



**TRIUNFO**  
WATER & SANITATION DISTRICT

# 2020 Urban Water Management Plan

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# 1 INTRODUCTION & OVERVIEW

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## 1.1 INTRODUCTION

The California State Legislature passed AB 797, the Urban Water Management Planning Act (Act) of 1983, which became effective January 1, 1984. The Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet of water annually, to prepare and adopt an Urban Water Management Plan (UWMP). The act also requires urban water suppliers to update the UWMP in years ending in five and zero using a 20-to-25-year planning horizon. The Triunfo Water & Sanitation District (District), a water purchaser and provider, fits the defined criteria, and has prepared this UWMP addressing all the requirements set forth in the State of California Water Code Sections 10610 through 10657.

Since its passage, many amendments have been added to the Act. These changes are intended to encourage increased regional planning and the cooperative management of California's most precious commodity - water. As a result, UWMPs have evolved to become:

- Foundation documents and sources of information for Water Supply Assessments and written verification of water supply
- Long range planning documents for water supply
- Source data for the development of regional water plans
- Source documents for cities and counties preparing their general plans
- Key components of Integrated Regional Water Management Plans

For the District, the benefits of updating the UWMP extend beyond legislative compliance. This document is a reference document intended to complement other UWMPs by analyzing conservation issues and the water supply available to the unincorporated community of Oak Park. An effective UWMP aimed at developing a greater level of water conservation, awareness, and reliability requires the coordinated efforts on key tasks by the Department of Water Resources (DWR), Las Virgenes Municipal Water District (LVMWD), Calleguas Municipal Water District (CMWD), and the County of Ventura (County), along with Oak Park residents. This document also summarizes the current and proposed water management activities performed by the District to provide dependable, adequate, and safe water. The UWMP further

identifies proposed projects with a description of resulting water costs, benefits, and implementation schedule.

Specifically, the goals of this plan are to:

- To provide a local perspective on current and proposed water conservation programs
- To review current conservation programs and efforts
- To evaluate potential conservation methods and identify improvements, as appropriate to the District programs
- Provide a general framework for the development of mechanisms for coping with both short-term and long-term deficiencies in regional and/or local water supplies
- To serve as a flexible plan that can be updated periodically to reflect changes in regional and local trends, conditions, and conservation policies (at least once every five years in accordance with Section 10621 and 10644 of AB 797)

In compliance with the State mandate and accordance with the best practices of water management, the District has prepared this UWMP.

### 1.2 Regulatory Changes

The California Water Code changes since 2015 are summarized below, and details of the changes can be found in the UWMP Guidebook 2020. See Figure 1.2.1 below for a matrix of changes.

- Service Area Socioeconomic Factors CWC Section 10631 (a) and (b)(1) Assembly Bill 1414, Urban Water Management Plans Guidebook 2020, Chapter 3
- Land Use Authority Coordination CWC Section 10631 (a) Assembly Bill 1414, Urban Water Management Plans Guidebook 2020, Chapter 4
- Lay Description CWC Section 10630.5 Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 4
- Quantified Distribution Losses CWC Section 10631 (d) (3) (A) and (C) Assembly Bill 1414, Urban Water Management Plans Guidebook 2020, Chapter 4
- Drought Risk Assessment CWC Section 10635 (b) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 4
- Annual Water Supply and Demand Assessment CWC Section 10632.1 Assembly Bill 1414, Urban Water Management Plans Guidebook 2020, Chapter 4

- Application of DRA and WSCP CWC Section 10631 (b) Assembly Bill 1414, Urban Water Management Plans Guidebook 2020, Chapter 6
- Water Service Reliability CWC Section 10635 (a) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 7
- Key Attributes of Water Supply Reliability CWC Section 10632 (a) (1) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 8
- Standard Water Shortage Levels CWC Section 10632 (a) (3) (A) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 8
- Shortage Response Actions CWC Section 10632 (a) (4) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 8
- Annual Water Supply and Demand Assessment Procedures CWC Section 10632 (a) (2) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 8
- Communication Protocols CWC Section 10632 (a) (5) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 8
- Monitoring and Reporting Criteria CWC Section 10632 (a) (9) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 8
- Reevaluation and improvement Process CWC Section 10632 (a) (10) Senate Bill 606, Urban Water Management Plans Guidebook 2020, Chapter 8

Table 1.2.1 – Requirement Updates Since 2015<sup>1</sup>

Change Number	Topic	CWC Section	Legislative Bill	Summary	Guidebook Section
1	System Description	10631(a), 10631(b)(1)	AB 1414	Requires the inclusion of service area socioeconomic information as part of the system description. Some factors may include income and poverty levels, amount of unemployment, major languages spoken or cultural clusters, educational levels, general Health status an age distribution of population served, economic viability and types of non-residential uses, redevelopment and special tax districts, types and proportions of housing, age of buildings, etc.	Chapter 3
2	Water Use Characterization	10631(a)	AB 1414	Suppliers shall coordinate with local or regional land use authorities to determine the most appropriate land uses information for projecting water use in five-year increments, up to the year 2045. The following link can be used for industrial sectors (NAICS): <a href="http://www.census.gov/cgi-bin/sssd/naics/naicsrch">http://www.census.gov/cgi-bin/sssd/naics/naicsrch</a> . The following link can be used for agricultural industrial process water: <a href="http://www.census.gov/cgi-bin/sssd/naics/naicsrch">http://www.census.gov/cgi-bin/sssd/naics/naicsrch</a> .	Chapter 4
3	Water Use Characterization	10630.5	SB 606	Suppliers shall provide a simple lay description of their projected water use for the foreseeable future	Chapter 4
4	Water Use Characterization	10631(d)(3)(A), 10631(d)(3)(C)	AB 1414	Suppliers shall provide quantified distribution system losses for each of the five preceding years and whether or not the state standard was met	Chapter 4

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5	Water Use Characterization	10635(b)	SB 606	Both Wholesale and Retail Suppliers shall include a DRA for a drought period that lasts five consecutive water years, starting from the year following the assessment, which would be 2021 for this round of UWMPs. The DRA requires a comparison of water supplies with total projected water use. Therefore, the Supplier must produce a projected water use for the years 2021 through 2025 as part of the water use projections, up to the year 2040.	Chapter 4
6	Water Use Characterization	10632.1	AB 1414	Both Wholesale and Retail Suppliers will have to conduct an annual water supply and demand assessment on or before July 1 of each year, starting in 2022. The annual assessment will include current year unconstrained demand. Suppliers are encouraged to consider unconstrained demand as the expected water use in the upcoming year, based on recent water use, and before any projected response actions a Supplier may trigger under its Water Shortage Contingency Plan.	Chapter 4
7	Water Supply Characterization	10631(b)	AB 1414	The new requirements for a water supply analysis are largely in the application of that analysis to the new Drought Risk Assessment (DRA), Water Shortage Contingency Plan (WSCP), and consideration of climate change in future projections. In this section, the conclusions drawn from the water supply characterization integrate into a specific understanding of a Supplier's new drought risk in the DRA and inform the management and mitigation actions a Supplier must address in the newly required WSCP, along with consideration of climate change and coordination with land use and planning authorities for future projections. For example, an analysis that concludes that a water supply portfolio is reliable under all conditions conceivable may have fewer supply augmentation actions or demand management actions in a WSCP. In this way, the water supply analysis conclusions translate into a realistic DRA and implementable actions listed in the WSCP in the event of water shortage conditions.	Chapter 6

8	Water Service Reliability and Drought Risk Assessment	10635(a)	SB 606	<p>The new UWMP requirements is manifest in the application of new criteria to the Water Use Analysis in Chapter 4, the Water Supply Analysis in Chapter 6, and the resulting water service reliability assessment in this chapter—including the requirement for a five-consecutive dry years analysis compared to the 2015 UWMPs, which included only a three-year analysis. A new DRA is now also required under California Water Code (Water Code) Section 10635, and it must be prepared as a component of the 2020 UWMP. The DRA requires a methodical assessment of water supplies and water uses under an assumed drought period that last five consecutive years. The newly required WSCP is described in Chapter 8. Supply capacity under several scenarios is available in the latest SWP Delivery Capability Report available at: <a href="https://water.ca.gov/Library/Modeling-and-Analysis/Central-Valley-models-and-tools/CalSim-2">https://water.ca.gov/Library/Modeling-and-Analysis/Central-Valley-models-and-tools/CalSim-2</a>.</p> <p>Weather information is available at:</p> <ul style="list-style-type: none"> <li>• The National Weather Service Website: <a href="https://www.weather.gov/">https://www.weather.gov/</a></li> <li>• California Irrigation Management Information System: <a href="https://cimis.water.ca.gov/">https://cimis.water.ca.gov/</a> Western Regional Climate Center: <a href="https://wrcc.dri.edu/">https://wrcc.dri.edu/</a></li> <li>• Western Regional Climate Center: <a href="https://wrcc.dri.edu/">https://wrcc.dri.edu/</a></li> </ul> <p>Runoff data is available at:</p> <ul style="list-style-type: none"> <li>• DWR (cdec) <a href="https://cdec.water.ca.gov/">https://cdec.water.ca.gov/</a></li> <li>• U.S. Geological Survey: <a href="https://maps.waterdata.usgs.gov/mapper/?state=ca">https://maps.waterdata.usgs.gov/mapper/?state=ca</a></li> </ul> <p>Operators of local dams and reservoirs</p> <p>Groundwater information is available at:</p> <ul style="list-style-type: none"> <li>• Local Groundwater Sustainability Agency</li> <li>• State of California Sustainable Groundwater Management Website: <a href="https://water.ca.gov/Programs/Groundwater-Management">https://water.ca.gov/Programs/Groundwater-Management</a></li> <li>• California Statewide Groundwater Elevation Monitoring (CASGEM): <a href="https://water.ca.gov/Programs/Groundwater-Management/Groundwater-Elevation-Monitoring--CASGEM">https://water.ca.gov/Programs/Groundwater-Management/Groundwater-Elevation-Monitoring--CASGEM</a></li> </ul>	Chapter 7
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9	Water Shortage Contingency Plan	10632(a)(1)	SB 606	A Supplier's WSCP must include key attributes of its water supply reliability analysis conducted pursuant to Water Code Section 10635.	Chapter 8
10	Water Shortage Contingency Plan	10632(a)(3)(A)	SB 606	A Supplier's WSCP must include six standard water shortage levels corresponding to progressive ranges of up to 10-, 20-, 30-, 40-, and 50-percent shortages and greater than 50-percent shortage.	Chapter 8
11	Water Shortage Contingency Plan	10632(a)(4)	SB 606	A Supplier's WSCP must include locally appropriate "shortage response actions" for each shortage level, with a corresponding estimate of the extent the action will address the gap between supplies and demands.	Chapter 8
12	Water Shortage Contingency Plan	10632(a)(2)	SB 606	A Supplier's WSCP must include procedures for conducting an annual water supply and demand assessment with prescribed elements. Under Water Code Section 10632.1, urban water Suppliers are required to submit, by July 1 of each year, beginning in the year following adoption of the 2020 UWMP, an annual water shortage assessment report to the California Department of Water Resources (DWR).	Chapter 8
13	Water Shortage Contingency Plan	10632(a)(5)	SB 606	A Supplier's WSCP must include communication protocols and procedures to inform customers, the public, and government entities of any current or predicted water shortages and associated response actions.	Chapter 8
14	Water Shortage Contingency Plan	10632(a)(9)	SB 606	A Supplier's WSCP must include monitoring and reporting procedures to assure appropriate data is collected to monitor customer compliance and to respond to any state reporting requirements.	Chapter 8
15	Water Shortage Contingency Plan	10632(a)(10)	SB 606	A Supplier's WSCP must include a reevaluation and improvement process to assess the functionality of its WSCP and to make appropriate adjustments as may be warranted.	Chapter 8

## 1.3 PLAN ORGANIZATION

The chapters in this UWMP have been organized to correspond to the outline of the California Department of Water Resources' "2020 Urban Water Management Plans Guidebook for Urban Water Suppliers". Additionally, the sequence used to present the information may be different from that shown in the Act in order to present the material in a manner reflecting the unique conditions within the District's service area. This UWMP is organized according to the following chapters:

# 1

### INTRODUCTION & OVERVIEW

Chapter 1 describes the organization of the 2020 UWMP as well as a discussion of the importance and extent of the District's water management planning efforts.

# 2

### PLAN PREPARATION

Chapter 2 describes the District's process of developing the UWMP, including stakeholder involvement and coordination with key stakeholders.

# 3

### SYSTEM DESCRIPTION

Chapter 3 describes the District's service area, which includes the climate and demographics within the area as well as an overview of the area's water system facilities.

# 4

### WATER USE CHARACTERIZATION

Chapter 4 documents historical and projected water use, including use by sector, within the District's service area.

# 5

### SBX7-7 BASELINES, TARGETS, AND 2020 COMPLIANCE

Chapter 5 outlines the baseline and target per capita water use reduction values, demand projection calculations and the method used to develop these projections. This chapter also demonstrates whether or not the City has achieved the 2020 water use target.

# 6

### WATER SUPPLY CHARACTERIZATION

Chapter 6 outlines the sources of water within the District's service area, including documentation regarding wholesale water, groundwater, recycled water, desalination water, and transfer and exchange opportunities.

**7** **WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT**  
Chapter 7 outlines the reliability of the District's water supply and project reliability for the next 20 years. This includes documentation of the three dry year scenarios.

**8** **WATER SHORTAGE CONTINGENCY PLAN**  
Chapter 8 outlines the District's Water Shortage Contingency Plan, mandatory prohibitions, penalties or charges for excessive use, revenue and expenditure impacts, and mechanisms to determine reductions in water use.

**9** **DEMAND MANAGEMENT MEASURES**  
Chapter 9 describes the water conservation programs implemented by the District in an effort to reduce water usage in the Oak Park service area.

**10** **PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION**  
Chapter 10 briefly outlines the steps taken to adopt, submit and make the UWMP publicly available. This chapter also discusses the agency's plan to implement the UWMP.

## 1.4 Coordination

### ***Urban Water Management Planning Act Requirement:***

#### *CWC 10608.56*

*(a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.*

*(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.*

*(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.*

*(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).*

The District ensured that the 2020 UWMP was completed and submitted in accordance with CWC 10608.56 sections a, c, e, and f to ensure that the District is eligible for any water management grant, loan, or other State funding. The District has maintained its latest UWMP on file at the District's offices in Ventura, California.

# 2 PLAN PREPARATION

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## 2.1 Basis for Preparing a Plan

### ***Urban Water Management Planning Act Requirement:***

*CWC 10617 “Urban water supplier” means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems...*

*CWC 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.*

*CWC 10621(a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d).*

*(d) Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.*

The Triunfo Water & Sanitation District (District) is required to prepare an Urban Water Management Plan (UWMP) since it supplies water to more than 3,000 customers within its service area.

Public Water Systems

**Urban Water Management Planning Act Requirement:**

*CWC 10644(a)(2) The plan, or amendments to the plan, submitted to the department ... shall include any standardized forms, tables, or displays specified by the department.*

*CWC 10608.52(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.*

*(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24... The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.*

*California Health and Safety Code 116275*

*(h) "Public Water System" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.*

The District's 2015 UWMP utilized the Department of Water Resources (DWR) standardized forms, tables, or displays. The use of these forms, tables or displays is continued throughout the 2020 UWMP.

The District is classified as a public water system and as such is required to complete the UWMP as well as provide the plan to the DWR. Table 2.1.1 shows the District's Public Water System (PWS) information. The District will be submitting required information through the Water Use Efficiency Online Tool, as required for the 2020 UWMP.

**Table 2-1: Public Water Systems**

Public Water System Number	Public Water System Name	Number of Municipal Connections 2020 <sup>1</sup>	Volume of Water Supplied 2020 <sup>1</sup>
CA5610043	Triunfo Water & Sanitation District	4,606	2,174
<b>TOTAL</b>		4,606	2,174

Note: Volume shown is in Acre-Feet/Year.

Note: Totals refer to the 'Consumption by Utility Class Codes Calendar Year (CY) 2020'. Total value represents wholesaler invoiced purchases during CY 2020.

Note: Corresponds with WUE Table 2-1 R

**Agencies Serving Multiple Service Areas/Public Water Systems**

The District provides potable water to the unincorporated community of Oak Park. The District only provides water within its service area and therefore this subsection is not applicable.

**2.2 Regional Planning**

The District will not be participating in a Regional UWMP (RUWMP) for 2020. Please see next section.

**2.3 Individual or Regional Planning and Compliance**

As stated in Section 2.2, the District will not be participating in a RUWMP for 2020; however, the District has developed stand-alone UWMPs since 2005 and will do so for the 2020 update. The goal of this UWMP is to address all the requirements of the California Water Code (CWC). As part of this effort, the District notified and coordinated with the County of Ventura, Ventura Regional Sanitation District (VRSD), Calleguas Municipal Water District (CMWD), Las Virgenes Municipal Water District (LVMWD) and the general public.

**Table 2-3: Plan Identification (DWR Submittal Table 2-2)**

<input checked="" type="checkbox"/>	Individual UWMP
	<b>Choose One:</b>
<input type="checkbox"/>	Water Supplier is also a member of a RUWMP
<input type="checkbox"/>	Water Supplier is also a member of a Regional Alliance
<input type="checkbox"/>	Regional UWMP (RUWMP)

Note: Corresponds with WUE Table 2-2

**2.4 Fiscal or Calendar Year and Units of Measure**

**Urban Water Management Planning Act Requirement:**  
*CWC 10608.20 (a) (1) Urban retail water suppliers... may determine targets on a full fiscal year or calendar year basis.*

**Fiscal or Calendar Year**

The District uses Calendar Years for its database. Information regarding agency type, year basis and unit of measure used is presented on Table 2.4.1 below.

**Table 2-4: Agency Identification**

Type of Agency (select one or both)	
<input checked="" type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables Are in Calendar Years
<input type="checkbox"/>	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Day that the Fiscal Year Begins	
<i>Day</i>	
Units of Measure Used in UWMP (select one)	
<input checked="" type="checkbox"/>	Acre Feet (AF)
<input type="checkbox"/>	Million Gallons (MG)
<input type="checkbox"/>	Hundred Cubic Feet (CCF)

Note: Table coordinates with WUE Table 2-3

## 2.5 Coordination and Outreach

### **Urban Water Management Planning Act Requirement:**

*CWC 10631(j) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).*

### **Wholesale and Retail Coordination**

The District is 100% dependent on imported water purchased through Metropolitan Water District of Southern California via CMWD for its potable water supply.

**Table 2-5: Retail Water Supplier Information Exchange**

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

Wholesale Water Supplier Name
Calleguas Municipal Water District <sup>1</sup>

Note: CMWD is the sole source of potable water supply.  
 Note: Table coordinates with WUE Table 2-4 R

**Table 2-6: District Wholesale Water Supplier Information Exchange**

<input type="checkbox"/>	Supplier has informed more than 10 other water suppliers of water supplies available in accordance with Water Code Section 10631. Completion of the table below is optional. If not completed, include a list of the water suppliers that were informed.
	<b>Provide page number for location of the list.</b>
<input checked="" type="checkbox"/>	Supplier has informed 10 or fewer other water suppliers of water supplies available in accordance with Water Code Section 10631. <b>Complete the table below.</b>
Water Supplier Name	
California Water Service - Westlake District (CWS)	
Hidden Valley Municipal Water District (HVMWD)	

Note: The District only supplies recycled wholesale water to the listed agencies.

### Coordination with Other Agencies and the Community

***Urban Water Management Planning Act Requirement:***

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

The District ensured the preparation of the 2020 UWMP was coordinated with the appropriate water and public agencies. The CMWD, VRSD, LVMWD, CWS, HVMWD, and the County of Ventura were encouraged to participate in the Plan development.

***Urban Water Management Planning Act Requirement:***

*CWC 10642 Each urban water supplier shall encourage the 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.*

The District realizes the importance of different social, cultural, and economic elements within its service area can have on the quality and success of its plan and water conservation efforts. The District encouraged all members of the public to attend the public hearing, and the District solicited written input from the public.

### Notice to Cities and Counties

***Urban Water Management Planning Act Requirement:***

*CWC 10621(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.*

The District sent notification letters to the following agencies approximately 60 days prior to the public hearing:

- County of Ventura
- CMWD
- LVMWD
- CWS
- HVMWD

Copies of the letters are available in Appendix A, as well as the distribution addresses.

# 3 SYSTEM DESCRIPTION

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## 3.1 SERVICE AREA PHYSICAL DESCRIPTION

*Urban Water Management Planning Act Requirement:  
CWC 10631(a) Describe the service area of the supplier.*

### General Location Overview

Ventura County covers 1.2 million acres of land and is located northwest of Los Angeles County, south of Kern County, and southeast of Santa Barbara County. The western side of Ventura County, which spans 42 miles, borders the Pacific Ocean. The county's land mass north of Highway 126 is mostly mountainous and uninhabited due to the presence of the Los Padres National Forest; this accounts for 46% of the County's area.

The Triunfo Water & Sanitation District wastewater service area consists of Oak Park, Lake Sherwood, Bell Canyon, and the Westlake Village and North Ranch portions of Thousand Oaks. Triunfo Water & Sanitation District provides potable water to the community of Oak Park. Figure 3.1.1 illustrates the service area of the Triunfo Water & Sanitation District (TWSD) in southeast Ventura County.

### Water System Overview

The TWSD (formerly known as Triunfo Sanitation District), established on November 12, 1963, is a public entity that supplies potable water, provides wastewater collection, and sells recycled water to the southeastern portion of Ventura County. As for TWSD's organizational structure and governance, TWSD is governed by a board of five directors who are elected by voters within TWSD's boundaries. TWSD serves approximately 30,000 people and, as a whole, covers approximately 50 square miles. However, only 4.1 square miles of the service area are served with potable water. The portion of TWSD's service area which receives potable water is Oak Park, which is an unincorporated community within Ventura County. TWSD supplies potable water to this area. TWSD serves over 13,100 Oak Park residents with potable water. Other public and private water purveyors serve the potable water needs of Lake Sherwood, Bell Canyon, and the Westlake Village and North Ranch area residents of Thousand Oaks. The TWSD service area is illustrated by the overlaying of service area maps in Figure 3.1.1. Figure 3.1.2 provides a closer

view of the TWSD service area.

The District supplies potable and recycled water to its end users. Potable water is imported solely from the Calleguas Municipal Water District, while recycled water is supplied from the Tapia Water Reclamation Facility made available through a Joint Powers Authority between TWSD and Las Virgenes Municipal Water District. TWSD oversees potable water distribution in the Oak Park area and TWSD also oversees recycled water distribution within Oak Park and provides wholesale recycled water to the California Water Service and the Hidden Valley Municipal Water District. An overview of the TWSD system is provided in the paragraphs below.

TWSD operates 120 miles of pipelines for wastewater collection and manages 10,803 sewer service connections within its service area. The wastewater from these pipelines is fed via five main pump stations to the Tapia Water Reclamation Facility, a major operating facility jointly owned by TWSD and the Las Virgenes Municipal Water District. The Tapia Water Reclamation Facility treats 10 million gallons per day of wastewater, and provides recycled water that is used to irrigate public and commercial landscaping such as golf courses, school grounds, highway medians and parks.

TWSD owns and manages four water storage tanks, with a combined capacity of 6.66 million-gallons, and operates 41 miles of pipeline which can deliver more than 76 million gallons of potable water each month. Please refer to Table 3.1.1 for a description of the TWSD water storage tanks. TWSD’s network of water storage tanks allows some in-system transfers between reservoirs in the event of water outages. Tank levels in each of the reservoirs are also maintained for Ventura County Fire Department specifications for optimum water quality and for distribution system efficiencies. In addition, the District upgraded all metered services in 2015. Data from the new meters became available in May 2017. Presently the total storage volume is equivalent to approximately two days’ worth of supply.

**Table 3.1.1: TWSD Potable Water Storage Tanks**

<b>STORAGE TANK NAME</b>	<b>YEAR OF CONSTRUCTION</b>	<b>CONSTRUCTION MATERIAL</b>	<b>CAPACITY (GALLONS)</b>
Oak Canyon	2013	Concrete	2,100,000
Deerhill	1998	Concrete	2,100,000
Savoy	1990	Steel	1,600,000
Kilburn	1986	Steel	854,000

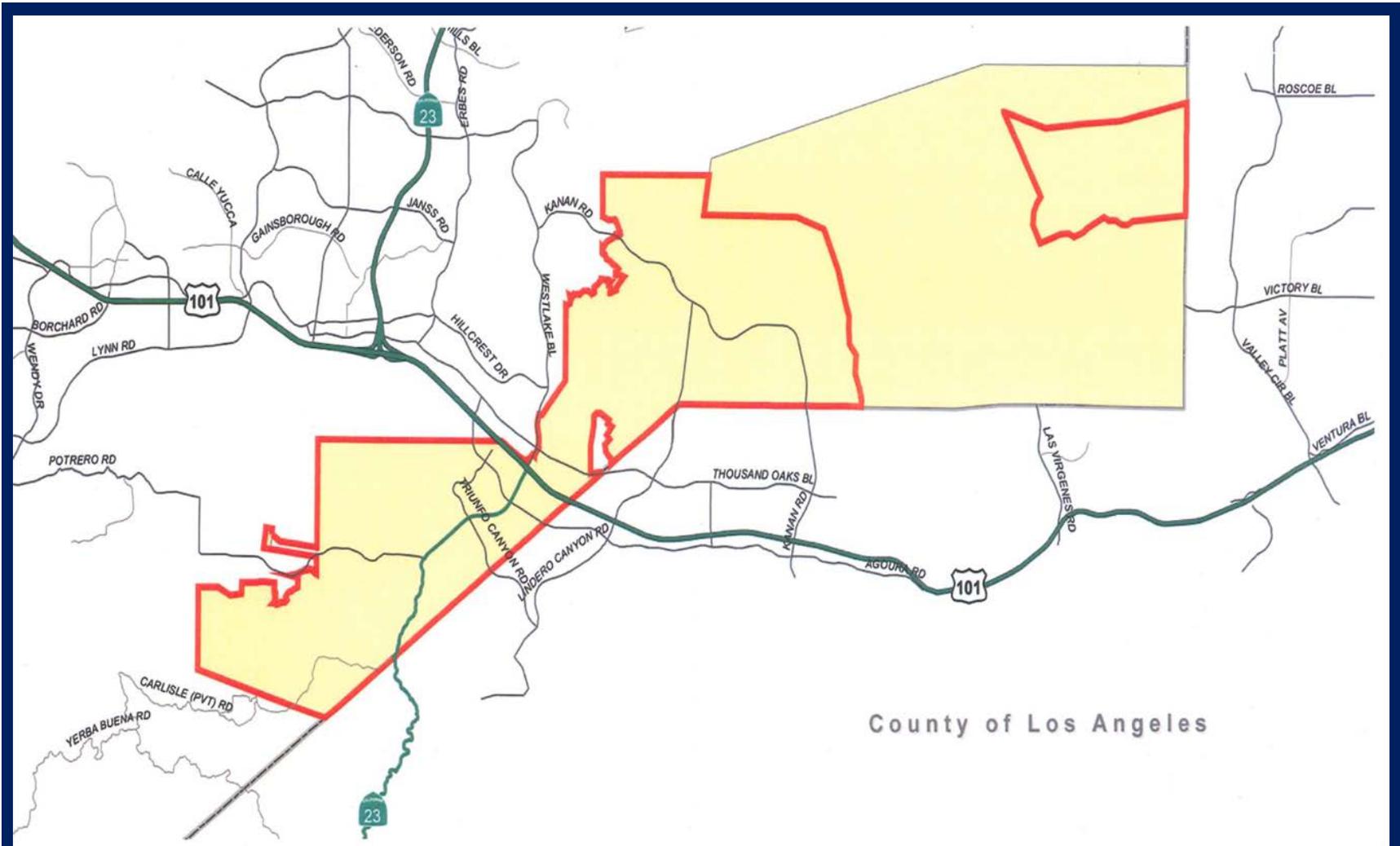


Figure 3.1.1 – TWSD Service Area Map

Note: Image taken from the TWSD website

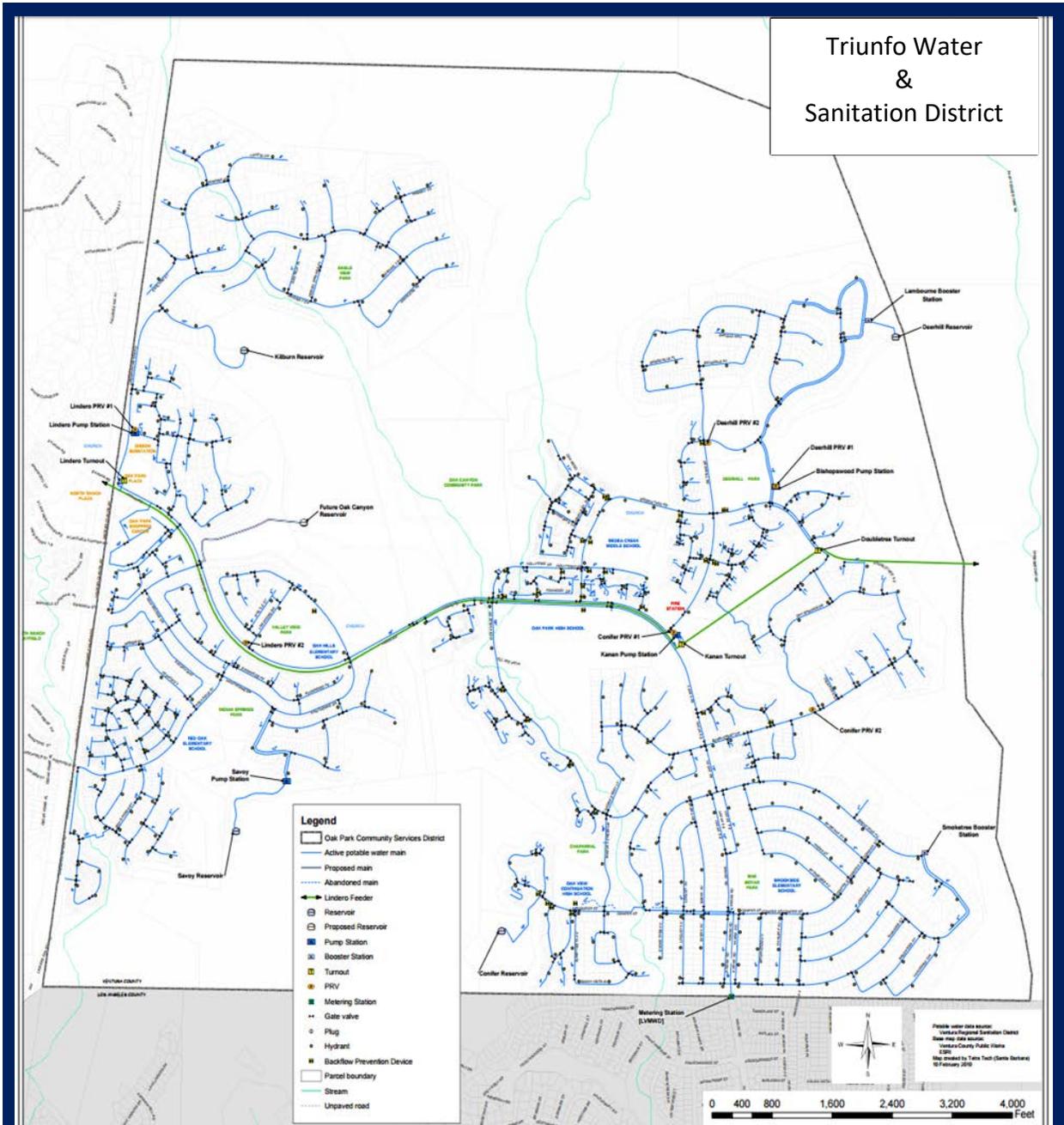


Figure 3.1.2 – TWSD Service Area Map<sup>1</sup>

Note: From the TWSD Website – About ->Service Area -> Water Service Area

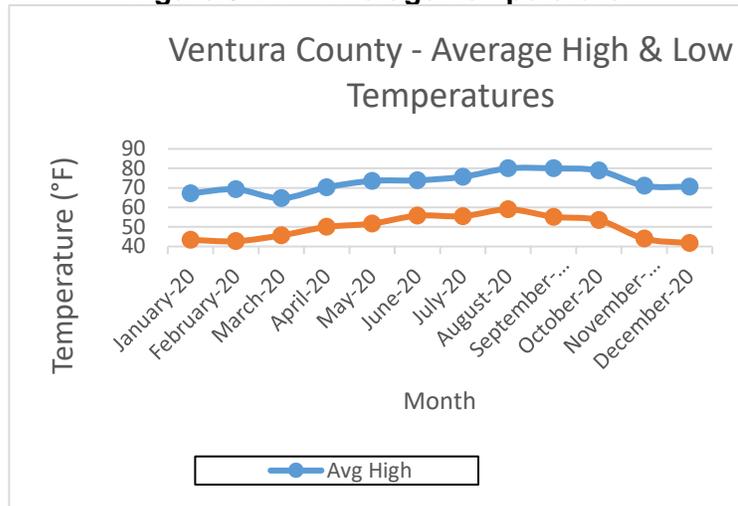
### 3.2 SERVICE AREA CLIMATE

**Urban Water Management Planning Act Requirement:**  
 CWC 10631(a) Describe the service area of the supplier, including...climate...

#### Temperature

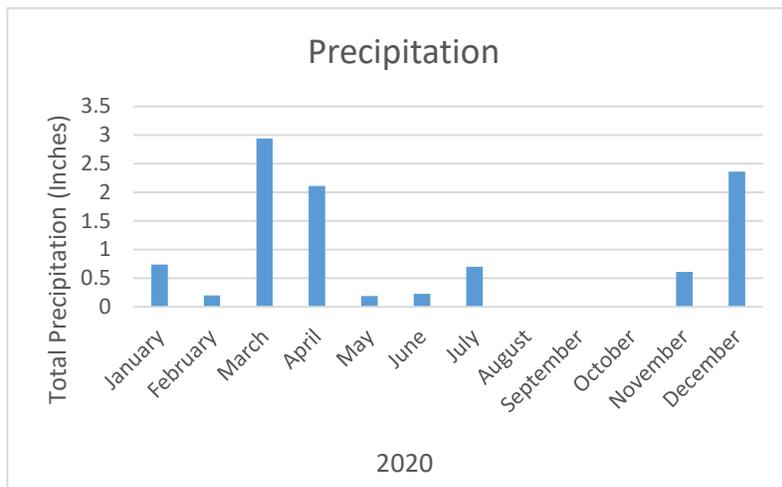
The Southeastern Ventura County’s Mediterranean semi-arid climate is temperate year-round, with warm and dry weather lasting from late spring through early fall. The temperature range is generally moderate as depicted in Figure 3.2.1; the average high temperature is 72.9 °F and the average minimum annual temperature is 49.9 °F.

**Figure 3.2.1 – Average Temperature**



#### Precipitation

**Figure 3.2.2 – Precipitation**



The areas total amount of precipitation is approximately 10 inches annually with the majority of this rainfall occurring during the winter season. The monthly precipitation for 2020 is presented in Figure 3.2.2.

Note - California Irrigation Management Information System (CIMIS) :<http://www.cimis.water.ca.gov/>

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Camarillo, Ventura County Station #152

Additionally, seasonal variation in temperature, rainfall, and evapotranspiration rate are illustrated in Table 3.2.1.

**Table 3.2.1: Climate Data**

	<b>AVG. HIGH TEMP (°F)</b>	<b>AVG. LOW TEMP (°F)</b>	<b>TOTAL PRECIPITATION (In.)</b>	<b>TOTAL ETo (In.)</b>
January	67.2	43.4	0.74	2.54
February	69.3	42.7	0.20	3.50
March	64.7	45.7	2.94	3.35
April	70.3	50	2.11	4.50
May	73.6	51.7	0.19	6.24
June	73.9	55.8	0.23	5.61
July	75.7	55.5	0.70	6.59
August	80	59	0.00	5.85
September	80	55.2	0.00	4.55
October	78.9	53.5	0.00	3.90
November	71.1	44	0.61	2.86
December	70.6	41.7	2.36	3.01
Annual	72.9	49.9	10.1	52.50

Note - California Irrigation Management Information System (CIMIS) : <http://www.cimis.water.ca.gov/>  
Camarillo, Ventura County Station #152

Note : Period Record: 01/01/2020 to 12/31/2020 and Evapotranspiration Rate (ETo) Data

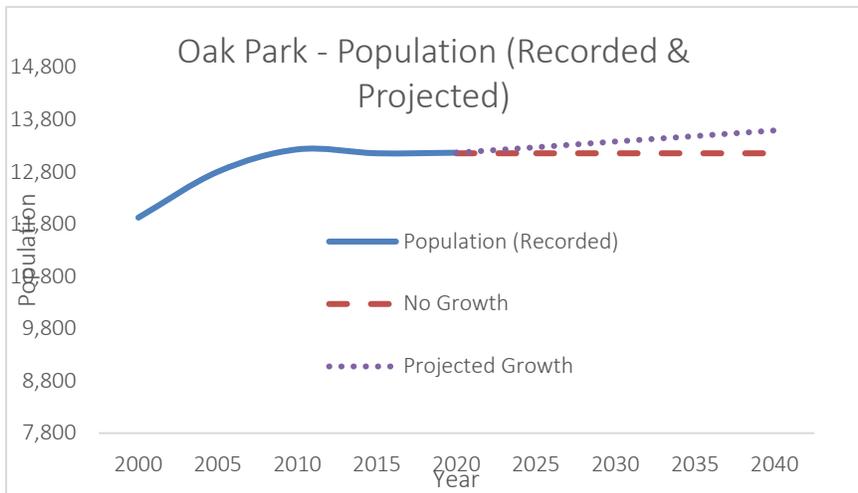
### 3.3 SERVICE AREA POPULATION

**Urban Water Management Planning Act Requirement:**

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

There are approximately 13,167 people and approximately 4,500 households that comprise most of the District’s potable water service area, which is the unincorporated city of Oak Park. Recorded, current, and projected population estimates for the District’s service area were

**Figure 3.3.1 – Projected Population Growth**



obtained from the County of Ventura: Dwelling Units and Population by Dwelling Unit Type, Growth/Non-Growth Areas (01/26/11). County estimations show that the community was designated as at 'build out' in the 1990's. According to the county estimates, there will a period of little to no growth between 2020 and 2035 within Oak Park. The community does not anticipate significant additional growth or water demands in the future years. This is illustrated in Table 3.3.1 and Figure 3.3.1 by the low to steady projected growth rate of the population.

**Table 3.3.1: Population — Current and Projected Oak Park Population**

	2020	2025	2030	2035	2040	DATA SOURCE
Population Served <sup>1</sup>	13,167	13,272	13,379	13,486	13,593	DWR WUE Population Tool

Note: Service area population is defined as the population served by the distribution system.

Note: 2020 population based on DWR WUE Population Tool estimate. Growth estimated based on recent trends in population dynamics

Note: Coordinates with WUE Table 3-1 R

### 3.4 OTHER DEMOGRAPHIC FACTORS

***Urban Water Management Planning Act Requirement:***

*CWC 10631(a) Describe the service area – other demographic factors affecting the supplier’s water management planning*

As stated above, the District serves the unincorporated city of Oak Park. In 2020, the District supplied 4,606 customers, including residential, commercial, institutional, and landscape users with over 2,174 acre-feet of potable water.

The District’s service area primarily includes residential customers. However, the District maintains some commercial and institutional customers as well. With most residents employed in other Los Angeles County areas, there are no industrial customers within the District’s network of water users. While the developed portions of Oak Park are mostly residential (single-family homes, townhomes, and apartments), shopping/commercial centers have arisen such as the Oak Park Shopping Center which was developed in ‘90s. Population growth is expected to be flat over the next 20 years and water use rates are expected to rise slightly over the next 20 years.

### 3.5 SERVICE AREA SOCIOECONOMICS

#### Urban Water Management Planning Act Requirement:

CWC Section 10631 Describe the service area – Describe the service area of the supplier. Including....other social, economic, and demographic factors affecting the supplier’s water management planning.

When it comes to evaluating socioeconomic correlations to increased community water use and ultimately, water insecurity, low-income areas are of particular interest. Low-income individuals are often limited financially and may reside in homes which are older or not as well maintained as those with higher incomes. Buildings of that nature tend to lack proper piping connections, water fixture sealings, etc. making them prone to drips, leaks, and floods.

Oak Park is generally not considered a low-income area. According to the U.S. Census Bureau, the community has a median household income of \$132,578. This is over twice the national average which is \$62,843. The community’s poverty rate of 3.5% is significantly lower than the California rate at 15.1%.

As of 2021, Oak Park has experienced an unemployment rate of 6.4%, which is smaller than the US average of 8.0%. Unemployment can impact water use according to a study done by Cranfield University. According to research, household water consumption changed significantly after the start of the COVID-19 lockdown. Although the study was not focused on Oak Park, the water use patterns for the unemployed are likely similar. At home activities such as showering, laundry, gardening, etc. can happen more frequently when individuals increase time spent at home. As the community’s unemployment rate fluctuates, the District may find a correlation between water use and unemployment.

# 4 WATER USE CHARACTERIZATION

## 4.1 WATER USE

### **Urban Water Management Planning Act Requirement:**

10608.20(e)(1)&(2) Quantify, to the extent records are available, past and current water use, and projected water use (over the same five-year increments described in subdivision (a)), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses: (A) Single-family residential; (B) Multifamily; (C) Commercial; (D) Industrial; (E) Institutional and governmental; (F) Landscape; (G) Sales to other agencies; (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof; (I) Agricultural.

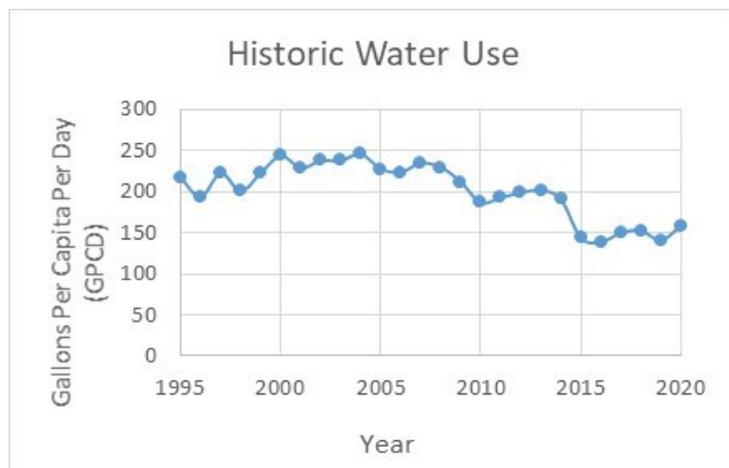
### **Historic Water Use**

The Triunfo Water & Sanitation District (District) currently serves approximately 13,100 people within its service area. With the District designated as built-out, significant growth or increase in water demands are not anticipated in future years.

Key factors that affect water demands are; population growth, increases in land use development, industrial

growth and reductions in annual rainfall. For the District, population and rainfall exhibit the greatest influence. Over the last 25 years, usage of water per capita per day ranged between 139 - 246 Gallons per Capita per Day (GPCD). Usage from 2010-2020 has remained relatively lower than usage from 1995-2009 as shown in Figure & Table 4.1.1, with 2016 having the lowest per capita water use in the past 25 years. Consumption has ranged from a low of 139 GPCD in 2016 to a maximum of 246 GPCD in 2004. The average use per day during the period from 1995 through 2020 was 202 gallons per person.

**Figure 4.1.1 – Historic Water Use**



**Table 4.1.1: Historic Water Use**

<b>Fiscal Year</b>	<b>Gross Water Use (MGY)</b>	<b>Population</b>	<b>Usage Per Capita Day (GPCD)</b>
1995	1,105	13,943	217
1996	977	13,829	194
1997	1,055	12,358	223
1998	916	12,466	201
1999	1,021	12,538	223
2000	1,062	11,925	244
2001	1,008	12,057	229
2002	1,059	12,199	238
2003	1,044	12,401	238
2004	1,096	12,602	246
2005	1,013	12,804	228
2006	996	13,005	224
2007	1,046	13,207	235
2008	1,025	13,408	230
2009	944	13,610	212
2010	833	13,811*	187
2011	861	13,815	193
2012	885	13,819	199
2013	901	13,824	202
2014	851	13,828	191
2015	645	13,832	144
2016	620	13,836	139
2017	667	13,840	150
2018	681	13,845	153
2019	626	13,849	141
2020	708	13,853*	159

Note: Million Gallons per Year (MGY)

Note: As Oak Park is a census-designated place, population growth was estimated based on census year data. Linear growth was estimated for years between 2010 and 2020.

The District’s past water use and number of customer connections for the 2010 and 2015 calendar years are shown in Table 4.1.2 and Table 4.1.3, respectively.

**Table 4.1.2: Water Deliveries — Actual, 2010**

Water use sectors	Metered		Not Metered		Total
	# of Accounts	Volume	# of Accounts	Volume	Volume
Single family	4,086	1,973	0	0	1,973
Multi-family	370	134	0	0	134
Commercial/Institutional	67	36	0	0	36
Industrial	0	0	0	0	0
Landscape	85	179	0	0	179
Agriculture	0	0	0	0	0
Other	3	2	0	0	2
<b>Total</b>	<b>4,611</b>	<b>2,324</b>	<b>0</b>	<b>0</b>	<b>2,324</b>

Note: Units in acre-feet per year

**Table 4.1.3: Water Deliveries — Actual, 2015**

Water use sectors	Metered		Not metered		Total
	# of accounts	Volume	# of accounts	Volume	Volume
Single family	4,063	1,597	0	0	1,597
Multi-family	361	122	0	0	122
Commercial/Institutional	69	35	0	0	35
Industrial	0	0	0	0	0
Landscape	96	145	0	0	145
Agriculture	0	0	0	0	0
Other	7	1	0	0	1
<b>Total</b>	<b>4,596</b>	<b>1,900</b>	<b>0</b>	<b>0</b>	<b>1,900</b>

Note: Units in acre-feet per year

**Table 4.1.4: Water Deliveries — Actual, 2020**

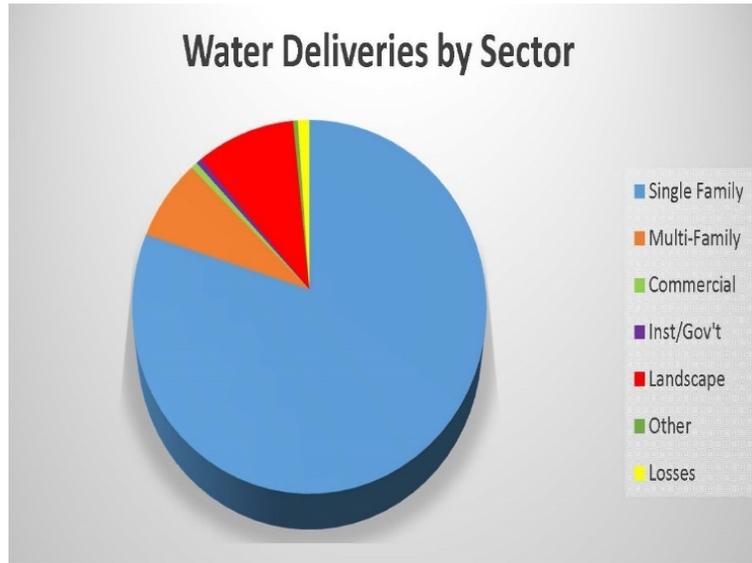
Water use sectors	Metered		Not metered		Total
	# of accounts	Volume	# of accounts	Volume	Volume
Single family	4,070	1,725	0	0	1,725
Multi-family	366	161	0	0	161
Commercial/Institutional/	73	26	0	0	326
Governmental	0	0	0	0	0
Landscape	94	212	0	0	212
Agriculture	0	0	0	0	0
Other	73	10	0	0	10
<b>Total</b>	<b>4,606</b>	<b>2,134</b>	<b>0</b>	<b>0</b>	<b>2,134</b>

Note: Units in acre-feet per year

**Current and Projected Water Use by Sector**

In 2020, the District used 2,159 acre-feet of potable water, as measured by metered sales and estimated distribution system losses. Average water deliveries, shown in Figure 4.1.2, are broken down into the following sectors:

- Single Family Residential
- Multi-Family Residential
- Commercial
- Institutional/government
- Landscape Irrigation
- Other (pool and recreation)
- Distribution System Losses



**Figure 4.1.2 –Water Deliveries**

Retail water deliveries are projected for the next 20 years, in five-year increments, and are broken down by sector. The future estimations of water use (by sector) are extrapolated based on the current (2020) values and anticipated population growth.

*Residential Sector*

Table 4.1.6 provides estimates for the projected residential water demand for the District. Due to the lack of available space, the District does not have plans for significant new residential development.

*Commercial/Institutional/Government Sectors*

Current and projected water demands for the District’s commercial and institutional/governmental sectors are shown in Tables 4.1.5 – 4.1.6. Commercial users include markets, restaurants, stores, offices, gas stations and other businesses. The Oak Park service area does not have any industrial users.

*Landscape Sector*

The District uses both potable and recycled water for the landscape sector. Considering the implementation of the Water Conservation in Landscaping Ordinance No. TSD-301, included in Appendix E of this report, and the District’s recycled water system, landscape irrigation is

expected to remain stable or show improvements during the planning horizon. The current and projected water demands for landscape irrigation are shown in Tables 4.1.6 and 4.1.6.

*Agricultural Sector*

The District does not provide potable water for agricultural uses.

*Other*

The District’s firefighting and site construction water use, as well as pool and recreational use, are included in the *Other* categories, and their projections are included in Tables 4.1.4 and 4.1.5.

*Distribution System Losses*

The District’s distribution system losses were estimates for each of the five past planning years utilizing American Water Works Association (AWWA) water audit methodology and software. Distribution system losses are then projected for the next 20 years using a five-year average ratio of water losses to total water deliveries (8.3%). Refer to Appendix D for the complete AWWA Water Audit Software calculations and Section 4.1.5 for more information.

**Table 4.1.5: Demands for Potable Water - 2020 Actual**

Water Use Sectors	Additional Description	Level of Treatment When Delivered	Volume
Single Family	-	Drinking Water	1,725
Multi-Family	-	Drinking Water	161
Commercial/ Institutional/	-	Drinking Water	26
Governmental	-	Drinking Water	0
Landscape	-	Drinking Water	212
Other	Pool & Recreation	Drinking Water	7
Other	Firefighting, and/or Construction	Drinking Water	3
Losses	Distribution System Losses	Drinking Water	25
Other	Purchases, less sales	Drinking Water	15
<b>TOTAL</b>			<b>2,174</b>

Note: Units in acre-feet per year

Note: Totals referenced to the 'Consumption by Utility Class Codes Calendar Year 2020'. Total value represents wholesaler invoiced purchases during CY 2020. Reservoir capacities are a maximum of 20 AF (6.6 MG). Value conflicts with prior annual report submittal due to 'Purchase, less sales' added to monthly purchase amount - the wholesaler invoice amount.

Note: Coordinates with WUE Table 4-1 R

Table 4.1.6: Demands for Potable Water – Projected

Water Use Sectors	Additional Description	Projected Water Use				
		2020	2025	2030	2035	2040
Single Family	-	1,725	1,739	1,753	1,767	1,781
Multi-Family	-	161	162	164	165	166
Commercial/ Institutional	-	26	26	26	26	26
Governmental	-	0	0	0	0	0
Landscape	-	212	214	215	217	219
Other	Pool & Recreation	7	7	7	7	7
Other	Firefighting and/or Construction	3	3	3	3	3
Losses		25	25	25	26	26
Other	Purchases, less sales	15	15	15	15	16
<b>TOTAL</b>		<b>2,174</b>	<b>2,191</b>	<b>2,208</b>	<b>2,226</b>	<b>2,244</b>

Note: Units in acre-feet per year  
 Notes: Coordinated with WUE Table 4-2 R

**Sales to Outside Agencies**

The District sells wholesale recycled water to California Water Service and the Hidden Valley Municipal Water District. However, the District does not sell any potable water to other agencies. Table 4.1.6 is provided to quantify that the District does not intend to sell potable water to other water agencies within the planning period.

**Table 4.1.6: Potable Water Sales to Other Water Agencies**

<b>Water Distributed</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
Not Applicable	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Note: Units in acre-feet per year

**Distribution System Water Losses**

***Urban Water Management Planning Act Requirement:***

*CWC 10631(e)(1) Quantify, to the extent records are available, past and current water use over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including but not necessarily limited to, all of the following uses: ...*

*(J) Distribution system water loss*

*(3)(A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.*

*(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.*

Distribution system water losses were quantified for FY 2019-2020 using the Department of Water Resources Water Audit Method, calculated by subtracting the total metered deliveries for the year from the total water volume into the system (imported water) less any change in system storage, adjusted for meter accuracy. The worksheets can be found in Appendix I. In FY 2019-2020, distribution system losses were approximately 1.2% of total retail water deliveries. Current system losses are summarized in Table 4.1.7, and projected system losses are included in Table 4.1.5.

**Table 4.1.7: 12 Month Water Loss Audit Reporting**

Reporting Period Start Date	Volume of Water Loss*
07/2020	Pending Report
07/2019	24.54
07/2018	8.14
07/2017	30.22
07/2016	28.03

Note: Units in acre-feet per year

Note: Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. Audit is based on the fiscal year 2020

Note: Coordinates with WUE Table 4-4 R

**Total Water Demands**

The total current and future retail/wholesale water demands for the District are summarized in Table 4.1.8 and 4.1.9. Planned expansion to the TWSD area’s recycled water system are expected to increase the total recycled water demand and are discussed further in Chapter 6.

**Table 4.1.8: Total Retail Water Demands**

Water Type	2020	2025	2030	2035	2040
Potable <i>From Tables 4.1.4 and 4.1.5</i>	2,174	2,191	2,208	2,226	2,244
Recycled Water Demand <i>From Table 6.5.4</i>	772	778	784	790	797
<b>Total Water Demand</b>	<b>2,946</b>	<b>2,969</b>	<b>2,992</b>	<b>3,016</b>	<b>3,041</b>

Note: Units in acre-feet per year

Note: Table coordinates with WUE Table 4-3 R

**Table 4.1.9: Total Wholesale Water Demands**

Water Type	2020	2025	2030	2035	2040
Potable <i>From Tables 4.1.4 and 4.1.5</i>	0	0	0	0	0
Recycled Water Demand	509	509	509	509	509
<b>Total Water Demand</b>	<b>509</b>	<b>509</b>	<b>509</b>	<b>509</b>	<b>509</b>

Note: Units in acre-feet per year

Note: Table coordinates with WUE Table 4-3 W

**Water Use for Lower Income Households**

**Urban Water Management Planning Act Requirement:**  
*10631.1(a) The water use projections required by Section 10631 shall include projected water use for single-family and multi-family residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.*

The Housing Element of the Ventura County General Plan was used to determine the lower income housing projected water demands within the District’s service area. Due to the TWSD area being completely built out, no new lower income dwelling units were identified for construction within the planning horizon. Table 4.1.9 is provided to show that no lower income housing has been planned for construction in the community of Oak Park.

**Table 4.1.10: Low-Income Projected Water Demands**

Low Income Water Demands	2020	2025	2030	2035
Single-family residential	0	0	0	0
Multi-family residential	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Note: Units in acre-feet per year

**Estimating Future Water Savings**

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

The District did not consider future water savings when projecting water use, which is reflected in Table 4.1.10.

**Table 4.1.11: Inclusion in Water Use Projections**

Are Future Water Savings Included in Projections? (Refer to Appendix K of DWR Guidebook)	Are Lower Income Residential Demands Included In Projections?
No	No

Note: Future projections are weighted toward prior year demands (2010-2015) versus the most current year (2015). No lower income housing is scheduled for construction within the District’s service area.

Note: Coordinates with DWR WUE Table 4-5 R

## 4.2 WATER DEMAND PROJECTIONS

### *Urban Water Management Planning Act Requirement:*

*10631(k) Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).*

The District relies on wholesale water from the Calleguas Municipal Water District (CMWD) as its primary source of potable water. Table 4.2.1 illustrates the wholesale water supply that is anticipated to be available through 2040.

**Table 4.2.1: Retail Agency Demand Projections Provided to Wholesale Suppliers**

Wholesaler	2025	2030	2035	2040
Calleguas Municipal Water District	2,191	2,208	2,226	2,244
<b>Total</b>	<b>2,191</b>	<b>2,208</b>	<b>2,226</b>	<b>2,244</b>

Note: Units in acre-feet per year

## 4.3 WATER USE REDUCTION PLAN

### ***Urban Water Management Planning Act Requirement:***

*CWC §10608.29 Urban wholesale water suppliers shall include in the urban water management plans ... an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part (10608.36). Urban retail water suppliers are to prepare a plan for implementing the Water Conservation bill of 2009 requirements and conduct a public meeting which includes consideration of economic impacts.*

The District has implemented an economical, yet sound, water use reduction plan in order to meet the 20x2020 water use reduction requirements. In 2015-2016, the TWSD completed a major meter replacement program that includes improved event sensitivity, accuracy, and customer use interface. Additional options to reduce water demand in the District include:

- Encouraging the use of recycled water for landscape and irrigation purposes.
- Adoption of the State's Model Water efficiency Landscape Ordinance (MWLEO) under the Ventura County Resource Management Agency General Plan.
- Increasing public awareness regarding water conservation requirements and efforts that can easily be implemented to conserve water through methods such as on site reviews with customers, water hotline, and rebate participation.
- Active involvement with the California Urban Water Conservation Council training programs and Best Management Practices progress.

# 5

## SB X7-7 BASELINES, TARGETS, AND 2020 COMPLIANCE

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### 5.1 WATER CONSERVATION BILL OF 2009 - BASELINES AND TARGETS

#### ***Urban Water Management Planning Act Requirement:***

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

In order to improve the Sacramento-San Joaquin Delta, in 2008 Governor Schwarzenegger directed State water agencies to develop a plan to achieve a twenty percent per capita water use reduction by the year 2020. The Water Conservation Act of 2009 (Senate Bill X7-7), passed in November 2009, provided the legislative framework to implement the conservation goals, and required retail water suppliers to detail their strategy for achieving the reduction requirement in their 2010 Urban Water Management Plan Updates. The [Urban Water Management Planning Act](#) and [SBx7-7](#) information can be found using the links provided.

Explicit methodologies were developed by DWR to assist retail water suppliers in complying with the Water Conservation Act of 2009, and they are detailed in the technical document, [Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use](#), DWR, February 2016. The Triunfo Water & Sanitation District (District) utilized the DWR methods when determining its baseline, interim, and water use target values (20x2020 targets), the steps of which are described in detail in the *Methodologies* document. A summary of the calculations is provided in DWR's SB X7-7 Verification Form, Appendix D.

Water suppliers are given the option of determining their 20x2020 target values either individually, or through a regional alliance. The District elected not to join a regional alliance, and has determined its baseline and target values individually.

For the 2020 UWMP Update, DWR determined that significant discrepancies existed between the Department of Finance (DOF) projected populations for 2010 (based on 2000 U.S. Census data) and actual populations for 2010, based on 2010 U.S. Census data (released in 2012). Therefore,

the District recalculated its baseline population numbers for years 1997 to 2006 during the 2015 UWMP Update using 2000 and 2010 Census data in conjunction with 2011 Ventura County population/dwelling unit data. A summary of the revised baselines and targets is provided in Table 5.1.1.

<b>Table 5.1.1 Baselines and Targets Summary</b>				
<b>Baseline Period</b>	<b>Start Year</b>	<b>End Year</b>	<b>Average Baseline GPCD*</b>	<b>Confirmed 2020 Target*</b>
10-15 year	1997	2006	229	183
5 Year	2003	2007	233	

Note: All Values are in Gallons Per Capita per Day (GPCD)  
 Note: Coordinates with WUE Table 5-1 R

<b>Table 5.1.2 2020 Compliance</b>				
<b>Optional Adjustments to 2015 GPCD</b>			<b>2020 Confirmed Target GPCD</b>	<b>Did Supplier Achieve Targeted Reduction for 2020? Y/N</b>
<b>Actual 2020 GPCD</b>	<b>2020 Total Adjustments</b>	<b>Adjusted 2020 GPCD (Adjusted if applicable)</b>		
158	0	158	183	Yes

Note: All Values are in Gallon per Capita per Day (GPCD)  
 Note: Coordinates with WUE Table 5-2 R

# 6 WATER SUPPLY CHARACTERIZATION

## 6.1 WATER SOURCES

### **Urban Water Management Planning Act Requirement:**

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

The Triunfo Water & Sanitation District (District) utilizes both potable and recycled water. The District obtains its potable water from the Calleguas Municipal Water District (CMWD) and purchased a total of 2,174 acre-feet (AF) of potable water for a population of approximately 12,200 in 2020. In addition to distributing potable water, the District also has an extensive recycled water system and delivered 1,281 AF of recycled water in 2020 for landscape and golf course irrigation. Due to the District’s service area, which only includes the unincorporated community of Oak Park, being completely built out (resulting in no anticipated population growth) imported water needs are expected to remain stable from 2020 to 2040. The total current and projected potable and recycled water supplies available to the District are shown in Tables 6.1.1 and 6.1.2. The projected values are based on the estimated demands outlined in Table 4.1.5 for the next 20 years.

<b>Table 6.1.1 Water Supplies — Actual</b>			
Water Supply	Additional Detail on Water Supply	2020	
		Actual Volume	Water Quality
<i>Add additional rows as needed</i>			
Purchased or Imported Water	Purchased from CMWD (State Water Project / Colorado River Aqueduct)	2,174	Drinking Water
Recycled Water	TWSD/LVMWD	1,321	Recycled Water
<b>Total</b>		<b>3,495</b>	

**NOTES:**

Corresponds with WUE Table 6-8 R.

Units are in acre-feet per year. Recycled Water total represents the purchased amount.

**Table 6.1.2  
Water Supplies — Projected**

Water Supply	Additional Detail on Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>							
		2025		2030		2035		2040	
		Reasonably Available Volume	Total Right or Safe Yield <i>(optional)</i>	Reasonably Available Volume	Total Right or Safe Yield <i>(optional)</i>	Reasonably Available Volume	Total Right or Safe Yield <i>(optional)</i>	Reasonably Available Volume	Total Right or Safe Yield <i>(optional)</i>
Purchased or Imported Water	From CMWD via MWD	2,191		2,208		2,226		2,244	
Recycled Water	From LVMWD	778		784		790		797	
<b>Total</b>		2,969		2,992		3,016		3,041	

Note: Volume in Acre Feet (AF)  
 Note: Corresponds to WUE Table 6-9R.

**Wholesale Water Supply**

Water for use in the District is purchased through the CMWD. According to its annual Water Quality Report, 2019, Calleguas’ primary drinking water supply is obtained from the Feather River Watershed, located in the northern Sierras, and conveyed through the State Water Project (SWP). Colorado River water serves as a secondary supply source for the District during water supply deficiencies and is transported through the Metropolitan Water District’s (MWD) Colorado River Aqueduct.

The majority of water supplied to CMWD is from MWD as part of the SWP. The SWP is a series of reservoirs, aqueducts, and pumping facilities that convey water from Northern to Southern California. The water for use within the District is collected and delivered to MWD via the SWP and is filtered and disinfected at MWD’s Joseph Jensen Filtration Plant in Granada Hills.

The Colorado River Aqueduct, which was built and is operated by MWD, consists of a 242-mile aqueduct delivering water from the Colorado River at Lake Havasu, where it is filtered and disinfected at Metropolitan’s F.E. Weymouth Treatment Plant, located in the City of La Verne. In 2020, MWD delivered 89,630 AF of water to CMWD, of which 2,174 AF was sold to the District for distribution. The quality of the imported water is shown in Table 6.1.3. For more information on the quality of SWP and Colorado River Aqueduct sources, refer to the MWD 2020 UWMP Update.

<b>Table 6.1.3 Quality of Imported Water</b>		
<b>Constituent</b>	<b>Colorado River Water <sup>1</sup> (mg/L)</b>	<b>State Water Project Water <sup>2</sup> (mg/L)</b>
Chloride	91	55
Sulfate	218	53
Hardness (as CaCO <sub>3</sub> )	265	112
Total Dissolved Solids	579	252

**NOTES:**

1. At Lake Mathews - from 2020 MWD Annual Water Quality Report, Table 4-3
2. At Castaic Lake - from 2020 MWD Annual Water Quality Report, Table 4-3

The District has provided the following estimates for water supplies in order to meet demands. The findings from the MWD 2020 UWMP Update have confirmed that projected supplies under the single dry-year and multiple dry-year conditions would be sufficient to meet expected demands from member agencies from 2020 through 2040.

**Table 6.1.4  
Wholesale Supplies – Existing and Planned Sources of Water**

Wholesale Sources	Contracted Volume	2025	2030	2035	2040
CMWD	No	3,553	3,480	3,410	3,342

Note: Units are in acre-feet per year

Note: CMWD does not contract with its retail purveyors to limit or guarantee imported water availability. The volume entered is a reasonable, normal year estimate of imported water available from MWD through CMWD, but not a contractual supply.

### Recycled Water Supply

The District provides recycled water for landscape and golf course irrigation throughout its service area. The District’s recycled water system is discussed in further detail in Section 6.5.

## 6.2 GROUNDWATER

### **Urban Water Management Planning Act Requirement:**

*10631 (b)(1) If groundwater is identified as an existing or planned course of water available to the supplier provide...a copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.*

*10631 (b)(2) If groundwater is identified as an existing or planned course of water available to the supplier provide...a description of any groundwater basin or basins from which the urban water supplier pumps groundwater.*

*10631 (b)(2) For those basins for which a court or the board has adjudicated the rights to pump groundwater, provide a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.*

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

*10631 (b)(3) (Provide a) detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including,*

*but not limited to, historic use records.*

*10631 (b)(4) (Provide a) detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*

Groundwater is not a source of potable water to the District, and therefore this section of the UWMP is not applicable. Corresponding WUE Tables are left blank, accordingly.

### 6.3 TRANSFER OPPORTUNITIES

***Urban Water Management Planning Act Requirement:***

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

There are no short-term or long-term transfer opportunities available to the District.

### 6.4 DESALINATED WATER OPPORTUNITIES

***Urban Water Management Planning Act Requirement:***

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

The District is not currently exploring the possibility of using desalinated water as a water source. However, CMWD is investigating desalinated water as part of its emergency supplies portfolio. The CMWD Board of Directors has adopted an update to its strategic plan in January 2016 that includes a focus on closely monitoring the permitting and implementation of ocean desalination projects being developed in California, with the consideration that such a project may be part of CMWD's supply portfolio in the future. For more information, refer to the CMWD 2020 UWMP Update.

## 6.5 RECYCLED WATER OPPORTUNITIES

### *Urban Water Management Planning Act Requirement:*

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

The District is committed to potable water conservation through the treatment and distribution of recycled water for non-potable uses. This decreases the amount of potable irrigation water utilized as landscape irrigation, and is a significant part in the statewide effort to conserve and manage potable water resources.

The District entered into a Joint Powers Authority with Las Virgenes Municipal Water District (LVMWD) in 1964 to treat wastewater at the Tapia Water Reclamation Facility (Tapia WRF), and recycling from the facility began in 1972. Since then, CMWD has joined the recycled water effort with LVMWD and the District by subsidizing the expense of pipe infrastructure for the District Service area to allow the area to utilize recycled water. Together, the three Districts are committed to maximizing the use of recycled water to conserve potable water resources through the treatment of wastewater and subsequent distribution as recycled water. Since 1972, the recycled water system of the Joint Powers Authority has evolved to distribute on average 6,200 acre feet per year (AFY) of water for non-potable use.

The current infrastructure consists of 4 tanks, 4 pumping stations, 3 reservoirs, and over 55 miles of pipeline. Each pumping station has between two and three pumps, with an individual pump capacity anywhere between 180 and 6,200 gallons per minute (GPM). Due to the constant fluctuation in daily demand, reservoirs storing approximately 15 million gallons are filled with recycled water to help meet peak flows when the quantity from the Tapia WRF is not sufficient over the entire Las Virgenes and Triunfo use area. In the event that these reservoirs run dry, the system can also be supplemented with potable water to ensure the irrigation demands are met.

Recycled water, used for irrigation purposes, is treated (as described below) and then distributed or disposed of as necessary. The recycled water system is designed to serve irrigation water for customers including golf courses, homeowner's association grounds, and public landscapes such as parks, schools, and highway medians.

### ***Urban Water Management Planning Act Requirement:***

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

Wastewater from the District is collected by the Triunfo Water & Sanitation District (TWSD) sewer system. Wastewater is sent to Tapia WRF where it is treated. Tapia WRF was constructed as part of the two district Joint Powers Authority described above, and treats wastewater for multiple service areas. The Tapia WRF was designed for a capacity of 16 million gallons per day (MGD). However, Tapia WRF has undergone modifications which have reduced its total capacity to around 12 MGD. These modifications, completed in 2010, improved the water treatment process to meet new regulations on the content of ammonia (set at 2.3 mg/L) and nitrate plus nitrite (set at 8 mg/L) in recycled water. When wastewater enters Tapia WRF, macroscopic materials are removed first. Large materials (e.g., rags and paper) are removed by passing the waste stream through a vertical slatted screen bar. Finer materials (e.g., eggshells and coffee grounds) are removed in a grit chamber. The flow is then slowed down and air is injected to keep small, organic particles suspended while allowing heavier, inert materials to fall to the bottom. These materials are removed from the wastewater and sent to landfill. At this point, the wastewater is 99% water and 1% solids. Following the initial treatment, the wastewater goes through primary treatment, which takes place in the primary sedimentation tanks. Most of the solids that remain suspended in the wastewater are allowed to settle to the bottom of the tank. At the same time, oil and grease float to the surface and are removed by skimming the surface. Waste collected from this portion of the process is sent to the Rancho Las Virgenes Composting Facility.

The water is then sent to secondary treatment. This process cleans the water through a biological process, utilizing beneficial microorganisms. These microorganisms remove contaminants as they feed, grow, and multiply. The process is accelerated by holding the water in an environment optimized for the microorganisms to thrive. This is done monitoring oxygen and feed contents in the water through the organic content of the water and injecting air into the tanks. The microorganisms are then allowed to settle out and are returned to the secondary treatment aeration tanks, while the treated water moves to its final, tertiary treatment stage. Chemicals are added to the water to allow small particles to coagulate so they can be removed by filters. The water is disinfected with chlorine. After four hours, the chlorine is neutralized, and the final product is safe and ready to be distributed as recycled water for non-potable use.

***Urban Water Management Planning Act Requirement:***

*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.*

Currently, 100% of the wastewater collected by the District and sent to Tapia WRF is treated to recycled water standards, and available for use if necessary. However, the water that is not needed for recycled water use is either stored within the reservoirs or disposed. The total wastewater volume collected from the entire LVMWD service area for 2020 was 4,779 AF, as reported in the [2021 LVMWD UWMP](#). Based on historical flow rates provided in the [LVMWD, TWSD, CMWD Recycled Water Master Plan 2014 Update](#), TWSD accounts for 28.9% of the total contribution on average, or an estimated 1,190 AF in 2015. The estimated wastewater collected for 2020 is provided in Table 6.5.1.

**Table 6.5.1  
Retail: Wastewater Collected Within Service Area in 2020**

There is no wastewater collection system. The supplier will not complete the table below.						
100	Percentage of 2020 service area covered by wastewater collection system <i>(optional)</i>					
100	Percentage of 2020 service area population covered by wastewater collection system <i>(optional)</i>					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <i>Drop Down List</i>	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? <i>Drop Down List</i>	Is WWTP Operation Contracted to a Third Party? <i>(optional)</i> <i>Drop Down List</i>
JPA (LVMWD, TWSD)	Estimated	4,779	JPA (LVMWD, TWSD)	Tapia W.R.F.	No	No
<b>Total Wastewater Collected from Service Area in 2020:</b>		4,779				
<b>* Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</b>						

Notes:

- Units are in Acre Feet.
- The value is the total amount collected from the entire Las Virgenes Municipal Water District (LVMWD) service area - as stated in the LVMWD UWMP 2020 (<https://www.lvmwd.com/home/showpublisheddocument/13459/637616788962730000>).
- Corresponds to WUE Table 6-2R.

**Table 6.5.2  
Wastewater Treatment and Discharge Within Service Area in 2020**

<input checked="" type="checkbox"/>	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)	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2020 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
<i>Add additional rows as needed</i>										
<b>Total</b>							0	0	0	0

Note: Coordinates with WUE Table 6-3R

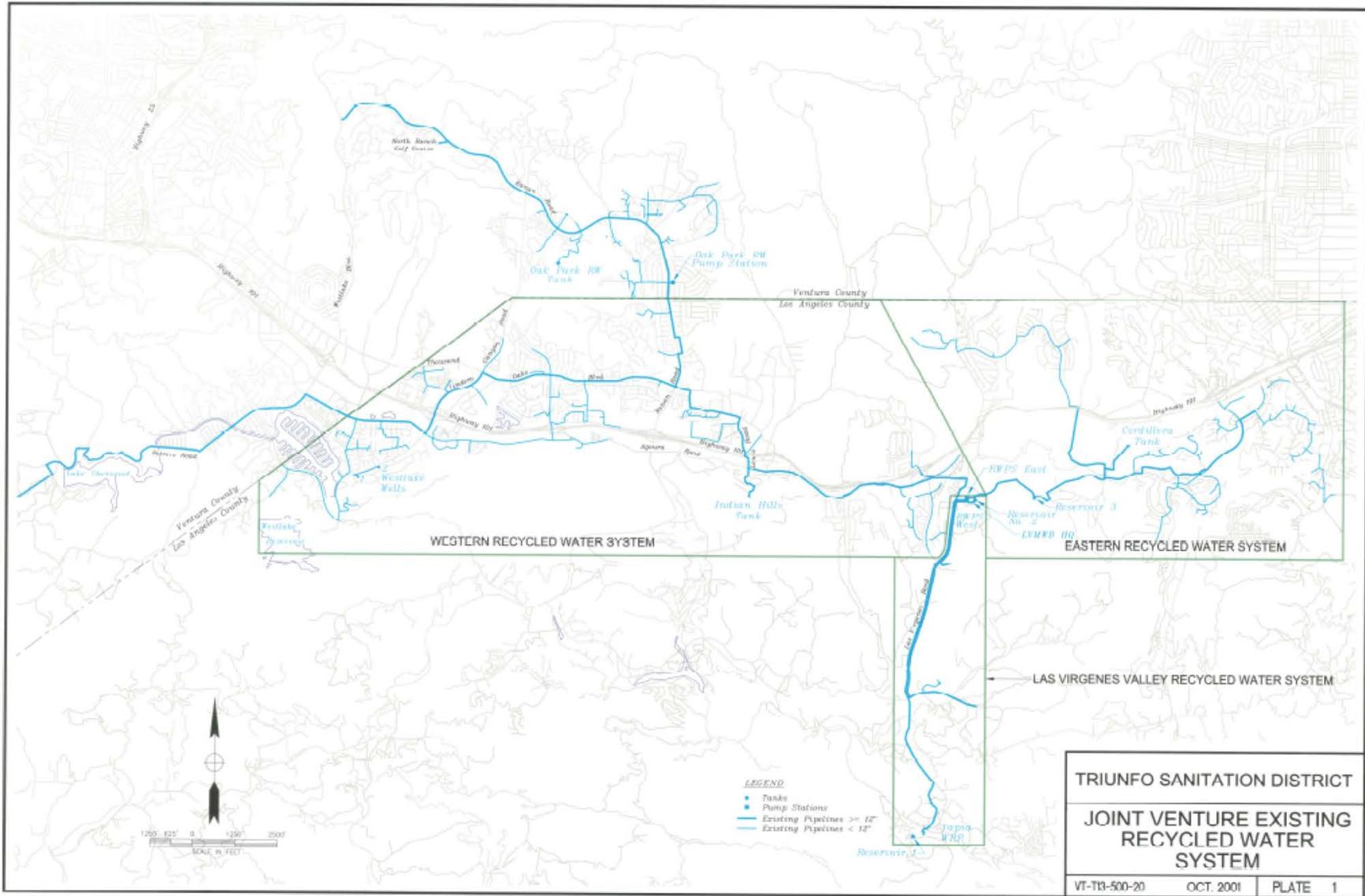
***Urban Water Management Planning Act Requirement:***

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

All reclaimed water use in the District's service area is subject to supply agreements through Calleguas and the Joint Powers Authority. Specifically, the District and LVMWD supply the reclaimed water from the Tapia WRF for distribution by CMWD to the District. Tapia WRF is the single source of reclaimed water for the District's water service system. The District offers discounting in a two-tier incentive system to encourage recycled water use when possible.

Under the Joint Powers Authority agreement, the District conveys reclaimed water at tertiary treatment quality levels. Current data suggests that the District uses about 0.69 MGD (772 AFY) in its service area each day (the remainder is supplemented with potable water). Reclaimed water is largely applied as landscape irrigation. A map showing the recycled water distribution system for the District is shown in Figure. 6.5.1 on the following page. Water purchased has historically been used to irrigate golf courses, school grounds, highway medians, parks and homeowner association grounds. The use of reclaimed water for irrigation reduces the need for potable water in the District.

Figure 6.5.1: TWSD Joint Powers Authority Recycled Water System



**Table 6.5.3  
Current and Projected Recycled Water Direct Beneficial Uses Within Service Area**

<input type="checkbox"/>	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 Agency Producing (Treating) the Recycled Water:			JPA: LVMWD & TWSD						
Name of Agency Operating the Recycled Water Distribution System:			JPA: LVMWD & TWSD						
Supplemental Water Added in 2020			0						
Source of 2020 Supplemental Water			N/A						
Beneficial Use Type	General Description of 2020 Uses		Level of Treatment	2020	2025	2030	2035	2040	2045 (opt)
Agricultural irrigation									
Landscape irrigation (excludes golf courses)									
Golf course irrigation									
Commercial use									
Industrial use									
Geothermal and other energy production									
Seawater intrusion barrier									
Recreational impoundment									
Wetlands or wildlife habitat									
Groundwater recharge (IPR)									
Surface water augmentation (IPR)									
Direct potable reuse									
Other	Type of Use	Landscape irrigation	Tertiary	772	778	784	790	797	-
			<b>Total:</b>	<b>772</b>	<b>778</b>	<b>784</b>	<b>790</b>	<b>797</b>	<b>-</b>

Notes:

- Units in AF
- [Source unknown.]

**Urban Water Management Planning Act Requirement:**

10633 (d) (Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

The District is no longer discussing proposed extensions of the recycled water pipelines to serve common irrigation areas maintained by homeowners associations and multi-family apartment complexes.

**Table 6.5.4  
Retail: Methods to Expand Future Recycled Water Use**

<input checked="" type="checkbox"/>	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
6-14	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
N/A			
<b>Total</b>			0
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3. Note: Corresponds with WUE Table 6-6			

**Urban Water Management Planning Act Requirement:**

10633 (e) (Describe) the projected use of recycled water within the supplier’s service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

Table 6.5.5 compares the 2020 projected recycled water use from the 2015 UWMP to the actual 2020 use. Table 6.5.3 shows the current and projected recycled water uses within the District’s service area. The actual use for 2020 surpassed the projected use; however, this can be due to several factors including more people working from home throughout the majority of 2020.

Table 6.5.6 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual			
□		Recycled water was not used in 2015 nor projected for use in 2020	
Use Type		2015 Projection for 2020	2020 Actual Use
Agricultural irrigation		-	-
Landscape irrigation (Includes golf courses)		720	763
Golf course irrigation		400	-
Commercial use		-	9
Industrial use		-	-
Geothermal and other energy production		-	-
Seawater intrusion barrier		-	-
Recreational impoundment		-	-
Wetlands or wildlife habitat		-	-
Groundwater recharge (IPR)		-	-
Surface water augmentation (IPR)		-	-
Direct potable reuse		-	-
Other - Wholesale	Net RW Use	-	509
<b>Total</b>		<b>1,120</b>	<b>1,281</b>

NOTES: Corresponds to WUE Table 6-5 R.

**Urban Water Management Planning Act Requirement:**  
 10633 (f) (Describe the) actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

TWSD, LVMWD, and CMWD all encourage recycled water use among their customers through financial incentives and assisting with the installation and adoption of recycled water for landscape users. For TWSD, recycled water is available at a discount to customers who use water, allowing financial savings while encouraging water conservation. In addition, the District provides technical support to landscape users interested in switching to recycled water. This encourages users to retrofit previous potable water systems with recycled water systems while educating them regarding the requirements and regulations of proper recycled water use and maintenance. Quantification of the results of the potential impact of the incentives is estimated below in Table 6.5.7.

<b>Table 6.5.7 Methods to Encourage Recycled Water Use</b>				
<b>Actions</b>	<b>Projected Results</b>			
	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
Financial Incentives	324	324	324	324
<b>Total</b>	324	324	324	324

Note: Units are in acre-feet per year

In addition to the District’s incentives, MWD also has an extensive incentive program for encouraging the use of recycled water among its member agencies. Please refer to the MWD 2020 UWMP update for more information.

**Urban Water Management Planning Act Requirement:**  
*10633 (g) (Provide a) plan for optimizing the use of recycled water in the supplier’s service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.*

The TWSD/LVMWD recycled water system was implemented in 1972. Since then, the system has become sophisticated and efficient in terms of the treatment, delivery, and disposal of recycled water. The District includes in its annual budget funds specifically for maintaining, repairing, and expanding the recycled water system. Funds for this are provided solely through the revenue generated by recycled water sales.

## 6.6 FUTURE WATER PROJECTS

**Urban Water Management Planning Act Requirement:**

*10631 (h) (Describe) all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635.*

Due to the fact that the District’s potable water service area is built out and the population is not expected to increase over the planning horizon, there are no capital projects in progress or planned to increase the quantity of water supply to the area.

Table 6.6.1 Expected Future Water Supply Projects or Programs					
<input checked="" type="checkbox"/>	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.				
<input type="checkbox"/>	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. 6-18	Provide page location of narrative in the UWMP				
Name of Future Projects or Programs	Joint Project with other agencies?	Description (if needed)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Agency

Notes: Corresponds to WUE Table 6-7R.

Notes: Triunfo Water & Sanitation District – Potable water distribution area is built out

## 6.7 ENERGY INTENSITY

New to the 2020 UWMP, urban water suppliers must include information that could be used to calculate the energy intensity of their water service. Required information is limited to that which is readily obtainable by the supplier for the listed operations. Appendix O of DWR’s Draft 2020 UWMP Guidebook includes guidance on estimating the energy usage by each operation as well as submittal table templates to calculate the energy intensity of a supplier’s water operations.

## Triunfo Water & Sanitation District - 2020 Urban Water Management Plan

The table templates were labeled Tables O-1 (a, b, and c, depending on available data) and O-2 in the Guidebook. Only Table O-1C is relevant to the data readily available for TWSD.

Table 6.6.2 Energy Reporting – Multiple Water Delivery Products									
Urban Water Supplier:		Triunfo Water & Sanitation District							
Table O-1C: Recommended Energy Reporting - Multiple Water Delivery Products									
Start Date for Reporting Period	1/1/2020	Urban Water Supplier Operational Control							
End Date	12/31/2020	Water Management Process							Non-Consequential Hydropower (if applicable)
		<input type="checkbox"/> Is upstream embedded in							
Water Volume Units		Extract and Divert	Place into Storage	Conveyance	Treatment	Distribution	Total Utility	Hydropower	Net Utility
Total Volume of Water Entering Process (volume)		0	0	0	0	3415	N/A	N/A	N/A
AF	Retail Potable Deliveries (%)	0%	0%	0%	0%	62%		0%	
	Retail Non-Potable Deliveries (%)	0%	0%	0%	0%	22%		0%	
	Wholesale Potable Deliveries (%)	0%	0%	0%	0%	0%		0%	
	Wholesale Non-Potable Deliveries (%)	0%	0%	0%	0%	15%		0%	
	Agricultural Deliveries (%)	0%	0%	0%	0%	0%		0%	
	Environmental Deliveries (%)	0%	0%	0%	0%	0%		0%	
	Other (%)	0%	0%	0%	0%	1%		0%	
Total Percentage [must equal 100%]		0%	0%	0%	0%	100%	N/A	0%	N/A
Energy Consumed (kWh)		0	0	0	0	81,866	81866	0	81866
Energy Intensity (kWh/volume units)		0.0	0.0	0.0	0.0	24.0	N/A	0.0	N/A
Water Delivery Type		Production Volume (Acre Feet)	Total Utility (kWh/volu)	Net Utility (kWh/volume)					
	Retail Potable Deliveries	2134	23.8	23.8					
	Retail Non-Potable Deliveries	772	23.3	23.3					
	Wholesale Potable Deliveries	0	0.0	0.0					
	Wholesale Non-Potable Deliveries	509	23.5	23.5					
	Agricultural Deliveries	0	0.0	0.0					
	Environmental Deliveries	0	0.0	0.0					
	Other	0	0.0	0.0					
All Water Delivery Types		3415	23.6	23.6					
Quantity of Self-Generated Renewable Energy									
N/A kWh									
Data Quality (Estimate, Metered Data, Combination of Estimates and Metered Data)									
Combination of Estimates and Metered Data									
Note: Corresponds to WUE Table O-1C									

# 7

## WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

### 7.1 Constraints of Water Sources

***Urban Water Management Planning Act Requirement:***

*CWC 10631(c)(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practical*

*CWC 10634 The plan shall include information, to the extent practical, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.*

Currently, the only source of potable water that the Triunfo Water & Sanitation District (District) utilizes is wholesale distributed water through Calleguas Municipal Water District (CMWD). Additional water supplies are obtained by treating wastewater at the Tapia Water Reclamation Facility (TWRF) from service areas outside of the Triunfo Water & Sanitation District area and using it as recycled water for irrigation purposes only.

**Table 7.1.1: Factors Resulting in Inconsistency of Water Supply**

Water Supply Sources	Legal	Environmental	Water Quality	Climatic	Additional Information
CMWD Wholesale Water			✓		NA
Recycled Water			✓		NA

#### **CMWD Wholesale Water**

CMWD identified in its 2020 Urban Water Management Plan update that its water supply to the District is considered reliable and sufficient to meet demands. In addition, CMWD works to ensure the distributed supply meets all State and Federal water quality standards. However, the reliability of the supply is dependent on the water quality delivered by the State Water Project (SWP) and Colorado River (included last year as a result of drought conditions) to the Municipal Water District of Southern California (MWD). In general, the SWP quality has allowed water suppliers to meet

or exceed water quality standards. Water supply reliability may be affected by constraints on water source, regulatory actions, local activity, and climate factors.

### **Recycled Water**

Recycled Water is treated as described in Chapter 6. This water supply is subject to season variability, but routinely available. Similar to the District's purchased water supply, recycled water quality is a primary concern toward healthful and environmentally protective use.

The District must meet water quality standards under the California Code of Regulations, Title 22. The District is impacted by these regulatory standards through the received wastewater at the TWRP, under pretreatment program control, and new pollutants of concern. The Joint Powers Authority between the District and Las Virgenes Municipal Water District to deliver recycled water, within the CMWD service area, ensures the proper conditions of use are applied and distribution to general irrigation customer for non-potable use is reliable. The TWRP operates under a separate recycled water use permit which directs changes to wastewater discharger sources or process to ensure compliance with all water quality standards and that the delivered water is safe for supplemental irrigation use.

### **Water Quality**

The District is a storage and distribution system only and therefore can focus on operational/distribution parameters, bacteriological, disinfection by products and corrosivity. CMWD and MWD are involved in treatment of drinking water which requires a longer listing of potential state/source water contaminants. It should be noted the MWD 2019 Annual Drinking Water Quality Report did not identify any contaminant above the Maximum Contaminant Level (MCL). MWD has considered the risks to the quality of water supplied through the Colorado River and the SWP. MWD reports that increased salinity and chemicals (e.g., total dissolved solids, chromium VI, etc.), as a theoretical water quality event, will cause at most a 15% reduction in supply. However, MWD also noted if concentrations of these contaminants exceed the drinking water standards, blending strategies such as utilizing only small amounts of the affected water and blending it with potable, processed water would reduce the concentration to treatable and/or below limit levels. MWD has stated that it "anticipates no significant reductions in water supply availability as a result of water quality."

The District realizes the importance of constantly assuring that the water it distributes meets potable water standards. The following subsections describe the contemporary issues of concern.

Salinity

Increased salinity in the water received from the Colorado River has required MWD to utilize a blend strategy as described above: reduction of a high salinity (CRA, Colorado River Aqueduct) water supply with the lower salinity (SWP) water supply. Although this has not caused water supply shortages, if source supply waters increase in salinity, additional treatment process may be required and could result in up to 15% reduction in water supply.

To prevent a reduction in supply, MWD has established a Salinity Management Policy, which sets the goal of delivering water with less than 500 milligrams per liter (mg/L) of total dissolved solids (TDS). Generally, this issue only impacts the Colorado River supply as the SWP has historically been observed to have significantly lower salinity levels (250 to 300 mg/L). In comparison, the TDS concentration in groundwater sources is generally greater than 1000 mg/L.

In addition to affecting the potable water supply, high levels of salinity also reduce the quality of treated wastewater, which could potentially affect the recycled water supply. As recycled water is used for irrigation purposes within the District's service area, high salinity levels can contribute to accumulation and may impact landscapes. If salinity levels were to rise, it would result in prohibitions on use, add permit requirements (salt & nutrient management plans) and/or necessitate expensive desalination treatment.

Chromium VI (Hexavalent Chromium)

Chromium VI contributes to the measurement of Total Chromium, and total chromium levels are maintained at or below the California Department of Public Health (CDPH) standard MCL (50 micrograms per liter [ $\mu\text{g/L}$ ]). In a draft released by the Office of Environmental Health Hazard Assessment (OEHHA) on December 31, 2010, a public health goal (PHG) for Chromium VI was proposed at 0.02  $\mu\text{g/L}$ . A PHG is not an enforceable regulatory standard. However, state law requires the CDPH to use the PHG as guidance in developing an MCL. Meanwhile, many local water agencies are collaborating on research to determine effective treatment options for Chromium VI in the State's drinking water sources. MWD tests chromium levels for its compliance with the current standard utilizing a test method below the proposed maximum contaminant level.

MWD records of Chromium VI analyses reveal that, if more stringent goals are implemented, additional treatment of SWP water may be required as levels have been noted to exceed the proposed PHG. The draft released by OEHHA states that the PHG of 20 nanograms per liter (ng/L, or parts per trillion) is intended to be a "stringent health-protective goal" as opposed to a "maximum 'safe' level of chromium 6 in drinking water." In contrast to SWP water, water from the Colorado River has historically been recorded as generally having undetectable levels of Chromium VI.

Table 7.1.2 indicates the potential impacts of water quality on the District’s water supply, as identified by CMWD and MWD.

**Table 7.1.2: Water Quality - Current and Projected Water Supply Impacts**

Water Source	Description of Condition	2025	2030	2035	2040
CMWD Potable Water	No water quality issues expected	0	0	0	0
Recycled Water	No water quality issues expected	0	0	0	0

## 7.2 Reliability by Type of Year

### ***Urban Water Management Planning Act Requirement:***

*CWC 10631(c)(1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:*

- (A) An average water year,*
- (B) A single dry water year,*
- (C) Multiple dry water years.*

All potable water supplies are provided by CMWD as a wholesaler to the District as a purveyor. The reliability of the supply, by CMWD, is directly related to supply by the MWD and deliveries via the SWP. Since the supply is not directly obtained by the District, the determination of reliability will largely be determined by CMWD and MWD analyses to provide a consistent water supply to the District during times of normal, single dry, and multiple dry years. Although the District does not obtain its water directly from a natural source (e.g. groundwater or surface water), the District is committed to reducing water demand during times of drought in order to conserve water and improve reliability for future water supplies.

For the purpose of this Plan, the Department of Water Resources defines average, single-dry, and multiple dry years as follows.

**Average Year:** A year, or an averaged range of years, that most closely represents the median water supply available to the agency.

**Single-Dry Year:** The year that represents the lowest water supply available to the agency.

**Multiple Dry Years:** The period that represents the lowest average water supply availability to the agency for a consecutive multiple year period (three years or more).

Table 7.2.1 identifies the normal, single dry, and multiple dry water years chosen to represent the water supply for supply from CMWD:

**Table 7.2.1: Bases of Water Year Data**

Year Type	Base Year	Available supplies if year type repeats	
		Volume Available	% of Avg Supply
Average Year	1997	3237	100%
Single-Dry Year	1999	3133	97%
Multiple-Dry Years 1st Year	1999	3133	97%
Multiple-Dry Years 2nd Year	2000	3259	101%
Multiple-Dry Years 3rd Year	2001	3093	96%
Multiple-Dry Years 4th Year	2002	3249	100%
Multiple-Dry Years 5th Year	2003	3204	99%

Notes: Units are in acre-feet per year (AFY)

In the single dry water year, demand increased and therefore more water was supplied to meet the demand due to increased temperatures, evapotranspiration rates, and a longer dry season. Although this results in using more water than is naturally replenished during these years, water reserves are available to provide a reliable source of water in the event of another single dry year with similar hydrology.

### 7.3 Supply and Demand Assessment

**Urban Water Management Planning Act Requirement:**

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

The following tables, 7.3.1 through 7.3.3, compare the total supply and demand as identified in Chapters 5 and 6 for normal, single-dry, and multiple-dry years. It can be seen that the supply available to the District, through CMWD, is above the total demand for average, single-dry years, and multiple-dry years. However, it should be noted some of these estimates account for the use of water saving measures implemented by the District. Furthermore The District is committed to water conservation and will work with residents and CMWD to ensure a reliable water supply for its customers

CMWD identified that supply was sufficient in a single-dry year to meet this increased demand. During a multiple-dry year, it was identified that the demand will increase as the population decreases but individual water use will decrease based on water saving policies. This will offset the predicted increase in demand over a multiple-dry year period. CMWD did not identify any reliability issues, based on MWD expectations, with delivering water during a single- or multiple-dry year period, and identified that supply would be sufficient to meet demand.

**Table 7.3.1: Supply and Demand Comparison — Normal Year**

	2025	2030	2035	2040
<b>Supply Totals</b>	2,969	2,992	3,016	3,041
<b>Demand Totals</b>	2,969	2,992	3,016	3,041
<b>Difference</b>	0	0	0	0

Notes: Units are in acre-feet per year

During a normal year, it can be seen that the District will obtain sufficient supplies from CMWD.

**Table 7-3: Single Dry Year Supply and Demand Comparison**

	2025	2030	2035	2040
<b>Supply Totals</b>	2880	2902	2926	2950
<b>Demand Totals</b>	2691	2712	2733	2756
<b>Difference</b>	189	191	192	194

Notes: Units are in acre-feet per year

The demand in a single-dry year was estimated to increase by .07% based on the average demand increase in the CMWD UWMP. However, as the result of water conservation efforts, the District should be able to reduce water demands by 10% based on the policies of Stage 1 of the Water Shortage Contingency Plan. As a result, deliveries from CMWD will be sufficient to meet the demand. As mentioned previously, the District is committed to water conservation efforts to preserve water supplies during dry years. In the event of a water shortage, measures outlined in the Water Shortage Contingency Plan will be implemented.

**Table 7.3.4: Supply and Demand Comparison – Multiple Dry-Year Events**

		2025	2030	2035	2040
<b>Multiple-Dry Year 1<sup>st</sup> Year Supply</b>	<b>Supply Totals</b>	2880	2902	2926	2950
	<b>Demand Totals</b>	2691	2712	2733	2756
	<b>Difference</b>	189	191	192	194
<b>Multiple-Dry Year 2<sup>nd</sup> Year Supply</b>	<b>Supply Totals</b>	2999	3022	3046	3071
	<b>Demand Totals</b>	2610	2630	2651	2673
	<b>Difference</b>	389	392	395	398
<b>Multiple-Dry Year 3<sup>rd</sup> Year Supply</b>	<b>Supply Totals</b>	2765	2786	2808	2832
	<b>Demand Totals</b>	2718	2739	2761	2784
	<b>Difference</b>	47	47	48	48
<b>Multiple-Dry Year 4<sup>th</sup> Year Supply</b>	<b>Supply Totals</b>	2969	2992	3016	3041
	<b>Demand Totals</b>	2506	2525	2545	2566
	<b>Difference</b>	463	467	471	475
<b>Multiple-Dry Year 5<sup>th</sup> Year Supply</b>	<b>Supply Totals</b>	2939	2962	2986	3011
	<b>Demand Totals</b>	2691	2712	2733	2756
	<b>Difference</b>	249	250	252	255

As estimated in the CMWD UWMP, water demand in a multiple dry year period is expected to increase by .07% on average. However, as mentioned for single-dry years, the District may ration supplies as necessary, and implement water conservation measures outlined in the Water Shortage Contingency Plan. A 10% reduction was used for these estimated in accordance with Stage 1 water conservation policies found in the Water Shortage Contingency Plan.

As demonstrated in Table 7.3.3, it is anticipated that supplies will be able to meet demands in a multiple-dry year period. In more severe stages of water shortages, the District may ration supplies as necessary, and implement water conservation measures resulting in up to a 50% water use reduction. This will be done, in situations when water supply is projected to reach dangerously low levels, and an emergency situation is imminent.

## 7.4 Regional Supply Reliability

**Urban Water Management Planning Act Requirement:**

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

Water supply reliability includes both the availability of the water purchased through CMWD and the distribution and storage facilities that make up the District's water system. The water supplied through CMWD is considered a reliable source. There are currently no opportunities being pursued by the District to discontinue wholesale water service through CMWD.

As a result of the District water supply being provided by CMWD, which in turn is provided through MWD and the SWP, the reliability analysis for this Chapter is heavily dependent on the reliability analyses of these agencies that are subject to State and Federal regulations. Although the District is dependent on these sources to provide a reliable water supply, the District provides empirical water use projections and reasonable estimates related to user or system changes. Instead of attempting to replace water supplies that are deemed unreliable by seeking alternate water sources, the District will continue to coordinate with CMWD to ensure that the necessary improvements are made to ensure a high quality and reliable source of water.

## 7.5 Drought Risk Assessment

**Urban Water Management Planning Act Requirement:**

*CWC 10635(b) . Every urban water supplier shall include, as part of its urban water management plan, a drought risk assessment for its water service to its customers as part of information considered in developing the demand management measures and water supply projects and programs to be included in the urban water management plan. The urban water supplier may conduct an interim update or updates to this drought risk assessment within the five-year cycle of its urban water management plan update.*

In accordance with the water code, the District has prepared a Drought Risk Assessment (DRA) in accordance with the water code. The District estimated sufficient water supply should be available to meet demands based on reported additional supplies from CMWD through MWD and

anticipated water conservation efforts set forth in the Water Shortage Contingency Plan. The following section outlines the specific requirements of the water code and explains how the District meets compliance

**Urban Water Management Planning Act Requirement:**

CWC 10635(b)(1) (1) A description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts five consecutive water years, starting from the year following when the assessment is conducted.

Data for the DRA was based on current and historic water demand records for the District and estimated using the same tools used to complete the update to the Urban Water Management Plan. The District population was estimated using the DWR population tool for pillar years (2020-2025). Additionally, water supply was calculated utilizing the same methodology used to determine the multiple dry-year scenario. Working with historical water supply values and then applying that percent to the current water supply over successive years to develop a multiple dry-year scenario beginning in the current planning year. The values reflect what supply and demand might look like if the District entered into a multiple dry-year scenario beginning in the current year.

**Urban Water Management Planning Act Requirement:**

CWC 10635(b)(3) A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.

The following tables outline the projected water supply and demand throughout the drought scenario. These tables were developed utilizing DWR’s Optional Planning Tool and utilizes the methodologies included in the Urban Water Management Plan Guidebook.

**Table 7.3.5: Drought Risk Assessment Table**

2021	Total
Total Water Use	2189
Total Water Supplies	2109
Surplus/Shortfall w/o WSCP Action	-80
<b>Planned WCSP Actions</b>	
WSCP -supply augmentation benefit	-
WSCP- use reduction savings benefit	218
Revised Surplus/Shortfall	138

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Resulting % Use Reduction from WSCP action	10%
<b>2022</b>	<b>Total</b>
Total Water Use	2205
Total Water Supplies	2196
Surplus/Shortfall w/o WSCP Action	-9
<b>Planned WCSP Actions</b>	
WSCP -supply augmentation benefit	-
WSCP- use reduction savings benefit	221
Revises Surplus/Shortfall	212
Resulting % Use Reduction from WSCP action	10%
<b>2023</b>	<b>Total</b>
Total Water Use	2220
Total Water Supplies	2087
Surplus/Shortfall w/o WSCP Action	-133
<b>Planned WCSP Actions</b>	
WSCP -supply augmentation benefit	-
WSCP- use reduction savings benefit	222
Revises Surplus/Shortfall	89
Resulting % Use Reduction from WSCP action	10%
<b>2024</b>	<b>Total</b>
Total Water Use	2236
Total Water Supplies	2174
Surplus/Shortfall w/o WSCP Action	-62
<b>Planned WCSP Actions</b>	
WSCP -supply augmentation benefit	-
WSCP- use reduction savings benefit	224
Revises Surplus/Shortfall	162
Resulting % Use Reduction from WSCP action	10%
<b>2025</b>	<b>Total</b>
Total Water Use	2251
Total Water Supplies	2152
Surplus/Shortfall w/o WSCP Action	-99
<b>Planned WCSP Actions</b>	
WSCP -supply augmentation benefit	-
WSCP- use reduction savings benefit	225
Revises Surplus/Shortfall	126
Resulting % Use Reduction from WSCP action	10%



# 8 WATER SHORTAGE CONTINGENCY PLAN

## 8.1 Water Supply Reliability Analysis

Currently, the only source of potable water that the Triunfo Water & Sanitation District (District) utilizes is wholesale distributed water through Calleguas Municipal Water District (CMWD). Additional water supplies are obtained by treating wastewater at the Tapia Water Reclamation Facility (TWRf) from service areas outside of the Triunfo Water & Sanitation District area and using it as recycled water for irrigation purposes only.

Chapter 7 of the Urban Water Management Plan (UWMP) goes into detail about the anticipated water supply and demand over the next twenty years. Based on projections provided by CMWD the water supply is considered to be reliable over the next twenty years in normal, dry, and multiple-dry year scenarios. Below are the tables from Chapter 7 demonstrating the water supply/demand reliability estimates over the next twenty years.

Table 8.1.1 Supply and Demand Comparison – Normal Year				
	2025	2030	2035	2040
<b>Supply Totals</b>	2,969	2,992	3,016	3,041
<b>Demand Totals</b>	2,969	2,992	3,016	3,041
<b>Difference</b>	0	0	0	0

Note: Units are in acre-feet per year  
 Note Coordinated with WUE table 7-3R

During a normal year, it can be seen that the District will obtain sufficient supplies from CMWD.

Table 8.1.2 Supply and Demand Comparison – Single Dry Year				
	2025	2030	2035	2040
<b>Supply Totals</b>	2880	2902	2926	2950
<b>Demand Totals</b>	2691	2712	2733	2756

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<b>Difference</b>	189	191	192	194
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The demand in a single-dry year was estimated to increase by .07% based on the average demand increase in the CMWD UWMP. However, as the result of water conservation efforts, the District should be able to reduce water demands by 10% based on the policies of Stage 1 of the Water Shortage Contingency Plan. As a result, deliveries from CMWD will be sufficient to meet the demand. As mentioned previously, the District is committed to water conservation efforts to preserve water supplies during dry years. In the event of a water shortage, measures outlined in the Water Shortage Contingency Plan will be implemented.

<b>Table 8.1.3 Supply and Demand Comparison – Multiple Dry-Year Events</b>					
		<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
Multiple-dry year first year supply	Supply Totals	2880	2902	2926	2950
	Demand Totals	2691	2712	2733	2756
	Difference	189	191	192	194
Multiple-dry year second year supply	Supply Totals	2999	3022	3046	3071
	Demand Totals	2610	2630	2651	2673
	Difference	389	392	395	398
Multiple-dry year third year supply	Supply Totals	2765	2786	2808	2832
	Demand Totals	2718	2739	2761	2784
	Difference	47	47	48	48
Multiple-dry year fourth year supply	Supply Totals	2969	2992	3016	3041
	Demand Totals	2506	2525	2545	2566
	Difference	463	467	471	475
Multiple-dry year fifth year supply	Supply Totals	2939	2962	2986	3011
	Demand Totals	2691	2712	2733	2756
	Difference	249	250	252	255

Note: Units are in acre-feet per year

As estimated in the CMWD UWMP, water demand in a multiple dry year period is expected to increase by .07% on average. However, as mentioned for single-dry years, the District may ration supplies as necessary, and implement water conservation measures outlined in the Water Shortage Contingency Plan. A 10% reduction was used for these estimated in accordance with Stage 1 water conservation policies found in the Water Shortage Contingency Plan.

## **8.2 Annual Water Supply and Demand Assessment Procedures**

As a water supplier, the District must prepare an Annual Assessment. The Annual Assessment is a determination of the near-term outlook for supplies and demands and how a perceived shortage may relate to WSCP shortage stage response actions in the current calendar year; this determination is based on known circumstances and information available to the District at the time of the analysis. Starting in 2022, the Annual Assessment will be due by July 1 of every year, as indicated by CWC Section 10632.1.

The Annual Assessment will be primarily based on the District's ongoing supply-demand tracking process which is exhibited in monthly report by water personnel. These monthly analyses provide key information for Metropolitan, via CMWD, to manage resources to meet a range of estimated demands and adjust to changing conditions throughout the year.

By June, District personnel will present a completed Annual Assessment for approval by the Board of Directors for approval of Annual Assessment determinations. This presentation will include a request that the approval of the Annual Assessment determination also appropriately triggers any recommended specific shortage response actions resulting from the assessment. Upon approval, District staff will then formally submit the Annual Assessment to the Department of Water Resources (DWR) by July 1 each year.

### **Assessment Methodology**

Because shortages are based on the difference between expected supplies and demand under assumed current year and dry year conditions, the evaluation criteria to be used in the Annual Assessment for determining a shortage include the following:

- Characterization of the current year and dry year scenarios bases on best-available data,
- Estimation of available core supplies, and
- Estimate of projected demands

Together, these three criteria provide the necessary information to calculate shortage percentages by dividing the difference between total core supplies and unconstrained demand by total unconstrained demand, under current year and dry year scenarios.

## **8.3 Six Standard Water Shortage Stages**

With population growth, energy shortages, earthquakes, and the threat of terrorism experienced by California; maintaining the gentle balance between water supply and demand is a complicated task that requires planning and forethought. In the event that a water shortage occurs, simple

measures can be implemented to conserve the water supply at a public level. As a result, the District developed a six-level rationing plan to be implemented when the District experiences a shortage in the water supply. According to the plan, the District Manager, or a designated representative, is given the authority to declare a stage of action and implement reduction measures. Table 8.3.1 below provides an outline of each phase and the associated percentage of water supply reduction.

<b>Table 8.3.1: Stages of Water Shortage Contingency Planning</b>			
<b>Stage</b>	<b>WSCP Stage Level</b>	<b>Percent Supply Reduction</b>	<b>Water Supply Condition</b>
Permanent - Minimal	Stage Level 1	Up to 10%	Applies at all times to prevent water waste and unnecessary water use
Water Shortage Stage I – Moderate	Stage Level 2	11-20%	Applies during periods when the possibility exists that the District will not be able to meet all customer water demands
Water Shortage Stage II – Severe	Stage Level 3	21-30%	Applies during periods when the probability exists that the District will not be able to meet all customer water demands
Water Shortage Stage III – Critical	Stage Level 4	31-40%	Applies during periods when the District will not be able to meet all customer water demands
Water Shortage Stage III – Critical	Stage Level 5	41%-50%	Applies when a major failure of any supply or distribution facility, whether temporary or permanent, occurs in the water distribution system of the SWP, MWD, or CMWD.
	Stage Level 6	+50%	Applies when a catastrophic failure of any supply or distribution facility, whether temporary or permanent, occurs in the water distribution system of the SWP, MWD, or CMWD, or District facilities.

Note: The Water Shortage Contingency Plan (WSCP) will be revised toward measurables specified in the Water Conservation Act (2009, SBX7-7). A redefinition of 'Fines and Penalties' occurred in a revised Ordinance (TSD-301, Nov. 26, 2018) for the 3 stages.

### 8.4 Shortage Response Actions

In the event of a significant reduction of water supply, the District has six stages of actions to take and policies to implement to minimize the impacts of water shortage, prepare for an increase in shortage, and attempt to conserve water to prevent further shortage. Table 8.4.1 provides an overview of the mandatory prohibitions and the consumption reduction methods the District will implement to compensate for the water shortage of up to 50%.

Table 8.4.1: Restrictions and Prohibitions on End Uses

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap	Penalty, Charge, or Other Enforcement
1	Landscape - Restrict or prohibit runoff from landscape irrigation	up to 10% or 217 AF	No
	Landscape - Limit landscape irrigation to specific times		No
	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		No
	Landscape - Prohibit certain types of landscape irrigation		No
	Other - Prohibit use of potable water for washing hard surfaces		No
	Water Features - Restrict water use for decorative water features, such as fountains		No
	Other – Require automatic shut off hoses		No
	CII- Restaurants may only serve water upon request		No
2	Landscape - Other landscape restriction or prohibition	up to 20% or 435 AF	Yes

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	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
	Other - Use of recycled water for construction site dust control, consolidation of backfill.		No
3	Landscape - Other landscape restriction or prohibition	up to 30% or 652 AF	Yes
	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
	Water Features - Restrict water use for decorative water features, such as fountains		No
	Other – Directs to water recycling car washes		Yes
	Other – Water feature or swimming pool restriction		Yes
	Landscape - Other landscape restriction or prohibition		Yes
	Other water feature or swimming pool restriction		Yes
	Other – Board Directed		Yes
4	Landscape - Prohibit certain types of landscape irrigation	up to 40% or 870 AF	Yes

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	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
5	Other – Board Directed	up to 50% or 1,087 AF	Yes
	Other – Use of water allocations		Yes
6	Additional water uses reduction measures as stipulated by the Board	up to 60% or 1,196 AF	Yes

**Stage 1 (0-10% Percent Demand Reduction Targets)**

The following water conservation requirements are effective at all times in the District, as put forth in Ordinance TSD-301, and are permanent. A copy of TSD-301 can be found in Appendix G. These actions contribute to a water savings up to fifteen percent.

- **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.
- **Watering Duration:** Limit irrigation system watering to no more than 15 minutes per day per station. This does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than 2 gallons of water per hour and weather-based controllers or stream rotor sprinklers that meet a 70% efficiency standard.
- **Rain Events:** Application of water to irrigate turf and ornamental landscapes during and within 48 hours after measurable rainfall of at least one-fourth of one inch of rain is prohibited.
- **Run-Off:** Application of water to outdoor landscapes in a manner that causes more than incidental runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures is prohibited.
- **Driveways and Sidewalks:** Application of potable water directly to driveways and sidewalks is prohibited
- **Leaks, Breaks or Malfunctions:** All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be repaired within five (5) days of observation and notification by the District.
- **Ornamental Fountains and Decorative Water Features:** Use of potable water in an ornamental fountain or other decorative water feature is prohibited, except where the water is part of a recirculating system, or the fountain is registered to the National Register of Historic Places.
- **Washing Vehicles:** Use of a hose that dispenses water to wash a motor vehicle is prohibited, except where a 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.

- **Eating/Drinking Establishments:** Serving of drinking water other than upon request in an eating or drinking establishment is prohibited during a period for which the Governor has issued a proclamation of a state of emergency based on drought conditions. Establishments include restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served or purchased.

### Stage II Water Supply Shortage (11% - 20% Percent Demand Reduction Targets)

The following mandatory water conservation requirements, in addition to the prohibited uses of water for water waste, apply during such time that the Stage I Water Supply Shortage is in effect:

- **Limits on Watering Days:** Watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to 3 days per week. During the months of November through March, watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to no more than 2 days per week. This provision does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than 2 gallons of water per hour. This provision does not apply to use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, or for very short periods for the express purpose of adjusting or repairing an irrigation system.
- **Obligation to Fix Leaks, Breaks or Malfunctions:** All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within seventy-two (72) hours of observation and/or notification by the District.
- **Other Prohibited Uses:**
  - Use only recycled water for construction site dust control, consolidation of backfill.
  - The Board of Directors may implement other prohibited water uses as determined by the District after notice to customers.

### Stage III Water Supply Shortage (21% - 30% Percent Demand Reduction Targets)

The following mandatory water conservation requirements, in addition to the prohibited uses of water for water waste and Stage I actions, apply during such time that the Stage II Water Supply Shortage is in effect:

- **Limits on Watering:** Watering or irrigating of lawn, landscape or other vegetated area with potable water is restricted in accordance with the allotments in the latest version of the WSCP Watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to 2 days per week. During the months of November through March,

watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to no more than 1 day per week. This provision does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than 2 gallons of water per hour. This provision does not apply to use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, or for very short periods for the express purpose of adjusting or repairing an irrigation system.

- **Obligation to Fix Leaks, Breaks or Malfunctions:** All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within forty-eight (48) hours of observation and/or notification by the District.
- **Other Prohibited Uses:**
  - No filling, cleaning and/or refilling of decorative fountains, ornamental lakes, or ponds 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 this supply shortage stage.
  - Residential car washing prohibited. Use car washes available with water recycling systems.
  - The filling or topping off of any new or existing residential pools or outdoor spas is prohibited.
  - Planting of new turf grass is prohibited.
  - Outdoor evaporative mist coolers are prohibited.
  - Main line flushing is allowed for emergency purposes only.
  - The District may implement other prohibited water uses as determined by the Board of Directors, after notice to Customers.

### **Stage IV & V Water Supply Shortage (31% - 50% Percent Demand Reduction Targets)**

The following mandatory water conservation requirements, in addition to the prohibited uses of water for water waste and Stage I and II actions, apply during such time that the Stage III Water Supply Shortage is in effect:

- **Limited Watering or Irrigating:** Watering or irrigating of lawn, landscape or other vegetated area with potable water is restricted in accordance with the allotments in the

Water Shortage Contingency Plan for residential customers. This restriction does not apply to the use of recycled water or to the following categories of use:

- Maintenance of existing landscape necessary for fire protection;
  - Maintenance of existing landscape for soil erosion control;
  - Maintenance of plant materials identified to be rare or essential to the well-being of protected species;
  - Maintenance of landscape within active public parks and playing fields, daycare centers, golf course greens, and school grounds, provided that such irrigation does not exceed 2 days per week;
  - Actively irrigated environmental mitigation projects.
- **Obligation to Fix Leaks, Breaks or Malfunctions:** All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within twenty-four (24) hours of observation and/or notification by the District.
  - **Other Prohibited Uses:** The District may implement other prohibited water uses as determined by the Board of Directors, after notifying customers.

In addition to the mandatory water conservation efforts described above, the District has established per-connection water allotments based on residential lot size groups (multifamily homes are considered in group A). Each group's water use was averaged for 2008 and allocations were estimated for each group to achieve water reduction goals for stages II and III. A model of the water allotment structure can be found in the Water Shortage Contingency Plan in Appendix E. The model water allotment structure contains values for the proposed water allotment in the event of a shortage; however, the actual numbers may vary depending on supplies, economic factors, and severity of the drought.

The District does not have specific prohibitions set in place to limit water use for pools, spas, or the like. However, the District will consider limiting this type of water use in future revisions of the Water Shortage Contingency Plan. However, the District may implement restrictions if necessary whether or not the plan is revised.

### **Stage VI Water Supply Shortage (+51% Percent Demand Reduction Targets)**

At this highest stage of water shortage, District personnel will work with the Board to determine what further measures can be implemented. All water reduction measures from previous stages will remain in effect until water level return to normal. It is anticipated the region will have declared

a state of emergency and the District will be looking to CMWD, MWD, Ventura County, Cal OES and FEMA for relief guidance and support.

**Shortage Response Action Effectiveness**

Efficacy of demand reduction efforts is difficult to estimate or predict, but water savings are a function of the extent to which public information campaigns reach water users and the degree of consumer response to those messages. Consistent with the Communications Plan in the following section , anticipated shortages will involve an appropriately sized outreach campaign to address the targeted demand reduction, which depends on the combined effectiveness of other shortage response actions.

As shown in the following table, reduction responses are designed to reduce demands up to approximately 50% of water demands. This WSCP contains six levels at which water reduction responses will be applied to achieve appropriate levels of use reduction. Table 8.4.1 gives examples of estimated savings by each level using a hypothetical base demand of 2,174 AF. Actual reductions and base demands are based on a formula that includes various factors such as actual local supply production, population growth, and conservation.

Water Shortage Level	Approximate Percent Reduction	Example Base Demand	Estimated Demand Reduction
1	10%	2174 AF	217 AF
2	20%		435 AF
3	30%		652 AF
4	40%		870 AF
5	50%		1,087 AF
6	+50%		1,196 AF

Note: 55% used for estimation purposes

**Catastrophic Supply Interruptions**

Catastrophic failures that put the water supply at risk include fires and earthquakes that could damage the infrastructure to the water distribution system. In the event of a catastrophic event that prevents the District from obtaining water for distribution, CMWD implements actions and methods to continue supplying water to customers of its member agencies. Water reserves are

available in Lake Bard, and it is estimated that CMWD could provide at least 75% of its annual demand for all of its service areas for three to six months following a catastrophic event that disrupts the supply of water from MWD. In addition, methods to ensure that water is continually supplied to the customers include stockpiling emergency pipeline repair materials and coordinating with the Office of Emergency Services (OES) and Emergency Operations Center (EOC) in the event of a catastrophic disruption of supply.

Any effect seen by the CMWD during a catastrophic event would impact the water supply to the District. As a result, the District is subject to the actions and rationing of MWD/CMWD and contains adaptive language to stages of rationing in its own 2009 Water Shortage Contingency Plan. The District is also included in the Ventura Regional Sanitation District (VRSD) Emergency Plan, which identifies the actions necessary to continue healthy water supply in the event of a disaster such as a regional power outage or earthquake. The District is discussed in Section 2.1 of the VRSD Emergency Management Plan.

### **Regional Power Outage**

The District has identified the possibility of a regional power outage and its effect on the water supply. In the event of a regional power outage, supply would continue through the service area by employing the use of emergency generators. The District has stationary generators located at both the Bishopswood and Lindero Pump Stations. The District also has portable generators available for emergencies.

### **Earthquake**

CMWD has addressed the susceptibility of its water supply system to earthquakes and understands that a catastrophic earthquake could result in a devastating supply reduction. In order to mitigate the impacts associated with a large-scale earthquake, TWSD and CMWD have identified specific emergency actions to implement, including facility inspections and repairs. The CMWD 2010 Urban Water Management Plan notes that “the key to efficient repair procedures is a structured approach, in which specific procedures, responsible personnel, and necessary equipment are identified and secured ahead of time.” In recognition of this, CMWD has an emergency repair protocol to address leaks as a result of earthquakes. That protocol is as follows:

- Establishment of an emergency repair organizational structure.
- Redevelopment of a spare pipe and fittings inventory and management of inventory records.
- Identification of Emergency contacts.

- Damage assessment.
- Comprehensive repair drawings, specifications, and procedures for various facility types.
- Ongoing maintenance of the protocol.

Repairs to leaks in the system and implementation of the described protocol are made possible through emergency funds and stockpiling of emergency pipeline repair materials.

In addition, the TWSD Water Shortage Contingency Plan, which can be found in Appendix E, addresses specific precautions and actions that can be taken in the event of an earthquake. All of the water tanks meet 2008 seismic standards. In the event that some facilities are damaged in the event of a catastrophic earthquake, The District can supply water from any tank to any distribution zone through zone interconnections and looped distribution pipelines to allow potentially damaged portions of the service area to be quickly isolated and repaired.

CMWD Ordinance 12 requires all of its member agencies to provide “adequate storage or alternate supplies, other than from District facilities, to meet their peak daily and hourly demands.” To meet this requirement, member agencies should have sufficient storage capacity to provide uninterrupted water deliveries in the event of a service interruption by CMWD. Ordinance 12 further specifies that service interruptions may exceed 72 hours during events such as “routine maintenance, internal inspection, rehabilitation, and improvement projects on District facilities.” Currently, the District’s total storage capacity is approximately 48 hours of average water use and thus requires outside supplied water, by other means.

With population growth, energy shortages, earthquakes, and the threat of terrorism experienced by California; maintaining the gentle balance between water supply and demand is a complicated task that requires planning and forethought. In the event that a water shortage occurs, simple measures can be implemented to conserve the water supply at a public level. Below, stages are discussed during which various conservation measures will be imposed by the District and CMWD.

### 8.5 Communication Protocols

Effectual reduction of water usage begins with effectual communication; both with the public and heads of District management. Water personnel are responsible for communicating increasing water shortage conditions and educating both the public and District management about the necessity and way to conserve limited water supplies. In addition, Water personnel will collaborate with CMWD and the Metropolitan Water District to improve water reliably and infrastructure. Water personnel will strive to;

- Motivate the public to:
  - Increase conservation.
  - Follow voluntary or mandatory water use guidelines.
  - Participate in water-saving incentive programs.
- Raise awareness about:
  - Water shortage and/or drought conditions
  - Water sources, supplies, and reserves.
  - Local, regional, and state regulations
- Educate the public about:
  - Water supply reliability
  - Water infrastructure and delivery
  - Water quality
- Prepare District Management for:
  - Varying water supply conditions
  - Escalating supply shortage levels

### Standard communication

Conservation as a way of life remains central to messaging during normal supply conditions. Regional rebate programs, indoor and outdoor water use efficiency, investments to maintain infrastructure, emergency preparedness, local supply programs, water quality, and regional supply reliability are among some of the themes that make up normal supply period's communications mix to encourage ongoing conservation actions. Below is a snapshot of the various strategies involved:

- Social Media
- District Website
- Community Events
- Education Outreach
- Business Outreach

## 8.6 Compliance and Enforcement

In the event of a water supply shortage, violations of Ordinance TSD-301 may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days, or by a fine not exceeding one thousand dollars (\$1,000), or by both. Table 8.3.1 describes the

penalties associated with single and recurring violations, which are outlined in the ordinance. This includes a first warning, and subsequent fines increasing from \$100, and, on the fourth violation, a notice of intent to install a flow restrictor.

**Table 8.3.1: Penalties & Charges**

<b>Violation</b>	<b>Phase When Penalty Takes Effect</b>	<b>Penalty or Charge</b>
First Violation	All Stages	Written Warning
Second Violation within a 12 Month Period	All Stages	Written Warning and \$100
Third Violation within a 12 Month Period	All Stages	\$150
Fourth Violation within a 12 Month Period	All Stages	\$200
Fifth and Subsequent Violations within a 12 Month Period	All Stages	\$250 and subject to a water flow restrictor device of approximately 1 gpm

Note- Penalties increase for Stages 2 and 3; refer to Ordinance TSD-301, Section 10.

## **8.7 Legal Authorities**

California Water Code Section 350 et seq. authorizes any public entity to declare a water shortage emergency and, upon declaration of that emergency, adopt regulations and restrictions on the delivery and consumption of water in order to conserve water resources during the period of the emergency and until the supply of water available for distribution by the suppliers has been replenished or augmented. For the District, the Board of Directors, along with the General manager, has the ability to declare a state of water shortage and enforce response actions appropriate to the scenario. District Ordinance 1050 lays out the District’s plan for implementing reduction measures depending on the severity of the shortage. In 2020, the water code was updated mandating additional water shortage levels be added through the development of this Water Shortage Contingency Plan. This plan seeks to build off the existing ordinance, adding the additional measures to meet Water Code 10635.

## 8.8 Financial Consequences of WSCP Activation

Recognizing that a time of severe water shortage will have fiscal and social impacts to the Oak Park Community, the Board of Directors for the District have established measures to alleviate these impacts to Triunfo Water & Sanitation District potable water customers.

To address the potential fiscal impact locally, the District has adopted a mechanism designed to increase rates as the supply drops and water costs to the District from its supplier begin to rise. This has the dual effect of 1) mitigating the fiscal impact to the District of a water shortage and 2) serving as an incentive to customers to work at conservation efforts. The quantity of increase is estimated for a three-tiered water rate structure in Table 8.6.1. The example water rate increases are based on estimated limited supply conditions to help meet the revenue in case of a water shortage but may change due to varying supplies.

**Table 8.6.1: Example Rate Increase Structure During Shortage**

	25% Water Supply Shortage	35% Water Supply Shortage	50% Water Supply Shortage
Tier I	1% Increase	3% Increase	7% Increase
Tier II	5% Increase	8% Increase	18% Increase
Tier III	7% Increase	10% Increase	22% Increase

Variation in the amount of revenues is already part of the District's financial planning. Revenues vary according to weather patterns and the availability of water supplies. In dry years, local demands increase, and the District may receive higher than anticipated revenues due to increased sales volumes. In contrast, in wet years, demands decrease, and revenues drop due to lower sales volumes. Such revenue surpluses and shortages could cause instability in water rates. To mitigate this risk, the District maintains financial reserves, with a minimum and target balance, to stabilize water rates during times of reduced water sales. The reserves hold revenues collected during times of high-water sales and are used to offset the need for revenues during times of low sales. The District's practice of using reserves to buffer unexpected increases or decreases in budgeted revenue also applies to unexpected expenditure increases or decreases resulting from shortage responses.

## **8.9 Monitoring and Reporting**

Consistent with California Governor's Executive Order B-29-25, the District is currently monitoring and comparing monthly consumption and production rates to the same months in 2013 in order to determine levels of water usage reduction. These rates rely on groundwater pumping and water purchase transaction records as well as end user meter readings to determine water quantities. Should water shortage conditions remain, the District will continue to use these methods to document and analyze measurable progress in water savings against previous years.

## **8.10 WSCP Refinement Procedures**

The WSCP will be periodically re-evaluated to ensure that its shortage risk tolerance is adequate, and the shortage response actions are effective and up to date based on lessons learned from implementing the WSCP. The WSCP will be revised and updated during the UWMP update cycle to incorporate updated and new information. For example, actions that are no longer applicable for reasons such as program expiration will be removed. However, if revisions to the WSCP are warranted before the UWMP is updated, the WSCP will be updated outside of the UWMP update cycle. In the course of preparing the Annual Assessment each year, District staff will routinely consider the functionality the overall WSCP and will prepare recommendations for the Board of Directors if changes are found to be needed.

## **8.11 Special Water Feature Distinction**

The District did not identify any special water features

## **8.12 Plan Adoption, Submittal, and Availability**

As was done for the 2020 Urban Water Management Plan update, the WSCP will be made available during update years to the public and neighboring agencies. Drafts will be advertised on the District website and by email to interested stakeholders. Each June, the District will hold a public hearing to answer questions regarding the plan and for the Board of Directors to approve the WSCP prior to submission to the Department of Water Resources.

# 9

## DEMAND MANAGEMENT MEASURES

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### 9.1 INTRODUCTION

#### ***Urban Water Management Planning Act Requirement:***

*CWC 10631 (f)(A)...The narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.*

*(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures: (i) Water waste prevention ordinances. (ii) Metering. (iii) Conservation pricing. (iv) Public education and outreach. (v) Programs to assess and manage distribution system real loss. (vi) Water Conservation program coordination and staffing support. (vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.*

The Triunfo Water & Sanitation District (District) regularly reports on water conservation techniques to reduce the total demand of water throughout the District. The District has committed itself to the gallons per capita-day (GPCD) compliance targets (since SBx7-7) and to advance progress on the “Foundational” best management practices (BMPs). Good faith efforts continue with the “Programmatic” activities under the Metropolitan Water District of Southern California (MWD) and Calleguas Municipal Water District (CMWD) programs. The District was an early signatory to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU) regarding Urban Water Conservation in California. The CUWCC represents a diverse group of water supply agencies dedicated to establishing guidelines toward implementing conservation measures and managing supply demands that were first established by the Urban Water Management Plan Act.

The District became a signatory to the CUWCC MOU established by the base year of 1997 (MOU was signed on November 28, 1994) due to the elevated concern stemming from the 1990 drought year and related to the problematic water supply for the region. Now urban water suppliers are broadening their scope of water supply portfolios with water conservation and water reuse

representing significant opportunity to constrain short and long-term imported water demand. The CUWCC has currently structured implementation of Demand Management Measures (DMM) compliance three ways: the 7 specific DMMs; choice of measures that can achieve greater savings (aka Flex Track); and savings goals via GPCD.

The District has chosen GPCD as its population is nearly all residential (higher degree of proximate accuracy) and there is less demand on internal staffing resources. Table 9.1.1 details only the elements required for the GPCD compliance track. It associates the BMPs listed in the CUWCC requirements to the UWMP DMMs required for reporting and tracking purposes.

**Table 9.1.1: CUWCC BMP Organization and Names and UWMP DMMs**

Category	BMP #	BMP Name	DMM #	DMM Name
BMP 1: Utility Operations	1.1	Operations Practices (Foundational)	1	Water Waste Prevention Ordinances
	1.2	Water Loss Control (Foundational)	5	Programs to Assess and Manage Distribution System Real Loss
	1.3	Metering with Commodity Rates (Foundational)	2	Metering
	1.4	Retail Conservation Pricing (Foundational)	3	Conservation Pricing
BMP 2: Public Education and School Education	2	Public Education and School Education (Programmatic)	4	Public Education and Outreach
			6	Water Conservation Program Coordination and Staffing Support
BMP 3: Residential Programs	3	Residential Programs (Programmatic)	3	Conservation Pricing
			4	Public Education and Outreach
			6	Water Conservation Program Coordination and Staffing Support
BMP 4: Commercial, Industrial, and Institutional	4	Commercial, Industrial, and Institutional (Programmatic)	3	Conservation Pricing
			4	Public Education and Outreach
			6	Water Conservation Program Coordination and Staffing Support
BMP 5: Landscape	5	Landscape (Programmatic)	3	Conservation Pricing
			6	Water Conservation Program Coordination and Staffing Support

## 9.2 WATER WASTE PREVENTION ORDINANCES

The District adopted ordinance [TSD-301](#) on November 26, 2018 to address basic, permanent, community-wide water conservation and water waste reduction measures. In addition, the State's Model Water Efficient Landscape Ordinance, addresses efficiency for landscaping and facilitates additional conservation in a high demand area (outdoor irrigation) which is applied throughout the service area. The District's Water Shortage Contingency Plan (WSCP) provides a framework for staged water reduction targets and will be subject to near term revisions due to recent changes and experience. For more information about the WSCP, see Chapter 8.

### 9.3 METERING

***Urban Water Management Planning Act Requirement:***

*CWC 526 (a)...Notwithstanding any other provisions of law, an urban water supplier that, on or after January 1, 2004, received water from the Federal Central Valley Project under a water service contract or subcontract...shall do both of the following: (1) On or before January 1, 2013, install water meters on all service connections to residential and nonagricultural commercial buildings...located within its service area.*

*CWC 527 (a)...An urban water supplier that is not subject to Section 526 shall do both the following: (1) Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.*

The DMM requirements includes the retrofitting of existing metered connections. The installation and use of meters at each and every point of use within the District since its formation was/is revenue driven. There are no known mixed-use meters (those serving both internal demands and landscaping) in a largely residential sector service area. All known services are metered.

Multi-family areas that have separate irrigation systems for greenbelt irrigation are identified and fitted with meters under homeowners' associations. Non-residential usage accounts for 19% of the GPCD.

Installation standards, within Oak Park, are code regulated through the Ventura County Building Code of 2013 (Ordinance 4456) and adopts the standards of installation under the California Plumbing Code.

## 9.4 CONSERVATION PRICING

The District uses an inverted water rate structure to provide incentives to customers to reduce water use. The District conforms to its CUWCC MOU obligations by maintaining at or above 70% of its revenue over volumetric usage. The table below shows the current rate structure.

**Table 9.4.1: Current Residential Rate Structure**

User Class	Tier 1 (0-7 HCF)	Tier 2 (>7-28 HCF)	Tier 3 (>28 HCF)
Current Rates	\$7.34/Unit	\$8.30/Unit	\$10.13/Unit

Note: Rates are current as of July 2021

## 9.5 PUBLIC EDUCATION AND OUTREACH

The District utilizes several methods to promote water conservation and resource efficiency. The following section discusses public outreach and education programs.

### Public Education and Outreach

The District is continuing to develop program information, implement budgets and identify future expenditures. Website notifications, flyers and brochures, and general information have been provided as public outreach. In addition, as the District's wholesale supplier, CMWD promotes conservation, education, and public awareness programs through its website, social media sites, tours and speaking engagements on behalf of the larger CMWD service area. To increase public awareness of water resource and water use efficiency, CMWD actively coordinates and/or sponsors various outreach programs: host semi-annual native plant information and sales fairs, graywater and rainwater capture workshops, and finance development of a demonstration garden (California True Colors and Learning Center, Thousand Oaks)

### School Education Programs

As the supplier for the District, CMWD (a member agency of the Metropolitan Water District of Southern California [MWD]) coordinates much of its school education efforts with MWD. The District can request offerings through CMWD. Programs are targeted to educate students and encourage active involvement in water conservation. Materials are produced by the MWD and are distributed to Kindergarten through 12<sup>th</sup> grade students.

## 9.6 PROGRAMS TO ASSESS AND MANAGE DISTRIBUTION SYSTEM REAL LOSS

The District has implemented a system water audit to determine if leaks in the supply and distribution system exist and a method for repair in the event that the leaks become significant. Physical meter read observations are used as well as SCADA pressure monitoring and customer responses. Leak and repair reports are kept on file. Production is tracked monthly and reviewed annually to determine if the system exhibits significant losses. If the metered sales divided by the total supply is greater than 0.9, the system is considered adequate. The District used the American Water Works Association (AWWA) Water Audit Software to analyze water losses in the system. According to the AWWA report, the total supply into the system was measured to be at 2,174 AF and the metered sales were measured at 2,149 AF for the 2020 FY.

## 9.7 WATER CONSERVATION PROGRAM COORDINATION AND STAFFING SUPPORT

The District has appointed an employee who is responsible for Water Conservation, conservation reporting and additional personnel involved in practices and/or activities. Currently, the duties of the Water Conservation Coordinator do not require a full-time position, and therefore is part of the duties of another full-time employee. Duties for the Water Conservation Coordinator include:

- Coordination and oversight of conservation programs and DMM implementation.
- Keeping a log of conservation practices conducted throughout the District and point person(s) assigned to each area.
- Acting as the point of contact to the Public for general inquiries and requests for information.
- Communication and promotion of water conservation issues to the District senior management, and coordination of the District's conservation programs with operations and planning staff.

The District has designated the program oversight and activity direction to the Field Services Contractor, who's information is below.

Name: Richard Jones, Field Services Contractor  
Address: 1001 Partridge Drive, Suite. 150, Ventura, CA-93003  
Phone: (805) 658-4648  
E-mail: [richardjones@vrzd.com](mailto:richardjones@vrzd.com)

## **9.8 OTHER DEMAND MANAGEMENT MEASURES**

There are no other DMMs administered by the District, as they are not allocated to the GPCD compliance track of the CUWCC. Other DMMs may fall under other compliance programs. Any discussions below are efforts supplemental to the GPCD compliance track requirements.

### **Water Survey Programs for Residential Customers**

This element is part of the Flex Track compliance option. The District, however, utilizes staff to answer phone questions and engages field/operational personnel to span service and water use troubleshooting.

### **Residential Rebates**

The District's retrofit program with water savings devices is largely conducted under the MWD rebate program presented by bewaterwise.com. District's residents are eligible for rebates on water conserving devices for their residence. Qualifying items include high-efficiency clothes washers, high-efficiency toilets (HETs), weather-based irrigation controllers (WBICs), rotating sprinkler nozzles, rain barrels, and soil moisture sensor systems.

### **Commercial, Industrial, and Institutional Programs**

The District's water use by the Commercial, Industrial, and Institutional (CII) sectors is less than 2% by volume per month and represents about 1% of all TWSD's water service accounts. The District is largely a new area and has determined there are no mixed-use meters. Any CII incentives for retrofit/water conservation activities are supported by the District under the MWD and CMWD programs only.

### **Large Landscape Conservation Programs and Incentives**

The District is committed to potable water conservation through the treatment and distribution of recycled water for non-potable uses. The District began recycling water as the Joint Powers Authority (Triunfo Water & Sanitation District and Las Virgenes Municipal Water District) in 1972. The recent recycled water use history is about or above 20% of potable water used in the service area. As with the other retrofit programs, water conserving devices, the District promotes the MWD and CMWD rebate programs.

## 9.9 IMPLEMENTATION OVER THE PAST FIVE YEARS

***Urban Water Management Planning Act Requirement:***

*CWC 10631 (f) Provide a description of the supplier's water demand management measures.*

*This description shall include all of the following: (1) (A)...a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years.*

Implementation for each DMM is partially covered in the previous sections (Sections 9.2 through 9.8). The District provides customers information regarding available rebates, which are offered through CMWD and MWD. MWD provides metering programs, outreach support, public education and school programs, a number of landscape education and training programs, and various residential and commercial rebates.

## 9.10 PLANNED IMPLEMENTATION TO ACHIEVE WATER USE TARGETS

### ***Urban Water Management Planning Act Requirement:***

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

Continued outreach and support for rebates are the District's prime method of implementation. As stated in previous sections, CMWD and MWD provide the support for rebates for its associated agencies.

The District implemented a complete automated meter reading (AMR) water meter change out program. The installation allows recent day-day usage interface for customers and the District. Water customers can view their usage and District alerts via the Customer Connect Web Portal. The District believes this effort provides greater water use sensitivity at the customer level. The completed installations are expected to allow additional water use savings and ensure improved results on the GPCD compliance track.

## 9.11 MEMBERS OF THE CALIFORNIA URBAN WATER CONSERVATION COUNCIL

### *Urban Water Management Planning Act Requirement:*

*CWC 10631 (l) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," date December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.*

The District is a signatory to the CUWCC Memorandum of Understanding (MOU) regarding Urban Water Conservation in California and continues best efforts to address its obligations under the UWMP Act.

# 10

## PLAN ADOPTION, SUBMITTAL & IMPLEMENTATION

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### 10.1 COORDINATION

#### ***Urban Water Management Planning Act Requirement:***

*CWC 10635(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.*

The Triunfo Water & Sanitation District (District) provided copies of its 2020 Urban Water Management Plan (UWMP) update to the following agencies within 60 days of submission of the plan, as stipulated by the 2020 UWMP Guidebook for Urban Water Suppliers.

- County of Ventura
- Calleguas Municipal Water District
- Ventura Regional Sanitation District
- Las Virgenes Municipal Water District

#### ***Urban Water Management Planning Act Requirement:***

*CWC 10642 Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, the notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.*

A draft of the UWMP was made available on the District's website and electronic versions of the plan were mailed upon request. A public notice, including the time and place of the hearing, was advertised in the local newspaper once per week for two consecutive weeks prior to the hearing, according to Government Code Section 6066. A summary of the District's coordination efforts is provided in Tables 10.1.1 and 10.1.2.

**Table 10.1.1: Coordination with Appropriate Agencies**

Agency	Participated in UWMP	Commented on the Draft	Attended Public Meetings
County of Ventura			
Calleguas Municipal Water District		✓	
Ventura Regional Sanitation District	✓	✓	✓
Las Virgenes Municipal Water District			
General Public			✓

**Submittal Table 10-1 Retail: Notification to Cities and Counties**

City Name	60 Day Notice	Notice of Public Hearing
County Name	60 Day Notice	Notice of Public Hearing
NOTES:		

## 10.2 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

***Urban Water Management Planning Act Requirement:***

*CWC 10621(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).*

All amendments to the District's 2020 UWMP shall be adopted and filed consistent with the UWMP "Act" requirements.

***Urban Water Management Planning Act Requirement:***

*CWC 10642 After the hearing, the plan shall be adopted as prepared or as modified after the hearing.*

The plan was adopted by the Board of Directors on MONTH ##, 2021 as prepared. A copy of the adoption resolution is provided in Appendix B.

***Urban Water Management Planning Act Requirement:***

*CWC 10643 An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.*

The District will implement the strategies set forth in the plan immediately upon adoption by the Board of Directors. Details on the implementation of specific sections are detailed in their respective sections of the plan.

***Urban Water Management Planning Act Requirement:***

*CWC 10644(a) An urban water supplier shall submit to the department, the California State library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State library, and any city or county within which the supplier provides water supplies within 30 days after adoption.*

The District will submit copies of its 2020 UWMP to the following agencies within 30 days after adoption:

- The California Department of Water Resources
- The California State Library

- County of Ventura

Additionally, any amendments or changes to the plan will be submitted to the above agencies within 30 days after adoption.

***Urban Water Management Planning Act Requirement:***

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

The District will provide an electronic version of the final 2020 UWMP on its website for public review within 30 days of filing the plan with the California Department of Water Resources. Additionally, a hard copy will be available for review at the District headquarters, located at 1001 Partridge Drive, Suite 150, Ventura, CA 93003.