

3 SYSTEM DESCRIPTION

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 and serves approximately 13,167 Oak Park residents. 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, to Lake Sherwood, and portions of Thousand Oaks and Westlake Village. TWSD also 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 a two-day supply.

Table 3.1.1: TWSD Potable Water Storage Tanks

STORAGE TANK NAME	YEAR OF CONSTRUCTION	CONSTRUCTION MATERIAL	CAPACITY (GALLONS)
Oak Canyon	2013	Concrete	2,100,000
Deerhill	1998	Concrete	2,100,000
Savoy	1990	Steel	1,600,000
Kilburn	1986	Steel	864,000

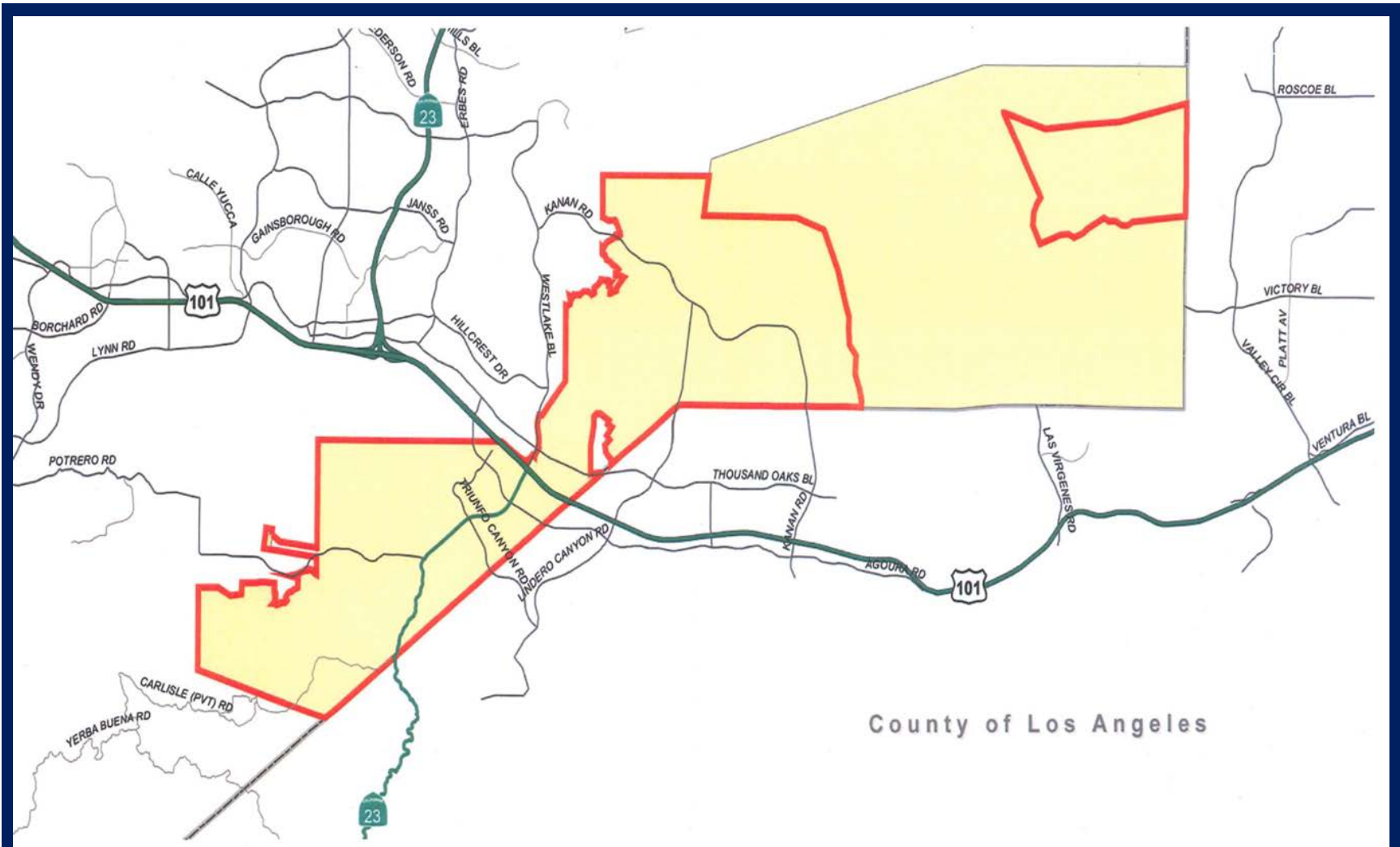


Figure 3.1.1 – TWSD Service Area Map

Note: Image taken from the TWSD website

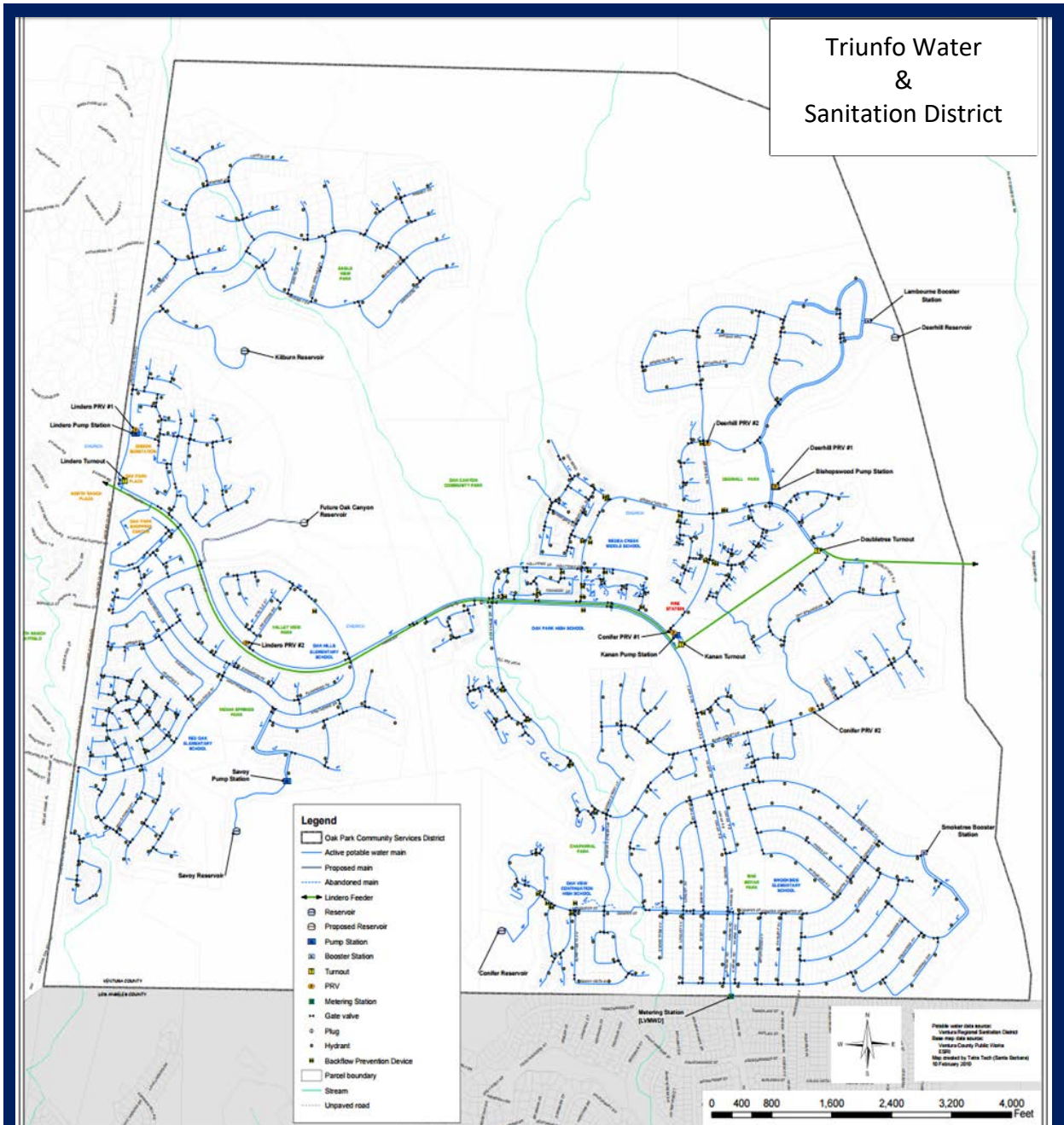


Figure 3.1.2 – TWSD Service Area Map¹

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

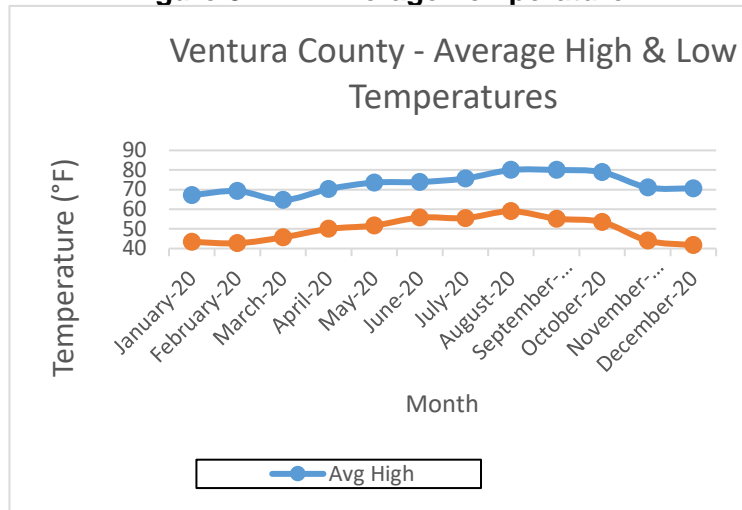
3.2 SERVICE AREA CLIMATE

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

Temperature

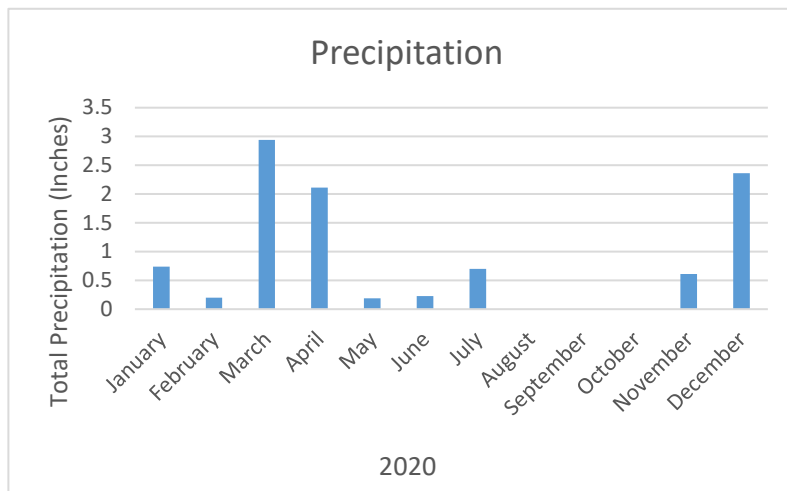
The Southeastern Ventura County’s Mediterranean semi-arid climate is temperate year-round, with warm and dry weather lasting from late spring through early fall. The temperature range is generally moderate as depicted in Figure 3.2.1; the average high temperature is 72.9 °F and the average minimum annual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

Table 3.2.1: Climate Data

	AVG. HIGH TEMP (°F)	AVG. LOW TEMP (°F)	TOTAL PRECIPITATION (In.)	TOTAL ETo (In.)
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/>
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Note : Period Record: 01/01/2020 to 12/31/2020 and Evapotranspiration Rate (ETo) Data

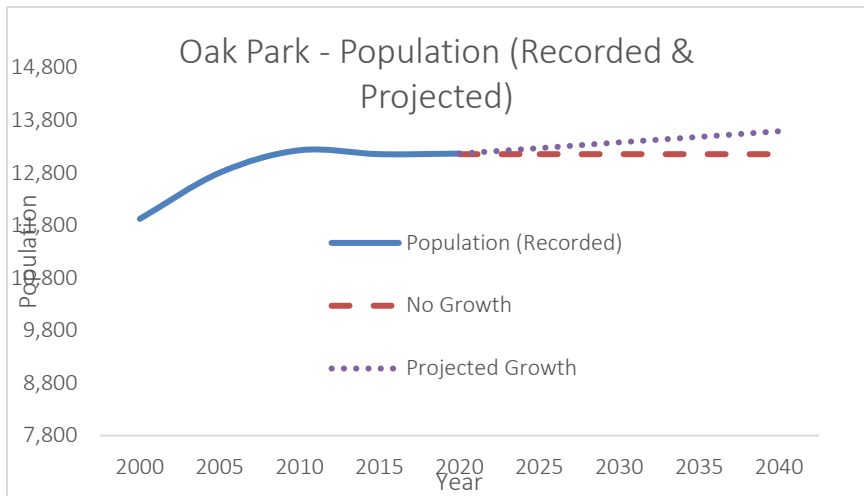
3.3 SERVICE AREA POPULATION

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 ¹	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

Note: The District regularly uses 12,200 as its standard population estimate. However, in order to comply with DWR requirements for population estimate methodology, the 13,167 estimate is used throughout the document. This estimate is meant for planning purposes only and should not be used to contradict other District planning and management efforts.

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 is comprised of primarily residential customers. However, the District maintains some commercial and institutional customers as well. With most residents employed in other 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.