclusively State Water Project (SWP) water supplied by Calleguas. WWD8 receives water from Calleguas based upon availability. Through wheeling agreements and temporary interconnections, Calleguas can receive Colorado River water.

The SWP is a 600-mile network of reservoirs, aqueducts, and pumping facilities that convey water from the northern Sierra Nevada Mountain Range to Southern California. Water is treated at the Joseph Jensen Filtration Plant in Granada Hills and is delivered to Calleguas through the West Valley Feeder No. 2 Pipeline. Calleguas is an enterprise special district formed by voters of southern Ventura County in 1953. In 1960 Calleguas became a Member Agency of MWD.

Imported water is delivered to twelve metered turnouts operated by WWD8. The total capacity of these turnouts is 57,000 gallons per minute. On average, over the last 10 years, WWD8 has purchased an average of 19,855 AFY of SWP water from Calleguas.

3.2.1 Imported Water Supply Reliability

As part of MWD's 2020 Urban Water Management Plan (Draft Dec 2020), the MWD evaluated the dependability of imported supplies. In turn, Calleguas also evaluated its ability to meet demands in its service area (including WWD8). Calleguas concluded in its 2020 UWMP that MWD can provide reliable water supplies to the region under both the single driest year and a drought period lasting five consecutive water years. MWD evaluated climate change impacts to water reliability in its 2020 UWMP. MWD's plan considered potential shifts in demand scenarios due to climate in its supply and demand calculations for the Calleguas service area, which includes WWD8. Potential climate impacts considered by MWD are listed in Section 1.9 and Section 1.10. The Calleguas UWMP addresses imported water supply reliability for its retailers, including the amount of imported water that will be available for the WWD8 service area.

WWD8 is anticipating the average, single-dry, and multiple-dry year supplies documented in Table 3-3.

Table 3-3 Imported Water Supply Reliability: Normal, Single-Dry Year, and Multiple-Dry Year Projections

	2025	2030	2035	2040	2045
Normal Year Supply (AF)	21,370	23,152	25,081	27,172	27,172
Single-Dry Year (AF)	21,370	23,152	25,081	27,172	27,172
Multiple-Dry Year (AF)	22,381	24,247	26,268	28,458	28,458

Source: Correspondence Calleguas Municipal Water District.

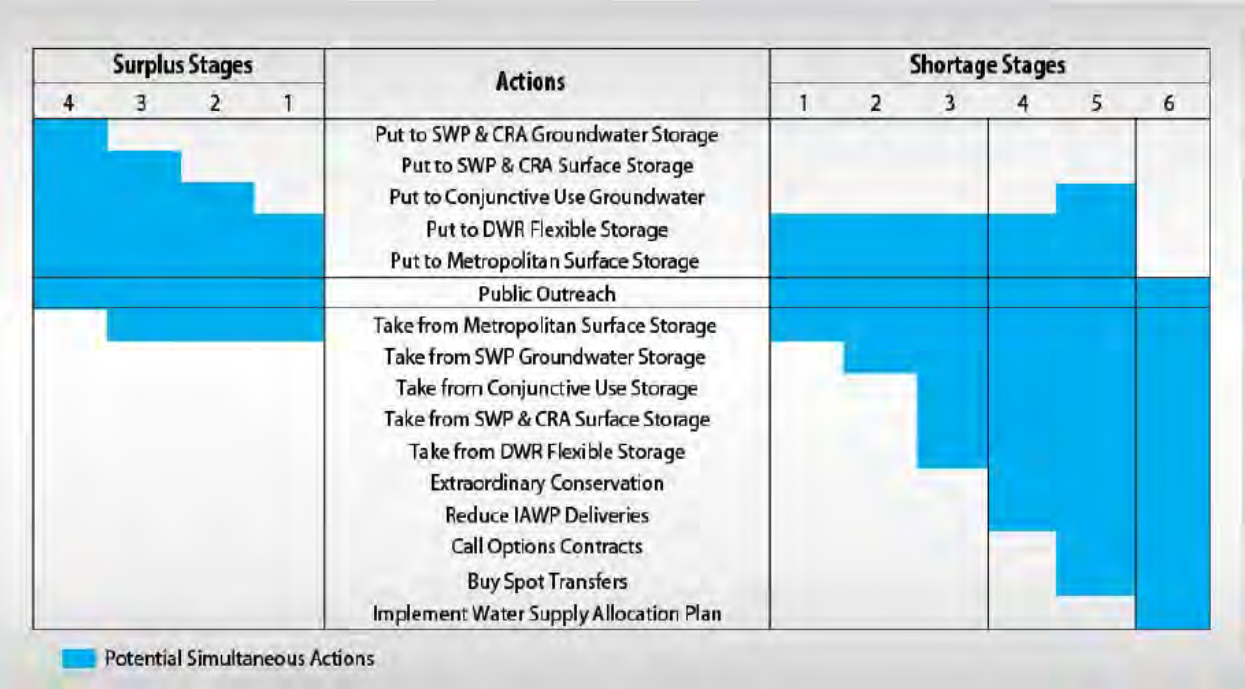
2013 – 2017 drought water use increases from WWD8 potable water customers.

MWD actions are guided by that agency's Water Surplus and Demand Management Plan (WSDM Plan) and Water Supply Allocation Plan. These documents define six shortage management stages to guide MWD activities. The stages are defined by the water balances in Metropolitan's storage programs and are not strictly defined by shortages in imported water supply. The six shortage management stages are depicted in Figure 3-1. When Metropolitan must make net withdrawals from storage to meet demands, it is considered to be "shortage". Under most shortage stages Metropolitan is still able to meet all end use demands for water. In Stages 1 through 3, demand is met by withdrawing water from storage. In stages 4 and 5 Metropolitan may undertake additional shortage management steps such as calling for conservation, exercising water transfer options, or purchasing water. The overriding goal of the WSDM Plan is to avoid reaching Shortage Stage 6, an Extreme Shortage, however if shortage stage 6 is reached then the Water Supply Allocation Plan is enacted.

The Water Supply Allocation Plan is the established formula for allocating available water supplies to Member Agencies in the case of extreme water shortages within the Metropolitan service area. Nevertheless, as described above, shortage affecting water available to WWD8 is not anticipated.

Calleguas does not foresee imposing allocations except under direction from MWD. WWD8 understands that planning by Calleguas shows that allocations are unlikely, but that Calleguas could, as they have done in the past, implement allocations.

Figure 3-1 MWD Resource Stages



Source: Draft MWD 2020 UWMP

3.2.2 Delta Reliance

A majority of the water received by WWD8 comes from the Sacramento-San Joaquin Delta (Delta). The 2020 UWMP Guidebook describes how urban water suppliers that anticipate participating in or receiving water from a "covered action" related to the Delta should provide information in their 2020 UWMPs to demonstrate consistency with *Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance* (Reduced Reliance Policy). DWR has suggested that any entity receiving water from the SWP should anticipate being part of a "covered action."

WWD8 gathered information to determine the volume of SWP water received in past years. In Appendix H, WWD8:

Establishes a base period for evaluation of Delta water use in the District

- Provides data on past service area demands and population
- Provides data on SWP water received in the past
- Provides a projection of service area demands through 2045
- Provides information on supplier contribution to regional self-reliance (local supplies brought online 2010-2045 in 5-year increments
- Projects SWP water that will be received through 2045

3.3 Local Water Supplies

3.3.1 Groundwater

The Simi Valley Basin, bounded on the north and northeast by the Santa Susana Mountains and the Simi fault, and on the south and southwest by the Simi Hills, underlies the southeastern portion of Ventura County, including the City of Simi Valley. With a surface area of about 12,100 acres, an average depth of about 175 feet, and an average specific yield of 8.6 percent, the storage capacity of the basin is estimated at approximately 180,000 AF. In 1999, DWR's Bulletin 118 estimated the Simi Valley Basin at 95 percent full with about 172,000 AF in storage.

Within the Simi Valley Basin lies the Gillibrand Subbasin, from which WWD8 pumps using two wells (Wells 31D and 32) (Table 3-4). The surface area of the Gillibrand Subbasin is approximately 5,130 acres and extends to depths of up to 1500 feet (WWD8, 2007). Ground surface elevation of the valley ranges from 700 to 1,100 feet above sea level. Surface runoff discharges into the Arroyo Simi River and flows west joining Arroyo Las Posas River. Inflow from overlying streams, percolation of direct precipitation, and irrigation runoff are considered the main recharge sources to the basin. Figure 3-2 depicts the groundwater basins in relation to WWD8 service area boundary.

Figure 3-2 Groundwater Basins

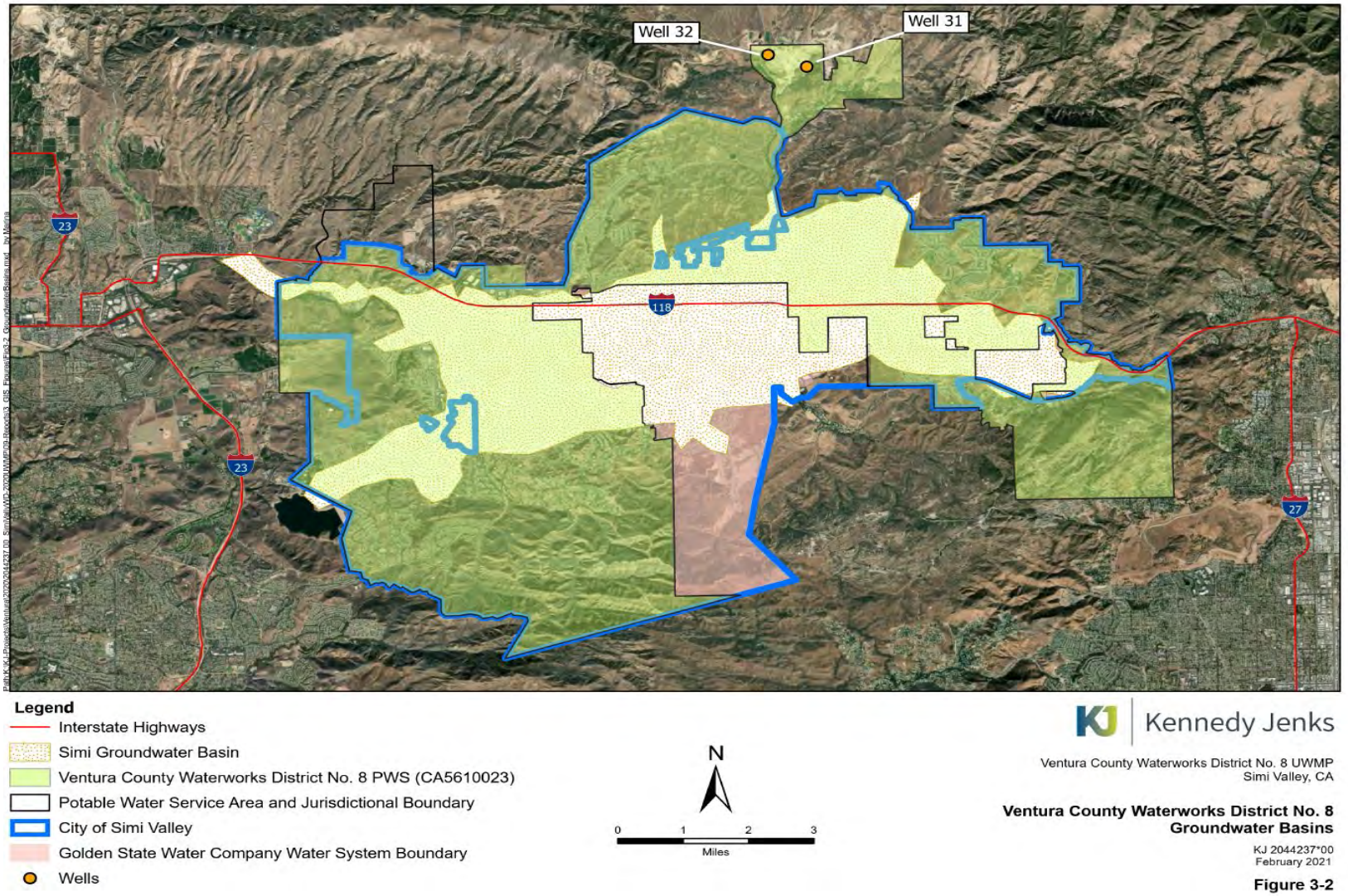


Table 3-4 DWR Groundwater Basins

(*Modified from DWR Table 6-1)*

DWR Basin	Groundwater Basin	Type
4-9	Simi Valley Basin	Alluvial

Note:

Simi extracts groundwater from the Gillibrand Subbasin, a subbasin of the Simi Valley Basin designated by DWR.

The Gillibrand Basin is not adjudicated; however, a Groundwater Management Plan has been developed and both users in the Subbasin, WWD8 and the Gillibrand Company, have agreed to abide by the yield conditions described in the Groundwater Management Plan Gillibrand Basin (see Appendix G). Pumping and groundwater elevation data in the Gillibrand Basin are collected and recorded monthly to monitor the Management Plan efficacy. The *Geohydrologic Evaluation of Maximum Perennial Yield, Tapo Canyon Tributary SubArea* (Geoscience, 2006) estimates a sustainable yield of 1,350 AFY and establishes a monitoring and re-evaluation process to calibrate and refine the sustainable yield.

Recent groundwater pumping by WWD8 from the Gillibrand Subbasin is summarized in Table 3-5. Projected groundwater pumping from the Gillibrand Subbasin is summarized in Table 3-6. Currently, WWD8 has the ability to pump and treat 1,100 AF annually, however, WWD8 has historically treated significantly less. WWD8 anticipates the ability to maximize groundwater extraction and treatment during a normal, single-dry, or multiple-dry year, if needed.

Table 3-5 Historic WWD8 Gillibrand Subbasin Groundwater Production (AFY)

(DWR Table 6-1)

Groundwater Type	Location or Basin Name	2016	2017	2018	2019	2020
Alluvial Basin	Gillibrand Subbasin	376.6	4.7	34.6	75.07	100.15
	TOTAL	**377**	**5**	**35**	**75**	**100**

Table 3-6 Projected WWD8 Gillibrand Subbasin Groundwater Production (AFY)

	2025	2030	2035	2040	2045
Normal	1,100	1,100	1,100	1,100	1,100
Single-Dry Year	1,100	1,100	1,100	1,100	1,100
Multiple-Dry Year	1,100	1,100	1,100	1,100	1,100

The Sustainable Groundwater Management Act (SGMA), passed in 2014 and amended in 2015, creates a framework for sustainable, local groundwater management in California. SGMA directed the DWR to identify priority groundwater basins for the purpose of implementing SGMA. SGMA requirements to create sustainable groundwater management agencies and sustainable groundwater management plans no later than 2022 applies only to high and medium priority basins. SGMA does not require a Sustainable Groundwater Management Plan for either the Simi Valley Basin or the Gillibrand subbasin, as they were not rated as high or medium priority basins. However, as discussed above, WWD8 and other entities that use Simi

Valley Basin have moved to develop a groundwater management plan for the basin to better manage the basin to maintain long-term supplies.

3.4 Wastewater Collection and Treatment

The UWMP Guidelines require WWD8 to describe wastewater collection and treatment in the service area, including the amount of wastewater collected and treated, and the methods of wastewater disposal. Table 3-7 documents wastewater collection in 2020; Table 3-8 documents wastewater treatment and discharge in 2020.

Table 3-7 Wastewater Collected Within Service Area in 2020 (AF)

(DWR Table 6-2)

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	**Wastewater Volume Metered or Estimated?**	**Volume of Wastewater Collected from UWMP Service Area 2020**	**Name of Wastewater Treatment Agency Receiving Collected Wastewater**	**Treatment Plant Name**	**Is WWTP Located Within UWMP Area?**	**Is WWTP Operation Contracted to a Third Party?**
City of Simi Valley Sanitation Department	Metered	8,876	City of Simi Valley Sanitation Department	City of Simi Valley Water Quality Control Plant	Yes	No
Total Wastewater Collected		**8,876**	**(from Service Area in 2020)**			

Table 3-8 Wastewater Treatment and Discharge Within Service Area in 2020 (AF)

(DWR Table 6-3)

Wastewater Treatment Plant Name	**Discharge Location Name or Identifier**	**Discharge Location Description**	**Method of Disposal**	**Does this Plant Treatment Wastewater Generated Outside the Service Area?**	**Treatment Level**	**Wastewater Treated**	**Discharged Treated Wastewater**	**Recycled Within Service Area**
Simi Valley Water Quality Control Plant	River Outfall to Arroyo Simi, 34 °16'56" North, 118 °, 48'44" West	River Outfall	River or creek outfall	No	Tertiary	8,876	7,918	57
					Total	**8,876**	**7,918**	**5**

3.5 Recycled Water Use

3.5.1 Current Uses of Recycled Water

WWD8 currently delivers recycled water from the Simi Valley Water Quality Control Plant to the Simi Valley Landfill for dust control and an industrial/commercial complex for landscape irrigation.

WWD8 completed a Recycled Water Master Plan (Kennedy Jenks, 2008) that explored opportunities to expand the recycled water system. The Plan identified 130 potential users with a combined demand of 9,000 AFY. WWD8 reviewed regulatory issues and requirements governing recycled water and ultimately decided not to pursue further recycled water supply projects. In 2015, the WWD8 Board of Directors approved a Use Site Agreement with Robertson's Simi Valley Concrete Batch Plant for future recycled water use. The Use Site Agreement projected a future recycled water demand of 16 AFY. The concrete batch plant has not yet taken recycled water from WWD8 but is expected to begin taking recycled water by 2025.

Recycled water usage in 2020 was 57 AFY. A comparison of the projected 2020 recycled water from the 2015 UWMP to the 2020 actual recycled water use is provided in Table 3-9.

Table 3-9 2015 Projected Recycled Water Use Compared to 2020 Actual (AF)

(Modified from DWR Table 6-5)

Use Type	2015 Projection for 2020	2020 Actual Use
Agricultural irrigation	0	
Landscape irrigation (excludes golf courses)	597	10
Golf course irrigation	639	
Commercial use	2	
Industrial use	102	47
Total	**1,340**	**57**

In order to encourage consumers to use recycled water, the recycled water rate is currently about 24 percent less than the potable water rate. In addition, the following actions are used to facilitate use of recycled water in WWD8:

- Ongoing public education about the reliability, safety, and availability of recycled water

3.5.1.1 Potential Future Uses of Recycled Water

WWD8 may consider supplying recycled water where existing recycled water pipelines are located; however, WWD8 does not currently plan to expand the recycled water distribution system. However, WWD8 has considered the use of a recycled water fill station if demand creates the necessity in the future. WWD8 will be able to meet current customer non-potable water demands without additional recycled water supplies.

3.5.1.2 Projected Recycled Water Demand

Projected recycled water demands shown in Table 3-10 show that recycled water will have minimal growth. WWD8 expects that recycled water will not be affected by drought cycles and single-dry and multiple-dry year scenarios, as there is excess wastewater production (see Table 3-8) compared to recycled water demand (Table 3-10). Currently, there are no future plans to expand the recycled water distribution system. However, Robertson's Simi Valley Concrete Batch Plant expects to begin using recycled water by 2025.

Table 3-10 Recycled Water Direct Beneficial Uses Within Service Area (AF)

(Modified from DWR Table 6-4)

Beneficial Use Type	Level of Treatment	2020	2025	2030	2035	2040	2045
Landscape irrigation *(excludes golf courses)*	Tertiary	10	10	10	10	10	10
Industrial use		47	66	66	70	70	70
TOTAL Recycled Water Use		**57**	**76**	**76**	**80**	**80**	**80**

3.6 Planned Water Supply Projects and Programs

3.6.1 Transfers, Exchanges, and Groundwater Banking Programs

In addition to imported water supplies, groundwater, and recycled water, WWD8 may seek opportunities to purchase water supplies from other water agencies and sources. Transfers, exchanges, and groundwater banking programs, such as those described below, could be important elements to enhancing the long-term reliability of the total mix of supplies currently available to meet the needs of WWD8's customers.

3.6.2 Opportunities for Short and Long-Term Transfers and Exchanges

A current opportunity available to WWD8 to increase water supplies is to participate in voluntary water transfer programs. Since the drought of 1987-1992, the concept of water transfer has evolved into a viable supplemental source to improve supply reliability. The practice of water transfers was in part codified into law in 1986. (See California Water Code, Sections 470, 475, 480-483; 1810-1814.) These laws help define parameters for water transfers and set up a variety of approaches through which water or water rights can be transferred among individuals or agencies. WWD8 has not directly participated in potable water exchanges or transfers on either a short-term or long-term basis at this time. However, MWD, on behalf of its Member Agencies, including Calleguas, participates in transfer agreements for regional benefit. MWD has arranged significant SWP transfers in order to augment local water supplies. It is anticipated that MWD will continue to participate in such programs to ensure a sufficient and reliable source of imported water supplies to its retail members.

3.6.3 Groundwater Banking Program

WWD8 does utilize groundwater but does not plan groundwater banking at this time. The Gillibrand Subbasin is relatively small and relatively "full" and therefore there is not a good location to perform groundwater banking.

3.6.4 Opportunities for Seawater Desalination

At the current time it is neither practical nor economically feasible for WWD8 to implement a seawater desalination program. However, similar to the brackish water and groundwater desalination opportunities described below, WWD8 could consider partnering with other retailers and/or team with Calleguas to invest in the construction of other purveyors' seawater desalination facilities in exchange for SWP supplies.

3.6.5 Opportunities for Brackish Water and/or Groundwater Desalination

The Simi Valley Basin, outside of the Gillibrand subbasin, is a potential source of water for WWD8. Developing the Simi Valley Basin as a potable water source could reduce the WWD8's reliance on imported water. WWD8 completed the report, "Characterization and Water Supply Assessment for the Simi Valley Basin" (Todd Groundwater, 2016), which estimates the perennial yield for the basin at 9,000 AFY. The report indicates that the Simi Valley Basin is a potential local resource of potable water by treating the groundwater to remove total dissolved solids and other salt constituents. Groundwater treatment will be possible with the extension of Calleguas' Salinity Management Pipeline to Simi Valley. The Salinity Management Pipeline is currently being built by Calleguas.

3.7 Anticipated Water Supply Sources in Normal, Single Dry, and Multiple Dry 5-Year Drought Years

Calleguas projects being able to provide an adequate water supply to WWD8 in normal, single-dry, and multiple-dry years, with a surplus available for storage in anticipation of a future water shortage scenario or emergency allocation reduction from MWD. The following sections list WWD8 projected available supplies in normal, single-dry, and multiple-dry years.

3.7.1 Normal Year

Table 3-11 depicts the projected water supplies available during a Normal/Average Year.

Table 3-11 Water Supply Projections - Normal/Average Year (AF)

(Modified from DWR Table 6-9)

Water Supply Source	2025	2030	2035	2040	2045
Imported Water [a]	21,370	23,152	25,081	27,172	27,172
Groundwater [b]	1,100	1,100	1,100	1,100	1,100
Recycled Water [c]	76	76	80	80	80
Total Existing and Planned Supplies	**22,546**	**24,328**	**26,261**	**28,352**	**28,352**

3.7.2 Dry Year

Table 3-12 depicts the projected water supplies available during a Single-Dry year.

Table 3-12 Water Supply Projections - Single Dry Year (AF)

(Modified from DWR Table 7-3)

Water Supply Source	2025	2030	2035	2040	2045
Imported Water [a]	21,370	23,152	25,081	27,172	27,172
Groundwater [b]	1,100	1,100	1,100	1,100	1,100
Recycled Water [c]	76	76	80	80	80
Total Existing and Planned Supplies	**22,546**	**24,328**	**26,261**	**28,352**	**28,352**

3.7.3 Multiple-Year Drought

Table 3-13 depicts the projected water supplies available during a Multiple-Year Drought.

Table 3-13 Water Supply Estimates - Multiple Dry Year (AF)

(Modified from DWR Table 7-4)

Water Supply Source	2025	2030	2035	2040	2045
Imported Water [a]	22,381	24,247	26,268	28,458	28,458
Groundwater [b]	1,100	1,100	1,100	1,100	1,100
Recycled Water [c]	76	76	80	80	80
Total Existing and Planned Supplies	**23,557**	**25,423**	**27,448**	**29,638**	**29,638**

3.8 Energy Intensity of Potable Water System

Water energy intensity is the amount of energy, calculated on a whole-system basis, required for use of water in a specific location, such as the WWD8 service area. DWR provides guidance for calculating the operational energy intensity of water, defined as the total amount of energy expended by the urban water supplier on a per AF basis to take water from the location where the urban water supplier acquires the water to its point of delivery. DWR requires that urban water suppliers only report the energy intensity associated with water management processes occurring within their operational control and not include energy embedded in water supplies

purchased from a wholesale water agency. Table 3-14 below, provides an estimate, using the total utility approach, of the water energy intensity of WWD8's potable water system. DWR's Energy Intensity spreadsheet is provided in Appendix I.

Table 3-14 Energy Intensity of WWD8 System

(DWR Table O-1B)

Start Date for Reporting	**01/01/2019**	**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
End Date for Reporting	**12/31/2019**	***Total Utility***	***Hydropower***	***Net Utility***
Volume of Water Entering Process (AF)		19,883	N/A	N/A
Energy Consumed (kWh)		4,990,843	N/A	N/A
Energy Intensity (kWh/MG)		770.3	N/A	N/A

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Section 4: Demand Management Measures

4.1 Demand Management

The purpose of the Demand Management Measures (DMM) section of this UWMP is to (a) provide a description of the past water conservation programs that WWD8 has implemented since 2015 to meet its urban water use reduction targets and (b) describe the activities and actions WWD8 plans to use in the future to continue to meet its urban water use reduction targets. For the purposes of this UWMP the DMMs are categorized as "Foundational" and "Other". Foundational DMMs, listed below, are those DMMs that the UWMP Act and Water Code specifically mention:

a. Water waste prevention ordinances
b. Metering
c. Conservation pricing
d. Public education and outreach
e. Programs to assess and manage distribution system real loss
f. Water conservation program coordination and staffing support

Activities outside of the Foundational DMMs that encourage less water use in WWD8 service area fall in the "Other DMM" category.

4.1.1 Foundational DMMs

4.1.1.1 Water Waste Prohibition

The Board of Directors of Ventura County Waterworks District No. 8 (Board) has adopted policies including Ordinances and Resolutions, collectively entitled the Water Conservation Program (City of Simi Valley Municipal Code 6-11.101, 2009). The Water Conservation Program is intended to reduce water consumption within WWD8's service area through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent water waste and provide a means to progressively limit water usage during sustained periods of shortage. Ordinances listed in Table 4-1 comprise the current Water Conservation Program.

Table 4-1 Water Conservation Program Ordinances

Ordinance Number	Date Adopted	Notes
WWD-08	May 11, 2009	Replaced old program
WWD-09	June 15, 2009	Amendment No. 1
WWD-10	October 12, 2009	Amendment No. 2
WWD-14	May 4, 2015	Amendment No. 3
WWD-15	April 3, 2017	Amendment No. 4

Notably, the Water Conservation Program includes water-waste prohibitions listed in Table 4-2.

Table 4-2 Water-Waste Prohibitions

Irrigation related prohibitions and restrictions
• Irrigation is prohibited between the hours of 9:00 a.m. to 5:00 p.m. on any day, except by hand (bucket or self-closing nozzle). • Irrigation from an automated device is limited to no more than 15 minutes of watering per day per station (exceptions for low-flow, drip systems). • Excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter, or ditch is prohibited. • Irrigation of turf or ornamental landscapes with potable water is prohibited during and 48 hours after rainfall. • Irrigation of ornamental turf on street medians is prohibited.
Commercial prohibitions and restrictions
• Commercial car wash systems must have recirculating water systems or must have a waiver. • Food service establishments must use water conserving dish wash spray valves. • Food service establishments must serve drinking water upon request only. • Installation of non-recirculating water systems is prohibited in new commercial conveyor car washes and new commercial laundry systems. • Installation of single pass cooling systems is prohibited in buildings requesting new water service. • Commercial lodging establishments must provide guests the option to decline daily linen services and must prominently display notice of this option in each bathroom using clear and easily understood language.
Residential and commercial prohibitions and restrictions
• Washing down hard or paved surfaces is prohibited except when necessary to alleviate safety or sanitary hazards. • Excessive use, loss or escape of water through breaks, leaks, or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected is prohibited. • Recirculating water required for water fountains and decorative water features. Operating a water fountain or other decorative water feature that does not use recirculated water is prohibited. • Limits on washing vehicles. Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat, or trailer, whether motorized or not, is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility.

Water Supply Shortage measures (in addition to permanent measures)

- At a Stage/Level 2 water supply shortage, irrigation is limited to three days per week from April through October, and two days per week from November through March. Irrigation system leaks must be repaired within 72 hours.
- At a Stage/Level 3 water supply shortage, irrigation is limited to two days per week April through October, and one day per week from November through March. Irrigation leaks must be repaired within 48 hours. Filling or re-filling ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life.
- At a Stage/Level 4 water supply shortage irrigation is prohibited, with certain exceptions. Leaks must be repaired within 24 hours. No new potable water service will be provided, no new temporary meters or permanent meters will be provided, and no statements of immediate ability to serve or provide potable water service (such as will-serve letters, certificates, or letters of availability) will be issued. No new annexations.

Enforcement of prohibitions

- Enforcement is authorized including civil fines

WWD8 policies that were in place in May 2015 were not consistent with new law adopted by the California Water Resources Control Board. On May 4, 2015, the Board adopted Ordinance WWD-14, amending the Water Conservation Program to conform to the revised regulations. In addition to the Ordinance revision (the impacts of which summarized in Table 4-1) a Resolution was adopted in June 2015 to implement a Level 2 Water Supply Shortage. This action was in response to the Governor's Emergency Proclamation requiring statewide 25% water use reduction, state law, and the MWD/Calleguas Allocation Program that followed. Table 4-3 summarizes the Resolutions adopted under the Water Conservation Program since 2010.

At the time the 2015 UWMP was published, WWD8 remained under a declared Level 2 Water Supply Shortage. At that time, WWD8 was under an Allocation Program issued by Calleguas, in response to the Allocation Program initiated by MWD. In July 2016, WWD8 rescinded Level 2 and implemented a Level 1 Water Supply Shortage. The Level 1 Water Supply Shortage was rescinded by Resolution of the Board on June 5, 2017, after the 2013-2017 drought ended, and water suppliers rescinded the Allocation Program.

Table 4-3 Water Conservation Program Resolutions

Resolution Number	Date Adopted	Notes
WWD-234	May 9, 2011	Rescinded Level 1 Water Supply Shortage
WWD-243	May 12, 2014	Declared a Drought
WWD-246	July 21, 2014	Implemented Level 1 Water Supply Shortage
WWD-252	June 15, 2015	Implemented Level 2 Water Supply Shortage
WWD-260	July 25, 2016	Rescinded Level 2 and Implemented Level 1 Water Supply Shortage with Mandatory Water Conservation
WWD-266	June 5, 2017	Rescinded Resolution No. WWD-260 and Implemented Level 1 Water Supply Condition Calling for Voluntary Water Conservation

4.1.2 Metering

WWD8 is fully metered and requires service meters on all new connections. There are approximately 26,438 service connections as of 2020.

4.1.3 Conservation Pricing

WWD8 has meters for each customer and charges a volumetric rate for water use. WWD8 rate and fee schedule is summarized below in Table 4-4. WWD8 uses commodity rates which charge users per the amount of water consumed encourages customers to reduce water use and therefore the amount paid for water.

Table 4-4 Commodity Charges

Meter Type	2020	2021	Per
Residential	$3.85	$4.15	Billing Unit
Commercial/ Multi- Family	$4.00	$3.94	Billing Unit
Landscape/ Schools/ Etc.	$4.20	$4.62	Billing Unit
Lift Charge	$0.13	$0.13	Billing Unit/ Lift
Well Water	$1.54	$1.54	Billing Unit
Recycled Water	$2.60	$3.10	Billing Unit
Unmetered Construction			
1. Backfill	$2.12	$2.12	100 cu. Ft.
2. Sprinkling	$0.42	$0.42	100 sq. Ft.
3. Tank Load	$11.03	$11.03	1,000 Gal.
4. Res. Construction	$25.44	$25.44	Lot

4.1.4 Public Education and Outreach

Recognizing the continued need for education and outreach to meet water conservation goals, WWD8 continues to promote these efforts. WWD8 regularly promotes water conservation and water use efficiency utilizing a variety of education and outreach strategies, including: communicating water resource, use and conservation progress; and water incentive programs and device rebates; via water bill, websites, social media, guest speaking, group presentations, news advertisements and articles, and numerous other activities, such as outreach campaigns.

In addition to offering Water Conservation Program resources, requirements and incentive program information through their website, (www.simivalley.org/waterconservation) WWD8 hosts a dedicated hotline, (805) 583-6420 and email, waterconservation@simivalley.org. Customers are encouraged to request information, as well as report potential water waste. WWD8 has expanded communication with social media accounts, www.Facebook/SimiValleyH2O and www.Twitter/SimiValleyH2O. WWD8 also utilizes the resources of the MWD as a Member Agency of Calleguas – see Section 4.1.9.

WWD8 encourages high school and college students to participate in community engagement events to promote water conservation. These events include activities at the annual springtime Street Fair, as well as the fall Coastal/Arroyo Clean-up and Living Green Expo events. Additionally, community water conservation education workshops are offered.

WWD8 and MWD personnel also provide water conservation education to area elementary, middle, and high schools, as well as adult and college education. Staff provides classroom presentations and workshops as requested and hosts a variety of educational learning activities at several outreach events each year. Unique field trip opportunities are available for teachers and students within MWD's service area. The curriculum and field trips correlate to various California Content Standards, including Common Core and Next Generation Science Standards; they are offered at no cost. Virtual field trips are available for Grades 4 – College, of the following: Colorado River Aqueduct; State Water Project; and Water Journeys: Regional Recycled Water Advanced Purification Center. Diamond Valley Lake Visitors Center Field Trips are available for Grades K-12. Diamond Valley Lake H2O Field Trips are available for Grades 4-8. Inspection Trips of the Colorado River Aqueduct System are available to teachers and administrators.

The MWD School Education Curriculum Programs for each grade level are summarized below:

- Kindergarten through 2nd Grade – About Water. Find 26 experiments and interdisciplinary activities about water conservation, water quality and distribution, the water cycle and fresh and salt water. The activities are also available in Spanish.
- 5th Grade – Waterways. Designed to supplement fifth grade social studies curriculum, this program uses language arts, music, and art in an activity-oriented unit. Students examine the role of water in North America history: Pre-Columbian, colonial and during the Westward Movement. The program comes with a teacher's guide and a set of 35 large-format student booklets. Consumable materials may be reordered.

- 6th Grade –Conservation Connection. This educational newspaper is interdisciplinary – integrating science, social studies, language arts and math. Engaging news articles and stories that are relatable to sixth graders challenge them with activities to create an awareness and appreciation for water. The program includes consumable student newspapers and a teacher's guide.
- 6th through 8th Grade – Conservation Connection. This interdisciplinary curriculum supplement offers hands-on conservation activities that include role playing and critical thinking. Middle school students learn about the challenges and importance of conserving water wherever they are – at home or school. Students make the connection to the importance of water and energy efficiency as a way of life through the lessons, service-learning activities and online water and energy use surveys.
- 7th through 12th Grade –Qualities and Science of Water. The quality of drinking water is explored with a hands-on, inquiry-based approach. The activities (low or no cost) highlight a number of water attributes that include pH, total dissolved solids, turbidity, hardness, and contaminants such as Cryptosporidium and MTBEs (a groundwater contaminant). Source water protection is also a topic. This unit includes a teacher's guide, student booklets 1, 2 and 3, fact sheets and worksheets, lesson extenders and a response card. Lessons are also available on an interactive website and iPad format.
- College – MWD's water experts are available to speak to groups or classes about specific issues facing Southern California or provide an overview of the water delivery and treatment system operated by MWD. Field trips can be arranged to visit various MWD facilities including the downtown headquarters and Diamond Valley Lake. MWD has internship opportunities in a broad range of academic areas for undergraduate and graduate students, as well as Water Industry Career Resources. MWD's Apprenticeship Program provides instruction and on-the-job training for careers as a mechanic, electrician, or other trade profession in the water industry.

The Water Conservation Program public education and outreach events and campaigns are summarized below in Table 4-5 for years 2016-2020.

Table 4-5 Public Education/Outreach and Campaign Events

Water Conservation Program/Outreach and Campaign Events	Event Frequency
City of Simi Valley: Household Hazardous Waste Collection Event	Bi-Monthly
Simi School District: Student Career Fair at Sinaloa Middle School	Annually
Simi Valley Public Library: Book Festival	Annually
Calleguas Municipal Water District: Rain Barrel Sale Event	Annually
Master Gardeners of Ventura County: Hands-On Drip Irrigation Workshops at Calleguas Municipal Water District	Monthly
Calleguas Municipal Water District: Firewise Landscape Class on Zoom	Annually
Calleguas Municipal Water District: Landscape Transformation Class Series	Monthly
Simi Valley Chamber of Commerce: Leadership in Government Day at the City/Waterworks District	Annually
Moorpark Community College: Multicultural Alternative Instruction Day	Annually
MWD: CA-Friendly Native Plant Landscape Training at City of Simi Valley	Bi-Annually
MWD CA-Friendly Native Plant Landscape Training Class on Zoom	Monthly
MWD Turf Removal and Garden Transformation Workshop on Zoom	Monthly
MWD Garden Design Workshop on Zoom	Monthly
City Council / Waterworks Board Proclamation: Making Water Conservation a CA-Way of Life	Annually
Simi Valley Chamber of Commerce: Street Fair	Annually
Simi Valley Public Library: Summer Fun and Games	Annually
Simi Valley School District: Summer Free Lunch Program Eat, Learn, and Play Events at Rancho Simi Park	Annually
California Coastal Commission: Cleanup Day at Arroyo Simi and Rancho Simi Park	Annually
Simi Valley School District: Community Service Faire at Sinaloa Middle School	Annually
Simi Valley Chamber of Commerce: Living Green Expo	Annually
City Council/Board of Directors / Neighborhood Councils / Youth Council: "Where's Your Bucket?" Community Water Conservation Campaign and Distribution Event	Annually During Drought
"Splash" Water Drop Mascot - Summer Olympics Social Media Conservation Campaign	Every four years

4.1.5 Programs to Assess and Manage Distribution System Real Loss

Monthly billing, production reports, and water leakage reports were used to estimate both real and apparent water loss (see Appendix E). 2020 results were not available during the development of this UWMP. Water loss was calculated from the last three normal water audits (2016, 2017, 2019) to be 4.31 percent annually. WWD8 staff are actively working to identify what areas of the water system may have water loss. Consistent with Senate Bill 555, WWD8 conducts a water loss report each year and reports water loss to DWR annually.

System leaks are repaired as soon as they are located. WWD8 conducts leak detection training with all field staff. WWD8 has also implemented electronic GIS mapping of the system. This enables the ability to locate lines, valves, and other potential leak sources, locate distribution pipes in the field and record GPS coordinates of infrastructure locations. Installation of data acoustic loggers on system valves in areas of concern will take place to gather specific leak location information. Customer leak notification will be available as WWD8 continues to implement the automatic metering infrastructure.

4.1.6 Water Conservation Program Coordination and Staffing Support

The Simi Valley City Council serves as the WWD8 Board of Directors. As WWD8 is operated by the City of Simi Valley, which is both a water purveyor and operator of the City's wastewater treatment plant, the Environmental Compliance Program staff is responsible for the Water Conservation Program and the Wastewater Pretreatment Program, as well as the Stormwater Program, Hazardous Materials/Waste Program and Solid Waste and Recycling Program. As a result, all Environmental Compliance staff support all programs and are responsible for educating the residential, commercial, industrial, and institutional community about water conservation. As part of the annual wastewater discharge permit renewal inspection, all businesses with permits receive education about the Water Conservation Program.

For example, as part of the restaurant permit inspections, business owners are educated about the requirement to serve drinking water upon request only. Restaurant "Be Water Wise" table tents are distributed to restaurants. Additionally, WWD8's field staff communicate with customers and issue Environmental Compliance Inspection Notices, and Water Conservation Courtesy Notices (door hangers), when potential water waste issues are identified that may require corrective action. Outreach conducted by Water Conservation staff is listed in Table 4-6.

Table 4-6 Water Conservation Staff Outreach

Calendar Year	City Environmental Permit Inspections: Water Conservation Education	Water Conservation Hotline / Email Customer Inquiries	WC Hotline/ Email Customer Reports of Water Waste	Inspection Customer Contacts	Formal Warnings (Field Inspection Reports) to Customers
2016	539	95	202	202	181
2017	509	29	65	65	53
2018	453	43	88	85	67
2019	473	23	53	51	41
2020	384	13	65	64	54
Total	**2358**	**203**	**473**	**467**	**396**

4.1.7 Other DMMs

4.1.7.1 WWD8-funded Turf Removal (Replacement) Programs and BeWaterWise Rebates

WWD8 has worked to develop large landscape conservation programs incentive partnerships. As part of this program, WWD8 has provided up-front funding for large turf removal projects and submitted BeWaterWise.com Turf Removal (Replacement) applications for various City Landscape Maintenance District projects. Upon approval of the applications and completion of the projects, WWD8 is reimbursed, as shown in Table 4-7.

Table 4-7 Turf Removal Program Funding

Fiscal Years	BeWaterWise.com Program Turf Replacement Project	Program Location	Funding Amount
2019-2020	City Landscape Turf Removal Project	Welcome Corner at Madera Road and Los Angeles Avenue	$ 35,226
2019-2020	City Landscape Turf Removal Project	Sinaloa Road Parkway	$ 16,090
2019-2020	City Landscape Turf Removal Project	DMV Parkway	$ 8,298
		Total	**$ 59,614**

4.1.7.2 City Welcome Corner Landscape Transformation Partnership Project

The City Welcome Corner was transformed with the support of many community partnerships. Calleguas supported the $35,000 project rebate and donated the professional videography showcasing the landscape transformation. The Chamber of Commerce's Leadership Simi Valley Program Class of 2020 planned lighting to provide high visibility to the renovated City Welcome Corner and refresh of the community non-profit organization signs. Vista Professional Outdoor Lighting designed and donated all the project lights. Donations from local businesses and individuals, funded the electrical and lighting installation. The Welcome Corner project and

photo was featured to introduce the launch of the City Focus public e-newsletter, as described and shown at https://conta.cc/36mHPOc. This project is described in detail, with before and after photos, by visiting https://www.simivalley.org/departments/public-works/water-conservation/turf-removal.

4.1.7.3 Conservation Programs for Commercial, Industrial and Institutional Accounts

WWD8 staff has identified many of the large water users in the commercial, industrial, and institutional (CII) sector and made contact with many of these organizations to educate them about WWD8 Water Conservation Program resources and requirements. In partnership with MWD and Calleguas, staff has met with larger users and has conducted landscape irrigation surveys at no cost to the customer, in order to identify conservation methods that can be-implemented in the most cost-effective manner.

4.1.8 Wholesale Agency Assistance Programs

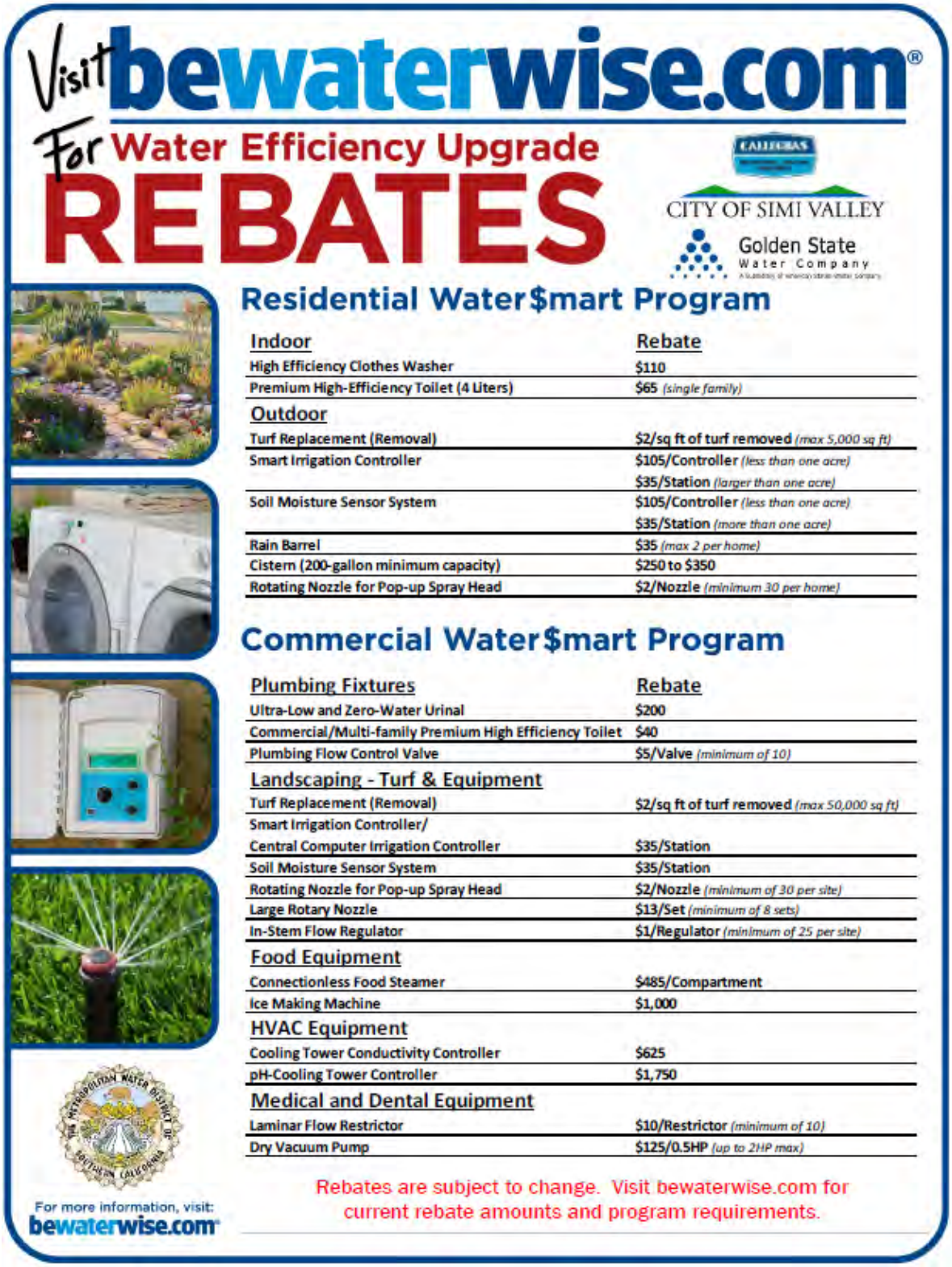
4.1.8.1 BeWaterWise.com Rebate Program

WWD8 has worked cooperatively with Calleguas Municipal Water District and that agency's water conservation programs. WWD8 customers may be eligible for a variety of conservation device rebate incentives, as well as rebates for turf replacement (removal). These conservation opportunities are described at bewaterwise.com and depicted in the BeWaterWise.com Rebate Handout shown in Figure 4-1. WWD8 customer participation in wholesale agency rebate programs is summarized in Table 4-8.

Table 4-8 Participation in Wholesale Agency Programs

Rebate Description	2016	2017	2018	2019	2020	Total	Rebate Amount
Turf Removal	146	24	0	5	15	190	$ 622,257.00
Quantity of Turf Removed in Square Feet	231,428	50,243	0	5,361	36,103	32,915	-
High Efficiency Washing Machine Rebates	98	68	64	43	74	347	$ 36,590.00
Weather Based Irrigation Controllers	49	72	103	87	62	373	$ 38,316.38
High-Efficiency Sprinkler Nozzles	0	31	166	0	0	197	$ 394.00
Rain Barrels/Cisterns	247	30	9	2	24	312	$ 21,915.00
High-Efficiency Toilets	60	22	11	2	2	97	$ 8,081.00
TOTAL	**600**	**247**	**353**	**139**	**177**	**1,516**	**$ 727,553.38**

Figure 4-1 BeWaterWise Rebates



4.1.8.2 MWD Funded/Member Agency – Administered Incentive Program

MWD funds an incentive program that is administered by their local Member Agencies, such as Calleguas, and their retail water agencies. The Incentive Program includes a Commercial / Industrial / Institutional component for large landscape water use efficiency projects. As part of the program, WWD8 implemented large landscape conversion projects for the City of Simi Valley Landscape Maintenance District, one of its significant water use customers. The programs and funding amounts are listed in Table 4-9.

Table 4-9 MWD Incentive Programs

Fiscal Years	Member Funded / Member Agency - Administered Program Title	Program Location		Funding Amount
2016-2017	City Landscape Irrigation Conversion	Sandiman Street & Chumash Avenue landscape projects	$	1,990.00
2016-2017	City Landscape Turf Removal Project	Sandiman Street & Chumash Avenue landscape projects	$	2,985.00
2016-2017	City Landscape Irrigation Conversion	Civic Center	$	17,629.00
2016-2017	City Landscape Turf Removal Project	Civic Center	$	26,443.50
2017-2018	Irrigation Central Controller	Civic Center	$	9,800.00
2017-2018	City Landscape Irrigation Conversion	Civic Center	$	8,000.00
2017-2018	City Landscape Turf Removal Project	Civic Center	$	12,000.00
		Total	**$**	**78,847.50**

The Ventura County Gardening website, http://www.venturacountygardening.com/, is a partnership project supported by several retail water agencies in the County. Through the MWD Funded / Member Agency – Administered Incentive Program, Calleguas pays the cost of the annual webhosting for their water retailers, including WWD8. This website was designed for Ventura County water customers as an online resource to learn about low water use plants that can thrive locally. Visitors may take a Virtual Garden Tour or visit the Garden Gallery for landscape inspiration. By simply clicking “Add to My List”, visitors can save a favorite plant or garden. The Resources section includes design and maintenance help, including how to reset an irrigation controller and how to find a landscape professional.

4.2 Planned DMMs to Reach Water Use Targets

WWD8 has met its SBx7-7 Compliance Water Use Target. WWD8 plans to keep GPCD low by continuing demand management measures and through purchase, installation, and management of the Eagle Aerial Solutions (EAS) developed software, Waterview.

The water efficiency requirements including SB 606 and AB 1668, part of the current Make Water Conservation a Way of Life program call for understanding water demands both agency

wide as well as by parcel. Each urban retail water agency, including WWD8, will be required to annually calculate its own water use objective. This objective requires WWD8 to forecast water use on a parcel-by-parcel basis, meeting irrigation demand and interior use demand measures regulated by the State. This level of analysis and understanding of the parcels that make up WWD8, their irrigated areas size, and the property's use is new to WWD8. While these requirements are not currently enforced, WWD8 will need to be fully prepared to implement and report on these measures by 2023.

WWD8 staff is planning to purchase software that would facilitate the analysis needed for reporting requirements. EAS has developed software named Waterview to facilitate this analysis required by the many water agencies operating in California. The Waterview software will analyze total water allocation at the parcel level, in compliance with new standards, and is configured to generate the reports required by the enforcement agency, DWR. The Waterview software will tabulate and calculate water use and efficiency from parcel level to District level, and will analyze water use trends, will track and report compliance and noncompliance with allocations within the WWD8 service are, which is inside and outside of the boundaries of the City of Simi Valley.

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Section 5: Water Quality

WWD8 is committed to providing a reliable supply of cost-effective, high quality drinking water for its customers. This section provides a general description of the water quality of both imported water and existing groundwater supplies. A discussion of potential water quality impacts on the reliability of these supplies is also provided.

5.1 Overview

The quality of water is dynamic in nature. This is true, for example, for the SWP water brought into the Simi Valley area via Calleguas. During periods of intense rainfall or snowmelt, routes of surface water movement are changed, and new constituents are mobilized and enter the water while other constituents are diluted or eliminated. These same basic principles apply to groundwater. For instance, depending on water depth and other factors, groundwater will pass through different layers of rock and sediment and leach different materials from those strata. Water quality is not a static feature of water, and these dynamic variables must be recognized as part of the water supply planning process.

Water quality regulations also change. This is the result of the discovery of new constituents, changing understanding of the health effects of previously known and new constituents, development of new analytical technology, and the introduction of new treatment technology. All water purveyors, including WWD8, are subject to drinking water standards set by the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board Division of Drinking Water.

Several state, regional and county agencies have jurisdiction and responsibility for monitoring water quality and contaminant sites. Programs administered by these agencies include basin management, waste regulation, contaminant cleanup, public outreach, and emergency spill response.

5.2 Imported Water Quality

Calleguas is WWD8's wholesale supplier for imported water from MWD. The source of SWP water is rain and snow from the west facing Sierra Nevada, Cascade, and Coastal mountain ranges. This water travels to the Sacramento-San Joaquin Delta, which is a network of natural and artificial channels and reclaimed islands at the confluence of the Sacramento and San Joaquin rivers. The Delta forms the eastern portion of the San Francisco estuary, receiving runoff from more than 40 percent of the state's land area. It is a low-lying region interlaced with hundreds of miles of waterways. From the Delta, the water is pumped into a series of aqueducts and reservoirs, which provides water to urban and agricultural users throughout the San Francisco Bay Area and Central and Southern California.

SWP water is generally of high quality. MWD tests its water for over 400 constituents and performs nearly 200,000 water quality tests annually on samples gathered throughout its vast distribution system to ensure that delivered water meets or surpasses all state and federal drinking water standards (MWD, 2020b). Challenges to the quality of SWP water include

impacts dues to seawater intrusion, agricultural drainage from peat soil islands in the Delta, municipal wastewater discharges, drought, and urban runoff. The water quality parameters of most concern are bromide and salinity. Levels of bromide in the water increase significantly as it moves through the Delta. Bromide can combine with chemicals used in the water treatment process to form bromate, which is considered to be a risk to human health at concentrations above the state and federal drinking water standards. Treated wastewater and urban runoff discharged from cities and towns surrounding the Delta also add salts to the water, which build up in local watersheds over time (Calleguas, 2016).

Imported water is treated, filtered, and disinfected at MWD's Jensen Filtration Plant in Granada Hills. From the Jensen Plant, treated water is conveyed by pipeline across the San Fernando Valley and into Ventura County via a pipeline tunneled through the Santa Susana Mountains. Calleguas also uses Lake Bard Reservoir to store high quality imported water. It is treated at the Lake Bard Water Filtration Facility before delivery (WWD8, 2020).

5.2.1 MWD Water Quality Contingency Planning

MWD is committed to public health protection and requires a safe drinking water supply from the Delta to meet current and future regulatory requirements. One of MWD's top priorities is to reduce total organic carbon (TOC), bromide concentrations, pathogenic microbes, and other contaminants from Delta water supplies. MWD is actively involved in DWR's Municipal Water Quality Investigations Program (MWQI), which strives to monitor, protect, and improve drinking water quality of Delta water through regular water quality monitoring, special field and laboratory studies, the use of forecasting tools such as computer models and data management systems, and reporting (Calleguas, 2016).

5.2.2 Calleguas Water Quality Contingency Planning

Calleguas stores SWP water, which is generally of good quality, in two major local storage facilities, (1) Lake Bard and (2) the Las Posas aquifer and storage recovery (ASR) facilities. Lake Bard is a relatively small reservoir that serves as a primary water supply, in the event of emergency or planned system outage. Lake Bard Reservoir is owned by Calleguas and access is restricted and continuously monitored by security cameras, therefore water quality contamination is unlikely. Water quality related issues related to groundwater stored via the Las Posas ASR could have an impact on the ability to meet demands and would likely be resolved with treatment upon extraction, if necessary. (Calleguas, 2016).

In its Draft 2020 Urban Water Management Plan, Calleguas lists several water quality challenges, but does not suggest a curtailment of supply due to water quality. Customers in WWD8 service area have grown accustomed to the very high quality of imported SWP water; however, getting local groundwater sources to meet these high expectations is challenging.

5.3 WWD8 Water Quality

Pursuant to applicable laws, an annual Water Quality Report, also known as a Consumer Confidence Report (CCR), is provided to all residents who receive water from WWD8. That report includes detailed information about the results of quality testing of the water supplied during the preceding year (WWD8 2020). The CCR is provided annually to the 26,000 homes and businesses within the community that WWD8 serves and includes a table of detailed water

quality data for MWD's Jensen Plan, Calleguas' Lake Bard Plant and the Tapo Canyon Treatment Plant. The data shows that the primary drinking water standards (mandatory health-related) are consistently met or exceeded (e.g., non-detect or below standards). The annual Water Quality Report is available at www.simivalley.org/WQR.

Potential major sources if detected in drinking water are generally related to constituents that are naturally present in the environment, erosion of natural deposits, runoff from irrigation, seawater influences, or byproducts from water treatment.

5.4 Groundwater Quality

The Simi Valley Basin's (and the Gillibrand Subbasin) primary water-bearing unit is alluvium, and therefore calcium sulfate and calcium-sodium sulfate are present in the groundwater. In addition, some shallower portions of the basin have experienced contamination with volatile organic compounds in some of the localized areas where source sites have been identified and are being addressed (Todd Groundwater 2016). Total dissolved solids (TDS) concentration in some locations in the basin is above 1,500 mg/l which is not suitable for potable use without treatment or substantial blending with higher quality water so that the TDS can be diluted.

The Gillibrand Groundwater Subbasin, located north of Simi Valley, is a source of drinking water for WWD8, accounting for 0.2% of the total water delivered within the service area. WWD8 currently obtains its groundwater from the Gillibrand subbasin of the Simi Valley Basin from two active wells (Nos. 31D and 32). WWD8's production wells meet all applicable Maximum Contaminant Levels (MCL's) post treatment.

WWD8 is committed to the ongoing monitoring and treatment to reduce hardness, total dissolved solids, and sulfates. One such measure was the construction of the Tapo Canyon Groundwater Treatment Plant (TCGWTP). WWD8 invested $5.2 million dollars to construct the TCGWTP. Construction of the TCGWTP was approved as part of the City of Simi Valley's Capital Improvement Program approved shortly after the 1994 earthquake. Completion of the TCGWTP has improved supply reliability by reducing dependence on imported water and provides another economical potable water supply source for WWD8 customers.

As described in section 3.3.4, in order to further develop the Simi Valley Basin as a potable water source WWD8 anticipates having to treat the groundwater to reduce its hardness, total dissolved solids, and other salt constituents. Treatment will result in a brine waste which will require disposal via the Calleguas Salinity Management Pipeline.

5.5 Water Quality Impacts on Reliability

The quality of water dictates what management strategies a water purveyor will implement, including, but not limited to, the selection of raw water sources, treatment alternatives, blending options, and modifications to existing treatment facilities. Maintaining and utilizing high quality sources of water simplifies management strategies by increasing water supply alternatives, water supply reliability, and decreasing the cost of treatment.

The SWP, which accounts for nearly 99% of WWD8's supply, provides a high-quality source of water for homes and businesses. SWP water quality and reliability is monitored and managed

by the Department of Water Resources, State Water Contractors (including MWD), SWP wholesalers (including Calleguas) and SWP retailers (including WWD8). Based on current conditions and knowledge, water quality is not anticipated to affect water supply reliability. However, water quality issues are constantly evolving. It is well recognized that water quality treatment can have significant costs. WWD8 will continue to work proactively to address water quality concerns in a timely manner to ensure safe drinking water is available to their customers.

Section 6: Water Service Reliability Planning

6.1 Overview

The Act requires urban water suppliers to assess water service reliability by comparing total projected water use against the expected water supply over the next twenty years in five-year increments. The Act also requires an assessment of supplies and demands in a single dry year and multiple dry years. This chapter summarizes the reliability assessment included in the Calleguas 2020 UWMP and presents the reliability assessment for the WWD8 service area during a normal water year, single dry year, and multiple dry years for the next twenty-five years.

6.2 Reliability Assessment

WWD8 a retail agency of Calleguas, (who is a Member Agency of MWD), relies on imported water for the majority of its supply. As discussed in Section 3.2.1, imported water supply reliability is addressed in MWD's 2020 UWMP and Calleguas' 2020 UWMP. The overriding goal of the MWD is to avoid reaching Shortage Stage 6 and Calleguas does not foresee imposing allocations except under direction from MWD.

The Calleguas 2020 UWMP included a Basis of Water Year Data (Reliability Assessment) table (similar to Table 6-1 below) that indicates the following available supplies for each year type: 100% for an average year, 100% for a single dry year supply and 100% for multiple dry years. Calleguas anticipates being able to deliver supplies to meet all customer demands in Normal, Single-Dry and Multiple-Dry Years.

Based on the available imported water from Calleguas, available groundwater from the Gillibrand Subbasin (1,100 AFY per Table 3-6), and projected recycled water use (57 to 80 AFY per Table 3-10), WWD8 has sufficient water supplies during a normal water year, single dry year and multiple dry years. Table 6-1 below provides the basis of water reliability for imported water and Table 6-2 provides the basis of water reliability for groundwater. Recycled water is considered "drought-proof" and would be available in all year types.

Table 6-1 Basis of Water Year Data (Imported Water Reliability Assessment) (AF)

(DWR Table 7-1)

			Available Supplies if Year Type Repeats
		x	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP Location Quantification of available supplies is provided in this table as either volume only, percent only, or both.
Year Type	**Base Year**	**Volume Available**	**% of Average Supply**
Average Year	1922-2017	19,855	100%
Single-Dry Year	1977	19,855	100%
Consecutive Dry Years 1st Year	1988	19,855	100%
Consecutive Dry Years 2nd Year	1989	19,855	100%
Consecutive Dry Years 3rd Year	1990	19,855	100%
Consecutive Dry Years 4th Year	1991	19,855	100%
Consecutive Dry Years 5th Year	1992	19,855	100%

Notes: This table reports supplies from the State Water Project. Basis of water year data taken from the Department of Water Resources, Technical Addendum to the State Water Project Final Delivery Capability Report 2019 (August 26, 2020) and Metropolitan Water District of Southern California 2020 Urban Water Management Plan (December 2020). Average-year supplies are the average of imported water supplies received from the State Water Project and Calleguas from 2010 – 2020.

Table 6-2 Groundwater Supplies Reliability Assessment

(DWR Table 7-1)

			Available Supplies if Year Type Repeats
		x	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP Location Quantification of available supplies is provided in this table as either volume only, percent only, or both.
Year Type	**Base Year**	**Volume Available**	**% of Average Supply**
Average Year	2018	1,100	100%
Single-Dry Year	2011	1,100	100%
Consecutive Dry Years 1st Year	2012	1,100	100%
Consecutive Dry Years 2nd Year	2013	1,100	100%
Consecutive Dry Years 3rd Year	2014	1,100	100%
Consecutive Dry Years 4th Year	2015	1,100	100%
Consecutive Dry Years 5th Year	2016	1,100	100%

Note: As discussed in Section 3.1, groundwater pumped from the Gillibrand Groundwater Subbasin is treated at the Tapo Canyon Treatment Plant, which has a capacity of 1 mgd, and could produce 1,100 AFY if run at full capacity. Historically the Tapo Canyon Treatment Plant has been used to supplement the District's potable water supply in the summer months when water demand is at the highest. If needed in the future, the plant could be operated year-round to reduce reliance on imported water purchases. The perennial yield of the Gillibrand Groundwater Subbasin is estimated to be 1,350 AFY (Geoscience, 2006).

6.3 Normal Water Year

The normal/average year is a year in the historical sequence that most closely represents median runoff levels and patterns. This section summarizes WWD8's water supplies available to meet demands over the 25-year planning period during a normal/average year and compares them to demands for the same period. Assumptions about supplies and demands are provided in Chapters 2 and 3. Table 6-3 demonstrates that WWD8 anticipates adequate supplies for years 2020 to 2045 under normal conditions.

Table 6-3 Normal Year Supply and Demand Comparison (AF)

(DWR Table 7-2)

	2025	2030	2035	2040	2045
Supply totals *(autofill from Table 6-9)*	22,546	24,328	26,261	28,352	28,352
Demand totals *(autofill from Table 4-3)*	20,950	22,606	24,399	26,341	26,341
Difference	**1,596**	**1,722**	**1,862**	**2,011**	**2,011**

6.4 Single Dry Year

The water supplies and demands for WWD8's service area over the 25-year planning period were analyzed in the event that a single-dry year occurs, similar to the drought that occurred in California in 1977. Table 6-4 summarizes the existing and planned supplies available to meet demands during a single-dry year. Demand during a single dry year is not anticipated to change.

Table 6-4 Single Dry Year Supply and Demand Comparison (AF)

(DWR Table 7-3)

	2025	2030	2035	2040	2045
Supply totals *(autofill from Table 6-9)*	22,546	24,328	26,261	28,352	28,352
Demand totals *(autofill from Table 4-3)*	20,950	22,606	24,399	26,341	26,341
Difference	**1,596**	**1,722**	**1,862**	**2,011**	**2,011**

6.5 Multiple Dry Year (5 years)

The water supplies and demands for WWD8's service area over the 25-year planning period were analyzed in the event that a four-year multiple-dry year event occurs, similar to the drought that occurred during the years 1988 to 1992. Table 6-5 summarizes the existing and planned supplies available to meet demands during multiple-dry years. Demand during dry years was assumed to increase by 5 percent. Table 6-5 demonstrates that WWD8 anticipates adequate supplies for years 2020 to 2045 under multiple-dry year conditions.

Table 6-5 Multiple-Dry Year Supply and Demand Comparison (AF)

(DWR Table 7-4)

Dry Years	Supply	2025	2030	2035	2040	2045
First year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	**1,614**	**1,747**	**1,894**	**2,051**	**2,051**
Second year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	**1,614**	**1,747**	**1,894**	**2,051**	**2,051**
Third year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	**1,614**	**1,747**	**1,894**	**2,051**	**2,051**
Fourth year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	**1,614**	**1,747**	**1,894**	**2,051**	**2,051**
Fifth year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	**1,614**	**1,747**	**1,894**	**2,051**	**2,051**

6.6 Drought Risk Assessment

The Water Code requires that every urban water supplier include in its UWMP, a drought risk assessment for its water service to its customers. This is to benefit and inform the demand management measures and water supply projections and programs to be included in the UWMP.

6.6.1 Data and Methodologies Used

6.6.1.1 Water Demands

The water demands for this UWMP utilize water demand forecast developed in February 2021 based on extensive data on existing land use and water demands and projected land uses. The water demand estimates changes in demand due to water conservation and codes and standards that have occurred over time. Using the anticipated land uses and associated water demand factors, WWD8 has estimated water demands from 2021 through 2025, as shown in Table 6-6.

6.6.1.2 Water Supplies

This Drought Risk Assessment looks at all the water supplies anticipated to be available in a 5-year consecutive drought, from 2021 to 2025, including any limitations due to infrastructure and regulations.

Imported Water

WWD8 is retailer of Calleguas Municipal Water District (Calleguas), who is a retailer of the Metropolitan Water District of Southern California. Calleguas' draft 2020 UWMP (Calleguas 2020), states that it will be able to meet all purveyor demands during normal, dry, and single-dry years. WWD8 has no maximum amount it can receive from the State Water Project, therefore supplies are anticipated to meet and exceed demands.

Groundwater

WWD8 pumps groundwater from the Gillibrand Subbasin, a subbasin of the Simi Valley Basin, which has maximum yield of 1,350 AFY. Currently, WWD8 has the ability to pump and treat 1,100 AF annually. WWD8 anticipates the ability to maximize groundwater extraction and treatment during a normal, single-dry, or multiple-dry year, if needed.

Recycled Water

WWD8 anticipates being able to deliver up to 76 AF or recycled water in 2021 even in a drought year. WWD8 expects that recycled water will not be affected by drought cycles and single-dry and multiple-dry year scenarios, as there is excess wastewater production compared to recycled water demand. Currently, there are no future plans to expand the recycled water distribution system.

Table 6-6 Five-Year Drought Risk Tables (AF)

(DWR Table 7-5)

2021	Total
Gross Water Use	19,697
Total Supplies	20,618
Surplus/Shortfall w/o WSCP Action	921
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	
Resulting % Use Reduction from WSCP action	NA
2022	**Total**
Gross Water Use [Use Worksheet]	20,258
Total Supplies [Supply Worksheet]	21,353
Surplus/Shortfall w/o WSCP Action	1,095
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	
Resulting % Use Reduction from WSCP action	NA
2023	**Total**
Gross Water Use [Use Worksheet]	21,820
Total Supplies [Supply Worksheet]	22,087
Surplus/Shortfall w/o WSCP Action	1,267
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	
Resulting % Use Reduction from WSCP action	NA
2024	**Total**
Gross Water Use [Use Worksheet]	21,382
Total Supplies [Supply Worksheet]	22,822
Surplus/Shortfall w/o WSCP Action	1,440
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	
Resulting % Use Reduction from WSCP action	NA
2025	**Total**
Gross Water Use [Use Worksheet]	21,943
Total Supplies [Supply Worksheet]	23,557
Surplus/Shortfall w/o WSCP Action	1,614
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	
Resulting % Use Reduction from WSCP action	NA

6.7 Summary of Comparisons

As shown in the analyses above, WWD8 has adequate supplies to meet demands during average, single-dry, and multiple-dry years throughout the 25-year planning period.

Section 7: Water Shortage Contingency Planning

WWD8 has prepared a separate stand-alone Water Shortage Contingency Plan (WSCP), contained in Appendix J. The WSCP was adopted by the Board on [TBD] This section includes a brief description summary of the WSCP and includes the drought risk assessment required by the UWMP Guidelines.

7.1 Purpose of the WSCP

WWD8 has developed a WSCP to provide guidance if triggering events occur — whether from reduced supply, increased demand, or an emergency declaration — and to identify corresponding actions to be taken during the various stages of a water shortage. The plan includes voluntary and mandatory stages which are intended to be fair to all water customers and users while having the least impact on business, employment, and quality of life for residents.

7.2 Annual Assessment

New provisions in Water Code Section 10632.1. require that an urban water supplier such as WWD8, conduct an annual water supply and demand assessment ("Annual Assessment"), on or before July 1 of each year, to be submitted to DWR. As part of the WSCP, WWD8 has identified the timeline, staff and outside agency coordination, and other actions necessary to conduct the Annual Assessment.

7.3 Shortage Stages

The WSCP describes six water shortage stages corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage.

7.4 Water Shortage Response Actions

The WSCP identifies water shortage response actions, including:

- Communication with customers
- Public outreach
- Supply augmentation
- Operational changes
- Customer demand reduction measures (including enforcement)
- Monitoring of production and demand

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1 June 2021

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APPENDICES

2020 Urban Water Management Plan

Waterworks District No. 8

City of Simi Valley

City of Simi Valley
Waterworks District No. 8

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Appendix A: UWMP Checklist

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DWR Checklist for 2020 UWMP
Checklist Arranged by Subject

Water Code Section	Summary as Applies to UWMP	Subject	2020 Guidebook Location	2020 UWMP Location *(e.g. Section(s), page number(s), table/figure number(s) or briefly describe why CWC section does not apply)*
10608.20(e)	Retail suppliers shall provide 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.	Baselines and Targets	Chapter 5	Section 2.3, pages 2-3 to 2-8 Tables 2-4 to 2-9
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	Section 2.3, pages 2-3 to 2-8 Table 2-8
10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5.7	Section 2.3.4; page 2-7 and 2-8 Table 2-9
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Sections 5.2 and 5.5.7	Not applicable; no adjustments were applied.
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use	Baselines and Targets	Section 5.1	Not applicable; WWD8 is a retail supplier.
10608.4	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	Section 2.3, pages 2-3 to 2-8 Tables 2-4 to 2-9 Appendix F: SBx7-7 Verification Tables and DWR Population Tool Output
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.	Demand Management Measures	Sections 9.2 and 9.3	Section 4.1: pages 4-1 to 4-13 Tables 4-1 to 4-9
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	Sections 9.1 and 9.3	Not applicable; WWD8 is a retail supplier.
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Chapter 10	Appendix C
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.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	Sections 1.4.2 and 1.4.3; pages 1-5 and 1-6; Tables 1-5 and 1-6.
10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	Appendix C
10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Sections 8.12, 10.4	Appendix C
10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	Section 1.4; pages 1-4 to 1-6; Tables 1-4 to 1-6. Appendix C: City of Simi Valley/WWD8 Adoption of the 2020 UWMP Appendix D: Outreach Materials

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.	Plan Adoption, Submittal, and Implementation	Section 10.2	Section 1.4; page 1-4 to 1-6; Table 1-6.
10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	Section 1.4; pages 1-4 to 1-6; Tables 1-4 to 1-6. Appendix C: City of Simi Valley/WWD8 Adoption of the 2020 UWMP
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.5	Appendix C
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.5	Section 1.4; pages 1-4 to 1-6; Table 1-5.
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	Appendix D
10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	Section 1.4; pages 1-4 to 1-6; Tables 1-5 and 1-6. Appendix C: City of Simi Valley/WWD8 Adoption of the 2020 UWMP Appendix D: Outreach Materials
10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	Section 1.4; pages 1-4 to 1-6; Tables 1-5 and 1-6. Appendix C: City of Simi Valley/WWD8 Adoption of the 2020 UWMP Appendix D: Outreach Materials
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1	WWD8 complies with this provision
10620(d)(2)	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.	Plan Preparation	Section 2.5.2	Section 1.4; pages 1-4 to 1-6; Tables 1-5 and 1-6. Appendix C: City of Simi Valley/WWD8 Adoption of the 2020 UWMP Appendix D: Outreach Materials
10642	Provide supporting documentation that the water 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 2.6	Section 1.4; pages 1-4 to 1-6; Tables 1-5 and 1-6 Appendix D: Outreach Materials
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.	Summary	Chapter 1	Section 1; Pages 1-1 to 1-12.
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	Section 1.5; pages 1-6 to 1-7. Figure 1-1
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	Section 1.9; pages 1-9 to 1-10. Table 1-8
10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3.4	Section 1.6; page 1-8. Table 1-7
10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	Section 1.7; pages 1-8 to 1-9.
10631(a)	Describe the land uses within the service area.	System Description	Section 3.5	Section 1.8; page 1-9.
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	Section 1.6; page 1-8. Table 1-7
10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 6.2.8	Section 3; pages 3-1 to 3-14. Tables 3-1 to 3-14.
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	Section 3.3; pages 3-4 to 3-7. Tables 3.4 and 3.6 and Figure 3-2.

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.	System Supplies	Section 6.2	Section 3.7; pages 3-11 to 3-14. Tables 3-12 to 3-14
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	Section 6.1	Sections 3.1 to 3.5; pages 3-1 to 3-10. Tables 3-1 and 3-10.
10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 6.1	Section 3.6: pages 3-10 to 3-11.
10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2	Section 3.3; pages 3-4 to 3-7. Tables 3.4 to 3.6 and Figure 3-2.
10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6.2.2	Section 3.3; pages 3-4 to 3-7. Tables 3.4 to 3.6 and Figure 3-2.
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 6.2.2	Not applicable; The local groundwater basin (the Gillibrand Basin) is not adjudicated
10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater	System Supplies	Section 6.2.3	Section 3.3; pages 3-6 and 3-7.
10631(b)(4)(C)	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	System Supplies	Section 6.2.4	Section 3.3; pages 3-4 to 3-7. Tables 3.4 to 3.6 and Figure 3-2.
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 6.2	Section 3.3; page 3-6. Table 3.6.
10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6.7	Section 3.6.1 and 3.6.2; pages 3-10 to 3-11.
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 5 consecutive water years.	System Supplies	Section 6.8	Section 3.6: pages 3-10 to 3-11.
10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	Section 3.6.4; page 3-11.
10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 2.5.1	Appendix D
10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	Not applicable; WWD8 is a retail supplier.
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 6.2	Section 3.4; pages 3-7 and 3-8. Tables 3-7 and 3-8.
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.2	Section 3.5; pages 3-9 and 3-10 Tables 3-9 and 3-10.
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 6.2	Section 3.5; pages 3-9 and 3-10 Tables 3-9 and 3-10.

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.	System Supplies (Recycled Water)	Section 6.2	Section 3.5; pages 3-9 and 3-10 Tables 3-9 and 3-10.
10633(f)	Describe the actions 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.	System Supplies (Recycled Water)	Section 6.2	Section 3.5; pages 3-9 and 3-10 Tables 3-9 and 3-10.
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.2	Section 3.5; pages 3-9 and 3-10 Tables 3-9 and 3-10.
10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	Sections 2.1 and 2.2; pages 2-1 to 2-3. Tables 2-1 to 2.3. Sections 2.4 and 2.5; pages 2-8 to 2-16. Tables 2-10 to 2-19.
10631(d)(3)(A)	Report the distribution system water loss for for each of the 5 years preceding the plan update.	System Water Use	Section 4.3	Sections 2.2.2 and 2.2.3; pages 2-2 and 2-3. Table 2-2 and 2-3.
10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4.2	Section 2.2.2; pages 2-2 and 2-3 Table 2-2
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	Section 2-5; pages 2-15 to 2-16. Tables 2-18 and 2-19.
10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Chapter 8	Appendix J: 2020 Water Shortage Contingency Plan
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	Section 8.2	Appendix J; WSCP Section 2, pages 2-1 to 2-5, Tables 2-1 and 2-2
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	Section 8.2	Appendix J; WSCP Section 2, pages 2-1 to 2-5, Tables 2-1 and 2-2
10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent 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	Section 8.3	Appendix J; WSCP Section 4, pages 4-1 to 4-4, Table 4-1 and Figure 4-1
10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	Section 8.3	Appendix J; WSCP Section 4, page 4-1, Table 4-1 and Appendix A
10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	Section 8.4	Appendix J; WSCP Section 4.1, page 4-1, Table 4-1 and Appendix A
10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Section 8.4	Appendix J; WSCP Section 5.2, pages 5-2 and 5-3 Table 5-2
10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Section 8.4	Appendix J; WSCP Section 5.3, pages 5-3 to 5-5 Table 5-3
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	Section 8.4	Appendix J; WSCP Section 5.5, pages 5-9 and 5-10 Table 5-3
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	Section 8.4	Appendix J; WSCP Section 5.6, pages 5-10 to 5-15 Table 5-5
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	Section 8.5	Appendix J; WSCP Section 6, pages 6-1 and 6-2 Table 6-1

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	Section 8.5, 8.6	Appendix J; WSCP Section 6, pages 6-1 and 6-2 Table 6-1
10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Section 8.7	Appendix J; WSCP Section 4.4, page 4-4
10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	Section 8.7	Appendix J; WSCP Section 4.4, page 4-4
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	Section 8.7	Appendix J; WSCP Sections 1.5 and 1.4, pages 1-2 and 1.3, Section 2.5.1, page 2-5
10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 8.8	Appendix J; WSCP Section 8.1, pages 8-1 to 8-2, Table 8-1
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	Section 8.8	Appendix J; WSCP Section 8.2, pages 8-2 to 8-4, Tables 8-2 and 8-3
10632(a)(8)(C)	Describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought.	Water Shortage Contingency Planning	Section 8.8	Appendix J; WSCP Section 8.3, page 8-4, Table 8-4
10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Section 8.9	Appendix J; WSCP Section 9, pages 9-1 and 9-2, Table 9-1
10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Section 8.10	Appendix J; WSCP Section 1.8, page 1-4, Section 4.4, page 4-4
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	Section 8.11	Appendix J; WSCP Section 5.2, pages 5-2 and 5-3, Table 5-2, Section 5.5, page 5-9, and Appendix A
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 7.4	Section 3; pages 3-1 to 3-12.
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	Chapter 7	Section 5; pages 5-1 to 5-4.
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3	Section 6; pages 6-1 to 6-5. Tables 6-1 to 6-5.
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 7.3	Section 6.5; pages 6-6 to 6-7 Table 6-6.
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 5 consecutive years.	Water Supply Reliability Assessment	Section 7.3	Sections 6.2: pages 6-2 and 6-3. Sections 6.5 and 6.7; pages 6-4 and 6-7 Section 7; page 7-1. Appendix J: 2020 Water Shortage Contingency Plan
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	Section 3.2.1; pages 3-2 to 3-4. Table 3-3 and Figure 3-1.
10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7.3	Section 6; pages 6-1 to 6-7. Tables 6-1 to 6-6.
10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change condition, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 7.3	Section 1.2.2; pages 1-2 to 1-3. Section 1.10; pages 1-10 to 1-12. Sections 2.4.4 and 2.4.5; pages 2-11 to 2-15 Section 3.7; pages 3-11 to 3-13

10631.2(a)	The UWMP must include energy intensity information as stated in the code.	System Suppliers, Energy Intensity	Section 6.4 and Appendix O	Section 3.8; pages 3-13. Table 3-14.

Appendix B: Standardized Tables

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Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
Add additional rows as needed			
CA5610023	Ventura County Waterworks WWD8	26,438	19,192
	TOTAL	26,438	19,192
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* (select from drop down list)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
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 drop down)	
Unit	AF
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES: WWD8 is a retailer of Calleguas Municipal Water District	

Submittal Table 2-4 Retail: Water Supplier Information Exchange
The retail Supplier has informed the following wholesale supplier(s) of projected water use in accordance with Water Code Section 10631.
Wholesale Water Supplier Name
Add additional rows as needed
Calleguas Municipal Water District
NOTES:

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045*(opt)*
	94,738	97,059	99,437	101,873	104,369	104,369
NOTES:						

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
Use Type	2020 Actual		
Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Add additional rows as needed			
Single Family			10,752
Multi-Family			1,118
Commercial			1,019
Industrial			54
Institutional/Governmental			475
Landscape			3,750
Groundwater recharge			
Saline water intrusion barrier			
Agricultural irrigation			120
Wetlands or wildlife habitat			
Sales/Transfers/Exchanges to other agencies			1,099
Losses			748
		TOTAL	19,135

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.*
Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3. [2]

NOTES:

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected						
Use Type	Additional Description (as needed)	Projected Water Use[2] *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		2025	2030	2035	2040	2045 (opt)
Add additional rows as needed						
Single Family		12,119	13,140	14,243	15,441	15,441
Multi-Family		1,518	1,646	1,784	1,934	1,934
Commercial		877	951	1,031	1,118	1,118
Industrial		51	55	60	65	65
Institutional/Governmental		516	559	606	657	657
Landscape		3,754	4,070	4,412	4,783	4,783
Groundwater recharge						
Saline water intrusion barrier						
Agricultural irrigation		120	120	120	120	120
Wetlands or wildlife habitat						
Sales/Transfers/Exchanges to other agencies		1,099	1,099	1,099	1,099	1,099
Losses		820	890	964	1,044	1,044
TOTAL		20,874	22,530	24,319	26,261	26,261

[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*

NOTES:

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable *From Tables 4-1R and 4-2 R*	19,135	20,874	22,530	24,319	26,261	26,261
Recycled Water Demand[1] *From Table 6-4*	57	76	76	80	80	80
Optional Deduction of Recycled Water Put Into Long-Term Storage[2]						
TOTAL WATER USE	19,192	20,950	22,606	24,399	26,341	26,341

[1] Recycled water demand fields will be blank until Table 6-4 is complete *[2]*
*Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*

NOTES:

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss [1,2]
01/2015	1034
01/2016	534
01/2017	1018
01/2018	263
01/2019	1,003
[1] *Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.* [2] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *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.	
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES:	

Submittal Table 5-1 Baselines and Targets Summary
From SB X7-7 Verification Form
Retail Supplier or Regional Alliance Only

Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	*SB X7-7 Table 1*	*SB X7-7 Table 1*	*SB X7-7 Table 5*	*SB X7-7 Table 7-F*
5 Year	*SB X7-7 Table 1*	*SB X7-7 Table 1*	*SB X7-7 Table 5*	

**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

Submittal Table 5-2: 2020 Compliance **SB X7-7 2020 Compliance Form** *Retail Supplier or Regional Alliance Only*				**From**
2020 GPCD				
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*	2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
SB X7-7 Table 9	*SB X7-7 Table 9*	*SB X7-7 Table 9*	*SB X7-7 Table 9*	*SB X7-7 Table 9*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

Submittal Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
☐	All or part of the groundwater described below is desalinated.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Add additional rows as needed						
Alluvial Basin	Gillibrand Subbasin	376.6	4.7	34.6	75.07	100.15
	TOTAL	377	5	35	75	100
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020	
☐	There is no wastewater collection system. The supplier will not complete the table below.
68	Percentage of 2020 service area covered by wastewater collection system *(optional)*
	Percentage of 2020 service area population covered by wastewater collection system *(optional)*

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
City of Simi Valley Sanitation Department	Metered	8,876	City of Simi Valley Sanitation Department	City of Simi Valley Water Quality Control Plant	Yes	No
Total Wastewater Collected from Service Area in 2020:		8,876				

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

NOTES:

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020

☐	**No wastewater is treated or disposed of within the UWMP service area.** The supplier will not complete the table below.

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)* [2]	Method of Disposal ***Drop down list***	Does This Plant Treat Wastewater Generated Outside the Service Area? ***Drop down list***	Treatment Level ***Drop down list***	2020 volumes [1]				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
Simi Valley Water Quality Control	River Outfall to Arroyo Simi	River Outfall		River or creek outfall	No	Tertiary	8,876	7,918	56		
						Total	8,876	7,918	56	0	0

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

[2] If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility

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

☐	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Name of Supplier Producing (Treating) the Recycled Water:	City of Simi Valley
Name of Supplier Operating the Recycled Water Distribution System:	City of Simi Valley
Supplemental Water Added in 2020 (volume) *Include units*	
Source of 2020 Supplemental Water	

Beneficial Use Type *Insert additional rows if needed.*	**Potential** Beneficial Uses of Recycled Water (Describe)	Amount of **Potential** Uses of Recycled Water (Quantity) *Include volume units* [1]	General Description of 2020 Uses	Level of Treatment *Drop down list*	2020 [1]	2025 [1]	2030 [1]	2035 [1]	2040 [1]	2045 [1] (opt)
Agricultural irrigation										
Landscape irrigation (exc golf courses)				Tertiary	10	10	10	10	10	10
Golf course irrigation										
Commercial use										
Industrial use				Tertiary	47	66	66	70	70	70
Geothermal and other energy production										
Seawater intrusion barrier										
Recreational impoundment										
Wetlands or wildlife habitat										
Groundwater recharge (IPR)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
				Total:	57	76	76	80	80	80
				2020 Internal Reuse						

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

NOTES:

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual

☐	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.

Beneficial Use Type	2015 Projection for 2020 [1]	2020 Actual Use[1]
Insert additional rows as needed.		
Agricultural irrigation	0	
Landscape irrigation (exc golf courses)	597	10
Golf course irrigation	639	
Commercial use	2	
Industrial use	102	47
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	1,340	57

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

NOTE:

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☑	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
Pg. 3-9	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
Add additional rows as needed			
		Total	0
Units of measure (AF, CCF, MG) *must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☑	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☐	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.					
Pg. 3-10	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List*	Expected Increase in Water Supply to Supplier* *This may be a range*
	Drop Down List (y/n)	*If Yes, Supplier Name*				
Add additional rows as needed						
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Submittal Table 6-8 Retail: Water Supplies — Actual				
Water Supply		2020		
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	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Purchased or Imported Water		19,726	Drinking Water	
Groundwater (not desalinated)		100	Other Non-Potable Water	
Recycled Water		57	Recycled Water	
Total		19,883		0
Units of measure (AF, CCF, MG) *must remain consistent throughout the UWMP as reported in Table 2-3.*				
NOTES:				

Submittal Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply * Report To the Extent Practicable									
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		**2025**		**2030**		**2035**		**2040**		**2045** (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Purchased or Imported Water		21,370		23,152		25,081		27,172		27,172	
Groundwater (not desalinated)		1,100		1,100		1,100		1,100		1,100	
Recycled Water		76		76		80		80		80	
	Total	22,546	0	24,328	0	26,261	0	28,352	0	28,352	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*											
NOTES											

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
Year Type	**Base Year** If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	**Available Supplies if Year Type Repeats**	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☐	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	**% of Average Supply**
Average Year	1922-2017	19855	100%
Single-Dry Year	1977	19855	100%
Consecutive Dry Years 1st Year	1988	19855	100%
Consecutive Dry Years 2nd Year	1989	19855	100%
Consecutive Dry Years 3rd Year	1990	19855	100%
Consecutive Dry Years 4th Year	1991	19855	100%
Consecutive Dry Years 5th Year	1992	19855	100%

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

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

NOTES:

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 *(Opt)*
Supply totals (*autofill from Table 6-9)*	22,546	24,328	26,261	28,352	28,352
Demand totals *(autofill from Table 4-3)*	20,950	22,606	24,399	26,341	26,341
Difference	1,596	1,722	1,862	2,011	2,011
NOTES:					

Submittal Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 (Opt)
Supply totals*	22,546	24,328	26,261	28,352	28,352
Demand totals*	20,950	22606	24,399	26,341	26,341
Difference	1,596	1,722	1,862	2,011	2,011
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES:					

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	1,614	1,747	1,894	2,051	2,051
Second year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	1,614	1,747	1,894	2,051	2,051
Third year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	1,614	1,747	1,894	2,051	2,051
Fourth year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	1,614	1,747	1,894	2,051	2,051
Fifth year	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	1,614	1,747	1,894	2,051	2,051
Sixth year *(optional)*	Supply totals	23,557	25,423	27,448	29,638	29,638
	Demand totals	21,943	23,676	25,554	27,587	27,587
	Difference	1,614	1,747	1,894	2,051	2,051
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

Note: Totals can be entered directly or from the Optional Planning T

Submittal Table 7-5: Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)

2021	Total
Total Water Use	19,697
Total Supplies	20,618
Surplus/Shortfall w/o WSCP Action	921
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	921
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	20,258
Total Supplies	21,353
Surplus/Shortfall w/o WSCP Action	1,095
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	1,095
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	20,820
Total Supplies	22,087
Surplus/Shortfall w/o WSCP Action	1,267
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	1,267
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	21,382
Total Supplies	22,822
Surplus/Shortfall w/o WSCP Action	1,440
Planned WSCP Actions (use reduction and supply augmentation)	

WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	1,440
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	21,943
Total Supplies	23,557
Surplus/Shortfall w/o WSCP Action	1,614
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	1,614
Resulting % Use Reduction from WSCP action	0%

Submittal Table 8-1
Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions (*Narrative description*)
1	Up to 10%	**Minor Shortage;** corresponds to Simi Valley Municipal Code Level 1 water supply shortage where a threatened shortage exists and a consumer demand reduction, up to ten (10%) percent, is requested to make more efficient use of water and to appropriately respond to existing water conditions.
2	Up to 20%	**Moderate;** corresponds to Simi Valley Municipal Code Level 2 water supply shortage where a threatened shortage exists and a mandatory consumer demand reduction, up to twenty (20%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions.
3	Up to 30%	**Severe Shortage;** corresponds to the start of Simi Valley Municipal Code Level 3 water supply shortage where a threatened shortage exists and a mandatory consumer demand reduction, up to thirty (30%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions.
4	Up to 40%	**Critical Shortage;** corresponds to the middle of Simi Valley Municipal Code Level 3 water supply shortage where a threatened shortage exists and a mandatory consumer demand reduction, up to fourty (40%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions.
5	Up to 50%	**Emergency Shortage;** corresponds to the end of Simi Valley Municipal Code Level 3 water supply shortage where a threatened shortage exists and a mandatory consumer demand reduction, up to fifty (50%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions.
6	>50%	**Catastrophic Failure;** corresponds to Simi Valley Municipal Code Level 4 water supply shortage where a water shortage emergency exists mandatory reduction in consumer demand of fifty (50%) or more is necessary to maintain sufficient water supplies for public health and safety.

NOTES:

DRAFT Submittal Table 8-2: Demand Reduction Actions				
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 to you.*	How much is this going to reduce the shortage gap? *Include volume units used.*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
Add additional rows as needed				
1	Landscape - Other landscape restriction or prohibition	875	Assumes savings of 10% for outdoor use during Stage I for limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
1	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
1	Expand Public Information Campaign	390	Assume additional savings of 2% during Stage I and II (DWR, 2008) through effective public communication	Yes
1	Other	540	Assumes savings of 5% on non-landscape uses during Stage I for voluntary and other restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
2	Landscape - Other landscape restriction or prohibition	2,890	Assumes savings of 33% for outdoor use during Stage II for restricting water use to twice a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
2	Expand Public Information Campaign	390	Assume additional savings of 2% during Stage I and II (DWR, 2008) through effective public communication	Yes
2	Other	1,080	Assumes savings of 10% on non-landscape uses during Stages II and III for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
3	Landscape - Other landscape restriction or prohibition	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
3	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
3	Expand Public Information Campaign	980	Assume additional savings of 10% during Stage III and IV (DWR, 2008) through effective public communication	Yes
3	Other	1,080	Assumes savings of 10% on non-landscape uses during Stages II and III for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
4	Landscape - Other landscape restriction or prohibition	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
4	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
4	Expand Public Information Campaign	980	Assume additional savings of 10% during Stage III and IV (DWR, 2008) through effective public communication	Yes
4	Implement or Modify Drought Rate Structure or Surcharge	1,950	Assumes savings of 10% during Stage IV (AWWA 2008)	Yes
4	Other	1,080	Assumes savings of 10% on non-landscape uses during Stages II and III for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
5	Landscape - Other landscape restriction or prohibition	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes

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 to you.*	How much is this going to reduce the shortage gap? *Include volume units used.*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
5	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	530	Assumes savings of 6% of indoor use (EPA 2017). Only applies once AMI and customer portal is in place (Stage V and VI)	Yes
5	Expand Public Information Campaign	1,950	Assume additional savings of 20% during Stage V and VI (DWR, 2008) through effective public communication	Yes
5	Implement or Modify Drought Rate Structure or Surcharge	2,930	Assumes savings of 15% during Stage V-VI (AWWA 2008)	Yes
5	Other	1,620	Assumes savings of 15% on non-landscape uses during Stages IV and VI for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
	Landscape - Other landscape restriction or prohibition	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
6	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	530	Assumes savings of 6% of indoor use (EPA 2017). Only applies once AMI and customer portal is in place (Stage V and VI)	Yes
6	Expand Public Information Campaign	1,950	Assume additional savings of 20% during Stage V and VI (DWR, 2008) through effective public communication	Yes
6	Implement or Modify Drought Rate Structure or Surcharge	2,930	Assumes savings of 15% during Stage V-VI (AWWA 2008)	Yes
6	Other	1,620	Assumes savings of 15% on non-landscape uses during Stages IV and VI for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes

NOTES: Volumes represent the maximum potential reduction that could be achieved based on the percentages provided in cited literature and WWD8's landscape and non-landscape use.

Submittal Table 8-3: Supply Augmentation and Other Actions			
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? *Include units used (volume type or percentage)*	Additional Explanation or Reference *(optional)*
Add additional rows as needed			
2	Decrease Line Flushing	20	- Decrease water distribution line flushing
3	New recycled water	30	- Expand recycled water use
3	Other actions (describe)	370	- Increase Tapo Canyon Treatment Plant water production (local groundwater)
4	Other actions (describe)	570	- Increase Tapo Canyon Treatment Plant water production (local groundwater)
5	Other actions (describe)	770	- Increase Tapo Canyon Treatment Plant water production (local groundwater)
6	Other actions (describe)	970	- Increase Tapo Canyon Treatment Plant water production (local groundwater)
NOTES:			

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
City of Simi Valley	Yes	Yes
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Ventura County	Yes	Yes
NOTES:		

Appendix C: Adoption of the 2020 UWMP

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RESOLUTION NO. WWD-283

A RESOLUTION OF THE BOARD OF DIRECTORS OF VENTURA COUNTY WATERWORKS DISTRICT NO. 8 ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN AND 2020 WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et. Seq., known as the Urban Water Management Planning Act) during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually prepare an Urban Water Management Plan (UWMP), the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, the California Water Code Section 10632, requires that every urban water supplier shall prepare and adopt a Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan; and

WHEREAS, Ventura County Waterworks District No. 8 (District) is an urban supplier of water providing water to over 90,000 customers; and

WHEREAS, the Plan shall be periodically reviewed at least once every five years, and the District shall make any amendments to the Plan which are indicated by the review; and

WHEREAS, the Plan must be adopted by July 1, 2021, after public review and hearing, and filed with the California Department of Water Resources within thirty days of adoption; and

WHEREAS, the District has, therefore, prepared and circulated for public review the 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan and properly noticed the public hearing regarding the UWMP and WSCP that was conducted by the Board of Directors on May 17, 2021.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF VENTURA COUNTY WATERWORKS DISTRICT NO. 8 DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan is hereby adopted and ordered filed with the District Secretary.

SECTION 2. The District Manager is hereby authorized and directed to file the UWMP update and WSCP with the California Department of Water Resources by July 1, 2021.

SECTION 3. The District Manager is hereby authorized to promote the implementation of the Water Conservation Programs as detailed in the adopted 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan, including recommendations to the District's Board of Directors regarding necessary procedures, rules, and regulations to carry out effective and equitable water conservation programs;

SECTION 4. The District Secretary shall certify to the adoption of this resolution and shall cause a certified resolution to be filed in the Office of the District Secretary.

PASSED and ADOPTED this 17th day of May 2021.

Attest:

DocuSigned by:
Lucy Blanco
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Lucy Blanco, District Secretary

DocuSigned by:
Keith L. Mashburn
531EA02D0F45436...
Keith L. Mashburn, Chair of the Ventura County Waterworks District No. 8

Approved as to Form:

DocuSigned by:
Lonnie J. Eldridge
8FE880C613FF47F...
Lonnie J. Eldridge, District Counsel

Approved as to Content:

DocuSigned by:
Brian Paul Gabler
5B40FE61851E453...
Brian P. Gabler, District Manager

DocuSigned by:
Ronald K. Fuchiwaki
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Ronald K. Fuchiwaki,
Public Works Director

RES. NO. WWD-283

CERTIFICATION

I, District Secretary of the Ventura County Waterworks District No. 8, hereby certify that the foregoing is a full, true, and correct copy of Resolution No. WWD-283 which was regularly introduced and adopted by the Board of Directors of Ventura County Waterworks District No. 8, at a regular meeting thereof held on the 17th day of May 2021, by the following vote of the Board of Directors:

AYES:	Directors Litster, Luevanos, Judge, Vice-Chair Cavanaugh and Chair Mashburn
NAYS:	None
ABSENT:	None
ABSTAINED:	None

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of Simi Valley, California, dated May 19, 2021.

DocuSigned by:
Lucy Blanco
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Lucy Blanco
District Secretary

Appendix D: Outreach Materials

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Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

December 28, 2020

Calleguas Municipal Water District
Attn: Dan Drugan
Manager of Resources Administrator
2100 Olsen Road
Thousand Oaks, CA 91360

SUBJECT: 2020 Urban Water Management Plan and Water Shortage Event Contingency Plan for Waterworks District No. 8

Dear Mr. Drugan,

The City of Simi Valley's Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

The Urban Water Management Planning Act requires every "urban water supplier" of a certain size to prepare and adopt an Urban Water Management Plan (UWMP) at least once every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. A complete UWMP is necessary for WWD8 to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2020 UWMP will include an update of anticipated water demands in the WWD8 service area, and will also include data on WWD8's past and planned use of Delta water, including years 2010 and 2015, to demonstrate reliance on water supplies from the Delta.

WWD8 is encouraging participation by land use agencies, water use agencies, and other interested parties in the UWMP. WWD8 would like to extend to your agency an opportunity to meet with us to go over the various elements of the UWMP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation program.

A draft UWMP will be available for public review starting in late April 2021 and WWD8 will hold a public hearing in late May or early June 2021, prior to adoption of the UWMP. Your review and input are therefore invited in the near future.

Concurrent with the UWMP Update, WWD8 will update the Water Shortage Contingency Plan consistent with California Water Code Section 10632 and Section 10635. The Water Code states that water agencies must develop a water shortage contingency plan to prepare for the event of drought as well as other shortage scenarios. The contingency plan must demonstrate the ability of a water agency to meet demands under a supply shortage of up to

50 percent and greater than 50 percent of the current supply. Emphasis is placed on protection of public health, sanitation, fire protection, and general public welfare.

If you or your agency would like more information on the WWD8 2020 UWMP Update or the Water Shortage Contingency Plan Update, please contact me by phone (805) 583-6767, or by email melorde@simivalley.org**.**

Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

December 28, 2020

Golden State Water Company
Attn: Mark Zimmer
General Manager
4680 E. Los Angeles Ave, Suite H
Simi Valley, CA 93063

SUBJECT: 2020 Urban Water Management Plan and Water Shortage Event Contingency Plan for Waterworks District No. 8

Dear Mr. Zimmer,

The City of Simi Valley's Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

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If you or your agency would like more information on the WWD8 2020 UWMP Update or the Water Shortage Contingency Plan Update, please contact me by phone (805) 583-6767, or by email melorde@simivalley.org**.**

Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

December 28, 2020

Las Virgenes Municipal Water District
Attn: David Pederson
General Manager
4332 Las Virgenes Rd
Calabasas, CA 91302

SUBJECT: 2020 Urban Water Management Plan and Water Shortage Event Contingency Plan for Waterworks District No. 8

Dear Mr. Pederson,

The City of Simi Valley's Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

The Urban Water Management Planning Act requires every "urban water supplier" of a certain size to prepare and adopt an Urban Water Management Plan (UWMP) at least once every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. A complete UWMP is necessary for WWD8 to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

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50 percent and greater than 50 percent of the current supply. Emphasis is placed on protection of public health, sanitation, fire protection, and general public welfare.

If you or your agency would like more information on the WWD8 2020 UWMP Update or the Water Shortage Contingency Plan Update, please contact me by phone (805) 583-6767, or by email melorde@simivalley.org**.**

Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

December 28, 2020

City of Simi Valley, Environmental Services
Attn: Stratis Perros
Director
2929 Tapo Canyon Rd
Simi Valley, CA 93063

SUBJECT: 2020 Urban Water Management Plan and Water Shortage Event Contingency Plan for Waterworks District No. 8

Dear Mr. Perros,

The City of Simi Valley's Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

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50 percent and greater than 50 percent of the current supply. Emphasis is placed on protection of public health, sanitation, fire protection, and general public welfare.

If you or your agency would like more information on the WWD8 2020 UWMP Update or the Water Shortage Contingency Plan Update, please contact me by phone (805) 583-6767, or by email melorde@simivalley.org**.**

Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

December 28, 2020

County of Ventura, Resource Management Agency
Attn: Kim Prilhart
Planning Director
800 S. Victoria Avenue, #1740
Ventura, CA 93009

SUBJECT: 2020 Urban Water Management Plan and Water Shortage Event Contingency Plan for Waterworks District No. 8

Dear Ms. Prilhart,

The City of Simi Valley's Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

The Urban Water Management Planning Act requires every "urban water supplier" of a certain size to prepare and adopt an Urban Water Management Plan (UWMP) at least once every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. A complete UWMP is necessary for WWD8 to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

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Concurrent with the UWMP Update, WWD8 will update the Water Shortage Contingency Plan consistent with California Water Code Section 10632 and Section 10635. The Water Code states that water agencies must develop a water shortage contingency plan to prepare for the event of drought as well as other shortage scenarios. The contingency plan must demonstrate the ability of a water agency to meet demands under a supply shortage of up to

50 percent and greater than 50 percent of the current supply. Emphasis is placed on protection of public health, sanitation, fire protection, and general public welfare.

If you or your agency would like more information on the WWD8 2020 UWMP Update or the Water Shortage Contingency Plan Update, please contact me by phone (805) 583-6767, or by email melorde@simivalley.org**.**

Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

December 28, 2020

County of Ventura, Water & Sanitation Department/Ventura County Waterworks District No. 17
Attn: Joseph Pope, Director
6767 Spring Rd
Moorpark, CA 93021

SUBJECT: 2020 Urban Water Management Plan and Water Shortage Event Contingency Plan for Waterworks District No. 8

Dear Mr. Pope,

The City of Simi Valley's Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

The Urban Water Management Planning Act requires every "urban water supplier" of a certain size to prepare and adopt an Urban Water Management Plan (UWMP) at least once every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands. A complete UWMP is necessary for WWD8 to remain eligible for state drought water bank assistance and is a requirement of state grant and loan funding programs.

The 2020 UWMP will include an update of anticipated water demands in the WWD8 service area, and will also include data on WWD8's past and planned use of Delta water, including years 2010 and 2015, to demonstrate reliance on water supplies from the Delta.

WWD8 is encouraging participation by land use agencies, water use agencies, and other interested parties in the UWMP. WWD8 would like to extend to your agency an opportunity to meet with us to go over the various elements of the UWMP, including assumptions about future population, future water demand, future water supplies, and upcoming water conservation program.

A draft UWMP will be available for public review starting in late April 2021 and WWD8 will hold a public hearing in late May or early June 2021, prior to adoption of the UWMP. Your review and input are therefore invited in the near future.

Concurrent with the UWMP Update, WWD8 will update the Water Shortage Contingency Plan consistent with California Water Code Section 10632 and Section 10635. The Water Code states that water agencies must develop a water shortage contingency plan to prepare for the event of drought as well as other shortage scenarios. The contingency plan must demonstrate the ability of a water agency to meet demands under a supply shortage of up to

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If you or your agency would like more information on the WWD8 2020 UWMP Update or the Water Shortage Contingency Plan Update, please contact me by phone (805) 583-6767, or by email melorde@simivalley.org**.**

Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

April 7, 2021

Calleguas Municipal Water District
Attn: Dan Drugan
Manager of Resources Administrator
2100 Olsen Road
Thousand Oaks, CA 91360

SUBJECT: Notice of Public Hearing for the 2020 Urban Water Management Plan for Waterworks District No. 8

Dear Mr. Drugan,

The City of Simi Valley Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

The Urban Water Management Planning Act requires every "urban water supplier" of a certain size to prepare and adopt an Urban Water Management Plan (UWMP) at least once every five years. The UWMP is a planning document in which water suppliers evaluate and compare their water supply and reliability to their existing and projected demands.

On **May 17, 2021** at **6:30 p.m**., the Board of Directors of Waterworks District No. 8 (Board) will conduct a public hearing pursuant to California Water Code sections 10642 and 10608.2 to consider and receive comments and input on the 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan. The purpose of the public hearing is to allow community input regarding WWD8's implementation plan for complying with Part 2.55 of the Water Code, to consider the potential impacts of the implementation plan, and to provide information on WWD8's baseline water use, water use targets, and implementation plan required by the Water Conservation Act of 2009 (Water Code section 1068.20(b)). The hearing will take place in the Council Chamber at the Simi Valley City Hall, 2929 Tapo Canyon Road, Simi Valley, California 93063. The hearing can also be accessed via a live video feed by going on the City's website at: https://www.simivalley.org/i-want-to/view-watch/city-council-meetings.

An electronic copy of the Draft 2020 Urban Water Management Plan for WWD8 is available for public review starting on **April 7, 2021**. The electronic copy of the plan is accessible at www.simivalley.org/uwmp.

The 2020 Urban Water Management Plan for WWD8 has been developed for implementation in accordance with the requirements of the California Urban Water Management Planning Act, Water Code section 10610 through 10657, and the Water Conservation Act of 2009, Water Code section 10608 through 10608.64. WWD8 has also updated the Water Shortage Contingency Plan consistent with California Water Code Section 10632 and Section 10635. Public input from diverse social, cultural, and economic elements of the population is encouraged and will be considered as part of the urban water management planning process. Any written comments regarding the Draft 2020 Urban Water Management Plan and Draft 2020 Water Shortage Contingency Plan for WWD8 should be submitted by the close of business on **May 7, 2021** to the address set forth above, or emailed to Michelle Elorde, Senior Engineer, at melorde@simivalley.org.

Comments can also be made at the public hearing at the time and place set forth above. Upon conclusion of the public hearing, the Board may revise, change, modify, and/or adopt the plan.

Questions regarding the public hearing of the 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan for WWD8 should also be directed to Michelle Elorde, Senior Engineer at (805) 583-6767, melorde@simivalley.org

Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

April 7, 2021

City of Simi Valley
Environmental Services Department
Attn: Stratis Perros
Environmental Services, Director
2929 Tapo Canyon Rd
Simi Valley, CA 93063

SUBJECT: Notice of Public Hearing for the 2020 Urban Water Management Plan for Waterworks District No. 8

Dear Mr. Perros,

The City of Simi Valley Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

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Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

April 7, 2021

Golden State Water Company
Attn: Mark Zimmer
General Manager
4680 E. Los Angeles Avenue, Suite H
Simi Valley, CA 93063

SUBJECT: Notice of Public Hearing for the 2020 Urban Water Management Plan for Waterworks District No. 8

Dear Mr. Zimmer,

The City of Simi Valley Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

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Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

April 7, 2021

Las Virgenes Municipal Water District
David Pederson, General Manager
via. Josie Guzman, Executive Assistant
4232 Las Virgenes Road
Calabasas, CA 91302

SUBJECT: Notice of Public Hearing for the 2020 Urban Water Management Plan for Waterworks District No. 8

Dear Mr. Pederson,

The City of Simi Valley Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

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Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

April 7, 2021

County of Ventura, Resource Management Agency
Planning Division
Attn: Kim Prillhart
Planning Director
800 S. Victoria Avenue #1740
Ventura, CA 93009

SUBJECT: Notice of Public Hearing for the 2020 Urban Water Management Plan for Waterworks District No. 8

Dear Ms. Prillhart,

The City of Simi Valley Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

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Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Ventura County Waterworks District No. 8
City of Simi Valley

2929 Tapo Canyon Road, Simi Valley, California 93063 (805) 583-6700

April 7, 2021

County of Ventura, Sanitation Department
Ventura County Waterworks District 17
Attn: Joseph Pope
Water and Sanitation Director
6767 Spring Road
Moorpark, CA 93021

SUBJECT: Notice of Public Hearing for the 2020 Urban Water Management Plan for Waterworks District No. 8

Dear Mr. Pope,

The City of Simi Valley Waterworks District No.8 (WWD8) is undertaking review, update, and revision of its Urban Water Management Plan. WWD8 serves water to a portion of the City of Simi Valley and adjacent unincorporated areas southeast and north of the City Boundary.

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Sincerely,

Michelle Elorde
Senior Engineer / Waterworks District No. 8

Marina Magana

From: Crystal Solis <CSolis@simivalley.org>
Sent: Wednesday, April 7, 2021 7:32 AM
To: PW-CH Users
Cc: Janet Krebs
Subject: FW: Press Releases: Draft 2020 Urban Water Management Plan Now Available and Simi Valley Youth Council and CAC to Host Virtual Multicultural Festival From 4/10/21 - 5/31/21

Please see below Press Releases. Thank you.

-Crystal

From: Karen Smith <KSmith@simivalley.org>
Sent: Tuesday, April 06, 2021 7:14 PM
Subject: Press Releases: Draft 2020 Urban Water Management Plan Now Available and Simi Valley Youth Council and CAC to Host Virtual Multicultural Festival From 4/10/21 - 5/31/21

Good evening.

Please see the press releases below and feel free to share this information with anyone that might be interested. Thank you!

Draft 2020 Urban Water Management Plan Now Available

Post Date: 04/06/2021 7:00 PM
CONTACT: Joe Deakin
Assistant Public Works Director
(805) 583-6401

The Draft 2020 Urban Water Management Plan (UWMP) for the City of Simi Valley's Waterworks District No. 8 is now available for review at www.simivalley.org/uwmp.

The State of California mandates that all urban water suppliers prepare and adopt a UWMP at least once every five years to assess the reliability of water sources. Supplies and demands are projected through the year 2045, based upon current use, historical trends, and forecasted development and population. The expanded water shortage contingency plan describes conservation and efficiency measures, especially during drought emergencies.

For local water use efficiency resources and requirements, including turf removal rebates, water wise gardening in Ventura County, City front-yard landscaping standards, home water use calculator, and more, visit www.simivalley.org/waterconservation. Customers may contact City staff at waterconservation@simivalley.org.

The Simi Valley Youth Council and Cultural Arts Center to Host Virtual Multicultural Festival From April 10, 2021 to May 31, 2021

Post Date: 04/06/2021 7:07 PM

CONTACT: Kristin Tignac
Youth Council Coordinator
(805) 583-6766

The Simi Valley Youth Council and Cultural Arts Center are excited to be working together to bring a virtual multicultural festival to the community. The virtual festival will be held from April 10, 2021 to May 31, 2021 on Zoom, Facebook Live, and, the Simi Valley Virtual Arts Center website, svvac.org. Planned showcases include: cultural dance and music performances; culinary demonstrations; a fashion show; an art exhibit; and a special intergenerational storytelling event.

The festival begins on April 10, 2021 with Music and Movement from Around the World, showcasing a collection of dances and music from China, India, Mexico, and more! Next, on April 17, 2021, enjoy a display of classic and modern cultural clothing in the Cultural Couture event. On April 24, 2021, put your aprons on for Cultural Cuisine, featuring tasty culinary demonstrations. And on May 21, 2021 the Origin Stories event will highlight stories from residents about their cultures and experiences. Also launching in May is the Anthropological Art virtual exhibit, showing culturally inspired work from local artists.

“I encourage everyone, no matter your background, to participate in the virtual multicultural festival events hosted by the Youth Council and Cultural Arts Center”, stated the Multicultural Festival Chair Ashlyn Ro. “We believe that it is important to celebrate cultural diversity and inclusivity by uplifting and supporting all individuals. Together, we will continue to build a strong community that celebrates diversity in Simi Valley!”

All events will be hosted via Facebook Live on the Cultural Arts Center’s Facebook page www.facebook.com/SVCAC3050, as well as on Zoom: https://bit.ly/svmcfestival. Complete program information, including broadcast times, will be available on www.svvac.org/multicultural-festival, where you will also be able to view the videos after the broadcast. This event is funded in part through a California Arts Council Local Impact Grant awarded to the Cultural Arts Center.

Karen Smith
X6713

For additional information and resources regarding the Coronavirus emergency, please visit venturacountyrecovers.org and simivalley.org/covid19.

VENTURA COUNTY
STAR
PART OF THE USA TODAY NETWORK

CITY OF SIMI CITY CL ERK
2929 TAPO CANYON RD

SIMI VALLEY, CA 93063-2117

State of California)
))
County of Ventura)

I hereby certify that the Ventura County Star Newspaper has been adjudged a newspaper of general circulation by the Superior Court of California, County of Ventura within the provisions of the Government Code of the State of California, printed in the City of Camarillo, for circulation in the County of Ventura, State of California; that I am a clerk of the printer of said paper; that the annexed clipping is a true printed copy and publishing in said newspaper on the following dates to wit:

04/30/2021, 05/07/2021

I certify under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct.

Dated this May 7, 2021; in Green Bay, Wisconsin, County of Brown

Legal Clerk

NOTICE OF PUBLIC HEARI
BY THE BOARD OF DIRECTORS OF VENTURA COUNT
NO. 8 TO CONSIDER ADOPTION OF THE 2020 URBAN W
AND 2020 WATER SHORTAGE CON

NOTICE IS HEREBY GIVEN that pursuant to 24 CFR
will be held by the Board of Directors (Board) of Vent
No. 8 (District) to consider adoption of the 2020 Urban W
and 2020 Water Shortage Contingency Plan (WSCP) f
District No. 8.

The State of California mandates that all urb
adopt an UWMP at least once every five years to assess
Supplies and demands are projected through the year
historical trends, and forecasted development and p
shortage contingency plan describes conservation and
during drought emergencies. The State also requires
prepare a WSCP as part of the 2020 UWMP.

Copies of the staff report will be available for public re
May 14, 2021, at www.simivalley.org/CityCouncilMeetings;
Tapo Canyon Road, Simi Valley; and at the Public Libra
Valley. The draft Plan is available for review on the
www.simivalley.org/uwmp. The WSCP is included as App
may be referred to the Department of Public Works,
Engineer, 2929 Tapo Canyon Road, Simi Valley, CA 9
email JDeakin@simivalley.org. Please refer to File: Urb
The Public Hearing will be held in the City Council Ch
Simi Valley, California on Monday, May 17, 2021 at 6:30
matter may be heard.

Due to the closure of the City Council Chamber to the
provisions of the Governor's Executive Order N-29-20, tes
may be submitted by email to the City Clerk's Office at F
no later than 5:00 p.m. the day of the hearing. Please re
Plan or Water Shortage Contingency Plan in the subj
correspondence must be submitted in written form and
record.

You may also provide call-in Public comments
than 3:30 p.m. on the Monday of the City Co
ZoomPublicStatements@simivalley.org and providing you
number you will be calling from. You will receive an en
with the Zoom meeting link and password by 4:30 p.
meeting.

You may view the City Council meeting broadcast liv
AT&T U-Verse Channel 99
City's Website: www.simivalley.org/cityco
YouTube: www.youtube.com/CityofS

If you challenge the Board's decision in court, you may
issues you or someone else raised at the Public Hearing de
Dated this 23rd day of April, 2021
CITY OF SIMI VALLEY, CALIFORNIA
s/Lucy Blanco, City Clerk
Legal Ad No. 7898/Acct. No. 27555
To be published in the Ventura County Star April 30 and M

Publication Cost: $596.48
Ad No: 0004707863
Customer No: 305002
PO #:

# of Affidavits 1

RECEIVED
CITY OF SIMI VALLEY
2021 MAY 10 PM 4:50
OFFICE OF CITY CLERK
BY

NOTICE OF PUBLIC HEARING
BY THE BOARD OF DIRECTORS OF VENTURA COUNTY WATERWORKS DISTRICT NO. 8 TO CONSIDER ADOPTION OF THE 2020 URBAN WATER MANAGEMENT PLAN AND 2020 WATER SHORTAGE CONTINGENCY PLAN

NOTICE IS HEREBY GIVEN that pursuant to 24 CFR Part 91, et al., a Public Hearing will be held by the Board of Directors (Board) of Ventura County Waterworks District No. 8 (District) to consider adoption of the 2020 Urban Water Management Plan (UWMP) and 2020 Water Shortage Contingency Plan (WSCP) for Ventura County Waterworks District No. 8.

The State of California mandates that all urban water suppliers prepare and adopt an UWMP at least once every five years to assess the reliability of water sources. Supplies and demands are projected through the year 2045, based upon current use, historical trends, and forecasted development and population. The expanded water shortage contingency plan describes conservation and efficiency measures, especially during drought emergencies. The State also requires that all urban water suppliers prepare a WSCP as part of the 2020 UWMP.

Copies of the staff report will be available for public review after 12:00 noon on Friday, May 14, 2021, at www.simivalley.org/CityCouncilMeetings; at the City Clerk's Office, 2929 Tapo Canyon Road, Simi Valley; and at the Public Library, 2969 Tapo Canyon Road, Simi Valley. The draft Plan is available for review on the City of Simi Valley's website: www.simivalley.org/uwmp. The WSCP is included as Appendix J of the UWMP. Questions may be referred to the Department of Public Works, Attention: Joe Deakin, District Engineer, 2929 Tapo Canyon Road, Simi Valley, CA 93063, telephone (805) 583-6401 or email JDeakin@simivalley.org. Please refer to File: Urban Water Management Plan.

The Public Hearing will be held in the City Council Chamber, 2929 Tapo Canyon Road, Simi Valley, California on Monday, May 17, 2021 at 6:30 p.m. or as soon thereafter as the matter may be heard.

Due to the closure of the City Council Chamber to the public in compliance with the provisions of the Governor's Executive Order N-29-20, testimony for Public Hearing items may be submitted by email to the City Clerk's Office at PublicStatements@simivalley.org no later than 5:00 p.m. the day of the hearing. Please refer to Urban Water Management Plan or Water Shortage Contingency Plan in the subject line. All Emails and other correspondence must be submitted in written form and will be made part of the hearing record.

You may also provide call-in Public comments using Zoom. Register no later than 3:30 p.m. on the Monday of the City Council meeting by contacting ZoomPublicStatements@simivalley.org and providing your name, email, and/or the phone number you will be calling from. You will receive an email from the City of Simi Valley with the Zoom meeting link and password by 4:30 p.m., the day of the City Council meeting.

You may view the City Council meeting broadcast live at: Spectrum Channel 10
AT&T U-Verse Channel 99
City's Website: www.simivalley.org/citycouncilmeetings
YouTube: www.youtube.com/CityofSimiValley

If you challenge the Board's decision in court, you may be limited to raising only those issues you or someone else raised at the Public Hearing described in this notice.

Dated this 23rd day of April, 2021
CITY OF SIMI VALLEY, CALIFORNIA
s/Lucy Blanco, City Clerk
Legal Ad No. 7898/Acct. No. 27555
To be published in the Ventura County Star April 30 and May 7, 2021 #4707863

Appendix E: Water System Audit Output

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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: Ventura County Waterworks District No. 8 (CA5610023)

Reporting Year: 2015 (1/2015 - 12/2015)

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: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> Pcnt: Value:

Volume from own sources:	+ ?	8	150.000	MG/Yr	+ ?	n/a			MG/Yr
Water imported:	+ ?	9	5,823.000	MG/Yr	+ ?	n/a			MG/Yr
Water exported:	+ ?	5	339.900	MG/Yr	+ ?	2			MG/Yr

Enter negative % or value for under-registration

Enter positive % or value for over-registration

WATER SUPPLIED: 5,633.100 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

					Pcnt:	Value:	
Billed metered:	+ ?	8	5,288.900	MG/Yr			
Billed unmetered:	+ ?	5	0.300	MG/Yr			
Unbilled metered:	+ ?	6	3.200	MG/Yr			
Unbilled unmetered:	+ ?	5	4.100	MG/Yr		4.100	MG/Yr

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

AUTHORIZED CONSUMPTION: ? 5,296.500 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 336.600 MG/Yr

Apparent Losses

Pcnt: Value:

Unauthorized consumption:	+ ?		14.083	MG/Yr	0.25%		MG/Yr

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

Customer metering inaccuracies:	+ ?	8	53.456	MG/Yr	1.00%		MG/Yr
Systematic data handling errors:	+ ?	6	1.000	MG/Yr		1.000	MG/Yr

Apparent Losses: ? 68.538 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? 268.062 MG/Yr

WATER LOSSES: 336.600 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: ? 343.900 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?	7	351.0	miles
Number of active AND inactive service connections:	+ ?	10	25,517	
Service connection density:	?		73	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: + ? 8 100.0 psi

COST DATA

Total annual cost of operating water system:	+ ?	9	$41,441,573	$/Year	
Customer retail unit cost (applied to Apparent Losses):	+ ?	8	$3.40	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	+ ?	6	$394.27	$/Million gallons	☑ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 76 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: Billed unmetered

2: Water imported

3: Unbilled metered

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

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+ Click to add a comment

Water Audit Report for: Ventura County Waterworks District No. 8 (CA5610023)
Reporting Year: 2016 | 1/2016 - 12/2016

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.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> Pcnt: Value:

Volume from own sources:	+ ?	3	376.589	acre-ft/yr	+ ?	4				acre-ft/yr
Water imported:	+ ?	7	17,284.850	acre-ft/yr	+ ?	4				acre-ft/yr
Water exported:	+ ?	7	2.000	acre-ft/yr	+ ?	8				acre-ft/yr

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

WATER SUPPLIED: 17,659.439 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

Pcnt: Value:

Billed metered:	+ ?	6	17,123.740	acre-ft/yr			
Billed unmetered:	+ ?	n/a	0.000	acre-ft/yr			
Unbilled metered:	+ ?	2	0.500	acre-ft/yr			
Unbilled unmetered:	+ ?	1	1.000	acre-ft/yr		1.000	acre-ft/yr

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

AUTHORIZED CONSUMPTION: ? 17,125.240 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) 534.199 acre-ft/yr

Apparent Losses

Pcnt: Value:

Unauthorized consumption:	+ ?		44.149	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	172.972	acre-ft/yr	1.00%		acre-ft/yr
Systematic data handling errors:	+ ?		42.809	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: ? 259.930 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? 274.269 acre-ft/yr

WATER LOSSES: 534.199 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: ? 535.699 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?	7	351.0	miles
Number of active AND inactive service connections:	+ ?	4	25,517	
Service connection density:	?		73	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: + ? 4 100.0 psi

COST DATA

Total annual cost of operating water system:	+ ?	9	$41,441,573	$/Year	
Customer retail unit cost (applied to Apparent Losses):	+ ?	4	$3.40	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	+ ?	3	$394.27	$/acre-ft	☑ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 54 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: Water imported
2: Unbilled metered
3: Customer metering inaccuracies

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

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+ Click to add a comment

Water Audit Report for: City of Simi Valley
Reporting Year: 2017 (1/2017 - 12/2017)

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.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

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

					Pcnt:	Value:	
Volume from own sources:	5	60.900	acre-ft/yr	7			acre-ft/yr
Water imported:	7	19,378.129	acre-ft/yr	3			acre-ft/yr
Water exported:	3	1,124.864	acre-ft/yr	7			acre-ft/yr

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

WATER SUPPLIED: **18,314.165** acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

			Pcnt:	Value:	
Billed metered:	7	17,133.020	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	9	6.562	acre-ft/yr			
Unbilled unmetered:	10	156.435	acre-ft/yr		156.435	acre-ft/yr

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

AUTHORIZED CONSUMPTION: **17,296.017** acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

1,018.148 acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		45.785	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:	5	173.127	acre-ft/yr	1.00%	acre-ft/yr
Systematic data handling errors:		42.833	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: **261.745** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **756.403** acre-ft/yr

WATER LOSSES: **1,018.148** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **1,181.145** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	10	350.0	miles
Number of active AND inactive service connections:	9	25,672	
Service connection density:		73	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: 9 — 100.0 psi

COST DATA

Total annual cost of operating water system:	10	$40,603,300	$/Year	
Customer retail unit cost (applied to Apparent Losses):	5	$3.87	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	5	$1,473.78	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 68 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: Water imported
2: Customer metering inaccuracies
3: Customer retail unit cost (applied to Apparent Losses)

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

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+ Click to add a comment

Water Audit Report for: City of Simi Valley
Reporting Year: 2018 (1/2018 - 12/2018)

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.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ----------> | Pcnt: | Value:

Volume from own sources:	+ ?	3	89.316	acre-ft/yr	+ ?	3				acre-ft/yr
Water imported:	+ ?	7	19,652.208	acre-ft/yr	+ ?	5				acre-ft/yr
Water exported:	+ ?	7	1,354.904	acre-ft/yr	+ ?	8				acre-ft/yr

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

WATER SUPPLIED: 18,386.620 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

Pcnt: | Value:

Billed metered:	+ ?	7	18,074.000	acre-ft/yr			
Billed unmetered:	+ ?	n/a	0.000	acre-ft/yr			
Unbilled metered:	+ ?	10	4.015	acre-ft/yr			
Unbilled unmetered:	+ ?	5	45.967	acre-ft/yr		45.967	acre-ft/yr

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: ? 18,123.982 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) 262.638 acre-ft/yr

Apparent Losses

Pcnt: | Value:

Unauthorized consumption:	+ ?		45.967	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:	+ ?	5	39.859	acre-ft/yr	0.22%		acre-ft/yr
Systematic data handling errors:	+ ?	5	45.185	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: ? 131.011 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? 131.627 acre-ft/yr

WATER LOSSES: 262.638 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: ? 312.620 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?	9	350.0	miles
Number of active AND inactive service connections:	+ ?	10	26,097	
Service connection density:	?		75	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: + ? 7 100.0 psi

COST DATA

Total annual cost of operating water system:	+ ?	10	$45,540,375	$/Year	
Customer retail unit cost (applied to Apparent Losses):	+ ?	9	$3.92	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	+ ?	5	$1,375.00	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 72 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: Water imported
2: Customer metering inaccuracies
3: Variable production cost (applied to Real Losses)

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

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+ Click to add a comment

Water Audit Report for: City of Simi Valley (Ventura County Waterworks Dist. #8) (CA-56-10023)
Reporting Year: 2019 | 1/2019 - 12/2019

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.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

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

					Pcnt:	Value:	
Volume from own sources:	3	125.400	acre-ft/yr	3			acre-ft/yr
Water imported:	7	17,588.354	acre-ft/yr	5			acre-ft/yr
Water exported:	5	976.005	acre-ft/yr	7			acre-ft/yr
WATER SUPPLIED:		**16,737.749**	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:	7	15,689.000	acre-ft/yr			
Billed unmetered:	n/a		acre-ft/yr			
Unbilled metered:	10	3.467	acre-ft/yr			
Unbilled unmetered:	5	41.844	acre-ft/yr		41.844	acre-ft/yr
AUTHORIZED CONSUMPTION:		**15,734.311**	acre-ft/yr			

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

WATER LOSSES (Water Supplied - Authorized Consumption) **1,003.438** acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:		41.844	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:	5	78.857	acre-ft/yr	0.50%	acre-ft/yr
Systematic data handling errors:	5	39.223	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: **159.923** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **843.514** acre-ft/yr

WATER LOSSES: **1,003.438** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **1,048.749** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	350.0	miles
Number of active AND inactive service connections:	10	24,480	
Service connection density:		70	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 | 100.0 psi

COST DATA

Total annual cost of operating water system:	10	$53,297,809	$/Year
Customer retail unit cost (applied to Apparent Losses):	5	$3.95	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	5	$1,423.00	$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 68 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: Water imported
2: Customer metering inaccuracies
3: Customer retail unit cost (applied to Apparent Losses)

Appendix F: SB x 7-7 Verification Tables and DWR Population Tool Output

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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 Submittal 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	24,103	Acre Feet
	2008 total volume of delivered recycled water	11	Acre Feet
	2008 recycled water as a percent of total deliveries	0%	**See Note 1**
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1999	
	Year ending baseline period range[3]	2008	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range[4]	2008	

[1] *If the 2008 recycled water delivery is less than 10 percent of total water deliveries, then the 10-15year baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater of total deliveries, the 10-15 year 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 for the 10-15 year baseline period must be between December 31, 2004 and December 31, 2010.*

[4] *The ending year for the 5 year baseline period 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) 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: Service Area Population		
Year		Population
10 to 15 Year Baseline Population		
Year 1	1999	76,773
Year 2	2000	77,912
Year 3	2001	78,975
Year 4	2002	80,052
Year 5	2003	81,144
Year 6	2004	82,251
Year 7	2005	83,373
Year 8	2006	84,510
Year 9	2007	85,663
Year 10	2008	86,831
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2004	82,251
Year 2	2005	83,373
Year 3	2006	84,510
Year 4	2007	85,663
Year 5	2008	86,831
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					Acre Feet
			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.*	Annual Gross Water Use
10 to 15 Year Baseline - Gross Water Use								
Year 1	1999	21,531			-		-	21,531
Year 2	2000	23,462			-		-	23,462
Year 3	2001	19,938			-		-	19,938
Year 4	2002	22,053			-		-	22,053
Year 5	2003	19,911			-		-	19,911
Year 6	2004	22,016			-		-	22,016
Year 7	2005	21,891			-		-	21,891
Year 8	2006	23,498			-		-	23,498
Year 9	2007	24,824			-		-	24,824
Year 10	2008	24,103			-		-	24,103
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**22,323**
5 Year Baseline - Gross Water Use								
Year 1	2004	22,016			-		-	22,016
Year 2	2005	21,891			-		-	21,891
Year 3	2006	23,498			-		-	23,498
Year 4	2007	24,824			-		-	24,824
Year 5	2008	24,103			-		-	24,103
5 year baseline average gross water use								**23,266**

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

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	Imported water supplies purchased from Calleguas Municipa
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[1]	Meter Error Adjustment[2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1999	20,885		20,885
Year 2	2000	22,758		22,758
Year 3	2001	19,340		19,340
Year 4	2002	21,391		21,391
Year 5	2003	19,314		19,314
Year 6	2004	21,356		21,356
Year 7	2005	21,234		21,234
Year 8	2006	22,793		22,793
Year 9	2007	24,079		24,079
Year 10	2008	23,380		23,380
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2004	21,356		21,356
Year 2	2005	21,234		21,234
Year 3	2006	22,793		22,793
Year 4	2007	24,079		24,079
Year 5	2008	23,380		23,380

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)
Complete one table for each source.

Name of Source	Gillibrand Subbasin
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 [1]	Meter Error Adjustment [2] *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1999	646		646
Year 2	2000	704		704
Year 3	2001	598		598
Year 4	2002	662		662
Year 5	2003	597		597
Year 6	2004	660		660
Year 7	2005	657		657
Year 8	2006	705		705
Year 9	2007	745		745
Year 10	2008	723		723
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2004	660		660
Year 2	2005	657		657
Year 3	2006	705		705
Year 4	2007	745		745
Year 5	2008	723		723

[1] ***Units of measure*** *(AF, MG , or CCF) must remain consistent throughout the UWMP, as reported in Table 2-3.*

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

NOTES:

SB X7-7 Table 5: Baseline 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	1999	76,773	21,531	250
Year 2	2000	77,912	23,462	269
Year 3	2001	78,975	19,938	225
Year 4	2002	80,052	22,053	246
Year 5	2003	81,144	19,911	219
Year 6	2004	82,251	22,016	239
Year 7	2005	83,373	21,891	234
Year 8	2006	84,510	23,498	248
Year 9	2007	85,663	24,824	259
Year 10	2008	86,831	24,103	248
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**244**
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	2004	82,251	22,016	239
Year 2	2005	83,373	21,891	234
Year 3	2006	84,510	23,498	248
Year 4	2007	85,663	24,824	259
Year 5	2008	86,831	24,103	248
5 Year Average Baseline GPCD				**246**
NOTES:				

SB X7-7 Table 6: Baseline GPCD *From Table SB X7-7 Table 5*	*Summary*
10-15 Year Baseline GPCD	244
5 Year Baseline GPCD	246
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		**Supporting Tables**
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator *Located in the WUE Data Portal at wuedata.water.ca.gov* Resources *button*
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
244	**195**
NOTES:	

SB X7-7 Table 0: Units of Measure Used in 2020 UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*
NOTES:

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	94,738
NOTES:	

SB X7-7 Table 4: 2020 Gross Water Use							
Compliance Year 2020	**2020 Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**2020 Deductions**					**2020 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.*	
	19,826	1,099	748	-	120	-	**17,859**

*** 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:

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	Imported 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
	19,726	-	19,726

[1] ***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.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

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	Gillibrand Subbasin
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
	100		100

[1] ***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.* [2] ***Meter Error Adjustment*** *- See guidance in Methodology 1, Step 3 of Methodologies Document*

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**
	17,859	54	0%	NO

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.2: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 2)*

Criteria 2
Industrial water use is equal to or greater than 15 GPCD

2020 Compliance Year	2020 Industrial Water Use	2020 Population	2020 Industrial GPCD	**Eligible for Exclusion Y/N**
	54	94,738	1	NO

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.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**
	17,859	54	17,805	94,738	168	NO

NOTES:

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**
17,859	94,738	**168**
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]				
168	-	-	-	-	168	195	**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 - Ventura County Waterworks District No 08 - Simi Valley

Sign Out

Please print this page to a PDF and include as part of your UWMP submittal.

Confirmation Information

Generated By	Water Supplier Name	Confirmation #	Generated On
Marina Magana	Ventura County Waterworks District No 08 - Simi Valley	7364896476	3/16/2021 11:57:53 AM

Boundary Information

Census Year	Boundary Filename	Internal Boundary ID
1990	VCWD8_Boundary_2010.kml	778
2000	VCWD8_Boundary_2010.kml	778
2010	VCWD8_Boundary_2010.kml	778
1990	VCWD8_Boundary_2010.kml	778
2000	VCWD8_Boundary_2010.kml	778
2010	VCWD8_Boundary_2010.kml	778
1990	VCWD8_Boundary_2010.kml	778
2000	VCWD8_Boundary_2010.kml	778
2010	VCWD8_Boundary_2010.kml	778
1990	VCWD8_Boundary_2010.kml	778
2000	VCWD8_Boundary_2010.kml	778
2010	VCWD8_Boundary_2010.kml	778
1990	VCWD8_Boundary_2010.kml	778
2000	VCWD8_Boundary_2010.kml	778
2010	VCWD8_Boundary_2010.kml	778

Baseline Period Ranges

10 to 15-year baseline period

Number of years in baseline period: 1

Year beginning baseline period range: 19

Year ending baseline period range[1]: 2008

5-year baseline period

Year beginning baseline period range: 20

Year ending baseline period range[2]: 2008

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

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

Persons per Connection

Year	Census Block Level Total Population	Number of Connections *	Persons per Connection
1990	67,243		3.58
1991	-	-	3.58
1992	-	-	3.58
1993	-	-	3.58
1994	-	-	3.58
1995	-	-	3.58
1996	-	-	3.58
1997	-	-	3.58
1998	-	-	3.58
1999	-	-	3.58
2000	77,912		3.58
2001	-	-	3.58
2002	-	-	3.58
2003	-	-	3.58
2004	-	-	3.58
2005	-	-	3.58
2006	-	-	3.58
2007	-	-	3.58
2008	-	-	3.58
2009	-	-	3.58
2010	89,216	24897	3.58
2011	-	-	3.58
2012	-	-	3.58
2013	-	-	3.58
2014	-	-	3.58
2015	-	-	3.58

2020	-	-	3.58 **

Population Using Persons-Per-Connection

Year		Number of Connections *	Persons per Connection	Total Population
10 to 15 Year Baseline Population Calculations				
Year 1	1999		3.58	
Year 2	2000		3.58	
Year 3	2001		3.58	
Year 4	2002		3.58	
Year 5	2003		3.58	
Year 6	2004		3.58	
Year 7	2005		3.58	
Year 8	2006		3.58	
Year 9	2007		3.58	
Year 10	2008		3.58	
5 Year Baseline Population Calculations				
Year 1	2004		3.58	
Year 2	2005		3.58	
Year 3	2006		3.58	
Year 4	2007		3.58	
Year 5	2008		3.58	
2020 Compliance Year Population Calculations				
2020		26438	3.58 **	**94,738**

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Appendix G: Groundwater Management Plan for Simi Basin

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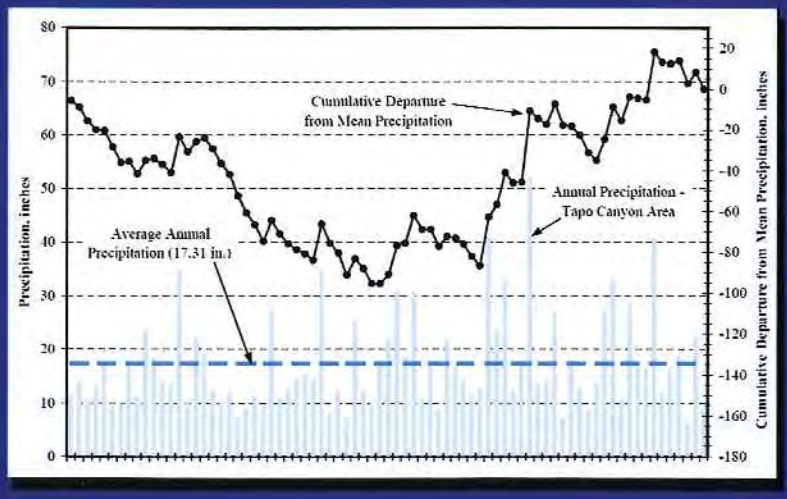
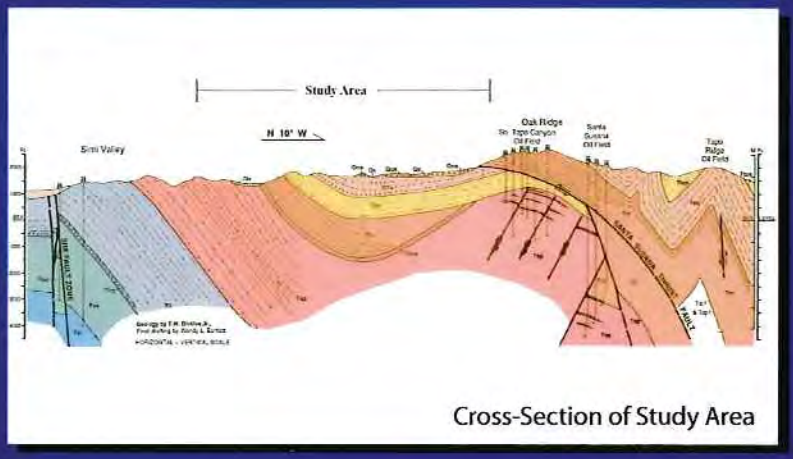
GROUNDWATER MANAGEMENT PLAN
GILLIBRAND GROUNDWATER BASIN





Cross-Section of Study Area

Prepared For:

VENTURA COUNTY WATERWORKS DISTRICT NO. 8 - CITY OF SIMI VALLEY

AND

P. W. GILLIBRAND COMPANY

May 21, 2007

Prepared By:

GEOSCIENCE

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www.gssiwater.com

GROUNDWATER MANAGEMENT PLAN
GILLIBRAND GROUNDWATER BASIN

CONTENTS

FIGURES

TABLE

APPENDICES

Ltr.	Description
A	Groundwater Level Field Recording Form
B	Groundwater Production Field Recording Form
C	Annual Groundwater Report Table of Contents

GROUNDWATER MANAGEMENT PLAN
GILLIBRAND GROUNDWATER BASIN

1.0 INTRODUCTION

This document presents a groundwater monitoring and management plan (GWMP) for the Gillibrand Groundwater Basin (Basin), located in Tapo Canyon north of the City of Simi Valley in southern Ventura County, California (see Figure 1). This GWMP has been prepared for the Ventura County Waterworks District No. 8 – City of Simi Valley (the District) in conjunction with the P.W. Gillibrand Company (Gillibrand) in accordance with the guidelines of AB3030 of the California Water Code. The District and Gillibrand are the primary groundwater pumpers within the Basin. The District produces water for irrigation and municipal supply and Gillibrand produces water for their mining operation. The GWMP has been developed to manage and protect the groundwater resources within the Basin for both entities.

1.1 Purpose of the Groundwater Management Plan

The purpose of this GWMP is to present a standard methodology for the collection of data in sufficient quantities and of adequate quality to enable informed decisions regarding the management of the Basin. The types of data to be collected include groundwater levels, groundwater production, and groundwater quality.

1.2 Background

The area encompassed by this GWMP is the Basin, which is located within the Tapo Canyon Tributary Subarea of the Calleguas Creek Watershed of southern Ventura County, California (see Figure 1). The Tapo Canyon Tributary Subarea is a surface water drainage catchment that

covers approximately 18 square miles within the Santa Susana Mountains north of Simi Valley (see Figure 1). The Basin covers approximately 5,130 acres (8 square miles) of the tributary subarea.

1.3 Scope of the Groundwater Management Plan

The GWMP summarizes groundwater production wells within the Basin, describes a monitoring protocol for the collection of data (including the frequency of data collection), and outlines the procedures for reporting of the data collected.

2.0 DESCRIPTION OF THE GILLIBRAND GROUNDWATER BASIN

The Basin is distinguished from the tributary subarea by the geology of the area. The Happy Camp Syncline results in folded formations that outcrop both north and south of the syncline (see Figure 2). The formations closest to the center of the syncline (Saugus and Pico) are younger, less consolidated and consist of sediments that are more permeable (sand and gravel) than the surrounding formations. These formations form the groundwater basin. Formations bounding the Saugus and Pico formations on the north and south are older, more consolidated and consist of sediments that are less permeable (siltstone and claystone).

The lateral extent of the Basin is defined by three types of boundaries: lithologic boundaries, fault boundaries, and topographic drainage area boundaries (see Figure 2). The lithologic boundaries occur where permeable sediments of the Saugus and Pico formations bound impermeable sediments of the Sisquoc Formation and Monterey Shale. The north-central boundary of the groundwater basin is a fault boundary defined by the Santa Susana Fault, which is assumed to present a relatively impermeable boundary between the rocks to the north and permeable water-bearing sediments to the south. The remaining boundaries correspond to the limits of the Tapo Canyon Tributary Subarea. The areal extent of the Basin, using the boundaries described above, is approximately 5,130 acres (8 square miles).

The subsurface base of the Basin is assumed to be the top of the Monterey Shale. Historical driller's logs from existing wells drilled in the Basin suggest that most of the wells have been perforated within the Saugus Formation, including District Wells 31 and 32 (see Figure 3). However, some more recent wells have been extended into the Pico Formation, which extends to depths of up to 1,500 ft below ground surface (see Figure 3) where it contacts the top of the Monterey Shale. Thus, the Monterey Shale is assumed to be the base of the effective aquifer system.

3.0 GROUNDWATER MANAGEMENT

The GWMP focuses on monitoring geohydrologic parameters within the Basin as a basis for making informed management decisions regarding the groundwater resources within the Basin. Geohydrologic parameters include groundwater production, groundwater levels, and groundwater quality.

3.1 Goals Of The Groundwater Management Plan

The primary goals of the GWMP are as follows:

Goal 1: To provide a standard methodology for the collection of geohydrologic data within the Basin

Goal 2: To provide a standard methodology for the regular analysis and reporting of geohydrologic data to enable informed management decisions for the Basin

Diligent implementation of the GWMP should result in a reliable and safe groundwater supply while minimizing adverse environmental and economic impacts.

3.2 AB3030 Components Addressed by the Groundwater Management Plan

In accordance with AB3030 of the California Water Code, specific components may be addressed in groundwater management plans, and the following components are applicable for this GWMP:

- Monitoring of groundwater levels and storage
- Identification of well construction policies

The GWMP considers these components and provides a methodology for Basin monitoring to develop prudent and efficient decisions for managing groundwater resources.

3.3 Future Changes to the Plan

It is the intent of this GWMP to be iterative and flexible, allowing for changes, as necessary, to accommodate advances in technology, changes in the number and/or type of monitoring features, and the frequency that data is collected. Monitoring wells may be added to or subtracted from the monitoring network of the most current GWMP. In the future, "key wells" may be identified or established to provide the data that would be used as a basis for analysis and decision-making. Groundwater monitoring frequency may be increased or decreased depending on the need (or lack thereof) for additional data. Either the District or Gillibrand can propose changes to the GWMP; however, incorporation of proposed changes would be implemented by mutual consent of both parties.

4.0 GROUNDWATER MONITORING

4.1 Groundwater Monitoring Facilities

This section describes the existing monitoring facilities and methodologies used within the Basin. At this time, these features include the District's two active production wells (Nos. 31 and 32) and one production well for the Gillibrand operation (Well No. 2). Construction details of the wells are provided in Table 1. A map showing the locations of the production wells is shown on Figure 4.

4.2 Monitoring Methodology

4.2.1 Groundwater Levels

Selected monitoring wells will be utilized for the purpose of periodically measuring groundwater elevations representative of the primary production aquifer within the basin (the Saugus and Pico Formations). Groundwater levels will enable evaluation of static groundwater level trends in individual wells as well as evaluation of regional groundwater flow characteristics.

Groundwater levels will be measured in the selected monitoring wells on a monthly basis. They will be measured using an electric water level sounder calibrated to the nearest 0.01 ft. Measurements will be made to the nearest 0.01 ft relative to an established reference point (RP) at the top of each well casing (or sounding tube). Depths to groundwater will be compared, in the field, to previous measurements and re-measured if the depths are significantly different[1]. Example forms for recording groundwater level measurements are provided in Appendix A. Depth to groundwater measurements will be converted to groundwater elevations (above mean sea level) by subtracting the depth to water from the RP elevation. If possible, groundwater

[1] Significant variation is defined as a difference of approximately one foot or more from the previous measurement.

levels will be measured when the production well pump is off and groundwater levels have "recovered" to static (or predictable) conditions. Static conditions will be determined by straight-line trends on a semi-log plot of water levels versus time. Once a predictable groundwater level trend has been identified after the pump has been turned off (at least four measurements over a minimum 4 hour recovery time), the water level recovery trend will be projected to at least 1 week to determine the static groundwater level.

Groundwater levels will be measured in each production well on a monthly basis during the first week of each month.

4.2.2 Groundwater Production

Groundwater production will be recorded from inline flow meters in the discharge line of the production wells. Examples of forms for recording flow meter readings are provided in Appendix B. Groundwater production will be totalized on a monthly basis.

4.2.3 Water Quality Sampling and Analysis

Periodic measurements of groundwater quality allow for detection of degradation that may potentially impact water supply wells. Groundwater quality parameters specified in Title 22 of the California Code of Regulations will be measured in groundwater samples collected from each District production well every three years.[2] Additional samples will be collected from each District production well on an annual basis and analyzed for nitrate.

All groundwater samples will be submitted to a California Department of Health Services certified laboratory under chain-of-custody protocol within 24 hours of collection. In general,

[2] In accordance with State of California Department of Health Services requirements.

the laboratory will adhere to those recommendations promulgated in Title 21, Code of Federal Regulations, CFR Part 58 *Good Laboratory Practices*; criteria described in *Methods for Chemical Analysis of Water and Wastes* (EPA 1979; EPA-600/4-79-202). Groundwater samples collected for chemical analysis will be tested in accordance with the standard analytical procedures established by the EPA. The laboratory will be required to submit analytical results that are supported by sufficient backup data and quality assurance/quality control (QA/QC) results to enable the reviewer to conclusively determine the validity of the data.

5.0 NEW WELL CONSTRUCTION POLICY

All new wells constructed within the Basin will be required to conform to State of California standards described in California Department of Water Resources (DWR) Bulletin 74-81 (DWR, 1981) and 74-90 (DWR, 1991). Details regarding the location, construction and, as applicable, the design discharge rate of each new well will be summarized in the annual report following well completion.

6.0 DATA MANAGEMENT

6.1 Quality Assurance/Quality Control

For purposes of this plan, quality assurance (QA) is defined as the integrated program designed to assure reliability of monitoring and measurement data. Quality control (QC) is defined as the routine application of specified procedures to obtain prescribed standards of performance in the monitoring and measurement process (ASTM D-18). The District and their assigned technical experts are responsible for assuring that the precision, accuracy, and completeness of data collected for this GWMP are known and documented. Accordingly, all field instruments will be operated in strict accordance with manufacturers specifications. All data and data collection procedures will be checked by a California Certified Hydrogeologist.

6.2 Data Management Procedure

The purpose of this data management procedure is to establish guidance for data filing, storage, and security during the implementation of the GWMP. Data will be filed and stored in a Project file, a computer database, and presented in a GIS system.

GWMP files that store all technical project documents will be established. Technical documents include, but are not limited to, the following:

- All correspondence to/from regulatory agencies
- Memoranda containing technical information or documentation of technical decisions
- Reports
- Field data sheets
- Field logs/daily reports
- Laboratory reports
- Computer files of technical data
- Minutes of meetings with regulatory agencies

- Permits
- QA/QC reports

Information regarding each document will be entered into a computer database and the document filed in the Technical GWMP File. Active GWMP files will be maintained at the District.

Immediate access will be limited to District personnel, Gillibrand personnel, their assigned technical consultants and their legal representatives. Entities outside of the above referenced groups can obtain the records with the permission of the District and Gillibrand.

6.3 Project Database

Data also will be stored, organized, and secured in a computer database created specifically for the GWMP. The database will store data in an efficient and usable manner.

Types of data to be sorted in the computer database may include, but are not limited to, technical information such as groundwater levels, groundwater production, and groundwater analytical data. Technical and database programs used for the GWMP will be those designed to run on IBM-compatible computers. If programs designed for other operating systems are used, the data files will be transferable to an IBM-compatible format. Microsoft Access or other equivalent relational database software will be used for general database applications. Specific technical programs used for data analysis will be selected based on the specific technical question to be answered.

7.0 REPORTING

Data collected as per the GWMP will be summarized in annual reports. Groundwater level, production and quality data will be presented in tables that include all historical data for comparison. Short-term and long-term hydrographs will be prepared for each production well and included in the report along with a groundwater contour map. Changes in groundwater production, groundwater levels, and groundwater quality will be discussed and graphically presented.

Each annual report will be prepared under the direct supervision of a California registered geologist or licensed professional civil engineer. An example table of contents for the annual report is provided in Appendix C.

8.0 BIBLIOGRAPHY

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FIGURES

COUNTY WATERWORKS DISTRICT NO. 8 CITY OF SIMI VALLEY

GROUNDWATER MANAGEMENT PLAN
GILLIBRAND GROUNDWATER BASIN

T.4 N.
T.3 N.
T.3 N.
T.2 N.
T.2 N.
T.1 N.
T.1 N.
T.1 S.

R.20 W. | R.19 W. | R.19 W. | R.18 W. | R.18 W. | R.17 W. | R.17 W. | R.16 W. | R.16 W. | R.15 W. | R.15 W. | R.14 W.

Fillmore
Fish Hatchery
Santa Clara River
Santa Paula
STUDY AREA
SANTA SUSANA MOUNTAINS
Saticoy
Moorpark
Somis
Arroyo Simi River
Santa Susana
SIMI VALLEY
Simi Valley
Bard Reservoir
Chatsworth Reservoir
HILLS
SIMI
Camarillo
Oxnard
Thousand Oaks
Ventura Co
Los Angeles Co
Calabasas
Westlake Village
Agoura
SANTA MONICA MOUNTAINS
Pacific Ocean

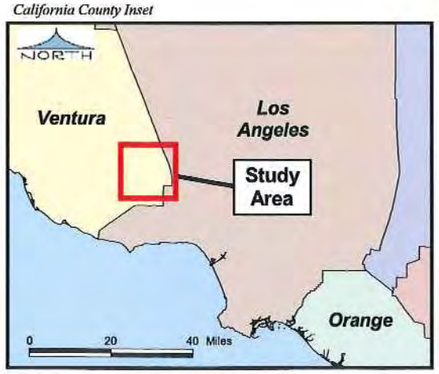
NORTH
0 2 4 Miles

LOCATION MAP

EXPLANATION

- Tapo Canyon Tributary Subarea Boundary
- Calleguas Creek Watershed Boundary
- Calleguas Creek Watershed Sub-basin Boundary
- Fillmore Fish Hatchery — Ventura County Watershed Protection District Evapotranspiration Station used in Analysis
- white dashed line — County Boundary
- State Highway
- Major Street
- Surface Water
- Creek, River or Drainage Channel

California County Inset



Prepared by: DWB

Map Projection:
UTM Zone 11, NAD27
Central Meridian: -117 degrees

21-May-07

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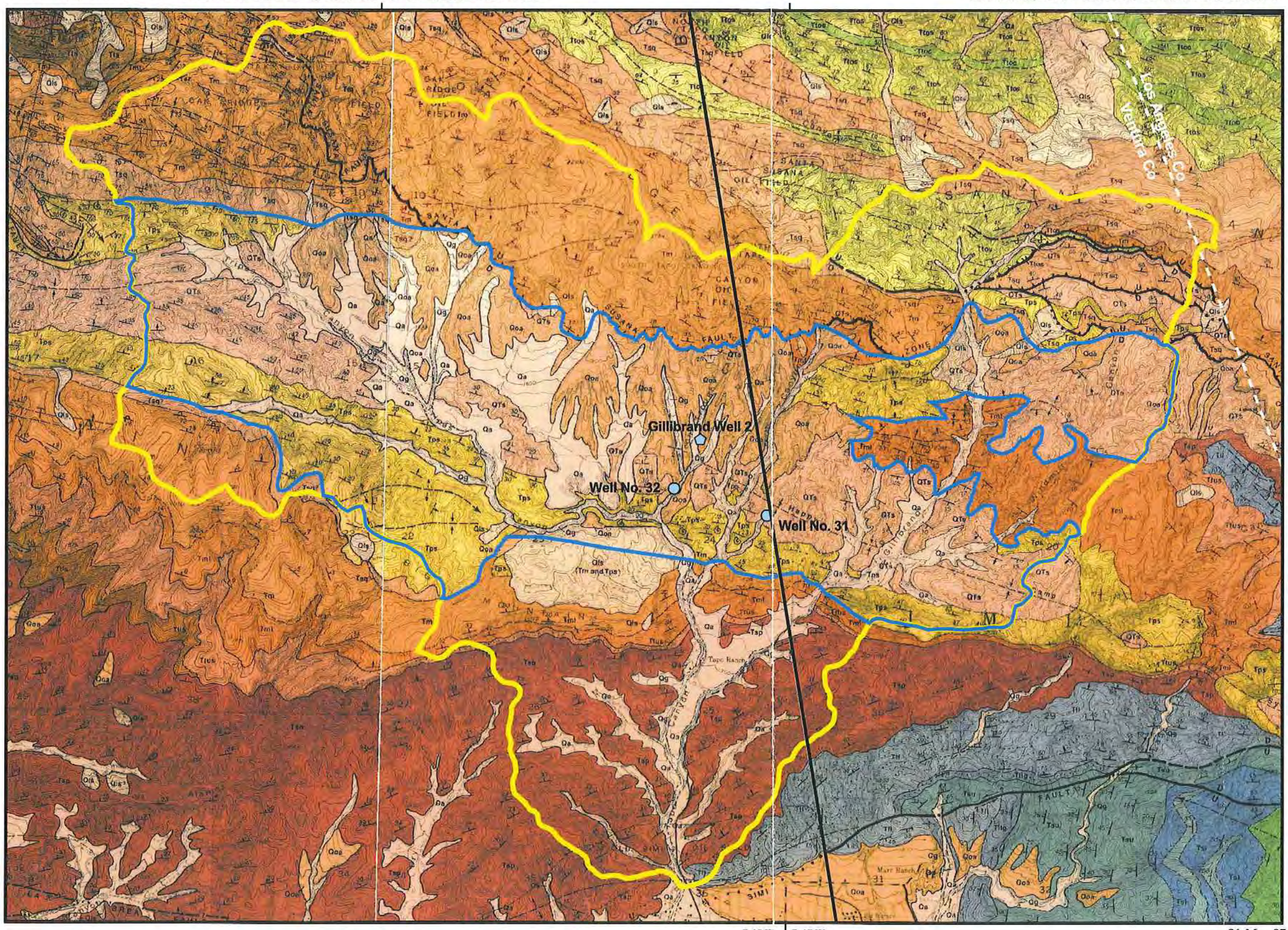
GEOSCIENCE Support Services, Inc.
P.O. Box 220, Claremont, CA 91711
Tel: (909) 920-0707 Fax: (909) 920-0403
www.gssiwater.com

Figure 1

GIS_proj\city_of_simi_valley_gwmgmt_plan_5-07\0_tapo_cyn_mgmt_plan_5-07.apr

COUNTY WATERWORKS DISTRICT NO. 8 CITY OF SIMI VALLEY

GROUNDWATER MANAGEMENT PLAN
GILLIBRAND GROUNDWATER BASIN



GEOLOGY OF THE TAPO CANYON AREA SHOWING GROUNDWATER BASIN BOUNDARY

EXPLANATION

- Tapo Canyon Tributary Subarea
- Groundwater Basin Boundary
- Qa/Qg — Surficial Sediments
- Qls — Landslide Debris
- Qoa — Older Surficial Sediments
- QTs — Saugus Formation
- Tps/Tp — Pico Formation
- Ttos/Ttoc — Towsley Formation
- Tsq/Tsqs — Sisquoc Formation
- Tm/Tml — Monterey Shale
- Ttus — Upper Topanga Sandstone
- Tsp — Sespe Formation
- Tll/Tllg — Llajas Formation
- Tsu/Tsus/Tsi — Santa Susana Formation
- Kcs — Chatsworth Formation
- white dashed line — County Boundary
- Trend of Geologic Cross Section (See Figure 3)

21-May-07

Prepared by: DWB

Map Projection:
UTM Zone 11, NAD27
Central Meridian: -117 degrees

Source of Geology:
Dibblee, T.W. "Geologic Map of the Santa Susana Quadrangle". (DF-38). 1992.

NORTH

0 3000 6000 Feet

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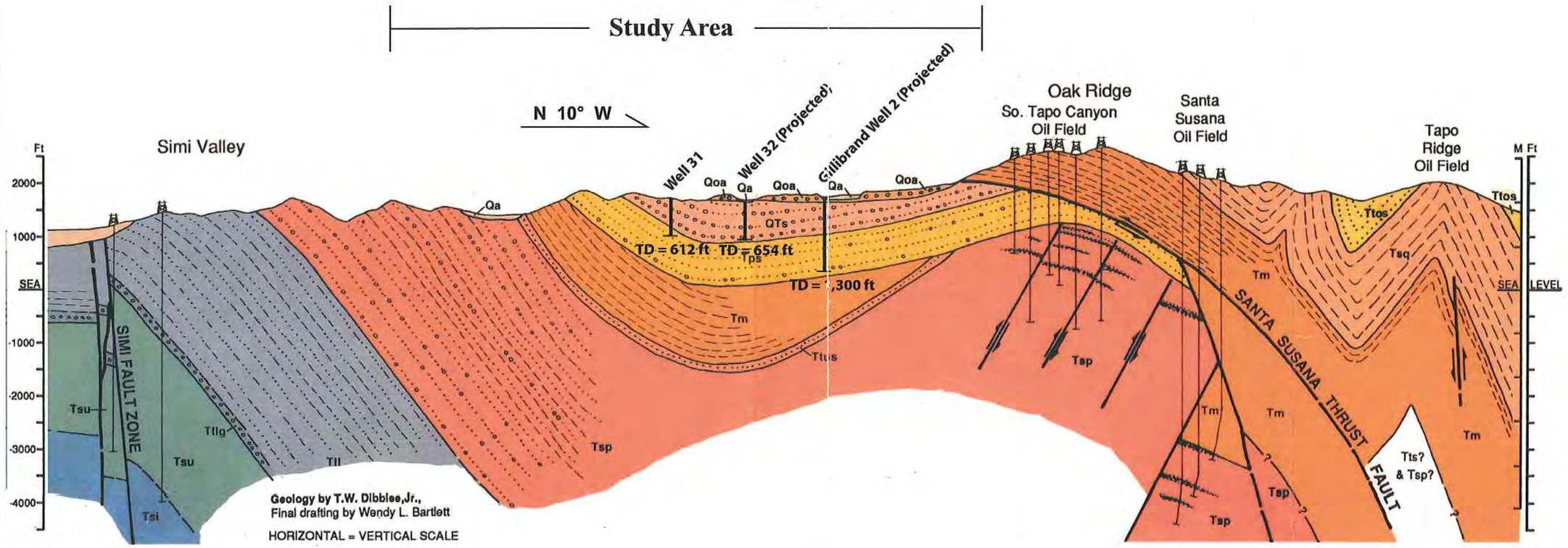
Figure 2

GIS_proj\city_of_simi_valley_gwmgmt_plan_5-07\0_tapo_cyn_mgmt_plan_5-07.apr



Source of Geology:
Dibblee, T.W. "Geologic Map of the Santa Susana Quadrangle". (DF-38). 1992.

See Figure 2 for Geologic Legend.

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COUNTY WATERWORKS DISTRICT NO. 8 CITY OF SIMI VALLEY

GEOLOGIC
CROSS-SECTION

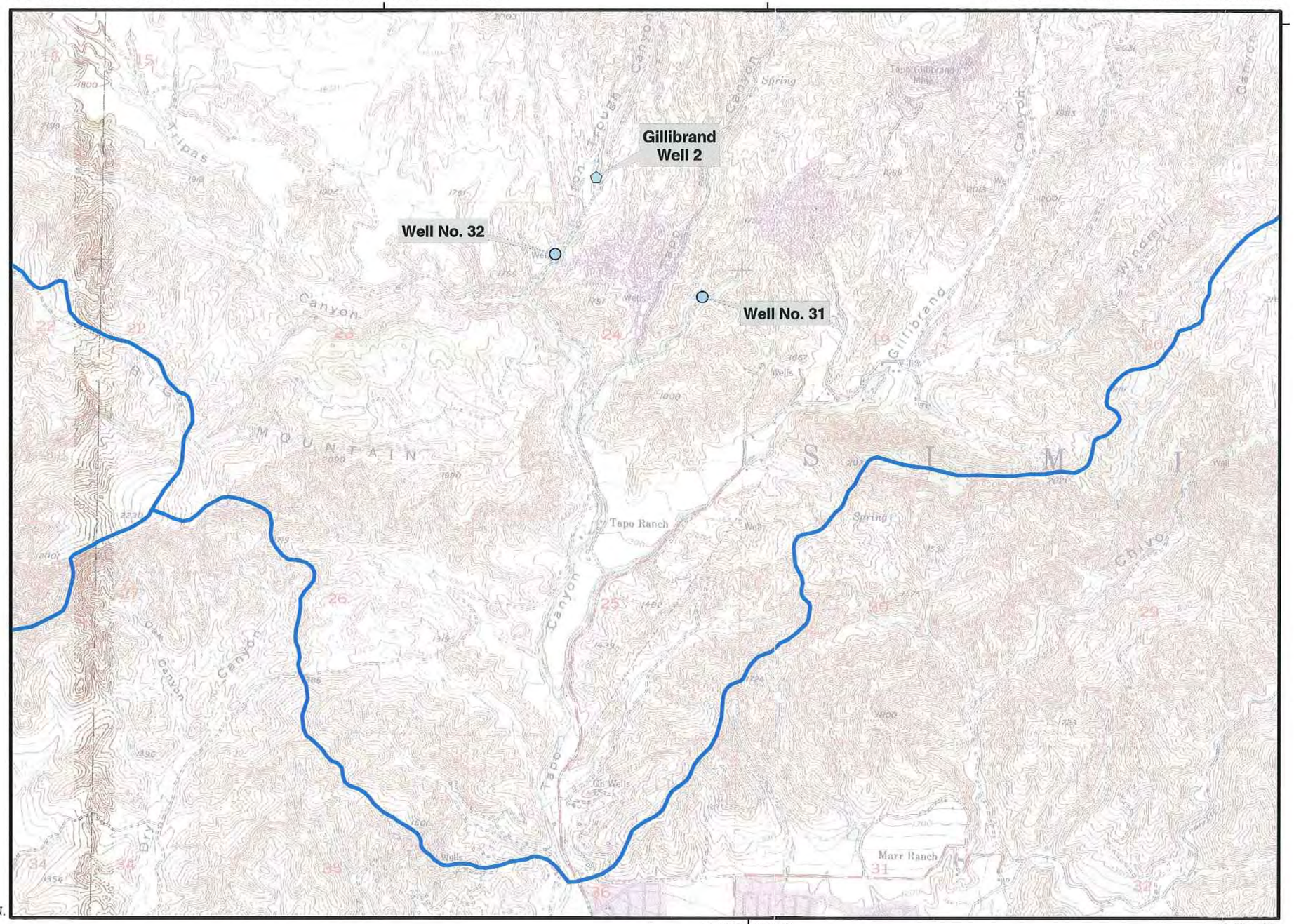
Drawn: DWB
Checked:
Approved:
Date: 21-May-07

Figure 3

X:\Projects\RBF\Simi Valley\AB3030_Plan\AB3030_pln_draft\Draft_15_May_07\Figures\Fig 3 - Cross-section.ai

COUNTY WATERWORKS DISTRICT NO. 8 CITY OF SIMI VALLEY

GROUNDWATER MANAGEMENT PLAN
GILLIBRAND GROUNDWATER BASIN



WELL LOCATIONS

EXPLANATION

Well Classification

- Industrial
- Municipal

Well Status

- Pumping
- Unknown

Example: = Pumping Municipal Well

Tapo Canyon Tributary Subarea Boundary

NOTE: Gillibrand Well 2 Location based on West Coast Environmental and Engineering, 2003.

T.3 N.

R.18 W. | R.17 W.

21-May-07

Prepared by: DWB

Map Projection:
UTM Zone 11, NAD27
Central Meridian: -117 degrees

NORTH

0 1,000 2,000 Feet

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Figure 4

GIS_proj/city_of_simi_valley_gwmgmt_plan_5-07/0_tapo_cyn_Fig4_well_locs_5-07.mxd

TABLE

Summary of Wells Within the Tapo Canyon Tributary Subarea

Well No.	Alternative No.	Well Owner	Well Locations		State Well No.	Well Use	Well Status	Year Installed	Borehole Depth [ft bgs[1]]	Well Depth [ft bgs]	Casing Diameter [in.]	Perforated Intervals [ft bgs]	Maximum Yield [gpm[2]]	Source
			x	y										
Well No. 2	24D3	P.W. Gillibrand	34.33563461	-118.72494107	03N/18W-24D3	Private	Pumping	1990	1520	1300	28	520-1,280	3,000	Driller's Log
Well No. 32	24C7 (22-P-28)	City of Simi Valley Dist. #8	34.33401416	-118.72044286	03N/18W-24C7	Municipal	Pumping	1957	765	654	14	204-654	2,100	Driller's Log
Well No. 31	24H	City of Simi Valley Dist. #8	34.33183815	-118.71086265	03N/18W-24H	Municipal	Pumping	1990	612	604	16.625	104-594	1,800	Driller's Log

Notes:
NA - Not Applicable
[1] feet below ground surface
[2] gallons per minute

Table 1

APPENDIX A

Groundwater Level Field Recording Level

Ground Water Level Data Sheet
Production Wells

(See Figure 4 for Location Map)

Well Name	Date	Time Since Pump Shut Off]hrs]	Reference Point Elevation, [ft amsl[1]]	Depth to Ground Water, [ft bgs[2]]	Ground Water Elevation, [ft amsl]	Notes[3]
Well No. 2						
Well No. 32						
Well No. 31						

[1] ft amsl = feet above mean sea level.

[2] ft bgs = feet below ground surface.

[3] "Notes" should include: (1) Method of Measurement, i.e. electric wireline sounder, airline or other, and
(2) Well Status, i.e. pumping, static, recovering (including hours elapsed since well turned off).

APPENDIX B

Groundwater Production Field Recording Form

Ground Water Production
Data Sheet

Well, Tank, or Booster Name	Date	Time	Totalizer [cfs[1]]	Instantaneous meter [cfs[1]]	Data Sheet	Hours	Year to Date Hours	Notes
Well No. 2								
Well No. 32								
Well No. 31								

[1] cfs = cubic feet per second

APPENDIX C

Annual Groundwater Report

Table of Contents

ANNUAL GROUNDWATER REPORTS
TABLE OF CONTENTS

Appendix H: Data to Document Consistency with Delta Plan Policy WR P1

As stated in the 2020 UWMP Guidebook Appendix C (Draft version dated March 2021):

> "An urban water supplier (Supplier) that anticipates participating in or receiving water supply benefits from a proposed project (covered action[1)] such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Sacramento-San Joaquin Delta (Delta) should provide information in their 2015 and 2020 Urban Water Management Plans (UWMP's) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, *Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance* (California Code Reg., tit. 23, § 5003)."

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

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

[1] Cal. Code Regs., tit. 23, § 5001, subd. (j): A "Covered action" is defined as "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, or a reasonably foreseeable indirect physical change in the environment … "directly undertaken by any public agency""(Pub. Resources Code, § 21065) that (i) will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh, (ii) will be carried out, approved, or funded by the state or a local public agency, (iii) is covered by one or more provisions of the Delta Plan, and (iv) will have a significant impact on achievement of one or both of the coequal goals or the implementation of government-sponsored flood control programs to reduce risks to people, property, and state interest in the Delta."

reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a)."

Preparation of UWMPs and Implementation of Projects from the UWMP

WWD8 completed and submitted to DWR, 2005, 2010, and 2015 Urban Water Management Plans, in addition to this 2020 UWMP. WWD8 has identified, evaluated, and implemented projects that are locally cost effective and technically feasible which improve local reliability and reduce reliance on the Delta.

Expected Outcomes for Measurable Reduction in Delta Reliance

The expected outcomes for WWD8's Delta reliance and regional self-reliance were developed based on the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2020 (Draft version dated March 2021) and are summarized in Tables H-1 to H-4 below. This involves setting a baseline and evaluating normal year water demands (potable and non-potable), estimating service area population and water use in gallons per capita per day, evaluating and projecting water supply sources to meet estimated normal year demands including supplies from the Delta, local groundwater supplies, and non-potable supplies. Inputs to Table H-1, H-2, and H-3 include:

- **Baseline**. In order to calculate the expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance, a baseline is needed to compare against. For consistency with reporting done by WWD8's wholesale supplier (Calleguas), WWD8 is using year 2010 as the baseline year. This analysis uses a normal water year representation of 2010 as the baseline. Data for the 2010 baseline were taken from WWD8's 2005 UWMP as the UWMPs generally do not provide normal water year data for the year that they are adopted (i.e., 2005 UWMP forecasts normal year 2010, 2010 UWMP forecasts normal year 2015, and so on).

- **Service Area Demands**. Service area demands, including demands for non-potable water, for 2010, 2015, and 2020 were taken from projections from the previous (2005, 2010, and 2015) UWMPs. Service area demands 2025 to 2045 were taken from projections developed as part of the 2020 UWMP.

- **Service Area Population**. Consistent with the methodology for service area demands (using normal year projections from the previous UWMP), service area population for 2010 were taken from the previous (2005) UWMP. Consideration was given to using 2010 UWMP service area population projections for 2015 but because the 2015 UWMP had the benefit of complete Census data, year 2015 population data was taken from the 2015 UWMP. 2020 service area population projections were taken from the 2015 UWMP. Year 2025-2045 service area demands were taken from the 2020 UWMP.

The outcome of Table H-1 is a calculation of water use efficiency since the baseline year (2010). The calculation uses the change in gallons per capita per day and service area

population to estimate water use efficiency in years 2015 through 2045 compared to the baseline year of 2010. The results of Table H-1 are summarized in Table H-2.

- **Supplies Contributing to Regional Self-Reliance**. In Table H-3, the estimate of water use efficiency is taken from Table H-2. Other water supplies, such as recycled water and advanced water technologies were taken from previous UWMPs (2005 projections were supplied for 2010 etc.). For years 2025-2045 local supplies were taken from projections prepared for the 2020 UWMP.

The outcome of Table H-3 is an estimate of the supplies contributing to regional self-reliance.

- **CVP/SWP Contract Supplies**. CVP/SWP contract supplies were estimated based on the percentage of Delta supplies provided as a percent of overall imported supplies from WWD8's imported water suppliers. Given that 99% of WWD8's water supplies come from Calleguas Municipal Water District, data from that agency provided in its Draft 2020 UWMP, Table 7-4, was utilized to estimate the percentages of supplies from the Delta watershed.

The outcome of Table H-4 is a calculation of the percent change in supplies from the Delta watershed relative to the 2010 Baseline.

Table H-4 illustrates that from 2015 to 2020 WWD8 reduced reliance on the Delta and is projected to reduce reliance on the Delta from the baseline through year 2045.

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

Service Area Water Use Efficiency Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands with Water Use Efficiency Accounted For	26,359	26,020	19,429	20,950	22,606	24,399	26,341	26,341
Non-Potable Water Demands	110	80	1,340	76	76	80	80	80
Potable Service Area Demands with Water Use Efficiency Accounted For	26,249	25,940	18,089	20,874	22,530	24,319	26,261	26,261

Total Service Area Population	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Population	89,913	94,668	98,708	97,059	99,437	101,873	104,369	104,369

Water Use Efficiency Since Baseline (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Per Capita Water Use (GPCD)	261	245	164	192	202	213	225	225
Change in Per Capita Water Use from Baseline (GPCD)		16	97	69	58	48	36	36
Estimated Water Use Efficiency Since Baseline		1,697	10,728	7,461	6,499	5,422	4,208	4,208

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

Total Service Area Water Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands with Water Use Efficiency Accounted For	26,359	26,020	19,429	20,950	22,606	24,399	26,341	26,341
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		1,697	10,728	7,461	6,499	5,422	4,208	4,208
Service Area Water Demands without Water Use Efficiency Accounted For	26,359	27,717	30,157	28,411	29,105	29,821	30,549	30,549

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

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Use Efficiency	0	1,697	10,728	7,461	6,499	5,422	4,208	4,208
Water Recycling	110	80	1,340	76	76	80	80	80
Stormwater Capture and Use								
Advanced Water Technologies								
Conjunctive Use Projects								
Local and Regional Water Supply and Storage Projects	888	1,200	1,000	1,100	1,100	1,100	1,100	1,100
Other Programs and Projects the Contribute to Regional Self-Reliance	0	0	0	0	0	0	0	0
Water Supplies Contributing to Regional Self-Reliance	998	3,477	13,589	9,150	8,201	7,140	5,940	5,940

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands without Water Use Efficiency Accounted For	26,359	27,717	30,157	28,411	29,105	29,821	30,549	30,549

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies Contributing to Regional Self-Reliance	998	3,477	13,589	9,150	8,201	7,140	5,940	5,940
Change in Water Supplies Contributing to Regional Self-Reliance		2,479	12,591	8,152	7,203	6,142	4,942	4,942

Percent Change in Regional Self Reliance (As Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Percent of Water Supplies Contributing to Regional Self-Reliance	3.8%	12.5%	45.1%	32.2%	28.2%	23.9%	19.4%	19.4%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		8.8%	41.3%	28.4%	24.4%	20.2%	15.7%	15.7%

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

Water Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
CVP/SWP Contract Supplies	25,946	24,820	19,248	21,370	23,152	25,081	27,172	27,172
Delta/Delta Tributary Diversions								
Transfers and Exchanges of Supplies from the Delta Watershed								
Other Water Supplies from the Delta Watershed	-	-	-	-	-	-	-	-
Total Water Supplies from the Delta Watershed	25,946	24,820	19,248	21,370	23,152	25,081	27,172	27,172

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands without Water Use Efficiency Accounted For	26,359	27,717	30,157	28,411	29,105	29,821	30,549	30,549

Change in Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies from the Delta Watershed	25,946	24,820	19,248	21,370	23,152	25,081	27,172	27,172
Change in Water Supplies from the Delta Watershed		1,126	6,698	4,576	2,794	865	1,226	1,226

Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Percent of Water Supplies from the Delta Watershed	98.4%	89.5%	63.8%	75.20%	79.5%	84.1%	88.9%	88.9%
Change in Percent of Water Supplies from the Delta Watershed		-8.9%	-34.6%	-23.2%	-18.9%	14.3%	-9.5%	-9.5%

Appendix I: Reporting of Energy Intensity of Water

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Urban Water Supplier: *Ventura County Waterworks District No. 8*

Water Delivery Product (If delivering more than one type of product use Table O-1C)

Retail Potable Deliveries

Table O-1B: Recommended Energy Reporting - Total Utility Approach

Enter Start Date for Reporting Period	1/1/2019	**Urban Water Supplier Operational Control**		
End Date	12/31/2019			
☐ Is upstream embedded in the values reported?		**Sum of All Water Management Processes**	**Non-Consequential Hydropower**	
Water Volume Units Used	*AF*	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process (volume unit)		*19883*		*19883*
Energy Consumed (kWh)		*4990843*		*4990843*
Energy Intensity (kWh/vol. converted to MG)		*770.3*	*0.0*	*770.3*

Quantity of Self-Generated Renewable Energy

N/A kWh

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

Metered Data

Data Quality Narrative:

Data is considered to be good data compiled from submeters.

Narrative:

Data collected from wells, booster pump stations, pressure stations, and tanks (including mixers and SCADA).

Appendix J: 2020 Water Shortage Contingency Plan

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1 June 2021

Job #: 2044237*00

2020 Water Shortage Contingency Plan

Waterworks District No. 8

City of Simi Valley

City of Simi Valley
Waterworks District No. 8

Kennedy Jenks

Kennedy Jenks

2775 North Ventura Road, Suite 202
Oxnard, California 93036
805-973-5700

2020 Water Shortage Contingency Plan

Waterworks District No. 8
City of Simi Valley

June 1, 2021

Prepared for

Waterworks District No. 8
City of Simi Valley
500 West Los Angeles Avenue
Simi Valley, California 93063

KJ Project No. 2044237*00

Table of Contents

Table of Contents (cont'd)

Table of Contents (cont'd)

List of Tables

List of Figures

List of Appendices

List of Acronyms

Act	Urban Water Management Planning Act
BMPs	Best Management Practices
Calleguas	Calleguas Municipal Water District
DDW	State Water Resources Control Board Division of Drinking Water
District	Waterworks District 8
DMMs	Demand Management Measures
DWR	Department of Water Resources
ENSO	El Niño Southern Oscillation
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ET	evapotranspiration
GPCD	gallons per capita per day
HCF	hundred cubic feet
IWOP	Imported Water Outage Protocol (Calleguas)
MHMP	Multi-Hazard Mitigation Plan
MWD	Metropolitan Water District of Southern California
NIMS	National Incident Management System
PRV	Pressure reducing valve
RRA	Risk Resilience Assessment
SEMS	Standard Emergency Management System
SWP	State Water Project
UWMP	Urban Water Management Plan
VCMC	Ventura County Medical Center
VUSD	Ventura Unified School District
WSAP	Metropolitan Water District's Water Shortage Allocation Plan
WSCP	Water Shortage Event Contingency Plan
WSDM	Metropolitan Water District Water Supply and Drought Management Plan
WWD8	Waterworks District 8

Table of Contents (cont'd)

DWR Checklist Table for WSCP

Water Code Section	Summary as Applies to UWMP	2020 WSCP Location
Subject: Water Shortage Contingency Planning | 2020 UWMP Guidebook Location: Chapter 8		
10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	This WSCP is a stand-alone document and included in Appendix J of the UWMP
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.	WSCP Section 2, pages 2-1 to 2-5, Tables 2-1 and 2-2
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.	WSCP Section 2, pages 2-1 to 2-5, Tables 2-1 and 2-2
10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent 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.	WSCP Section 4, pages 4-1 to 4-4, Table 4-1 and Figure 4-1
10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	WSCP Section 4, page 4-1, Table 4-1 and Appendix A
10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	WSCP Section 4.1, page 4-1, Table 4-1 and Appendix A
10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	WSCP Section 5.2, pages 5-2 and 5-3 Table 5-2
10632(a)(4)(C)	Specify locally appropriate operational changes.	WSCP Section 5.3, pages 5-3 to 5-5 Table 5-3
10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state- mandated prohibitions as appropriate to local conditions.	WSCP Section 5.5, pages 5-9 and 5-10 Table 5-3
10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	WSCP Section 5.6, pages 5-10 to 5-15 Table 5-5
10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	WSCP Section 6, pages 6-1 and 6-2 Table 6-1
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.	WSCP Section 6, pages 6-1 and 6-2 Table 6-1
10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	WSCP Section 4.4, page 4-4
10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency per Water Code Chapter 3.	WSCP Section 4.4, page 4-4
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.	WSCP Sections 1.5 and 1.4, pages 1-2 and 1.3, Section 2.5.1, page 2-5
10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	WSCP Section 8.1, pages 8-1 to 8-2, Table 8-1
10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	WSCP Section 8.2, pages 8-2 to 8-4, Tables 8-2 and 8-3
10632(a)(8)(C)	Describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought.	WSCP Section 8.3, page 8-4, Table 8-4
10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	WSCP Section 9, pages 9-1 and 9-2, Table 9-1

Water Code Section	Summary as Applies to UWMP	2020 WSCP Location
10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	WSCP Section 1.8, page 1-4, Section 4.4, page 4-4
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.	WSCP Section 5.2, pages 5-2 and 5-3, Table 5-2, Section 5.5, page 5-9, and Appendix A

Executive Summary

This Plan addresses the requirements in the California Water Code Section 10632, which requires that every urban water supplier shall prepare and adopt a Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan (UWMP). This WSCP serves as a guide for the intended actions by Ventura County Waterworks District No. 8 (WWD8, District) during water shortage conditions to improve preparedness for droughts and other impacts on water supplies by describing the process used to address varying degrees of water shortages.

WWD8 has the authority to establish water shortage contingency plans to prepare to respond to water supply reductions due to drought conditions or unforeseen emergencies or supply disruptions. The Board of Directors of Ventura County Waterworks District No. 8 (Board), who also serve as Council Members for the City of Simi Valley, review and approve all water shortage contingency planning policies and programs including provisions to meet DWR 2020 Urban Water Management Planning Act and California Water Code regulations.

As a retailer of Calleguas Municipal Water District (Calleguas), who is a member agency of the Metropolitan Water District of Southern California (MWD), it is imperative for coordinated planning of water resources.

MWD's 2020 WSCP utilizes the Water Surplus and Drought Management Plan (WSDM Plan) and Water Supply Allocation Plan (WSAP) to guide its response to drought and intended actions during water shortage conditions. The WSCP outlines what water shortage management strategies or actions MWD will take when demand is likely to exceed supplies, such as utilizing surface and groundwater storage supplies, ceasing other deliveries, calling for demand reductions, and purchasing additional water. If supplies are still not sufficient, the WSAP is implemented. The WSAP provides the methodology by which supply will be allocated to each of MWD's retail and wholesale customers, and establishes surcharges for excess water use.

Calleguas' 2020 WSCP is consistent with MWD's WSDM Plan and WSAP. As supplies from MWD are reduced, Calleguas will take action to obtain additional supplies balanced with retailer demand reductions. Calleguas Ordinance No. 12 gives that agency the authority to implement actions and strategies to allocate supply depending on the supply reductions from MWD. Supply shortage conditions result from a unique mix of local, regional, and state-wide issues. The Calleguas WSCP identifies the strategy to manage shortages, and provides the flexibility to identify the needed supply or demand reduction percentages.

The intent of WWD8's 2020 WSCP is to follow MWD's and Calleguas' WSCPs. Coordination with wholesale agencies will allow WWD8 to account for shortages not only in their supplies, but in the supplies of Calleguas and MWD as well. WWD8's 2020 WSCP is included as an appendix to its 2020 UWMP, which will be submitted to the Department of Water Resources (DWR) by July 1, 2021. However, this WSCP was developed to serve as a stand-alone document, and can therefore be amended as needed without amending the UWMP.

Section 1: Introduction

This plan documents the Ventura County Waterworks District No. 8 (WWD8, District) Water Shortage Contingency Plan (WSCP) and Emergency Response Plan (ERP) per requirements of the Urban Water Management Act, Section 10632 of the California Water Code.

1.1 Policy of Water Efficiency

The Simi Valley Municipal Code, Title 6 Sanitation and Health, Chapter 11 Ventura County Waterworks District No. 8 Water Conservation Program is included in Appendix A (current version as of Nov 25, 2020). Chapter 11 constitutes the District's Water Shortage Contingency Plan, which was developed through a series of ordinances approved by the WWD8 Board of Directors that provides a framework and guides District actions in the event of a water shortage emergency. Chapter 11 includes voluntary and mandatory stages to address a reduction in water supply that exceeds 50 percent. Prohibitions, penalties and financial impacts of shortages have been developed by the District and are summarized in Chapter 11 of the municipal code.

Governor Brown's Executive Order B-37-16, and the 2017 Framework Report entitled *Making Water Conservation a California Water of Life* established a new foundation for long-term improvements in water conservation and drought planning in California to adapt to climate change and the resulting longer and more intense droughts. Conservation as a way of life is central to WWD8's policy for water efficiency.

1.2 Declaration of Purpose of WSCP

WWD8 has developed this WSCP to provide guidance if triggering events occur — whether from reduced supply, increased demand, or an emergency declaration — and identify corresponding actions to be taken during the various stages of a water shortage. The WSCP includes voluntary and mandatory stages which are intended to be fair to all water customers and users while having the least impact on business, employment and quality of life for residents.

The purpose of this WSCP is to:

1. Monitor and compare anticipated supplies and demands consistent with Water Code Section Water Code Section 10632(a)(2);
2. Keep water use within supply and delivery capability;
3. Define procedures to be used when supply cannot meet demand;
4. Familiarize all of WWD8's customers (residential, commercial, industrial, institutional/governmental and others) with procedures to be implemented when voluntary or mandatory water restrictions are in effect.

Using the procedures and protocols described in Section 2 (the Annual Assessment), the WWD8 Director of Public Works, or designated representative, shall keep the WWD8 Board of Directors informed of the conditions of water supply, system usage, delivery capacity, and the estimated water shortage stage (if any) and the enactment of initial restrictions or change to an appropriate stage in the WSCP.

1.3 Reduced Water Use During Water Shortage Events

This WSCP and other legal actions by WWD8 establish changes that may be imposed on water users during Water Shortage Events. Such events may be a lengthy drought that has limited imported water supplies, or an emergency condition brought about by an earthquake, fire, or other interruption in water delivery to the system. These actions are discussed in later sections of this WSCP.

1.4 Coordination with Other Agencies

WWD8 currently has three primary sources of water supply, as described in the 2020 UWMP:

1. **Imported water from Calleguas Municipal Water District:** Approximately 99 percent of water consumed in WWD8 service area is imported water. Under normal operations imported water received by WWD8 is exclusively State Water Project (SWP) water supplied by Calleguas Municipal Water District (Calleguas). WWD8 receives water from Calleguas based upon availability. Through wheeling agreements and temporary interconnections Calleguas can receive Colorado River water.

2. **Groundwater from the Gillibrand Basin:** WWD8 pumps from the Gillibrand Basin, a sub-basin to the Simi Groundwater Basin, using two wells (Wells 31D and 32) to meet less than 1% of water demand. The Gillibrand Basin is not adjudicated; however, a Groundwater Management Plan (Geoscience, 2007) has been developed and both users in the Basin, WWD8 and the P.W. Gillibrand Company, have agreed to abide by the estimated sustainable yield of 1,450 AFY evaluated as part of the plan (TODD, 2016).

3. **Recycled water:** WWD8 currently delivers recycled water from the Simi Valley Water Quality Control Plant to the Simi Valley Landfill, Simi Valley Public Services Center and one commercial property for irrigation. WWD8 is not currently planning to expand the existing recycled water distribution system beyond the existing use of 50 to 70 AFY of recycled water (approximately 0.5% of water consumed).

As a retailer of Calleguas, who is a member agency of the Metropolitan Water District of Southern California (MWD), it is imperative for coordinated planning of water resources. This will allow WWD8 to account for shortages not only in their supplies, but in the supplies of Calleguas and MWD.

WWD8 also sells water to Ventura County Waterworks District 17 and Las Virgenes Municipal Water District.

Coordination also will include state and county agencies within and adjacent to the WWD8 service area, such as County of Ventura, City of Simi Valley (City), Golden State Water Company, Las Virgenes Municipal Water District, local schools, state parks and others. In addition, WWD8 will also coordinate with land use jurisdictions in the City and County of Ventura, as-appropriate.

1.5 Coordination with City Departments and Other Entities

WWD8 coordinates with City departments and other entities to ensure that significant water users, such as City facilities and large parks, are being operated in a water efficient manner. Examples of coordination activities include:

- The City's Water Conservation and Energy Efficiency Programs include coordination with multiple City departments and integration for wide range of facilities.
- The City's Public Works Environmental Compliance staff coordinate with the Simi Valley Unified School District, by providing educational programs to teach students and school managers about water supply issues and how to reduce water usage.
- Periodically, key staff from the Department of Environmental Services, Public Works, City Manager's Office and WWD8 meet together and share information on near-term and long-term changes in supply and demand for water supply and wastewater treatment, differentiated into areas within the WWD8 and Golden State Water company service areas.
- Rancho Simi Parks and Recreation District, formed in 1961 for the specific purpose of providing parks and recreation activities to the community. Rancho Simi Parks and Recreation District partners with WWD8 to review and reduce the irrigation of over 50 parks in the City, two golf courses and other open space areas.

1.6 Plan Preparation, Adoption, Submittal and Availability

WWD8 began preparation of this WSCP in November 2020. The public hearing for the WSCP was noticed in 2 local newspapers (Ventura County Star), as prescribed in Government Code 6066, which included the time and place of the hearing (*Tentatively **May 17, 2021** at the City of Simi Valley City Hall, 2929 Tapo Canyon Road*), as well as the location where the plan was available for public inspection (on the City's website). Interested parties, including other local agencies, were notified of the public hearing.

The final draft of the WSCP was adopted by the Board of Directors of the Ventura County Waterworks by Resolution No. 2021-0***XX*** (provided in Appendix B) and was submitted to the Department of Water Resources (DWR) within 30 days of approval. Additionally, the plan will be made available for public review per the requirements of the Water Code.

Starting in 2020, urban water suppliers are required to report and submit information related to the Water Shortage Contingency Plan in standardized tables developed by DWR. These standardized tables are provided as Appendix C of this document.

1.7 Relationship to the Urban Water Management Plan

Water Code Section 10632(a) requires that every urban water supplier prepare and adopt a WSCP as part of its UWMP. While the water shortage contingency plan is a stand-alone document it is updated and adopted in concert with the UWMP. The WSCP is informed by the analysis of water supply reliability, described in Section 6 of the UWMP, which presents the reliability assessment for the WWD8 service area during a normal water year, single dry year and multiple dry years.

The reliability of WWD8's supply is highly dependent on Calleguas and MWD cutbacks during periods of drought. As shown in Table 1-1 (from Draft UWMP, subject to revision), in the near term (2021 to 2025) the total anticipated supplies are greater than the anticipated gross water use demands.

Table 1-1: Near Term Water Supply Reliability Assuming 5-Year Drought

	2021	2022	2023	2024	2025
Gross Water Use	19,697	20,258	20,820	21,382	21,943
Total Supplies	20,618	21,353	22,087	22,822	23,557
Surplus/Shortfall w/o WSCP Action	921	1,095	1,267	1,440	1,614
Planned WSCP Actions (use reduction and supply augmentation)					
WSCP - supply augmentation benefit	0	0	0	0	0
WSCP - use reduction savings benefit	0	0	0	0	0
Revised Surplus/(shortfall)	0	0	0	0	0
Resulting % Use Reduction from WSCP action	0%	0%	0%	0%	0%

Reformatted from UWMP Guidebook, Table 7-5 Five-Year Drought Risk Assessment Tables to address Water Code Section 10635(b)

1.8 Water Shortage Contingency Plan Refinement Procedures

WWD8 will convene the following departmental staff as needed to re-evaluate and improve procedures for systematically monitoring and evaluating the functionality of the WSCP in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed:

- Engineering Staff
- Administrative Staff
- Operational Staff

The WSCP will be reviewed, revised and refined as appropriate and needed, following significant changes to WWD8's supply portfolio or significant changes to the water allocation plans of its supply agencies (e.g., Calleguas or MWD), but no less than every 5 years. The District Engineer will have the authority to approve changes in the WSCP.

Section 2: Annual Water Supply and Demand Assessment Procedures

New provisions in Water Code Section 10632.1 require that an urban water supplier such as WWD8, conduct an annual water supply and demand assessment ("Annual Assessment"), on or before July 1 of each year, to be submitted to DWR. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its Annual Assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later. The requirement to perform the Annual Assessment begins in July 2022. The procedures for performing the Annual Assessment are to be detailed in an urban suppliers' Water Shortage Contingency Plan.

Droughts occur with unpredictable frequency, intensity and duration. Developing and maintaining a healthy water supply portfolio to serve its customers has always been an ongoing WWD8 priority, and the District wants to be prepared for drought and water shortages. WWD8 regularly monitors its water supplies and demands. The City of Simi Valley planning department calculates growth due to proposed development projects, while the WWD8 calculates the anticipated increase in water demand and then evaluates the impact on the current and future water supply. Water demands are reported to Calleguas, who supply approximately 99% of the District's potable water. Calleguas, as an urban water wholesaler, will have defined actions to assess annual water supply and demand for retailers.

Currently the WWD8 Water Conservation Program Municipal Code requires adoption of a WWD8 Resolution to declare a water supply shortage level. Water supply projections and hydrologic conditions are significant components in deciding when a drought response is needed. The amount of the water supply shortage contributes to the severity of drought declared and the necessary level of response from WWD8 and customers.

The Annual Water Supply and Demand Assessment procedures, detailed in this section, will be used to determine if a water shortage is to be declared by the WWD8 Board of Directors.

2.1 Timeline for Conducting the Annual Assessment

Table 2-1 provides targets for performing the Annual Assessment and outlines actions for a normal year and one year of drought. By starting to plan in December, WWD8 will get a snapshot of conditions and can start lining up the resources to mitigate supply and start outreach to customers to manage demand. Major actions are proposed in February, when an initial estimate of supply is made and compared to demand. A final annual assessment is proposed in May.

Table 2-1: Timeline for Decision Making Process to Perform Annual Assessment.

Target Date	Action
Dec-Jan	• Monitor supply sources – review MWD weekly supply reports • Monitor demand trends
Feb	• Confirm anticipated weather (e.g., National Weather Service Climate Prediction Center, La Niña, US Drought Seasonal Outlook, Ventura County Watershed Protection District • Review MWD weekly supply reports • Confirm State Water Project (SWP) initial allocation • Prepare initial assessment of supplies (*Supply Table 1*) • Make initial assessment of unconstrained demand (*Demand Tables 1, 2, 3*) • Make initial estimate of shortage
Mar	Review MWD weekly supply reports • Coordinate with Calleguas
Apr	• Start public outreach • Identify supplier efficiency actions • Confirm current SWP supply allocation • Coordinate with Calleguas to confirm assessment of supplies and identify any additional supply mitigations • Complete Draft Annual Assessment • Coordinate with neighboring retail water agencies and land use agencies regarding any necessary drought messaging
May	• Continue public outreach • Update Annual Water Assessment • Finalize Annual Water Assessment and submit to DWR
Jun-Sept	• Continue public outreach • If necessary, Board will adopt a resolution declaring a water shortage • WWD8 implement supply mitigations and demand reduction actions for water shortage stage • Monitor customer response to water shortage messaging and other actions

2.2 Factors Affecting Demand and Supply

Weather affects the WWD8 in several ways. For many of the supplies the effects of weather are seen over the long-term and are reflected in snowpack and reservoir levels. To monitor factors affecting supply, WWD8 will closely monitor guidance and messaging from DWR, MWD, and supplier Calleguas. Weather may impact local resources supply in the near-term. However, WWD8's local resources are a minimal portion of the potable water supply. WWD8 can also look for weather patterns to estimate potential changes in customer demand.

- Potential for La Niña. ENSO (El Niño Southern Oscillation) is the warming and cooling of the ocean water along the Equator in the Eastern Pacific Ocean near South America. The warm phase is called El Niño and the cold phase is called La Niña. When the Eastern Pacific Ocean is 0.5 degrees Celsius above normal for 5 consecutive 3-month average periods, an El Niño is declared. When the Eastern Pacific Ocean is 0.5 degrees Celsius below normal for 5 consecutive 3-month average periods, a La Niña is declared. The El

Niño and La Niña are declared as Weak, Moderate, or Strong depending on how far from normal the water temperature gets. When the temperature is above 1.5 degrees Celsius, it is declared as strong. When the temperature is above 1.0 degrees Celsius, it is declared as Moderate. When the temperature is above 0.5 degrees Celsius, it is declared as Weak. The effect on Ventura County trends to be wetter with El Niños and drier with La Niñas. The National Weather Service Climate Prediction Center provides information on potential for La Niña conditions.

- US Drought Information Seasonal Outlook. The National Weather Service Climate Prediction Center provides information geographically on drought conditions and categorizes geographies as "Drought Persists", "Drought Remains but Improves", "Drought Removal Likely", and "Drought Development Likely".

- Department of Water Resources, California Data Exchange Center, Snow Water Equivalent. DWR data provides the average snowpack as of April 1st and percent of normal for this date. Imported water supplies are significantly affected by Sierra Mountains snowpack that replenish reservoirs connected to the State Water Project.

- Ventura County Watershed Protection District automated rainfall data by specific weather station location. Rainfall data may inform WWD8 demand trends.

2.3 Current Year Unconstrained Demand

DWR guidance for the Annual Assessment is to consider the expected water use in the upcoming year, based on recent water use, and before any projected response actions that a supplier may trigger under its Water Shortage Contingency Plan.

2.3.1.1 Land Use

In order to evaluate water demand, the City of Simi Valley Environmental Services Department, Planning Division, on behalf of WWD8, will examine current and projected land uses.
The current land use will comprise of residential and non-residential developments constructed through the end of the recent calendar year. The projected land uses will be based on the approved general plan (City of Simi Valley, 2012). A summarized total of existing land use within WWD8's service area will be developed. The water demand will be calculated based on the summarized total of existing land use and design criteria set forth in WWD8's Water Design and Construction Standards (City of Simi Valley, 2021).

The City of Simi Valley maintains a database of projects that are in the City's planning process. The City will evaluate the database for projects that are either under Construction or have Planning Commission approvals. In coordination with City of Simi Valley Environmental Service, Planning Division, WWD8 will create a table of the "Under Construction and Approved Projects" to determine the anticipated to utilize water demand in the next 48 months.

2.3.1.2 Current Demand

WWD8 will create a table that will summarize the total water consumption (potable, recycled, and untreated) for each consumption category within the service area for the most recent complete calendar year, or on a 5-year or 10-year average, by month (*Demand Table 1*). Based on

anticipated weather, WWD8 may adjust *Demand Table 1* to assume an increase in current demands.

2.3.1.3 Potential Demand

WWD8 will create a table showing anticipated demands from "Under Construction and Approved Projects" (*Demand Table 2*). The calculations in *Demand Table 2* will use the most recently developed demand factors inclusive of water loss and including a contingency to account for annual demand variations that are likely to occur.

2.3.1.4 Total Near-Term Demands

Near-term water demands (*Demand Table 3*) will be the sum of the demands reflected in *Demand Table 1* plus *Demand Table 2*.

2.4 Assessing Supply in Current Year and One Dry Year

WWD8 will evaluate the local water sources available including: SWP supplies from Calleguas, extraction form the Gillibrand Groundwater Basin (a sub-basin to the Simi Groundwater Basin), and Recycled Water. Table 2-2 summarizes the factors to be considered.

Table 2-2: Annual Assessment of Supply

Source	Factors to be Evaluated in Current Year	Establishing Supply in Assumed Subsequent Dry Year
SWP Water (Calleguas) 99% of supply	• What is anticipated SWP Allocation for current calendar year • Any constraints on supply due to infrastructure or water quality • Any constraints on wheeling water to the WWD8 system • Calleguas WSCP Actions/ MWD Water Supply Allocation Plan	• What is anticipated SWP dry year allocation • Any constraints on supply due to infrastructure or water quality • Any constraints on wheeling water to the WWD8 system
Gillibrand Groundwater Basin (a sub-basin to the Simi Groundwater Basin)	• Regulatory limitations • Annual extractions past 10-years • Any constraints on supply due to infrastructure or water quality • Consider if supply would be managed differently if it is known subsequent year will be dry year	• Regulatory limitations • Annual extractions past 10-years • Any constraints on supply due to infrastructure or water quality
Recycled Water	• What is current annual recycled water production capability • What is current annual demand + new demand occurring in current calendar year	• What is current annual recycled water production capability • What is current annual demand + new (18 months) demand

Current Calendar Year is assumed to be the year in which the assessment is performed. If the annual assessment is due in July 2021, the data would project conditions from July 2021 to Dec 2021 (current year) and Jan 2022 to Dec 2022 (subsequent dry year).

Using Table 2-2 as a guide, WWD8 will develop a summary of each water source available in the upcoming year assuming the subsequent year will be a dry year. WWD8 will develop *Supply Table 1*, in which a quantified summary of each anticipated supply source is provided for the upcoming year, by month, assuming the subsequent year is a dry year.

2.5 Assessing Water Supply Reliability in the Annual Assessment

WWD8 will compare *Supply Table 1* and *Demand Table 3* and determine if a supply shortage is anticipated, the level of shortage, and prepare if necessary to implement its water shortage contingency plan.

2.5.1 Coordination with Cities and Counties

Should the Annual Assessment indicate a water shortage, the District will coordinate with the City of Simi Valley, the County of Ventura and unincorporated areas of Ventura county (e.g. Chatsworth Lake Manor area), as appropriate, for the possible proclamation of a local emergency as defined in Section 8558 of the Government Code.

Section 3: Water Supply Interruptions

Water supplies may be interrupted or reduced significantly in a number of ways, from events such as an earthquake that damages water delivery or storage facilities, a regional power outage, water system failures, fire, a chemical spill that affects water quality state restrictions or other causes.

This section of the Plan describes how WWD8 plans to respond to various types of water supply interruptions. Section 4 focuses on water shortages associated with droughts.

3.1 Actions to Prepare for Catastrophic Interruption

As mentioned earlier, WWD8 has a water conservation program with procedures to mitigate for limited supply. In the event of a catastrophic event, WWD8 has up to 48 million gallons of potable water storage capacity in its 43 tanks throughout its water distribution system to address water supply interruptions. WWD8 also has numerous fuel-driven generators and is purchasing additional portable fuel-driven generators to provide back-up power supply to various pump stations serving higher elevation areas served by WWD8. WWD8 can also convey water supplies with the assistance of Fire Department pumpers connecting to different fire hydrants. In addition, WWD8 has and will coordinate with the City of Simi Valley Police Department in the event of an emergency.

Furthermore, as a retail entity to Calleguas and MWD, WWD8 benefits from the emergency planning efforts of these agencies. For example, Calleguas can distribute water stored in Lake Bard, local groundwater resources, and emergency sources from Los Angeles Department of Water and Power via the Colorado River Aqueduct in the event that the Calleguas supply from MWD is disrupted.

3.1.1 Risk Resilience Assessment

WWD8 has completed a Risk Resilience Assessment (RRA) Report (Carollo, 2021) to comply with the America's Water Infrastructure Act of 2018 (AWIA) that:

- Summarizes best practices for reducing risks,
- Identifies critical assets and their associated risks from malevolent threats and natural hazards, and
- Addresses the WWD8's level of resilience based on criteria developed by AWWA and the Environmental Protection Agency.

The RRA found that WWD8's operational resilience is very strong in most areas due to a focus on maintaining operations during the loss of a critical asset and the ability to work around operational issues (Carollo, 2021).

Two areas identified in the RRA to provide opportunities for potential for improvement include (1) an update to the existing Emergency Response Plan (ERP), which has not been reviewed in a number of years, and (2) implementation of National Incident Management System (NIMS) training to improve resilience for the organization and better understand the water systems integration with large-scale Emergency Center Operations.

3.1.2 Emergency Response Plan

The Act requires documentation of actions to be undertaken by the water supplier to prepare for, and implement during, a catastrophic interruption of water supplies. A catastrophic interruption constitutes a proclamation of a water shortage and could result from any event (either natural or man-made) that causes a water shortage severe enough to classify as a Stage IV, Stage V or Stage VI water supply shortage condition.

The City has an existing hazard mitigation plan and emergency operations plan, described in the following sections, that identify planned responses to emergency situations. By June 2021, WWD8 will be completing an updated Emergency Response Plan that will incorporate identified risks and recommended mitigation measures from the RRA Report. The ERP will detail actions necessary to minimize the impacts of supply interruptions due to catastrophic events and to coordinate emergency responses with other agencies in the area.

3.1.2.1 Simi Valley 2015 Multi-Hazard Mitigation Plan

The City of Simi Valley's Multi-Hazard Mitigation Plan (City's 2015 MHMP) (City of Simi Valley, 2015) addresses the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The 2015 MHMP serves as a strategic planning tool for the reduction or prevention of injury and damage from natural hazards in Simi Valley.

The City's 2015 MHMP:

- Meets the requirements for the Disaster Mitigation Act of 2000 and was approved by FEMA in 2016;
- Documents the community's known hazards, capabilities, and vulnerabilities and identifies strategies to overcome those vulnerabilities;
- Includes findings and recommended mitigation actions intended to inform community members and public officials about the hazards in Simi Valley and possible ways to mitigate them; and
- Serves as a living document, to be continuously reviewed, updated and approved by the City Council every five years.

A copy of the City's 2015 MHMP can be obtained on the City of Simi Valley website: https://www.simivalley.org/departments/police-department/emergency-services/simi-valley-hazard-mitigation-planning

3.1.2.2 Simi Valley Emergency Operations Plan

The City of Simi Valley's Standard Emergency Management System (SEMS) Multi-Hazard Functional Plan (2001 Emergency Plan) (City of Simi Valley, 2001) describes the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The 2001 Emergency Plan includes three parts:

- **Part One – Basic Plan** – Contains overall organization and operational concepts relative to response and recovery, as well as an overview of potential hazards. The intended audience is the Emergency Operations Center (EOC) Management Team

- **Part Two – Emergency Organization Functions**. Describes the emergency response organization and emergency action checklists. Intended audience – EOC staff
- **Part Three – Supporting and Legal Documents** includes management, operations, planning, logistics and finance support, legal documents and related forms.

The City is in the process of updating the 2001 Emergency Operations Plan, incorporating updates from the RRA (Carollo 2021).

A copy of the 2001 Emergency Plan can be obtained on the City of Simi Valley website: https://www.simivalley.org/departments/police-department/emergency-services/emergency-plan

3.1.2.3 Ventura County 2015 Multi-Hazard Mitigation Plan

In 2015, Ventura County also adopted a Multi-Hazard Mitigation Plan (Ventura County 2015 MHMP) (AECOM, 2015) to:

(1) address the local mitigation planning requirements of the Disaster Mitigation Act of 2000 for Unincorporated Ventura County and other local participants; and
(2) address the 510 Floodplain Management Planning activities of the Community Rating System for the Ventura County Watershed Protection District on behalf of Unincorporated Ventura County and the City of Oxnard.

A copy of the Ventura County 2015 MHMP can be obtained on the Ventura County flood information website: http://www.vcfloodinfo.com/resources/ventura-county-hazards-mitigation-plan

3.2 Seismic Risk Analysis

WWD8 owns and operates water distribution, treatment, and groundwater pumping facilities. The water distribution system is comprised of two separate systems – one for potable water and the other non-potable, for raw and recycled water. This section summarizes the 2020 seismic risk assessment of the non-storage water facilities and provides an update of the seismic vulnerability of the drinking water supply, treatment, storage, and distribution facilities and mitigation plan for the water system (Kennedy Jenks 2020).

3.2.1 WWD8 Seismic Evaluation and Mitigation

Over the years, WWD8 has performed numerous studies, repairs and projects to reduce and mitigate seismic risk, including but not limited to:

- 1994, Evaluation of Earthquake Damage to Water Reservoirs, prepared by ASL Consulting Engineers, July 1994.

- 1997, earthquake repairs were performed on five tanks, including piping modifications and repairing interior and exterior coating.

- 1999, seismic upgrades and repairs were performed on 13 tanks that were damaged during the 1994 Northridge Earthquake.

- 2010, the WWD8 Water Master Plan and 5-Year Capital Improvement Program Summary Table and CIP Projects identified priority seismic upgrades and repairs.

- 2011 and 2010, dive inspections were performed on various tanks

- 2015, Waterworks Facilities Assessment and Cost of Service Evaluation prepared by Carollo engineers, recommended a seismic evaluation a for 28 tanks and repairs to the foundation or confinement rings for a few of the tanks.

- 2020, Seismic Evaluation of the Waterworks Storage Tank System, currently being prepared by Kennedy Jenks, included geologic and structural focused site visits, seismic evaluations of 43 water storage reservoirs, 22 pump stations, 13 pressure reducing valve stations, 2 wells, and treatment plant, and recommended improvements.

The 2020 seismic risk assessment builds on these studies and provides a seismic evaluation and mitigation for steel tanks, pump stations, pressure reducing valves, and wells or well pump stations as described in the following sections.

3.2.1.1 Seismic Evaluation and Mitigation for Steel Tanks

Geotechnical work was conducted for 43 above-ground potable water reservoirs located on 32 sites in the Simi Valley area, to classify sites for repair and retrofit needs. Design level earthquake values were identified for each tank evaluation, corresponding to the appropriate American Society of Civil Engineers design level earthquake.

A seismic evaluation was performed to identify seismic deficiencies and recommend strengthening measures for each of the welded steel tanks. Work included a written description for each tank summarizing the results of the interior and exterior inspections and condition assessments; and the findings of the desktop evaluation.

Many of the tanks were found to have deficiencies, due to one or more of the following:

- age of the tank
- code which was applicable at the time the tank was designed,
- dimensions of the tank diameter to height ratio,
- proximity to the Simi-Santa Rosa Fault

The tank structural and seismic evaluation investigated several mitigation concepts in order to bring the tanks within code compliance. These mitigation concepts included reduction of the maximum water level fill height, strengthening tank components, redefining the intended service requirements, and combinations of these.

WWD8 has prioritized tanks for repairs and replacement based on the likelihood and consequences of various types of damage.

3.2.2 Seismic Evaluation and Mitigation for Pump Stations, Pressure Reducing Valves, Wells or Well Pump Stations

Seismic assessments were performed for the pump stations, pressure reducing valve (PRV) stations, wells, and well pump stations. Work included documentation of facility descriptions,

seismic deficiencies, seismic mitigation measures, seismic resistance and at-risk facilities. WWD8 is committed to tracking the condition of its facilities and implementing recommended repairs in order of the facility priority to the system.

Section 4: Water Shortage Stages

WWD8 is reliant on imported water supplies to meet the majority of their customer demands (up to 99%). Thus, when WWD8 supplies are allocated or limited by Calleguas, MWD, or the State of California, or when its own evaluation of supply and demand conditions indicates the potential for shortage, WWD8 will enact water shortage supply stages that are increasingly restrictive, and promote conservation during times of low supplies.

The following sections define the water shortages stages and actions to prepare and respond to water shortage reductions, including catastrophic interruptions of service.

4.1 Six Standard Shortage Stages

As required by California Water Code Section 10632(a)(3)(A), this WSCP is framed around six standard water shortage stages, which correspond to progressive ranges of percent supply reductions from zero to more than fifty percent. Table 4-1 presents a crosswalk of the six water supply shortage stages, defined as stages I to VI, to the existing four-levels of water supply shortage levels for WWD8, as defined in the Water Shortage Contingency Plan described in the City of Simi Valley's Municipal Code (included in Appendix A).

Table 4-1: Water Supply Shortage Stages and Supply Reduction Goals and Conditions with Cross Walk to Existing Municipal Code Shortage Levels

Shortage Stage	Municipal Code Shortage Level [a]	Percent Supply Reduction	Water Shortage Condition
I	1	Up to 10%	Minor Shortage
II	2	Up to 20%	Moderate Shortage
III	3 [b]	Up to 30%	Severe Shortage
IV		Up to 40%	Critical Shortage
V		Up to 50%	Emergency Shortage
VI	4	50% of More	Catastrophic Failure

Reformatted from UWMP Guidebook, Table 8-1, included in Appendix C.

[a] Reflect the permanent water conservation standards in the City's Municipal Code that are intended to alter behavior related to water use efficiency at all times and during times of declared water shortage or declared water shortage emergency.

[b] The current Municipal Code Level 3 declaration of water supply shortage covers a 20% to up to 50% supply reduction. Additional granularity has been added to align with the Water Code defined stages III, IV and V.

Supporting stages and activities by MWD and Calleguas are summarized in the following subsections, and the remainder of this section focuses on WWD8 specific activities.

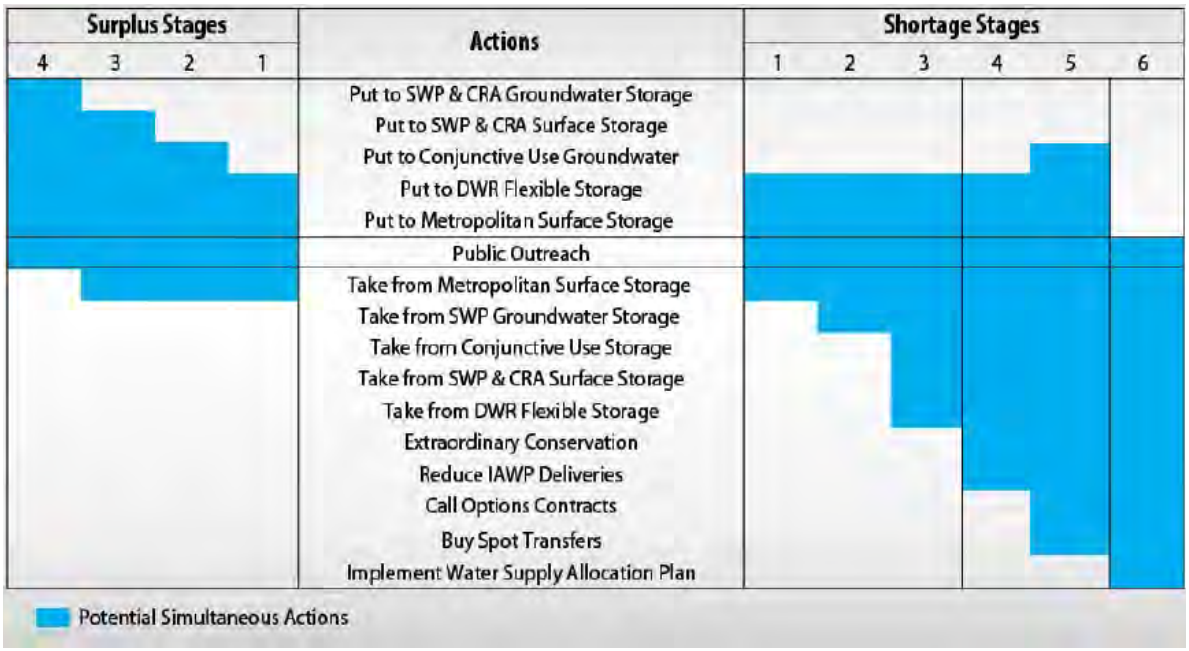
4.1.1 MWD Defined Shortage Stages

MWD's Water Surplus and Drought Management (WSDM) Plan defines six shortage management stages to guide resource management activities (MWD 2020). The stages are defined by the water balances in MWD's storage programs and are not strictly defined by shortages in imported water supply. The six shortage management stages are depicted in Figure 4-1. When MWD must make net withdrawals from storage to meet demands, it is considered to

be “shortage”. Under most shortage stages MWD is still able to meet all end use demands for water. In Stages 1 through 3, demand is met by withdrawing water from storage. In stages 4 and 5 MWD may undertake additional shortage management steps such as calling for conservation, exercising water transfer options, or purchasing water. The overriding goal of the WSDM Plan is to avoid reaching Shortage Stage 6, an Extreme Shortage, however if shortage stage 6 is reached then the Water Supply Allocation Plan is enacted.

The Water Supply Allocation Plan is the established formula for allocating available water supplies to member agencies in the case of extreme water shortages within the Metropolitan service area. But as described above, shortage affecting water available to the District are not anticipated.

Figure 4-1 MWD Resource Stages



Source: Draft MWD 2020 UWMP

4.1.2 Calleguas Defined Shortage Stages

Calleguas’s 2020 WSCP defines six shortage levels, which mirror MWD’s 2020 WSCP. Callegaus’s 2020 WSCP includes an Imported Water Outage Protocol (IWOP) to identify District-wide actions in the event of a medium to long-term outage of imported water service, also defined as a Catastrophic Interruption in Water Supplies or Water Emergency (i.e., greater than 50% reduction in water supply). While Calleguas’s WSCP mirrors the MWD WSCP, the IWOP is intended to enhance Calleguas actions should a localized Catastrophic Interruption occur. The IWOP outlines methodologies being considered to ensure that Calleguas’ water supplies are distributed among its member purveyors in the event of a complete or partial outage of imported water. (California Data Collaborative, 2021)

For Stages I to V, MWD can meet service area demands using stored water, executing flexible supplies, executing demand reduction and implementing their Water Supply Allocation Plan. Calleguas does not foresee imposing allocations, except under MWD’s direction and according to their 2020 WSCP.

Under Stage VI, in the event of full interruption of imported water supplies from MWD due to catastrophic failure of system interconnection, Calleguas would implement the IWOP and take the following shortage response actions (Calleguas, 2021b):

- **Conduct Initial Assessment of Outage:** (increased communication and coordination with the District's Purveyors, assessment of CMWD Outage Supplies and Purveyor Local Supplies)
- **Make Call for Conservation**: "No Outdoor Water Use"
- **Determine if Imported Water Outage Protocol (IWOP) - Allocation should be Implemented** (based on system demand reductions and additional information on potential duration of the Outage Event)
- **Board Action to Implement Allocation System**

Calleguas anticipates the following reduction from the Stage VI shortage response:

- Dec. to May: Approx. 15% conservation (1st 4 months), 40% conservation after Lake Bard Water Filtration Plant (LBWFP) potable supply exhausted
- June to Nov.: Approx. 35% conservation (1st 4 months), 45% conservation after LBWFP potable supply exhausted
- Call for "No Outdoor Water Use" may bring immediate 40% to 60% reductions in overall demand, which would extend availability of outage supplies.

4.2 Shortage Response Actions

The Act requires an analysis of mechanisms for determining actual reductions in water use when WWD8's WSCP is in effect. A Water Supply Shortage exists when WWD8 supplies are allocated or constricted by Calleguas, MWD, or the State of California, when its own evaluation of supply and demand conditions indicates the potential for shortage or during a catastrophic event such as an earthquake or fire.

The water shortage conditions in Table 4-1 are based on the Annual Assessment, described in Section 2. Water usage will be monitored and reported as discussed in Section 9 to determine how effective the demand reduction actions are in meeting goals during a water shortage.

4.3 Historical Effectiveness of Shortage Response Actions

California experienced a persistent drought from the period of December 2011 through March 2017, with the period of late 2011 through 2014 being the driest in California history (PPIC, 2015). During this period, WWD8:

1. Declared a drought on May 12, 2014, (Resolution WWD-243) which enacted customer demand reduction to reduce customer demand by 10 percent by promoting voluntary conservation actions.

2. On July 21, 2014 (Resolution WWD-246), accelerated customer shortage response actions, which successfully reduced customer demands by 10 to 20 percent by enacting mandatory reductions.

3. On June 15, 2015 (Resolution WWD-252), further accelerated customer shortage response actions, which successfully reduced customer demands by 20 to 30 percent by enacting mandatory reductions.

Under normal conditions, WWD8 monitors sales and deliveries on a bimonthly basis. In addition, all water sales are metered and all meters read bimonthly, which is an important tool to determining the effectiveness of shortage response actions. Billing reports can also be reviewed to identify users who are not reducing water use, further supporting implementation of shortage response actions.

4.4 Legal Authorities

The Simi Valley Municipal Code[1], Title 6 Sanitation and Health, Chapter 11 Ventura County Waterworks District No. 8 Water Conservation Program provides the legal authority for WWD8's Water Conservation Program, which aims to reduce water consumption within the jurisdiction of WWD8 through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within WWD8's service area to avoid and minimize the effect and hardship of water shortage to the greatest extent possible. Article 1 establishes permanent water conservation standards intended to alter behavior related to water use efficiency at all times and further establishes water supply shortage response actions to be implemented during times of declared water shortage or declared water shortage emergency, with increasing restrictions on water use in response to worsening drought or emergency conditions and decreasing supplies.

California Water Code Division 1, Section 350, states:

> "The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection."

The Annual Water Supply and Demand Assessment procedures, detailed in Section 2, will be used to determine if a water shortage is to be declared by the WWD8 Board of Directors.

The District Engineer has the authority to implement the plan once the shortage emergency is declared.

[1] Simi Valley Municipal Code, updated through March 2020 and referenced herein, is available online at https://library.municode.com/ca/simi_valley/codes/code_of_ordinances?nodeId=SIMI_VALLEYMUCO

Section 5: Water Shortage Response Actions

This section provides a nexus for WWD8's actions, operational changes and mandatory prohibitions to respond to water shortages declared by DWR, MWD, and Calleguas, due to unforeseen catastrophic events, and in response to local supplies and demands in WWD8's service area.

5.1 Supply Augmentation Actions

Because of WWD8's dependency on imported water supply, there are not very many supply augmentation actions that can be taken. Table 5-1 below summarizes the planned supply augmentation actions that WWD8 could apply during different stages of shortage to stretch supplies. MWD and Calleguas augmentation actions are listed for completeness.

Table 5-1: Supply Augmentation Actions

Shortage Stage (% supply reduction)	WWD8 Actions to Stretch Supplies	Reduction in the shortage gap (AF) [b]	MWD and Calleguas Augmentation Actions
I (Up to 10%)	- No actions needed	0	MWD can meet service area demands using stored water, executing flexible supplies, implementing demand reduction and implementing the MWD Water Supply Allocation Plan. Calleguas does not foresee imposing allocations, except under MWD's direction and according to their 2020 WSCP.
II (Up to 20%)	- Decrease water distribution line flushing	20	
III (Up to 30%)	- All previous actions - Increase Tapo Canyon Treatment Plant water production [a] - Mobile recycled water fill station [b]	400	
IV (Up to 40%)		600	
V (Up to 50%)		800	
VI (Up 50% of More)	- All previous actions	1,000	MWD can meet service area demands using stored water, executing flexible supplies, implementing demand reduction and implementing the MWD Water Supply Allocation Plan. In the event of full interruption of imported water supplies from MWD due to catastrophic failure of system interconnection, Calleguas would implement the IWOP and take the appropriate shortage response actions.

Reformatted from UWMP Guidebook, Table 8-3, included in Appendix C

[a] Tapo Canyon Treatment Plant's production capacity of 1 MGD would be used, as-needed to fill the shortage gap.

[b] A mobile recycled water fill station could be implemented in for dust control, watering of City Parks and potentially used as a residential fill station (estimated 30 AF volume)

5.2 Demand Reduction Actions

WWD8 has a variety of programs to manage and reduce water demand including water waste prohibitions, public education and outreach, monitoring and repairing system leaks, and improving irrigation efficiency within WWD8's service area. In addition, WWD8 has worked cooperatively with Calleguas to take advantage of that agency's water conservation programs. WWD8 customers may be eligible for many conservation programs, including residential rebates such as high-efficiency washing machine rebates, high efficiency toilets, weather-based irrigation controllers, soil moisture sensors, rain barrels, cisterns, and low-flow sprinkler nozzles. Additionally, commercial, industrial, and institutional customers may be eligible for a greater variety of efficient plumbing fixture rebates, customized water-saving incentive programs, landscape irrigation surveys and more.

Table 5-2 presents restrictions and prohibitions on end uses for each shortage stage as defined in the City Municipal Code (Appendix A). The benefits of the demand reduction actions and other operational changes are quantified in Section 5.4.

Table 5-2: WWD8 Demand Reduction Actions

Shortage Stage (% supply reduction)	Restrictions and Prohibitions on End Users [a] *(What the customer can do to reduce demands)*
I (Up to 10%)	- No watering between 9 am and 5 pm - Watering limited to 15 minutes per station, per day - No irrigation of turf and ornamental landscape during and 48 hours after rainfall - Irrigation of ornamental turf on street medians is prohibited - No excessive water flow or runoff - No washing down hard or paved surfaces - Obligation to fix leaks, breaks, or malfunctions within 7 days - Recirculating water required for water fountains and decorative water features - Limits on washing vehicles - Drinking water served only upon request - Commercial lodging must provide option to decline daily linen service - No installation of single-pass cooling systems - No installation of non-recirculating water systems in commercial car wash and laundry systems - Restaurants are required to use water-conserving dish wash spray valves - Commercial car wash system requirements
II (Up to 20%)	All Previous Level Restrictions AND: - Outdoor Irrigation limited to no more than 3 days/week, 15 minutes per station from April through October, and no more than 2 days/week during the months of November through March. - Obligation to fix leaks, breaks, or malfunctions within 5 days
III (Up to 30%)	All Previous Level Restrictions AND: - Outdoor Irrigation limited to no more than 2 days/week, 15 minutes per station from April through October, and 1 day/week during the months of November through March. - Obligation to fix leaks, breaks, or malfunctions within 72 hours - Filling or re-filling ornamental lakes or ponds is prohibited, except needed to sustain aquatic life.

Shortage Stage (% supply reduction)	Restrictions and Prohibitions on End Users [a] *(What the customer can do to reduce demands)*
IV (Up to 40%)	All Previous Level Restrictions AND: - Outdoor Irrigation limited to no more than 1 day/week, 15 minutes per station - Obligation to fix leaks, breaks, or malfunctions within 48 hours - Moratorium on initial filling of ornamental lakes, ponds and decorative fountains - Re-filling of more than one foot per month and initial filling of residential swimming pools or outdoor spas is prohibited.
V (Up to 50%)	All Previous Level Restrictions AND: - OUTDOOR IRRIGATION LIMITED TO HAND-WATERING, no more than 15 minutes per area - Obligation to fix leaks, breaks, or malfunctions within 24 hours - No new service connections - No new annexations
VI (Up 50% of More)	All Previous Level Restrictions AND: - NO OUTDOOR IRRIGATION ALLOWED - Obligation to fix leaks, breaks, or malfunctions upon notice - Moratorium on initial filling of residential swimming pools and spas

[a] Defined in City Municipal code.

As described in Table 5-2, prohibitions and restrictions on water features that are artificially supplied with water, such as ornamental lakes, ponds and decorative fountains are treated differently from swimming pools and spas, as defined in Section 115921 of the Health and Safety Code.

5.3 Operational Changes

Once a shortage stage is declared, WWD8 has a toolbox of shortage response actions that can be implemented through operational changes, as listed in Table 5-3. These operational actions will be supported by communication protocols (discussed in Section 6), enforcement actions (discussed in Section 7) and monitoring and reporting efforts (discussed in Section 9) activities appropriate at each shortage stage level.

Table 5-3: WWD8 Operational Changes to Support Shortage Response Actions

Shortage Stage (% supply reduction)	Operational Actions to Support Shortage Response Actions *(What WWD8 will do once each Stage is declared)*
I (Up to 10%)	- Public Information (ongoing) - Promote water conservation classes and events on City/District calendar, www.simivalley.org/calendar - Promote water conservation and resources available on City/District webpage, www.simivalley.org/waterconservation - Promote water conservation and resources on social media @SimiValleyH2O - Promote water conservation hotline, (805) 583-6420, for inquiries and reports of water waste - Promote water conservation email, waterconservation@simivalley.org, for inquiries and reports of water waste - Personnel dedicated to education and water waste enforcement - Host free turf removal, and design and maintenance of sustainable water-efficient

Shortage Stage (% supply reduction)	Operational Actions to Support Shortage Response Actions *(What WWD8 will do once each Stage is declared)*
	landscape classes - Sponsor local waterwise gardening website, www.venturacountygardening.com - Offer Alliance for Water Efficiency's online home waterworks water calculator for indoor and outdoor water use - Implement City/District turf removal and water use efficiency projects - Offer K-12 School educational programs, including classroom curriculum, presentations, and field trips - Explore inter-agency Partnerships such as natural gas and electric service providers - System water audits, leak detection, and repair to reduce system water loss
II (Up to 20%)	- Continue Stage I Actions - Collaboration with Golden State Water Co. to align Stage ll actions - Initiate Level ll Shortage Messaging - Printed water bills/envelopes and online payment portal - Printed and Online Simi Valley Acorn News advertisements - City Neighborhood Council Meeting presentations - Mayor/District Chair "State of the City" presentation - Simi Valley Chamber of Commerce presentations - Community Events such as Simi Valley Street Fair - Guest Speaker Presentations to Community Groups/Assoc. - Collaborate with Service Organization such as Simi Valley Youth Council - Personnel dedicated to education and water waste enforcement
III (Up to 30%)	- Continue Stage II Actions - Collaboration with Golden State Water Co. to align Stage lll actions - Initiate Customer Water Billing Level lll Shortage Messaging - Printed and Online Simi Valley Acorn News advertisements in color - Initiate Local Radio and TV Public Service Announcements - Expand Community Outreach Events - Expand Guest Speaker Presentations to Community Groups/Assoc. - Expand Collaboration with Service Organizations - Implement Door Hanger Notices - Conduct Needs Assessment to Fully Implement / Finish Automated Metering Infrastructure (AMI) and Customer Information Portal
IV (Up to 40%)	- Continue Stage lll Actions - Collaboration with Golden State Water Co. to align Stage lV actions - Initiate Customer Water Billing Level lV Shortage Messaging - Request local Radio and TV Interviews - Initiate local Radio Advertisements - Printed and Online Simi Valley Acorn News Advertisements, full-page in color - Increase Water Billing Frequency e.g. bimonthly to monthly - Expand Implementation, Training and Administration of AMI System - Initiate Purchase and Installation of Customer Information Portal - Implement or Modify Emergency Drought Rate Structure or Surcharge (as-appropriate)
V (Up to 50%)	- Continue Stage lV Actions - Collaboration with Golden State Water Co. to align Stage V actions - Initiate Customer Water Billing Level V Shortage Messaging

Shortage Stage (% supply reduction)	Operational Actions to Support Shortage Response Actions *(What WWD8 will do once each Stage is declared)*
VI (Up 50% of More)	- Continue Stage V Actions - Collaboration with Golden State Water Co. to align Stage Vl actions '- Initiate Customer Water Billing Level Vl Shortage Messaging- Work with other water districts to exercise mutual aid assistance (as-appropriate)

5.4 Benefits of Shortage Response Actions

As discussed above, supply augmentation actions, demand reduction actions and operational changes will help WWD8 reduce the "gap" between supplies and demands. This section estimates the benefits of the shortage response actions as a result of District actions, including:

- Public Information
- Enforcement
- Restrictions on Non-Essential Water Uses
- Pricing (Note: to increase rates during periods of extended drought, this would require a Prop 218 process to re-evaluate current rate structure)

5.4.1 Landscape Restrictions on Non-Essential Water Uses

The City's Municipal Code (Appendix A) focuses on curtailing water waste and non-essential water use. Outdoor water use, including washing sidewalks and watering ornamental landscapes is targeted. These uses are typically considered to be discretionary or nonessential, are highly visible, and therefore relatively easy to monitor, and often are a substantial component of water demand, particularly during the summer months when drought conditions are likely most severe.

Given the significance and visibility of lawn watering as the predominant component of seasonal use, best management practices in drought contingency plans typically prescribe time-of-use and other restrictions on lawn watering. This often involves placing water users on a schedule which allows for staggered lawn watering days, as well as restrictions on the times during the day when lawns can be watered. Multi-family dwellings and commercial properties are also required to install a separate irrigation water meter based on the latest Waterworks Standards. This will allow WWD8 to restrict watering landscaped areas during shortages.

The American Waterworks Association (AWWA) estimates that voluntary outdoor water use limits can result in a water savings of up to 10 percent and mandatory outdoor water limits can achieve up to a 56 percent reduction in outdoor water use (AWWA 2008, AWWA 2011). Specifically, case studies found that:

- Restricting water use to every third day reduced water use by 22 percent.
- Restricting water use to twice a week reduced water use by 33 percent.
- Restricting water use to once a week saved 56 percent.

There have not been detailed studies on outdoor water use in the WWD8 service area. However, a comparison of low water use months, when water use is assumed to be primarily indoor use

(January, February and March) with high-water use months when outdoor water use is greatest has been used to estimate the percent of outdoor water demand. Based on this comparison, the percent outdoor use for the following categories is estimated:

- Single family and multi-family homes = 32 percent outdoor use
- Commercial accounts = 29 percent outdoor use
- Institutional/Governmental = 13 percent outdoor use
- Landscape meters = 100 percent outdoor use

Based on 2013 to 2020 data, the sum of outdoor water use in each of the above categories makes up approximately 45 percent of the WWD8 demand (approximately 8,750 AFY):

- Outdoor water restrictions, such as limiting watering to specific times, eliminating excess runoff, and not irrigating during and 48 hours after rainfall could save **10 percent** of outdoor water use or about **875 AFY.**
- Restricting water use to twice a week could reduce outdoor water use by up to **33 percent** or about **2,890 AFY.**
- Restricting water use to once a week could reduce outdoor water use by up to **56 percent** or about **4,900 AFY.**

5.4.2 Public Information

Without exception, experience has shown that a well-informed public is generally more willing to heed requests to voluntarily conserve or alter water use patterns, and will be more likely to comply if mandatory water use restrictions become necessary. DWR estimates that public information campaigns have alone reduced demand in the range of 5 to 20 percent, depending on the time, money, and effort spent (DWR 2008). Public information supports voluntary and mandatory measures by educating and convincing the public that a critical water shortage exists and provides information on how water is used and how they can help. The DWR Drought Guidebook highlights that when the public perceives the drought to be severe, they changed behaviors (such as flushing the toilet less often).

The information provided to the public should include a description of the conditions that will trigger implementation of shortage stages as well as a description of what the plan entails (restrictions, enforcement provisions, etc.). It is also advisable to provide practical “consumer” information that will help water users comply with the plan. For example, information about restrictions on lawn watering might be accompanied with information about proper lawn watering practices.

A water savings of **2 to 10 percent** would mean that WWD8 could reduce overall demand by an additional **390 AFY to 1,950 AFY**, respectively through an effective public communication.

5.4.3 Enforcement

A study examining the effectiveness of drought management programs in reducing residential water-use (Virginia Polytechnic Institute 2006) showed considerable variation in the effectiveness of drought management programs and highlighted the importance of public information and

enforcement. Results, shown in Table 4-3, indicate that overall reductions in residential water-use ranged from **0 to 7 percent** for voluntary restrictions and from **0 to 22 percent** for mandatory restrictions. The observed differences were statistically attributed to information efforts for voluntary restrictions and both information and enforcement efforts for mandatory restrictions.

The analysis highlights the key role that public outreach and information plays in the success of drought response actions. As summarized in Table 5-4:

- **Voluntary restriction programs** with little to moderate levels of information dissemination had no appreciable effect on water-use. Voluntary restriction programs with active promotional efforts, however, reduced water-use by an estimated 7 percent from what would have otherwise occurred without any restriction program. Thus, for voluntary restrictions, only the most intense programs had even a moderate level of success in reducing water-use.

- **Mandatory restriction programs** without a significant enforcement component broadly mirrored the outcomes achieved by the voluntary programs. Programs with mandatory restrictions that invested minimal effort in information dissemination did not appreciably reduce residential water-use. Programs with no active enforcement efforts but with moderate to high levels of informational dissemination achieved 6 and 12 percent reductions in water-use, respectively. These estimated reductions are similar to those achieved by voluntary programs with aggressive informational campaigns.

For example, the experience the City of Santa Cruz had implementing its Drought Contingency Plan and successfully reaching its reduction goals supports the importance of a strong public information program. Analysis of the implementation program identified the key ingredient to its success was "the public's understanding, awareness, and belief that the City was confronted with a true water shortage problem. Media coverage of water problems across California reinforced the situation. Without that sense of a real and imminent problem, it's likely the level of cooperation and willingness demonstrated by the community in making changes they did might have been considerably reduced." (Santa Cruz, 2010)

Delivering accurate and timely information to water users, news media and local governments with updates on conditions, restrictions, and helpful contact information is key.

Table 5-4: Drought Program Management Variables Effect on Residential Water-Use

Classification	Estimated change in Water-Use	Statistically Different than no effect?
Voluntary Restrictions		
Little or no information disseminated	-2%	No
Moderate level of information	-2%	No
Aggressive information dissemination	-7%	Yes
Mandatory Restrictions		
Low information and low enforcement	-5%	No
Moderate information and low enforcement	-6%	Yes
Aggressive information and low enforcement	-12%	Yes
Low information and moderate enforcement	-4%	No
Moderate information and enforcement	-9%	Yes
Aggressive information and moderate enforcement	-15%	Yes
Moderate information and aggressive enforcement	-20%	Yes
Aggressive information and enforcement	-22%	Yes

Source: Virginia Polytechnic Institute 2006

Since landscape restrictions are already accounted for (in Section 5.4.1), voluntary and mandatory restrictions are assumed to apply to all other non-landscape uses. With voluntary restrictions and aggressive information dissemination, it is assumed WWD8 would achieve **5 percent** water savings, or about **540 AFY.** With mandatory restrictions and aggressive information dissemination and enforcement it is assumed WWD8 could achieve up to **15 percent** water savings or about **1,620 AFY**.

5.4.4 Leak, Breaks and Malfunctions

Leaks represent water wasted with no intended use or purpose, and can be the result of breaks, malfunctions or long term inefficiencies in the system. On average, leaks can account for more than 6 percent of a facility's total water use (EPA 2017).

Unfortunately, leaks often go undetected, particularly if a facility is not routinely monitoring its water use. WWD8 addresses leaks in the WWD8 Municipal Code by requiring that customers fix leaks, breaks, or malfunctions within a specified period of time, depending on the drought stage.

WWD8 does not currently have the ability to track and enforce indoor leaks, however this could be achieved in the future with full implementation of an AMI system with a customer information portal. Assuming implementation of these infrastructure and software updates, the obligation to fix leaks, breaks or malfunctions could potentially achieve **6 percent** water savings of indoor use, or about **650 AFY**, which is assumed to be achievable in Stages V and VI,

5.4.5 Drought Surcharge Rates

Past studies reveal that water use decreases when utilities install water meters and impose commodity charges, based on the amount of water used. AWWA estimates that water use decreases between 15 to 40 percent when customers are charged a commodity rate rather than a flat rate that is not based on the amount of water used (AWWA 2008). This indicates that customers are price sensitive and will adjust habits to reduce their cost of water. The actual extent that increasing rates during a drought can result in decreased water use is uncertain.

AWWA studies indicate that the effectiveness of pricing to reduce water use is very dependent on the affluence of the water utility customer base. As a rule of thumb, AWWA estimates that marginal price increases in water (up to 10 percent) reduce water use by 1.5 to 7 percent; price increases greater than 10 percent are necessary to achieve water use reductions greater than 10 percent (AWWA 2008).

Based on AWWA data it is assumed that water use reductions of **10 to 15 percent** will be achieved with drought rates, representing **1,735 AFY to 2,600 AFY** of reduced water use by WWD8 customers.

In California, an increase rates during periods of extended drought would require a Prop 218 process to re-evaluate current rate structure.

5.5 Additional Mandatory Restrictions

The State, through the State Water Board, adopted drought emergency conservation regulations in July 2014. The Board expanded, updated, extended, and readopted the emergency regulations several times and in the prohibitions on wasteful water use practices were in place until November 25, 2017.

As directed by Executive Order B-40-17, the State Water Board is conducting a rulemaking to put in place permanent prohibitions on wasteful water use practices. This rulemaking is part of the broader legislation, *Making Water Conservation a California Way of Life*.

The specific outcome of the permanent prohibitions cannot be known at this time. The emergency conservation regulations in effect through November 2017 included the following prohibitions:

- Application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;
- The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use
- The application of potable water to driveways and sidewalks
- The use of potable water in a fountain or other decorative water feature except where the water is part of a recirculating system
- The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall

- The serving of drinking water other than upon request in eating or drinking establishments
- Irrigation with potable water of ornamental turf on public street medians.

The emergency conservation regulations further required that:

- The irrigation with potable water of landscapes outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and the Department of Housing and Community Development
- Commercial, industrial, and institutional properties shall limit outdoor irrigation of ornamental landscapes or turf with potable water to no more than two days per week.

WWD8's water use restrictions are consistent with the State's prohibitions to prevent water waste. However, dependent on the declared drought stage, WWD8 may have restrictions and requirements in addition to those of the State such as:

- Limiting outdoor irrigation of ornamental landscape or turf with potable water to certain hours and to certain days of the week (all customer types, not just Commercial, Industrial, or Institutional properties)
- Prohibiting all outdoor irrigation with potable water
- Prohibiting use of water in fountains unless water is recirculated
- Prohibiting re-filling of more than one foot per month and initial filling of residential swimming pools or outdoor spas.

5.6 Anticipated Reduction from Shortage Response Actions

Table 5-5 summarizes the anticipated water use reductions from WWD8's planned shortage response actions by stage.

Table 5-5: Demand Reduction Actions

Shortage Level	Demand Reduction Actions (DWR Dropdown List)	Simi Valley Municipal Code Demand Reduction Actions	Estimate Volume Reduction (AF)	Additional Explanation or Reference (optional)
1	Landscape - Other landscape restriction or prohibition	- No watering between 9 am and 5 pm - Watering limited to 15 minutes per station, per day - No excessive water flow or runoff - No irrigation of turf and ornamental landscape during and 48 hours after rainfall - Irrigation of ornamental turf on street medians is prohibited	875	Assumes savings of 10% for outdoor use during Stage I for limitations on timing, no excess runoff, etc (AWWA 2008, 2011)
1	Other - Prohibit use of potable water for washing hard surfaces	- No washing down hard or paved surfaces	40	Assumes savings of 0.5% of outdoor use
1	Expand Public Information Campaign	- Targeted Messaging to customers	390	Assume additional savings of 2% during Stage I and II (DWR, 2008) through effective public communication
1	Other	Enforcement of all demand reductions actions listed below: - Limits on washing vehicles - Drinking water served only upon request - Commercial lodging must provide option to decline daily linen service - No installation of single-pass cooling systems - No installation of non-recirculating water systems in commercial car wash and laundry systems - Restaurants are required to use water-conserving dish wash spray valves - Commercial car wash system requirements	540	Assumes savings of 5% on non-landscape uses during Stage I for voluntary and other restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)
		Subtotal Stage I:	1,845	(10% reduction goal = 1,735 AFY)

Shortage Level	Demand Reduction Actions (DWR Dropdown List)	Simi Valley Municipal Code Demand Reduction Actions	Estimate Volume Reduction (AF)	Additional Explanation or Reference (optional)
2	Landscape - Other landscape restriction or prohibition	- All Stage I landscape restrictions - Outdoor Irrigation limited to no more than 3 days/week, 15 minutes per station from April to October, and no more than 2 days/week October to April	2,890	Assumes savings of 33% for outdoor use during Stage II for restricting water use to twice a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)
2	Other - Prohibit use of potable water for washing hard surfaces	- No washing down hard or paved surfaces	40	Assumes savings of 0.5% of outdoor use
2	Expand Public Information Campaign	- Targeted Messaging to customers - Notify top water users in each customer class, e.g. residential, and CII - Increase frequency of customer meter readings and production meter readings	390	Assume additional savings of 2% during Stage I and II (DWR, 2008) through effective public communication
2	Other	Enforcement of all demand reductions actions in Stage I	1,080	Assumes savings of 10% on non-landscape uses during Stages II and III for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)
		Subtotal Stage II:	4,400	(20% reduction goal = 3,470 AFY)
3	Landscape - Other landscape restriction or prohibition	- All Stage II landscape restrictions - Outdoor Irrigation limited to no more than 2 days/week, 15 minutes per station from April to October, and 1 day/week from October to April	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)
3	Other - Prohibit use of potable water for washing hard surfaces	- No washing down hard or paved surfaces	40	Assumes savings of 0.5% of outdoor use

Shortage Level	Demand Reduction Actions (DWR Dropdown List)	Simi Valley Municipal Code Demand Reduction Actions	Estimate Volume Reduction (AF)	Additional Explanation or Reference (optional)
3	Expand Public Information Campaign	- Targeted Messaging to customers - Notify top water users in each customer class, e.g. residential, and CII - Increase frequency of customer meter readings and production meter readings	980	Assume additional savings of 10% during Stage III and IV (DWR, 2008) through effective public communication
3	Other	Enforcement of all demand reductions actions in Stage II plus demand reductions actions listed below: - Limits on filling ornamental lakes, ponds and decorative fountain - topped off no more than once per month	1,080	Assumes savings of 10% on non-landscape uses during Stages II and III for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)
		Subtotal Stage III:	7,000	(30% reduction goal = 5,205 AFY)
4	Landscape - Other landscape restriction or prohibition	- All Stage III landscape restrictions - Outdoor Irrigation limited to no more than 1 day/week, 15 minutes per station	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)
4	Other - Prohibit use of potable water for washing hard surfaces	- No washing down hard or paved surfaces	40	Assumes savings of 0.5% of outdoor use
4	Expand Public Information Campaign	- Targeted Messaging to customers - Notify top water users in each customer class, e.g. residential, and CII - Increase frequency of customer meter readings and production meter readings	980	Assume additional savings of 10% during Stage III and IV (DWR, 2008) through effective public communication
4	Implement or Modify Drought Rate Structure or Surcharge	- Initiate implementation of an Emergency Drought Rate Structure, Budget-based Tiered Rate Structure, Surcharge and/or Excessive Water Use Penalties	1,950	Assumes savings of 10% during Stage IV (AWWA 2008)

Shortage Level	Demand Reduction Actions (DWR Dropdown List)	Simi Valley Municipal Code Demand Reduction Actions	Estimate Volume Reduction (AF)	Additional Explanation or Reference (optional)
4	Other	Enforcement of all demand reductions actions in Stage III plus demand reductions actions listed below: - Limits on filling residential swimming pools and spas - topped off no more than once per month - Decrease water distribution line flushing - Targeted Messaging to customers; Notify top XX water users in each customer class, e.g. residential, and CII - Increase frequency of customer meter readings and production meter readings	1,080	Assumes savings of 10% on non-landscape uses during Stages II and III for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)
		Subtotal Stage IV:	8,950	(40% reduction goal = 6,940 AFY)
5	Landscape - Other landscape restriction or prohibition	- All Stage III landscape restrictions - OUTDOOR IRRIGATION LIMITED TO HAND-WATERING, no more than 15 minutes per area	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)
5	Other - Prohibit use of potable water for washing hard surfaces	- No washing down hard or paved surfaces	40	Assumes savings of 0.5% of outdoor use
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	- Obligation to fix leaks, breaks, or malfunctions within 24 hours	530	Assumes savings of 6% of indoor use (EPA 2017). Only applies once AMI and customer portal is in place (Stage V and VI)
5	Expand Public Information Campaign	- Targeted Messaging to customers - Notify top water users in each customer class, e.g. residential, and CII - Increase frequency of customer meter readings and production meter readings	1,950	Assume additional savings of 20% during Stage V and VI (DWR, 2008) through effective public communication

Shortage Level	Demand Reduction Actions (DWR Dropdown List)	Simi Valley Municipal Code Demand Reduction Actions	Estimate Volume Reduction (AF)	Additional Explanation or Reference (optional)
5	Implement or Modify Drought Rate Structure or Surcharge	- Advance implementation of an Emergency Drought Rate Structure, Budget-based Tiered Rate Structure, Surcharge and/or Excessive Water Use Penalties	2,930	Assumes savings of 15% during Stage V-VI (AWWA 2008)
5	Other	Enforcement of all demand reductions actions in Stage IV plus demand reductions actions listed below:	1,620	Assumes savings of 15% on non-landscape uses during Stages IV and VI for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)
		Subtotal Stage V:	11,970	(50% reduction goal = 8675 AFY)
6	Landscape - Other landscape restriction or prohibition	- All Stage III landscape restrictions - NO OUTDOOR IRRIGATION ALLOWED	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)
6	Other - Prohibit use of potable water for washing hard surfaces	- No washing down hard or paved surfaces	40	Assumes savings of 0.5% of outdoor use
6	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	- Obligation to fix leaks, breaks, or malfunctions within 24 hours	530	Assumes savings of 6% of indoor use (EPA 2017). Only applies once AMI and customer portal is in place (Stage V and VI)
6	Expand Public Information Campaign	- Targeted Messaging to customers - Notify top water users in each customer class, e.g. residential, and CII - Increase frequency of customer meter readings and production meter readings	1,950	Assume additional savings of 20% during Stage V and VI (DWR, 2008) through effective public communication
6	Implement or Modify Drought Rate Structure or Surcharge	- Implement preferred Emergency Drought Rate Structure, Budget-based Tiered Rate Structure, Surcharge and/or Excessive Water Use Penalties	2,930	Assumes savings of 15% during Stage V-VI (AWWA 2008)

Shortage Level	Demand Reduction Actions (DWR Dropdown List)	Simi Valley Municipal Code Demand Reduction Actions	Estimate Volume Reduction (AF)	Additional Explanation or Reference (optional)
6	Other	Enforcement of all demand reductions actions in Stage V plus demand reductions actions listed below:	1,620	Assumes savings of 15% on non-landscape uses during Stages IV and VI for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)
		Subtotal Stage VI:	11,970	(>50% reduction goal = >8,675 AFY)

NOTES:
Reformatted from UWMP Guidebook, Table 8-2, included in Appendix C
Volumes represent the maximum potential reduction that could be achieved based on the percentages provided in cited literature and WWD8's landscape and non-landscape use.

Section 6: Communication Protocols

Successful implementation of this Water Shortage Contingency Plan will require coordination with agencies that supply WWD8 water and with customers that rely on WWD8 supplies.

6.1 Coordination with Agencies that Supply WWD8

As a retailer of Calleguas, who is a member agency of the MWD, it is imperative for coordinated planning of water resources. This will allow the WWD8 to account for shortages not only in their supplies, but in the supplies of Calleguas and MWD as well.

WWD8 works cooperatively with Calleguas, meeting regularly for monthly purveyor meetings, or as needed, to confirm the availability of water supplies to WWD8's service area. As a member agency that receives SWP water from the MWD, Calleguas serves as a conduit to relay information on the status of MWD water supplies to WWD8.

6.2 Neighboring Retail Water Agencies and Land Use Agencies

The purpose of meeting with neighboring water agencies and land use agencies is to ensure that residents in WWD8 are receiving consistent messages about the drought, drought severity, and are aware of the actions they can take to reduce demand. Key agencies would include the City of Simi Valley, Calleguas Municipal Water District, County of Ventura Resource Management Agency, County of Ventura Water and Sanitation Department, Golden State Water Company and Las Virgenes Municipal Water District.

All the agencies listed above participate in the Association Water Agencies Ventura County (AWAVC), the members are known to each other. There is a water issues committee that meets on the 3rd Tuesday of each month that could be a starting point to coordinate the development of a common message to the community about the drought and to find opportunities to share costs (e.g., share costs of radio announcements and newspaper advertisements). A special drought committee could also be set up as the drought progresses, to refine the drought messaging to further address any common misconceptions or common customer questions.

Goals of coordination may include, but not be limited to:

- Identification of opportunities to share public outreach costs
- Development of common brochures
- Development of common website messages
- Refinement of drought messaging based on customer response
- Determination of the need for proclamation of local emergency

6.3 Customer Outreach

Customer participation is a key element in responding to a supply shortage. While general media coverage of a drought is likely to increase awareness, WWD8 regularly participates in public outreach to further expand water conservation efforts. WWD8 regularly communicates water

resource, use and conservation progress via water bills, websites, social media, highway signs, guest speaking, group presentations, news advertisements and articles and numerous other activities, such as outreach campaigns. Furthermore, WWD8 promotes water conservation material from MWD, Calleguas, and other agencies to further distribute water conservation materials. Table 6-1 describes communication protocols and procedures to be used by WWD8 for outreach to customers to reduce demand during each defined shortage stage.

Table 6-1: Communication Protocols and Procedures to Support Shortage Response Actions

Shortage Stage	Percent Supply Reduction	Communication Protocols and Procedures *(Outreach to customers when each Stage is declared)*
I	Up to 10%	- Declaration and notification of water supply shortage I by resolution, and adoption at a public meeting in accordance with state law. - Notification of supply shortage in Public Newspaper
II	Up to 20%	- Declaration and notification of water supply shortage II by resolution, and adoption at a public meeting in accordance with state law. - Notification of supply shortage in Public Newspaper - Advertisement in Local Public Newspaper - Targeted Messaging to customers - Notify top 5 water users in each customer class, e.g. residential, and CII
III	Up to 30%	- Declaration and notification of water supply shortage III by resolution, and adoption at a public meeting in accordance with state law. - Notification of supply shortage in Public Newspaper - Advertisement in Local Public Newspaper - Targeted Messaging to customers - Notify top 10 water users in each customer class, e.g. residential, and CII
IV	Up to 40%	- Declaration and notification of water supply shortage IV by resolution, and adoption at a public meeting in accordance with state law. - Notification of supply shortage in Public Newspaper - Advertisement in Local Public Newspaper - Targeted Messaging to customers - Notify top 15 water users in each customer class, e.g. residential, and CII
V	Up to 50%	- Declaration and notification of water supply shortage V by resolution, and adoption at a public meeting in accordance with state law. - Notification of supply shortage in Public Newspaper - Advertisement in Local Public Newspaper - Targeted Messaging to customers - Notify top 20 water users in each customer class, e.g. residential, and CII
VI	50% of More	- Declaration and notification of water supply shortage VI by resolution, and adoption at a public meeting in accordance with state law. - Notification of supply shortage in Public Newspaper - Advertisement in Local Public Newspaper - Targeted Messaging to customers - Notify top 25 water users in each customer class, e.g. residential, and CII

Section 7: Enforcement

The Act requires an analysis of mandatory enforcement, prohibitions, penalties, and consumption reduction methods against specific water use practices which may be considered excessive during water shortages. The Board has the authority to adopt an ordinance enacting specific prohibitions or penalties on end users. In order to enact or rescind any prohibitions or penalties, staff would seek approval from the Board, or the District Engineer, depending on what stage WWD8 is in and what action is required based on changing hydrologic conditions or state mandated policies.

WWD8's water use reduction ordinance, which prohibits the waste of water, is reflected in the City Municipal Code. WWD8 can levy fines on customers who are found to be in violation of WWD8's Water Shortage Contingency Plan. Enforcement of restrictions shall be in accordance with City of Simi Valley Municipal Code, Title 6 Sanitation and Health, Chapter 11 Ventura County Waterworks District No. 8 Water Conservation Program, Article 1, Section 6-11.112 – Enforcement (Appendix A).

When WWD8 determines that more severe water shortage conditions are no longer in effect, mandatory conservation measures will not be in force.

7.1 Civil Enforcement of the Water Waste Prohibition

Prohibited actions and penalties for violating the Water Shortage Contingency Plan are specified in the Municipal Code.

7.1.1 Civil Penalties

WWD8 has established the following civil penalties associated with violations of the Water Shortage Contingency Plan are specified in the Municipal Code:

- For the first violation of any of the provisions of the code, a written notice is issued by mail or in person.
- If a customer receives a second violation within 12 months, WWD8 can levy a fine of 100 dollars on the customer.
- Should the customer make a third violation within the same 12-month period, it is punishable by fine of 250 dollars.
- Fourth and subsequent violations are punishable by a fine of 500 dollars.
- In In addition to any fines and penalties, WWD8 may take further actions such as installation of a water flow restrictor device or disconnecting service at the customer's expense.

See Appendix A - Section 6-11.112(a) to (c) for additional detail.

7.1.2 Notices

The District will give notice of each violation to the customer at the premises at which the violation occurred. For a first, second or third violation, the District may give written notice of the fact of such violation to the customer by mail or personal delivery.

See Appendix A - Section 6-11.112(d)(1) for additional detail.

7.1.3 Hearings and Appeals

A customer may appeal the Notice of Violation by filing a written notice of appeal with WWD8, at which point a hearing on the appeal will be scheduled and upon outcome the appropriate steps would be taken to prevent the unauthorized use of water.

See Appendix A - Section 6-11.112(d)(1) to (3) for additional detail.

7.2 Potential Future Penalties or Surcharges

WWD8 may consider implementation of financial actions to further encourage or enforce water saving behaviors. These may include, but not be limited to:

- Implementation or Modification of an Emergency Drought Rate Structure or Surcharge
- Implementation of Budget-based Tiered Rate Structure
- Implementation of Excessive Water Use Penalties

Financial mitigation actions are further discussed in Section 8.

7.3 Criminal Enforcement

The District may choose to take actions for violations of the water use restrictions, which may be prosecuted as a misdemeanor prosecution.

See Appendix A - Section 6-11.205 for additional detail.

Section 8: Financial Consequences of Actions during Shortages

Water purveyors face significant financial challenges during droughts. During periods of reduced consumption, revenue from water sales decline while expenses remain relatively constant. A reduction in construction activities can also reduce water service connection fees collected. While at the same time, as consumption decreases, some expenditures are expected to increase, such as; staff costs for community education, enforcement of ordinances, monitoring and evaluation of water use, drought planning, and dealing with customer questions and complaints, which are expected to rise. Operations and maintenance costs may also increase because of the need to identify and quickly repair all water losses.

WWD8 recognizes the financial impacts of reduced customer deliveries and connections during droughts. It is for this reason that WWD8 uses a rate structure that accounts for all overhead, operating and labor costs of WWD8 and has established reserves to help the District through extended droughts and emergencies. The following sections describe potential revenue reductions, expense increases, mitigation actions and the cost of compliance with reducing residential water use during drought.

8.1 Revenue Reductions and Expense Increases

WWD8 has structured its rates into two main components:

1) **Fixed Service Charge** has been set with the intent of covering fixed costs (meter infrastructure, billing, administration). The fixed service charge is meant to provide a fixed amount of income to WWD8 independent of water consumption. Currently approximately 26 percent of WWD8's revenue comes from the fixed service charge (Raftelis 2019).
2) **Non-Fixed Water Sales** are incurred based on a cost per unit consumed by the customer and is meant to recover the City's variable costs for providing water service. This commodity charge sends the customer a price signal and rewards customers who conserve water. Currently approximately 74 percent of WWD8's revenue comes from the non-fixed water sales, which are subject to seasonal and annual fluctuation (Raftelis 2019).

While WWD8 has significant avoidable costs (when the utility does not sell water it does not purchase water from Calleguas) there are fixed costs that are incurred regardless of water sales. In a drought WWD8 revenues are impacted by reduced water sales but the fixed meter charge makes it possible for WWD8 to continue to cover overhead and operating activities. Pumping costs are covered through a flexible charge based on the customer's pressure zone. A decrease in consumption would impact revenue from water sales but not from fixed charges. Table 8-1 summarizes the potential impacts to revenues under each drought stage.

Table 8-1: Estimated Revenue Impacts of Reduced Water Demand

DWR Shortage Stage	Demand Reduction	Estimated Non-Fixed (Water Sales)[2] (million)	Estimated Fixed (Non-Rate)[3] (million)	Annual Revenue Reduction[4] ($ million)	% Decrease in Water Base Revenue
Normal[1]	0%	$32.2	$14.1		
I	Up to 10%	$29.0	$14.1	-$3.2	-7%
II	Up to 20%	$26.4	$14.1	-$5.8	-13%
III	Up to 30%	$24.3	$14.1	-$7.9	-17%
IV	Up to 40%	$22.5	$14.1	-$9.7	-21%
V	Up to 50%	$21.0	$14.1	-$11.2	-24%
VI	50% of More	$19.6	$14.1	-$12.6	-27%

[1] Water base revenue based on FY 2021 budget, for normal year, and reduced by percentage
[2] Based on FY 2021 budget of projected water use charges for a normal year, and reduced by percent supply reduction in shortage years.
[3] Based on FY 2021 budget of projected meter services charges for a normal year, and remains constant in shortage years.
[4] Calculated as Normal Year Non-Fixed and Fixed revenues ($46.3 M) less estimated Non-Fixed and Fixed revenues at each shortage stage.

The water purchases, utility costs and chemical costs are not a linear function of the water usage reduction. As noted early, WWD8's costs to purchase water would proportionally decrease as demands decrease, thus, in order to provide an estimate of the costs to WWD8, it is assumed that if there is a ten percent reduction in usage, there will also be a ten percent reduction in associated costs. Thus, the deficit in the overall budget due to a reduction in non-fixed water sales would not impact the overall budget by the percentages shown in Table 8-1.

Increased costs associated with staff costs for community education, enforcement of ordinances, monitoring and evaluation of water use, drought planning, and dealing with customer questions and complaints are estimated to be less than 2% of the total budget.

8.2 Mitigation Actions

It is imperative that WWD8 has adequate reserves to cover operating and emergency repair expenses during extended droughts and natural disasters. For this reason, WWD8 completed a Water Cost of Service and Rate Study (Raftelis 2019) to develop a ten-year Financial Plan and rate design. The Study resulted in five additional years of revenue and rate adjustments to meet WWD8's goals to establish fair and equitable rates that:

- Proportionately allocated the costs of providing service in accordance with California Constitution Article XIII D, Section 6 (commonly referred to as Proposition 218);
- Meet WWD8's financial needs in terms of operational expenses, capital investment to maintain the water system, and cash reserves;
- Maintain affordable charges for customers and incentivize conservation;
- Provide revenue stability and financial sufficiency in times of water supply shortage, mandatory conservation, or reduced water demand; and
- Are easy for customers to understand and easy for WWD8 staff to implement and update in the future.

In addition, WWD8 maintains financial reserves to provide a basis to cope with fiscal emergencies such as revenue shortfalls, asset failure and natural disasters, among other things. WWD8's financial reserve policy and FY 2020 targets are summarized in Table 8-2.

Table 8-2: Financial Reserves Policies

Reserve	Policy	FY 2020 Target[1]
Operating Reserve	90 days of annual O&M expenses	$10.6
Capital R&R Reserve	One year of annual average CIP expenditures	$4.9
Rate Stabilization Reserve	5 percent of annual Commodity Charge revenue	$1.5
	Total Reserves	**$17.0**

[1] Source: Water Cost of Service and Rate Study (Raftelis, 2019)

A reduction in water revenue would be primarily offset by the reduced costs of water purchases and could be additionally mitigated through deferral or avoidance of capital fund expenditures or use of the capital R&R Reserve fund. This would meet short-term cash flow needs, although it should only be considered on a short-term basis.

The Rate Stabilization Reserve can be particularly useful during a re-occurring drought to deal with reduced water sales that impact revenues. The intent is for an amount equal to a percentage of annual volumetric rate revenue to be set aside to be utilized during revenue shortfalls, to smooth out rate impacts, or to forego implementation of temporary shortage charges.

A summary of potential measures to overcome revenue and expenditure impacts is provided in Table 8-3.

Table 8-3: Measures to Overcome Revenue Impacts During Shortage

Measure	Summary of Effects
Use of Financial Reserve Funds	Use of reserves may provide short-term rate stabilization, but would require delays in capital expenditures and rebuilding of reserves after the water shortage.
Re-evaluate Capital Expenditure Plans	Delay major construction projects for facilities as well as upgrades and replacements.
Consider implementation of an Emergency Drought Rate Structure or Surcharge	To increase revenues during periods of extended drought. This would require a Prop 218 process to re-evaluate current rate structure.
Explore Implementation of Budget-based Tiered Rate Structure	To increase revenues during periods of extended drought. This would require a Prop 218 process to re-evaluate current rate structure.
Define and Implement Excessive Water Use Penalties	To increase revenues during periods of extended drought.

It should be noted that expenditure impacts could be reduced 2-10 percent during mandatory conservation efforts because of the reduction in costs associated with the treatment and delivery of potable water. Rate adjustments could also be employed either solely or in conjunction with

capital expenditure reductions. In California, an increase of rates during periods of extended drought would require a Prop 218 process to re-evaluate current rate structure.

8.3 Cost of Compliance

Overall, the cost of compliance with reducing residential water use during drought can be estimated as shown in Table 8-4

Table 8-4: Estimated Cost of Compliance by Stage

Stage	Annual Revenue Reduction[1] (million)	Reduced Imported Water Purchases[2] (million)	Ancillary Costs[3] (million)	Net Cost of Compliance[4]	Mitigation Action[5]
I	-$3.2	$3.2	$3.0	$3.0	Use financial reserves and re-evaluate capital expenditures
II	-$5.8	$5.8	$3.2	$3.2	
III	-$7.9	$7.9	$3.5	$3.5	
IV	-$9.7	$9.7	$3.7	$3.7	Consider implementation of financial actions to increase revenues
V	-$11.2	$11.2	$3.9	$3.9	
VI	-$12.6	$12.6	$4.0	$4.0	

[1] See Table 8-1.
[2] Assume that expenditures for imported water purchases decrease by the same amount as reduced revenues
[3] Estimated as a percent of non-fixed water sales to reflect increased costs for expanded public outreach campaigns, increased meter reading, operational and administrative support during each drought stage to implement demand reduction actions.
[4] Calculated sum of annual revenue reduction plus reduced imported water purchased plus ancillary costs.
[5] Implementation of an action to increase revenues may require a Prop 218 process (as discussed in Table 8-3).

Section 9: Monitoring and Reporting

Certain aspects of water conservation can be readily monitored and evaluated, such as metered water use and production quantities. Other aspects such as public education are more difficult to measure in terms of effectiveness. Additionally, weather patterns make it more difficult to compare one year's water demand and conservation results with another year's usage.

When severe shortages occur and some degree of mandatory reduction is required, a program's effectiveness can be judged directly by water billings. In these cases, targeted results must be met and even reluctant customers will, on the whole, meet the goals. Specific methods to evaluate effectiveness of water conservation programs to be employed by WWD8 are:

1. Monitoring of Metered Water Usage – This will determine how much has been used. Compiling statistics to track usage of customer groups to determine trends is currently being done through the water billing computer system. Meter readings/billings can be compared and analyzed to determine the effectiveness of conservation for all customer classes.
2. Monitoring Production Quantities – In normal water supply conditions, production figures are recorded daily by the District's automated system. The Water Production Supervisor and the Production Lead monitor the accuracy of the monthly production totals. The totals are incorporated into the monthly water supply report to the State's Drinking Water Information Clearinghouse portal.

To verify that conservation reduction goals are being met, production and metered usage reports will be provided to District Engineer and the District Manager during each stage of the conservation period. Water production figures will be compared to previous year production figures for the same time period to ascertain if conservation goals are being reached. Results will be posted on the Simi Valley website, as appropriate.

Additional actions available to WWD8 include:

1. Transition of remaining customer water meters to "smart meters" and investment in automated system to improve customer interface to allow more timely monitoring by customer of water use patterns. The District has already installed smart meters for about 80% of customers; however, there is currently no interface or portal system to engage customers in real-time to respond to water use and adjustments.
2. Provide incentives to property owners to install sub-meters in multi-family structures for resident/property owners to track water usage.

Table 9-1 lists specific monitoring and reporting methods for each shortage stage that can be used to measure the effectiveness of reducing the shortage gap. As the stages progress into a greater percent supply reduction needed, the monitoring and reporting will increase in frequency, intensity and resources.

Table 9-1: Monitoring and Reporting to Support Shortage Response Actions

Shortage Stage (% supply reduction)	Monitoring and Reporting Methods (How to measure effectiveness of reducing the shortage gap)
I (Up to 10%)	- Water-Use Monitoring Mechanisms - Prepare and review monthly Potable Water Use Report
II (Up to 20%)	All Previous Monitoring and Reporting Methods AND: - Run and review monthly Waterview Reports - Run and review AMI Reports - Increase frequency of monitoring customer use - Increase frequency of monitoring water delivered by Calleguas as imported water turnouts
III (Up to 30%)	All Previous Monitoring and Reporting Methods AND: - Increase frequency of monitoring customer use - Increase frequency of monitoring water delivered by Calleguas as imported water turnouts
IV (Up to 40%)	All Previous Monitoring and Reporting Methods AND: - Increase frequency of monitoring customer use - Increase frequency of monitoring water delivered by Calleguas as imported water turnouts
V (Up to 50%)	All Previous Monitoring and Reporting Methods AND: - Increase frequency of monitoring customer use - Increase frequency of monitoring water delivered by Calleguas as imported water turnouts
VI (Up 50% of More)	All Previous Monitoring and Reporting Methods AND: - Increase frequency of monitoring customer use - Increase frequency of monitoring water delivered by Calleguas as imported water turnouts

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Appendix A: WWD8 Water Conservation Program

The Simi Valley Municipal Code, Title 6 Sanitation and Health, Chapter 11 Ventura County Waterworks District No. 8 Water Conservation Program is included herein and available online: https://library.municode.com/ca/simi_valley/codes/code_of_ordinances?nodeId=SIMI_VALLEYMUCO. Language, amendments and editors notes herein are based on the current version as of Nov 25, 2020.

Simi Valley Municipal Code, Title 6, Chapter 11

VENTURA COUNTY WATERWORKS DISTRICT NO. 8 (VCWWD) WATER CONSERVATION PROGRAM

Article 1.

Ventura County Waterworks District No. 8 Water Conservation Program

6-11.101 - Purpose and intent.

(a) The purpose of this article is to establish a Water Conservation Program that will reduce water consumption within the jurisdiction of VCWWD through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within VCWWD's service area to avoid and minimize the effect and hardship of water shortage to the greatest extent possible.

(b) This article establishes permanent water conservation standards intended to alter behavior related to water use efficiency at all times and further establishes four (4) levels of water supply shortage response actions to be implemented during times of declared water shortage or declared water shortage emergency, with increasing restrictions on water use in response to worsening drought or emergency conditions and decreasing supplies.

(§ 4, Ord. WWD-08, eff. May 11, 2009 as amended by § 1, Ord. No. WWD-15, eff. April 24, 2017)

6-11.102 - Definitions.

The following words and phrases whenever used in this article have the meaning defined in this section:

(a) "City" means City of Simi Valley.

(b) "City Council" means the City Council of the City of Simi Valley.

(c) "Person" means any natural person or persons, corporation, public or private entity, governmental agency or institution, including all agencies and departments of VCWWD, or any other user of water provided by VCWWD.

(d) "Landscape irrigation system" means an irrigation system with pipes, hoses, spray heads, or sprinkling devices that are operated by hand or through an automated system.

(e) "Single pass cooling systems" means equipment where water is circulated only once to cool equipment before being disposed.

(f) "Potable water" means water which is suitable for drinking.

(g) "Public area" means land owned in fee or easement by a public agency.

(h) "Recycled water" means the reclamation and reuse of non-potable water for beneficial use as defined in Title 22 of the California Code of Regulations.

(i) "Weather Based Irrigation Controller" means electronic irrigation controller that utilizes sensors and real-time weather-based information in determining evapotranspiration (ET) and allowing efficient water management.

(j) "VCWWD" means the Ventura County Waterworks District No. 8.

(k) "District Board" means the Board of Directors of the Ventura County Waterworks District No. 8.

(l) "District" means the Ventura County Waterworks District No. 8.

(§ 4, Ord. WWD-08, eff. May 11, 2009 as amended by § 1, Ord. No. WWD-15, eff. April 24, 2017)

6-11.103 - Application.

(a) To the extent authorized by law, this article shall apply to all customers and property within the service area of VCWWD.

(b) The provisions of this article do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire, and other similar emergency services.

(c) The provisions of this article do not apply to the use of recycled water, with the exception of Section 6-11.104(a).

(d) The provisions of this article do not apply to the use of water by commercial nurseries and commercial growers to sustain plants, trees, shrubs, crops, or other vegetation intended for commercial sale.

(e) This article is intended solely to further the conservation of water. It is not intended to implement any provision of federal, State, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff.

(§ 4, Ord. WWD-08, eff. May 11, 2009)

6-11.104 - Permanent water conservation requirements—Prohibition against waste.

The following water conservation requirements are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water.

(a) *Limits on watering hours.* Watering or irrigating of lawn, landscape, or other vegetated area with potable water is prohibited between the hours of 9:00 a.m. and 5:00 p.m. on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system. This provision shall not apply to commercial nurseries and irrigation systems using weather based irrigation controllers.

(b) *Limit on watering duration.* Watering or irrigating of lawn, landscape, or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than fifteen (15) minutes of watering per day per station. This subsection does not apply to landscape irrigation systems that use high efficiency devices such as low flow drip irrigation, stream rotator sprinklers and/or soil-moisture sensor systems or weather based irrigation controllers.

(c) *No excessive water flow or runoff.* Watering or irrigating of any lawn, landscape, or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter, or ditch is prohibited.

(d) *No washing down hard or paved surfaces.* Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios, or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped to recycle any water used, or a low-volume high-pressure water broom. The discharge of pollutants to the storm drain system is prohibited pursuant to Section 6-12.201 of this Code.

(e) *Obligation to fix leaks, breaks or malfunctions.* Excessive use, loss or escape of water through breaks, leaks, or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected, and in no event more than seven (7) days after receiving notice from VCWWD, is prohibited.

(f) *Recirculating water required for water fountains and decorative water features.* Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited.

(g) *Limits on washing vehicles.* Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat, or trailer, whether motorized or not, is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility.

(h) *Drinking water served upon request only.* Eating or drinking establishments, including but not limited to a restaurant, hotel, cafe, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

(i) *Commercial lodging establishments must provide guests option to decline daily linen services.* Hotels, motels, and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood language.

(j) *No installation of single pass cooling systems.* Installation of single pass cooling systems is prohibited in buildings requesting new water service.

(k) *No installation of non-recirculating water systems in commercial car washes and laundry systems.* Installation of non-recirculating water systems is prohibited in new commercial conveyor car washes and new commercial laundry systems.

(l) *Restaurants required to use water conserving dish wash spray valves.* New and existing food preparation establishments, such as restaurants or cafes, are required to use water conserving dish wash spray valves.

(m) *Commercial car wash systems.* Effective on January 1, 2010, all commercial conveyor car wash systems must have installed operational recirculating water systems or must have secured a waiver of this requirement from VCWWD.

(n) All water users are prohibited from irrigating turf or ornamental landscapes with potable water during and forty-eight (48) hours after measurable rainfall.

(o) Irrigation of ornamental turf on street medians is prohibited.

(§ 4, Ord. WWD-08, eff. May 11, 2009, as amended by § 1, Ord. No. WWD-09, eff. June 15, 2009; § 1, Ord. No. WWD-14, eff. May 4, 2015; § 1, Ord. No. WWD-15, eff. April 24, 2017)

6-11.105 - Declaration of water supply shortages.

The Board of Directors of VCWWD will declare a water supply shortage when supplies, due to drought or other water supply conditions are allocated by the VCWWD's wholesaler, Calleguas Municipal Water

District, or otherwise constricted by the State of California, or when its own evaluation of supply and demand conditions indicates the potential for shortage.

(§ 1, Ord. No. WWD-15, eff. April 24, 2017)

Editor's note— Ord. No. WWD-15, § 1, adopted April 24, 2017, effective April 24, 2017, repealed the former §§ 6-11.105—6.11.108, and enacted new §§ 6-11.105—6-11.110 as set out herein. The former §§ 6-11.105—6-11.108 pertained to level 1 water supply shortage; level 2 water supply shortage; level 3 water supply shortage (emergency condition) and procedures for determination—notification of water supply shortage, respectively and derived from Ord. No. WWD-08, effective May 11, 2009; Ord. No. WWD-10, effective October 12, 2009 and Ord. No. WWD-14, effective May 4, 2015.

6-11.106 - Level 1 water supply shortage.

A Level 1 water supply shortage will be declared when a water supply shortage or threatened shortage exists and a consumer demand reduction, up to ten (10%) percent, is requested to make more efficient use of water and to appropriately respond to existing water conditions. Upon the declaration by the Board of Directors of VCWWD of a Level 1 water supply shortage condition, VCWWD will call for the Level 1 voluntary reductions, in addition to the permanent conservation measures identified in section 6-11.104.

(§ 1, Ord. No. WWD-15, eff. April 24, 2017)

Editor's note— See editor's note at § 6-11.105

6-11.107. - Level 2 water supply shortage.

(a) A Level 2 water supply shortage will be declared when a water supply shortage or threatened shortage exists and a mandatory consumer demand reduction, up to twenty (20%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions. Upon the declaration by the Board of Directors of VCWWD of a Level 2 water supply shortage condition, VCWWD will implement the mandatory Level 2 conservation measures identified in this section.

(b) *Additional water conservation measures.* In addition to the prohibited uses of water identified in Section 6-11.104, the following water conservation requirements apply during a declared Level 2 water supply shortage:

(1) *Limits on watering days.* Watering or irrigating of lawn, landscape, or other vegetated area is limited to three (3) days per week on a schedule established and posted by VCWWD. During the months of November through March, irrigating of lawn, landscape, or other vegetated area with potable water is limited to no more than two (2) days per week on a schedule established and posted by VCWWD. Watering, as described herein, includes watering performed by irrigation systems controlled by a soil-moisture sensor system, weather based irrigation controller, drip irrigation and other low-flow irrigation mechanisms, or other irrigation methods.

(2) *Obligation to fix leaks, breaks, or malfunctions.* All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within seventy-two (72) hours of notification by VCWWD unless other arrangements are made with VCWWD.

(§ 1, Ord. No. WWD-15, eff. April 24, 2017)

Editor's note— See editor's note at § 6-11.105

6-11.108. - Level 3 water supply shortage.

(a) A Level 3 water supply shortage will be declared when a water supply shortage or threatened shortage exists and a mandatory consumer demand reduction, up to fifty (50%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions. Upon the declaration by the Board of Directors of VCWWD of a Level 3 water supply shortage condition, VCWWD will implement the mandatory Level 3 conservation measures identified in this section.

(b) *Additional water conservation measures.* In addition to the prohibited uses of water identified in Sections 6-11.104 and 6-11.107, the following additional water conservation requirements apply during a declared Level 3 water supply shortage:

(1) *Limits on watering days.* Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to two (2) days per week on a schedule established and posted by VCWWD. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than once per week on a schedule established and posted by VCWWD. Watering, as described herein, includes watering performed by irrigation systems controlled by a soil-moisture sensor system, weather-based irrigation controller, drip irrigation and other low-flow irrigation mechanisms, or other irrigation methods.

(2) *Obligation to fix leaks, breaks, or malfunctions.* All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within forty-eight (48) hours of notification by VCWWD unless other arrangements are made with VCWWD.

(3) *Limits on filling ornamental lakes or ponds.* Filling or re-filling ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life, provided that such animals have been actively managed within the water feature prior to declaration of a supply shortage level under this article.

(§ 1, Ord. No. WWD-15, eff. April 24, 2017)

Editor's note— See editor's note at § 6-11.105

6-11.109. - Level 4 water supply shortage.

(a) A Level 4 water supply shortage condition is also referred to as an "emergency" condition. A Level 4 water supply shortage will be declared when a water shortage emergency exists mandatory reduction in consumer demand of fifty (50%) or more is necessary to maintain sufficient water supplies for public health and safety. Upon the declaration of a Level 4 water supply shortage condition by VCWWD, VCWWD will implement the mandatory Level 4 conservation measures identified in this section.

(b) *Additional water conservation measures.* In addition to the prohibited uses of water identified in Sections 6-11.104 through 6-11.108, the following water conservation requirements apply during a declared Level 4 water supply shortage emergency:

(1) *No watering or irrigating.* Watering or irrigating of lawn, landscape, or other vegetated area with potable water is prohibited. This restriction does not apply to the following categories of use:

(i) Maintenance of vegetation, including trees and shrubs, that are watered using a hand-held bucket or similar container, hand-held hose equipped with a positive self-closing water shut-off nozzle or device;
(ii) Maintenance of existing landscape necessary for fire protection;
(iii) Maintenance of existing landscape for soil erosion control;
(iv) Maintenance of plant materials identified to be rare or essential to the well-being of protected species;

(v) Maintenance of landscape within active public parks and playing fields, day care centers, golf course greens, and school grounds, provided that such irrigation does not exceed two (2) days per week according to the schedule established in Section 6-11.108(b)(1) and time restrictions in Section 6-11.104(a) and (b);
(vi) Actively irrigated environmental mitigation projects.

(2) *Obligation to fix leaks, breaks, or malfunctions.* All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within twenty-four (24) hours of notification by VCWWD unless other arrangements are made with VCWWD.

(3) *New potable water service.* Except for the resetting or turn-on of meters to provide continuation of water service or the restoration of service that has been interrupted for a period of one year or less, no new potable water service will be provided, no new temporary meters or permanent meters will be provided, and no statements of immediate ability to serve or provide potable water service (such as will-serve letters, certificates, or letters of availability) will be issued, except under the following circumstances:

(i) A valid, unexpired building permit has been issued for the project;
(ii) The project is necessary to protect the public health, safety, and welfare; or
(iii) The applicant provides substantial evidence 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 VCWWD.

(4) *Discontinue service.* VCWWD, in its sole discretion, may discontinue service to customers who willfully violate provisions of this section.

(5) *No new annexations.* Upon the declaration of a Level 4 water supply shortage condition, VCWWD will suspend consideration of annexations to its service area. This subsection does not apply to boundary corrections and annexations that will not result in any increased use of water.

(6) *Limits on filling residential swimming pools and spas.* Re-filling of more than one foot per month and initial filling of residential swimming pools or outdoor spas with potable water is prohibited.

(§ 1, Ord. No. WWD-15, eff. April 24, 2017)

Editor's note— See editor's note at § 6-11.105

6-11.110. - Procedures for determination—Notification of water supply shortage.

(a) *Declaration and notification of water supply shortage.* The existence of Level 1, Level 2, Level 3 or Level 4 water supply shortage conditions shall be declared by resolution of VCWWD adopted at a regular or special public meeting held in accordance with State law. The mandatory conservation requirements applicable to Level 1, Level 2, Level 3 or Level 4 conditions will take effect on the tenth day after the date the shortage level is declared. Within five (5) days following the declaration of the shortage level, VCWWD will publish a copy of the resolution in a newspaper used for publication of official notices.

(b) *Determination of compliance with this article.* Violations and compliance with the provisions set forth in this article shall, to the extent authorized by law, be determined by VCWWD.

(§ 1, Ord. No. WWD-15, eff. April 24, 2017)

Editor's note— See editor's note at § 6-11.105

6-11.111 - Hardship waiver.

(a) *Undue and disproportionate hardship.* If, due to unique circumstances, a specific requirement of this article would result in undue hardship to a person using water or to property upon which water is used that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply for a waiver to the requirements as provided in this section.

(b) *Written finding.* The waiver may be granted or conditionally granted only upon a written finding of the existence of facts demonstrating an undue hardship to a person using water or to property upon which water is used that is disproportionate to the impacts to water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

(1) *Application.* Application for a waiver must be on a form prescribed by VCWWD and accompanied by a non-refundable processing fee in an amount set by VCWWD resolution.

(2) *Supporting documentation.* The application must be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

(3) *Required findings for waiver.* An application for a waiver will be denied unless VCWWD finds, based on the information provided in the application, supporting documents, or such additional information as may be requested and on water use information for the property as shown by water use records all of the following:

(i) That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;
(ii) That because of special circumstances applicable to the property or its use, the strict application of this article would have a disproportionate impact on the property or use that exceeds the impact to residents and businesses generally;
(iii) That the authorizing of such waiver will not be of substantial detriment to adjacent properties and will not materially affect the ability of VCWWD to effectuate the purpose of this article and will not be detrimental to the public interest; and
(iv) That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent, or general in nature.

(4) *Approval authority.* The District Manager or designee must act upon any completed waiver application no later than ten (10) days after submittal and may approve, conditionally approve, or deny the waiver. The applicant requesting the waiver must be promptly notified in writing of any action taken. Unless specified otherwise at the time a waiver is approved, the waiver will apply to the subject property during the period of the mandatory water supply shortage condition. The decision of the District Manager or designee will be final.

(§ 4, Ord. WWD-08, eff. May 11, 2009 as amended by § 1, Ord. No. WWD-15, eff. April 24, 2017)

Editor's note— Ord. No. WWD-15, § 1, adopted April 24, 2017, effective April 24, 2017, renumbered § 6-11.109 as 6-11.111.

6-11.112 - Enforcement.

(a) No customer of VCWWD shall make, cause, use, or permit the use of water in a manner contrary to any provision of this article. Each customer shall be guilty of a separate offense for each day during which such violation of this article occurred.

(b) *Criminal enforcement.* Any violation of the water use restrictions set forth in this article may be prosecuted as a misdemeanor and is punishable as provided in Chapter 2 of Title 1 of this Code.

(c) *Civil enforcement.* Any violation of the water use restrictions set forth in this article may be subject to penalties and fines as set forth below:

(1) *First violation.* The VCWWD may issue an Initial Notice of Violation/Warning and deliver a copy of the ordinance codified in this article by mail or in person.

(2) *Second violation.* A second violation within the preceding twelve (12) calendar months is punishable by a fine in an amount set forth by resolution adopted by the VCWWD.

(3) *Third violation.* A third violation within the preceding twelve (12) calendar months is punishable by a fine in an amount set forth by resolution adopted by the VCWWD.

(4) *Fourth and subsequent violations.* A fourth and any subsequent violation is punishable by a fine in an amount set forth by resolution adopted by the VCWWD.

(5) *Water flow restrictor*. In addition to any fines and penalties, VCWWD may install, upon its customers, a water flow restrictor device of approximately one gallon per minute capacity for services up to one and one-half inch size and comparatively sized restrictors for larger services for violations of mandatory water use restrictions set forth in this article after forty-eight (48) hours' written notice of intent.

(6) *Disconnecting service.* In addition to fines and penalties, and the installation of a water flow restrictor, VCWWD may disconnect its customers' water service after five (5) calendar days' written notice of intent for continued violations of mandatory water use restrictions set forth in this article.

(7) *Cost of flow restrictor and disconnecting service.* A person or entity that violates this article is responsible for payment of VCWWD's charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service per the VCWWD's Schedule of Service Charges then in effect. Such charges must be paid to VCWWD before the device is removed or the water service is reconnected. Nonpayment will be subject to the same remedies as nonpayment of basic water rates.

(d) *Notice and hearing for civil enforcement.*

(1) A notice of violation by mail or personal delivery shall be issued at least ten (10) calendar days before taking civil enforcement action. Such notice must describe the violation and the date by which corrective action must be taken. A customer may appeal the Notice of Violation by filing a written notice of appeal with VCWWD no later than the close of business on the day before the date scheduled for enforcement action. Any Notice of Violation not timely appealed will be final. Upon receipt of a timely appeal, a hearing on the appeal will be scheduled, and VCWWD will mail written notice of the hearing date to the customer at least ten (10) calendar days before the date of the hearing.

(2) Pending receipt of a written appeal or pending a hearing pursuant to an appeal, VCWWD may take appropriate steps to prevent the unauthorized use of water as appropriate to the nature and extent of the violations and the current declared water level condition.

(3) All appeal hearings shall be conducted before the District Manager or designee. The District Manager or designee shall be the final decision maker on all appeals.

(§ 4, Ord. WWD-08, eff. May 11, 2009, as amended by § 1, Ord. WWD-09, eff. June 15, 2009 and § 1, Ord. No. WWD-15, eff. April 24, 2017)

Editor's note— Ord. No. WWD-15, § 1, adopted April 24, 2017, effective April 24, 2017, renumbered § 6-11.110 as 6-11.112.

Article 2.

City Water Conservation Program

6-11.201 - Purpose and intent.

(a) The purpose of this article is to establish a Water Conservation Program that will reduce water consumption within the City through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within the City to avoid and minimize the effect and hardship of water shortage to the greatest extent possible.

(b) This article establishes permanent water conservation standards intended to alter behavior related to water use efficiency at all times.

(§ 4, Ord. 1142, eff. June 16, 2009)

6-11.202 - Definitions.

The following words and phrases whenever used in this article have the meaning defined in this section:

(a) "City" means City of Simi Valley.

(b) "City Council" means the City Council of the City of Simi Valley.

(c) "Person" means any natural person or persons, corporation, public or private entity, governmental agency or institution, including all agencies and departments of City, or any other user of water.

(d) "Landscape irrigation system" means an irrigation system with pipes, hoses, spray heads, or sprinkling devices that are operated by hand or through an automated system.

(e) "Single pass cooling systems" means equipment where water is circulated only once to cool equipment before being disposed.

(f) "Potable water" means water which is suitable for drinking.

(g) "Public area" means land owned in fee or easement by a public agency.

(h) "Recycled water" means the reclamation and reuse of non-potable water for beneficial use as defined in Title 22 of the California Code of Regulations.

(i) "Smart Controller" means electronic irrigation controller that utilizes sensors and real-time weather-based information in determining evapotranspiration (ET) and allowing efficient water management.

(j) "VCWWD" means the Ventura County Waterworks District No. 8.

(k) "Golden State" means the Golden State Water Company.

(§ 4, Ord. 1142, eff. July 16, 2009)

6-11.203 - Application.

(a) To the extent authorized by law, this article shall apply to all customers and property in the City.

(b) The provisions of this article do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire, and other similar emergency services.

(c) The provisions of this article do not apply to the use of recycled water, with the exception of Section 6-11.204(a).

(d) The provisions of this article do not apply to the use of water by commercial nurseries and commercial growers to sustain plants, trees, shrubs, crops, or other vegetation intended for commercial sale.

(e) This article is intended solely to further the conservation of water. It is not intended to implement any provision of federal, state, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff.

(§ 4, Ord. 1142, eff. July 16, 2009)

6-11.204 - Permanent water conservation requirements—Prohibition against waste.

The following water conservation requirements are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water.

(a) *Limits on Watering Hours.* Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of 9:00 a.m. and 5:00 p.m. on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system. This provision shall not apply to commercial nurseries and irrigation systems using smart controllers.

(b) *Limit on Watering Duration.* Watering or irrigating of lawn, landscape, or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than fifteen (15) minutes of watering per day per station. This subsection does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than two (2) gallons of water per hour, stream rotor sprinklers that meet a seventy (70%) percent efficiency standard, or irrigation systems using smart controllers.

(c) *No Excessive Water Flow or Runoff.* Watering or irrigating of any lawn, landscape, or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining sidewalk, driveway, street, alley, gutter, or ditch is prohibited.

(d) *No Washing Down Hard or Paved Surfaces.* Washing down hard or paved surfaces, including, but not limited to, sidewalks, walkways, driveways, parking areas, tennis courts, patios, or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped to recycle any water used, or a low-volume high-pressure water broom.

(e) *Obligation to Fix Leaks, Breaks or Malfunctions.* Excessive use, loss, or escape of water through breaks, leaks, or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected, and in no event more than seven (7) days after receiving notice from VCWWD or Golden State Water Company, is prohibited.

(f) *Re-circulating Water Required for Water Fountains and Decorative Water Features.* Operating a water fountain or other decorative water feature that does not use re-circulated water is prohibited.

(g) *Limits on Washing Vehicles.* Using water to wash or clean a vehicle, including, but not limited to, any automobile, truck, van, bus, motorcycle, boat, or trailer, whether motorized or not, is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility.

(h) *Drinking Water Served Upon Request Only.* Eating or drinking establishments, including but not limited to a restaurant, hotel, cafe, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

(i) *Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services.* Hotels, motels, and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood language.

(j) *No Installation of Single Pass Cooling Systems.* Installation of single pass cooling systems is prohibited in buildings requesting new water service.

(k) *No Installation of Non-recirculating Water Systems in Commercial Car Washes and Laundry Systems.* Installation of non-recirculating water systems is prohibited in new commercial conveyor car washes and new commercial laundry systems.

(l) *Restaurants Required to Use Water Conserving Dish Wash Spray Valves.* New and existing food preparation establishments, such as restaurants or cafes, are required to use water conserving dish wash spray valves.

(m) *Commercial Car Wash Systems.* Effective on January 1, 2010, all commercial conveyor car wash systems must have installed operational re-circulating water systems or must have secured a waiver of this requirement from VCWWD or Golden State Water Company.

(§ 4, Ord. 1142, eff. July 16, 2009)

6-11.205 - Enforcement.

Any violation of the water use restrictions set forth in this article may be prosecuted as a misdemeanor and is punishable as provided in Chapter 2 of Title 1 of this Code.

(§ 4, Ord. 1142, eff. July 16, 2009)

Appendix B: WWD8 Adoption of the WSCP

RESOLUTION NO. WWD-283

A RESOLUTION OF THE BOARD OF DIRECTORS OF VENTURA COUNTY WATERWORKS DISTRICT NO. 8 ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN AND 2020 WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et. Seq., known as the Urban Water Management Planning Act) during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually prepare an Urban Water Management Plan (UWMP), the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, the California Water Code Section 10632, requires that every urban water supplier shall prepare and adopt a Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan; and

WHEREAS, Ventura County Waterworks District No. 8 (District) is an urban supplier of water providing water to over 90,000 customers; and

WHEREAS, the Plan shall be periodically reviewed at least once every five years, and the District shall make any amendments to the Plan which are indicated by the review; and

WHEREAS, the Plan must be adopted by July 1, 2021, after public review and hearing, and filed with the California Department of Water Resources within thirty days of adoption; and

WHEREAS, the District has, therefore, prepared and circulated for public review the 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan and properly noticed the public hearing regarding the UWMP and WSCP that was conducted by the Board of Directors on May 17, 2021.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF VENTURA COUNTY WATERWORKS DISTRICT NO. 8 DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan is hereby adopted and ordered filed with the District Secretary.

SECTION 2. The District Manager is hereby authorized and directed to file the UWMP update and WSCP with the California Department of Water Resources by July 1, 2021.

SECTION 3. The District Manager is hereby authorized to promote the implementation of the Water Conservation Programs as detailed in the adopted 2020 Urban Water Management Plan and 2020 Water Shortage Contingency Plan, including recommendations to the District's Board of Directors regarding necessary procedures, rules, and regulations to carry out effective and equitable water conservation programs;

SECTION 4. The District Secretary shall certify to the adoption of this resolution and shall cause a certified resolution to be filed in the Office of the District Secretary.

PASSED and ADOPTED this 17th day of May 2021.

Attest:

DocuSigned by:
Lucy Blanco
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Lucy Blanco, District Secretary

DocuSigned by:
Keith L. Mashburn
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Keith L. Mashburn, Chair of the Ventura County Waterworks District No. 8

Approved as to Form:

DocuSigned by:
Lonnie J. Eldridge
8FE880C613FF47F...
Lonnie J. Eldridge, District Counsel

Approved as to Content:

DocuSigned by:
Brian Paul Gabler
5B40FE61851E453...
Brian P. Gabler, District Manager

DocuSigned by:
Ronald K. Fuchiwaki
D2433F3A3AD548A...
Ronald K. Fuchiwaki,
Public Works Director

RES. NO. WWD-283

CERTIFICATION

I, District Secretary of the Ventura County Waterworks District No. 8, hereby certify that the foregoing is a full, true, and correct copy of Resolution No. WWD-283 which was regularly introduced and adopted by the Board of Directors of Ventura County Waterworks District No. 8, at a regular meeting thereof held on the 17th day of May 2021, by the following vote of the Board of Directors:

AYES:	Directors Litster, Luevanos, Judge, Vice-Chair Cavanaugh and Chair Mashburn
NAYS:	None
ABSENT:	None
ABSTAINED:	None

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City of Simi Valley, California, dated May 19, 2021.

DocuSigned by:
Lucy Blanco
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Lucy Blanco
District Secretary

Appendix C: Standardized Tables

DRAFT Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	Complete Both	
	Percent Shortage Range[1] *Numerical value as a percent*	Water Shortage Condition (*Narrative description*)
1	Up to 10%	Minor Shortage; corresponds to Simi Valley Municipal Code Level 1 water supply shortage where a threatened shortage exists and a consumer demand reduction, up to ten (10%) percent, is requested to make more efficient use of water and to appropriately respond to existing water conditions.
2	Up to 20%	Moderate; corresponds to Simi Valley Municipal Code Level 2 water supply shortage where a threatened shortage exists and a mandatory consumer demand reduction, up to twenty (20%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions.
3	Up to 30%	Severe Shortage; corresponds to the start of Simi Valley Municipal Code Level 3 water supply shortage where a threatened shortage exists and a mandatory consumer demand reduction, up to thirty (30%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions.
4	Up to 40%	Critical Shortage; corresponds to the middle of Simi Valley Municipal Code Level 3 water supply shortage where a threatened shortage exists and a mandatory consumer demand reduction, up to forty (40%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions.
5	Up to 50%	Emergency Shortage; corresponds to the end of Simi Valley Municipal Code Level 3 water supply shortage where a threatened shortage exists and a mandatory consumer demand reduction, up to fifty (50%) percent, is necessary to make more efficient use of water and to appropriately respond to existing water conditions.
6	>50%	Catastrophic Failure; corresponds to Simi Valley Municipal Code Level 4 water supply shortage where a water shortage emergency exists mandatory reduction in consumer demand of fifty (50%) or more is necessary to maintain sufficient water supplies for public health and safety.
[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*		
NOTES:		

DRAFT Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions *Drop down list*	Shortage Gap Volume (AFY)	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
1	Landscape - Other landscape restriction or prohibition	875	Assumes savings of 10% for outdoor use during Stage I for limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
1	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
1	Other	540	Assumes savings of 5% on non-landscape uses during Stage I for voluntary and other restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
2	Landscape - Other landscape restriction or prohibition	2,890	Assumes savings of 33% for outdoor use during Stage II for restricting water use to twice a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
2	Expand Public Information Campaign	390	Assume additional savings of 2% during Stage I and II (DWR, 2008) through effective public communication	Yes
3	Landscape - Other landscape restriction or prohibition	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
3	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
3	Expand Public Information Campaign	980	Assume additional savings of 10% during Stage III and IV (DWR, 2008) through effective public communication	Yes
3	Other	1,080	Assumes savings of 10% on non-landscape uses during Stages II and III for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
4	Landscape - Other landscape restriction or prohibition	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
4	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
4	Expand Public Information Campaign	980	Assume additional savings of 10% during Stage III and IV (DWR, 2008) through effective public communication	Yes
4	Implement or Modify Drought Rate Structure or Surcharge	1,950	Assumes savings of 10% during Stage IV (AWWA 2008)	Yes

DRAFT Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions *Drop down list*	Shortage Gap Volume (AFY)	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
4	Other	1,080	Assumes savings of 10% on non-landscape uses during Stages II and III for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
5	Landscape - Other landscape restriction or prohibition	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
5	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
5	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	530	Assumes savings of 6% of indoor use (EPA 2017). Only applies once AMI and customer portal is in place (Stage V and VI)	Yes
5	Expand Public Information Campaign	1,950	Assume additional savings of 20% during Stage V and VI (DWR, 2008) through effective public communication	Yes
5	Implement or Modify Drought Rate Structure or Surcharge	2,930	Assumes savings of 15% during Stage V-VI (AWWA 2008)	Yes
5	Other	1,620	Assumes savings of 15% on non-landscape uses during Stages IV and VI for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes
	Landscape - Other landscape restriction or prohibition	4,900	Assumes savings of 56% for outdoor use during Stage III to VI for restricting water use to once a week, limitations on timing, no excess runoff, etc (AWWA 2008, 2011)	Yes
	Other - Prohibit use of potable water for washing hard surfaces	40	Assumes savings of 0.5% of outdoor use	Yes
6	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	530	Assumes savings of 6% of indoor use (EPA 2017). Only applies once AMI and customer portal is in place (Stage V and VI)	Yes
6	Expand Public Information Campaign	1,950	Assume additional savings of 20% during Stage V and VI (DWR, 2008) through effective public communication	Yes
6	Implement or Modify Drought Rate Structure or Surcharge	2,930	Assumes savings of 15% during Stage V-VI (AWWA 2008)	Yes
6	Other	1,620	Assumes savings of 15% on non-landscape uses during Stages IV and VI for mandatory restrictions, assuming aggressive information dissemination (Virginia Polytechnic Institute, 2006)	Yes

NOTES: Volumes represent the maximum potential reduction that could be achieved based on the percentages provided in cited literature and WWD8's landscape and non-landscape use.

Table 8-3: Supply Augmentation and Other Actions			
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 WUE data online submittal tool*	How much is this going to reduce the shortage gap? *Include volume units used.*	Additional Explanation or Reference *(optional)*
2	Decrease Line Flushing	20	- Decrease water distribution line flushing
3	New recycled water	30	- Expand recycled water use
3	Other actions (describe)	500	- Increase Tapo Canyon Treatment Plant water production (local groundwater)
4	Other actions (describe)	600	- Increase Tapo Canyon Treatment Plant water production (local groundwater)
5	Other actions (describe)	800	- Increase Tapo Canyon Treatment Plant water production (local groundwater)
6	Other actions (describe)	1,000	- Increase Tapo Canyon Treatment Plant water production (local groundwater)
NOTES: A mobile recycled water fill station could be implemented in for dust control, watering of City Parks and potentially used as a residential fill station (estimated 30 AF volume). Tapo Canyon Treatment Plant's production capacity of 1 MGD would be used, as-needed to fill the shortage gap.			