



2020 URBAN WATER MANAGEMENT PLAN

August 27, 2021

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1.0 INTRODUCTION AND OVERVIEW

1-1 Background

This Urban Water Management Plan (UWMP) has been prepared for the Fair Oaks Water District (District or FOWD) in compliance with Division 6, Part 2.6, of the California Water Code (CWC), Sections 10610 through 10645. The original bill requiring preparation of an UWMP was enacted in 1983. A significant amendment was made in 2009 by Senate Bill No. 7 (SBX7-7), the Water Conservation Act of 2009. SBX7-7, which became law in November 2009, requires increased emphasis on water demand management and requires the State to achieve a 20% reduction in urban per capita water use by December 31, 2020.

Urban water suppliers having more than 3,000 service connections or supplying more than 3,000 acre-feet per year for retail or wholesale are required to submit an UWMP every 5 years to the California Department of Water Resources (DWR). The UWMP deadline for the 2020 cycle is set for July 1, 2021. This 2020 UWMP is an update to the 2015 plan, which was submitted to DWR in July 2016.

DWR released the final 2020 UWMP Guidebook in March 2021 which has been updated from the 2015 version to reflect new legislation. The District's UWMP has been developed in close consultation with DWR's 2020 Guidebook, utilizes the DWR's guidance plan's checkboxes, and follows the recommended organization which has been modified from previous guidebooks.

1-2 System Overview

The District was organized on March 26, 1917 as the Fair Oaks Irrigation District under the provisions of Division 11 of the California Water Code. The District's original water supply was untreated surface water purchased from the North Fork Ditch Company. After completion of Folsom Dam on the American River in 1954, the North Fork Ditch Company's water rights were transferred to the newly created San Juan Suburban Water District. In 1979 the District formally changed its name to Fair Oaks Water District to reflect the shift from an irrigation supplier to an urban water supplier.

The District is a California special district providing retail sale of potable water primarily to residential and commercial customers. The District currently purchases surface water from the San Juan Water District, whose source is Folsom Lake, as treated water and delivers this water to residential and non-residential service connections through 180 miles of pipe. The balance of the District's water is supplied by groundwater wells within the District and one three-million-



gallon storage tank. As of the end of 2020, the District serves 14,390 connections in the northeast portion of unincorporated Sacramento County, California.

Figure 1- 1 illustrates the District's service area which is approximately 6,285 acres. The service area is bounded by San Juan Avenue on the west, Madison and Pershing Avenues on the north, Walnut and Main Avenues on the east, and parts of Folsom Lake State Recreation Area and Sacramento County's American River Parkway on the south.

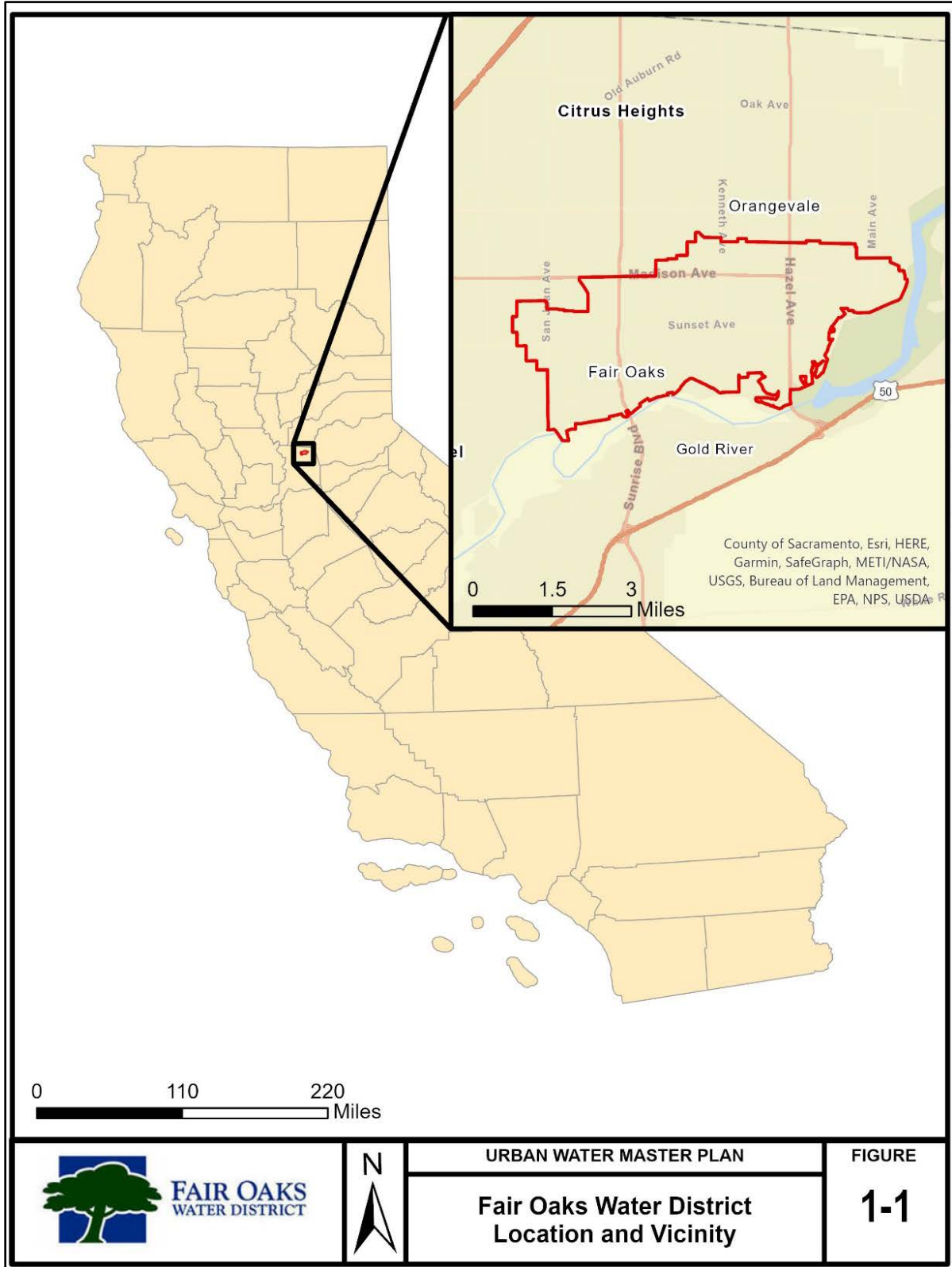


Figure 1- 1. FOWD Location and Vicinity



1-3 Content of the UWMP

This UWMP addresses all subjects required by the Urban Water Management Planning Act (“Act”) which permits “levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.” All applicable sections of the Act are discussed in this UWMP, and a completed copy of the 2020 Urban Water Management Plan Checklist organized by subject is included in Attachment A.

1-4 Lay Description

The District’s 2020 UWMP documents the District’s water management planning efforts to ensure adequate water supply to meet demands over the next 25 years. As required by the Act, the District’s 2020 UWMP assesses the availability of supplies to meet future demands during normal, single-dry, and multiple dry years through 2045. As detailed in Chapter 4, the District’s projected demands in 2040 to be 10,792 AFY which will be met by the District’s supply of 33,065 AFY. As discussed in Chapter 7, the District has adequate supply to meet demands during normal, single-dry, and multiple dry years. Through the Drought Risk Assessment (DRA), it was determined the District’s existing supplies will meet 2021-2025 demands in drought conditions without the need to implement their Water Shortage Contingency Plan (WSCP) which is discussed in Chapter 8.

1-5 Anticipated Document Use

The District is committed to implementation of the projects, plans, and discussions provided within this document. The 2020 UWMP is intended to serve as a general, flexible, and open-ended document that periodically can be updated to reflect changes in water supply trends, and conservation and water use efficiency policies. This UWMP, along with other District planning documents, will be used by District staff to guide water use and management efforts through the year 2025, when the UWMP is required to be updated.

2.0 PLAN PREPARATION

The District prepared this UWMP with the assistance of its consultant, Peterson Brustad, Inc. (PBI), as permitted by Section 10620(e) of the CWC. During the preparation of the UWMP, documents that have been prepared over the years by the District and other entities were reviewed and information from those documents incorporated, as applicable, into this UWMP.

The District is committed to the implementation of this UWMP concurrent with the scheduled activities required by the CWC. The District’s staff will plan and implement responses identified in this document and other key planning efforts to proactively address water supply reliability challenges. Furthermore, the District’s conservation coordinator oversees the implementation of Demand Management Measures (DMMs) through the District’s participation in the California Urban Water Conservation Council’s (CUWCC) Memorandum of Understanding (MOU).

2-1. Basis for Preparing a Plan

In accordance with CWC Sections 10617, 10620, and 10621, urban water suppliers with 3,000 or more service connections or supplying 3,000 or more acre-feet of water per year are required to prepare an UWMP every 5 years. The District is a retail urban water supplier that serves 14,390 connections as of the end of 2020. Total water production has ranged from 8,130 acre-feet (AF) per year to 10,452 AF per year between 2015 and 2020.

The District is categorized as a Public Water System (PWS) according to the California Health and Safety Code 116275. A PWS is defined as:

“...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”.

Table 2-1. Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020
3410009	Fair Oaks Water District	14,390	10,452
TOTAL		14,390	10,452
NOTES: Volume in acre-feet per year.			

For the purposes of the UWMP, the District is preparing its own document and is reporting solely on its service area but has coordinated its plan with the plan of its wholesale supplier (San Juan Water District).

Table 2-2. Plan Identification

Select Only One	Type of Plan	Name of RUWMP or Regional Alliance
<input checked="" type="checkbox"/>	Individual UWMP	
<input type="checkbox"/>	Water Supplier is also a member of a RUWMP	n/a
<input type="checkbox"/>	Water Supplier is also a member of a Regional Alliance	n/a
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)	n/a

2-2. Reporting Conventions

The data reported in this UWMP remains consistent throughout the document in terms of the type of year and units of measure that are used for data. The District’s water supply and demand data are all presented on a calendar year basis and in units of acre-feet (AF). The District is a retail agency and therefore has presented all data into the DWR standard tables that are prescribed for retailers.

Table 2-3. Supplier Identification

Type of Supplier (select one or both)	
<input type="checkbox"/>	Supplier is a wholesaler
<input checked="" type="checkbox"/>	Supplier 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 date that the fiscal year begins (mm/dd)	
n/a	
Unit	AF



2-3. Coordination and Outreach

The 2020 UWMP requirements for agency coordination and public participation include specific timetables and requirements as presented in this section.

Wholesale and Retail Coordination

The District water supplies are primarily wholesale purchases from San Juan Water District (SJWD). When a water agency relies upon a wholesale agency for a water supply, both agencies are required to provide each other with information regarding projected water supply and demand. The District has coordinated with and provided SJWD with its projected wholesale water demand in 5-year increments for 20 years into the future as required by the CWC 10631.

Table 2-4. Water Supplier Information Exchange

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

In return, SJWD has supplied the District with data pertaining to water supply projections and water supply reliability.

Coordination with Other Agencies

SJWD also provides water to Citrus Heights Water District, Orange Vale Water Company, the City of Folsom (north of the American River), and San Juan Retail.

The San Juan Family of agencies are regularly involved in cooperative efforts to ensure long-term, reliable water supplies for their customers. Some of these efforts include:

- Water and energy efficiency programs such as the Water Efficient Landscape Garden and Baldwin Reservoir Solar Project.
- Capital improvement projects to meet state and federal regulations, protect water quality and ensure reliability of water supply infrastructure.
- Local and state advocacy work to protect water supplies and prevent rate increases for projects with no customer benefits.
- Sacramento Regional Water Bank, Phase 2 Program to develop a sustainable groundwater storage and recovery program intending to increase conjunctive use



capacity in regional water operations, improving long term reliability of water supplies.

Notice to Cities and Counties

CWC 10621(b) requires that agencies notify cities and counties to which they serve water that their UWMP is being updated and reviewed. The CWC specifies that this must be done at least 60-days prior to the public hearing. The District is contained completely within unincorporated Sacramento County and does not serve any portions of incorporated cities, however, to ensure coordination with the surrounding communities, the District sent notices regarding their UWMP development to the County as well as to surrounding cities including the City of Citrus Heights, City of Folsom, and City of Rancho Cordova. Further discussion of notices to cities, counties, and the public is included in Chapter 10.0 of this UWMP.

3.0 SYSTEM DESCRIPTION

3-1. Service Area

As of the end of 2020, the District serves 14,390 connections in the northeast portion of Sacramento County, California. Figure 3- 1 illustrates the District’s service area. The service area is approximately 6,285 acres and is entirely within the unincorporated area of Sacramento County. The service area is generally bounded by San Juan Avenue on the west, Madison and Pershing Avenues on the north, Walnut and Main Avenues on the east, and parts of Folsom Lake State Recreation Area and Sacramento County’s American River Parkway on the south. It is almost entirely built out and is primarily a residential area.

Of the 14,390 current connections:

- 12,991 (90.3%) of the connections are single-family residential
- 621 (4.3%) of the connections are multi-family residential
- 308 (2.1%) of the connections are commercial
- 0 (0%) of the connections are industrial
- 92 (0.6%) of the connections are institutional
- 281 (2.0%) of the connections are for irrigation
- 97 (0.7%) of the connections are for fire protection

The primary area planned for further development is the Gum Ranch development, an area north of Madison Avenue and east of Kenneth Way, which was annexed into the District’s service area in 2007 and is scheduled to include 340 single-family homes by the year 2030. The District recently completed construction of Gum Ranch Unit 2; however, only 22 connections of the 159 total connections in Unit 2 are currently active. The only other future growth opportunities would involve small projects aimed to subdivide existing residential lots.

3-2. History and Governance

The District was founded in 1917 as the Fair Oaks Irrigation District. By 1979, residential development in the community had replaced all of the significant agricultural land. In July of that year, the Board of Directors passed a resolution declaring that “irrigation district” no longer described the District’s actual functions and changed the name to Fair Oaks Water District.

Today, the District serves a population of roughly 35,000 people and serves this area with approximately 90% treated surface water purchased from the San Juan Water District (SJWD) and 10% with groundwater pumped from District-owned wells.





FIGURE 3-1

URBAN WATER MANAGEMENT PLAN

Fair Oaks Water District Service Area

Figure 3- 1. Fair Oaks Water District Service Area.

The District is governed by five board members. The board members are publicly elected to four-year staggered terms representing geographical divisions. The Board of Directors meets every month to make business decisions about District-related issues and policies and all Board meetings are open to the public. Additional board workshops and special board meetings are sometimes held to address specific topics that need extensive review or discussion.

3-3. Climate

The climate characteristics of the District include cool and humid winters and summers that are typically hot and dry. The Western Regional Climate Center (WRCC) maintains historic climate data for selected cities throughout the West. The Folsom Dam climate station is located approximately 10 miles from the District and was selected to provide representative climate data for the District service area. Thirty (30) years of historic data obtained from the WRCC web site (www.wrcc.dri.edu) for the Folsom Dam station was utilized for this climate data analysis.

In the winter, the lowest average monthly temperature is approximately 38 degrees Fahrenheit. The highest average monthly temperature reaches approximately 94 degrees Fahrenheit in the summer. Figure 3-2 presents the monthly average temperature based on historical data.

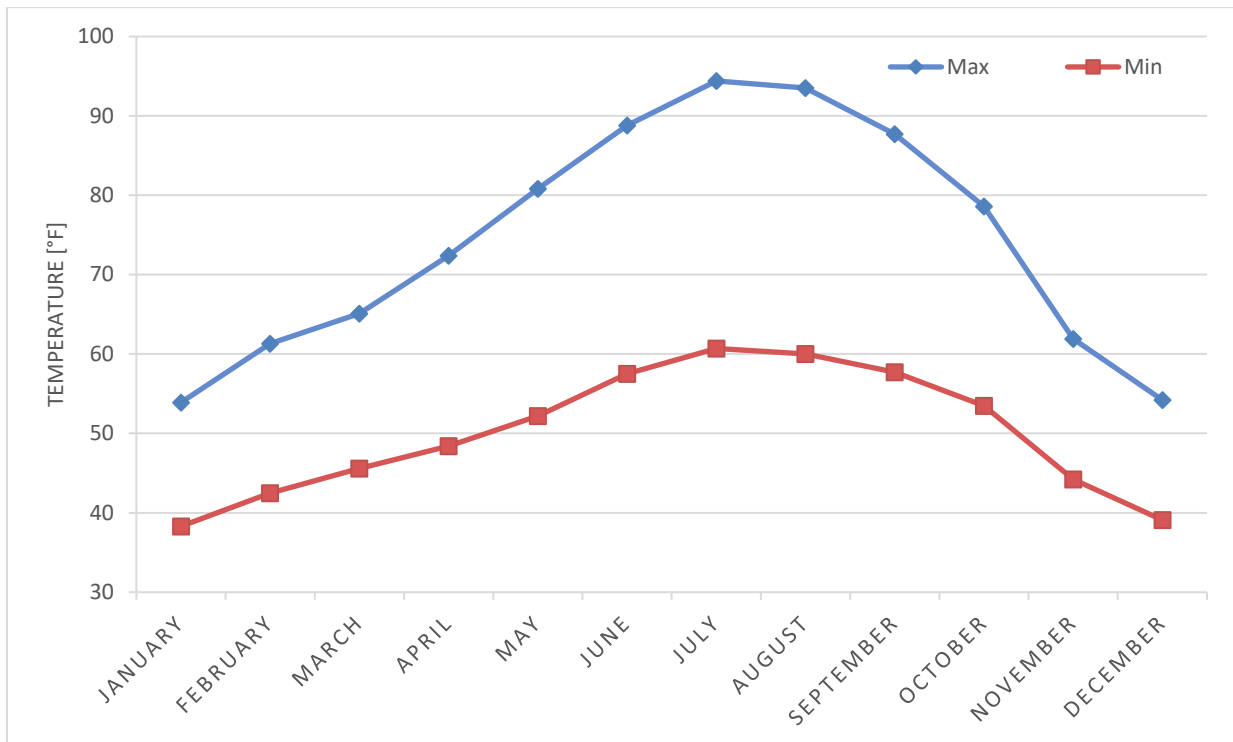


Figure 3-2. Monthly average temperatures within the District.
 (Data Source: WRCC, Folsom Dam Station)



The rainy season is typically from November to March. Monthly precipitation during the winter months ranges from 3 to 4 inches. Low humidity occurs in the summer months from May to October. The moderately hot and dry weather during the summer months typically results in higher water demands.

The California Irrigation Management Information System (CIMIS) web site (www.cimis.water.ca.gov) tracks and maintains records of evapotranspiration (ETo) for select cities. ETo statistics used for this system come from the Fair Oaks station. ETo is a standard measurement of environmental parameters that affect the water use of plants. ETo is given in inches per day, month, or year and is an estimate of the evapotranspiration from a large field of well-watered, cool-season grass that is four- to seven-inches tall.

The monthly average ETo and monthly average precipitation are presented in inches in Figure 3-3. As the figure indicates, a greater quantity of water is evaporated during June, July, and August in correlation to high temperatures and low humidity, which typically results in higher water demands.

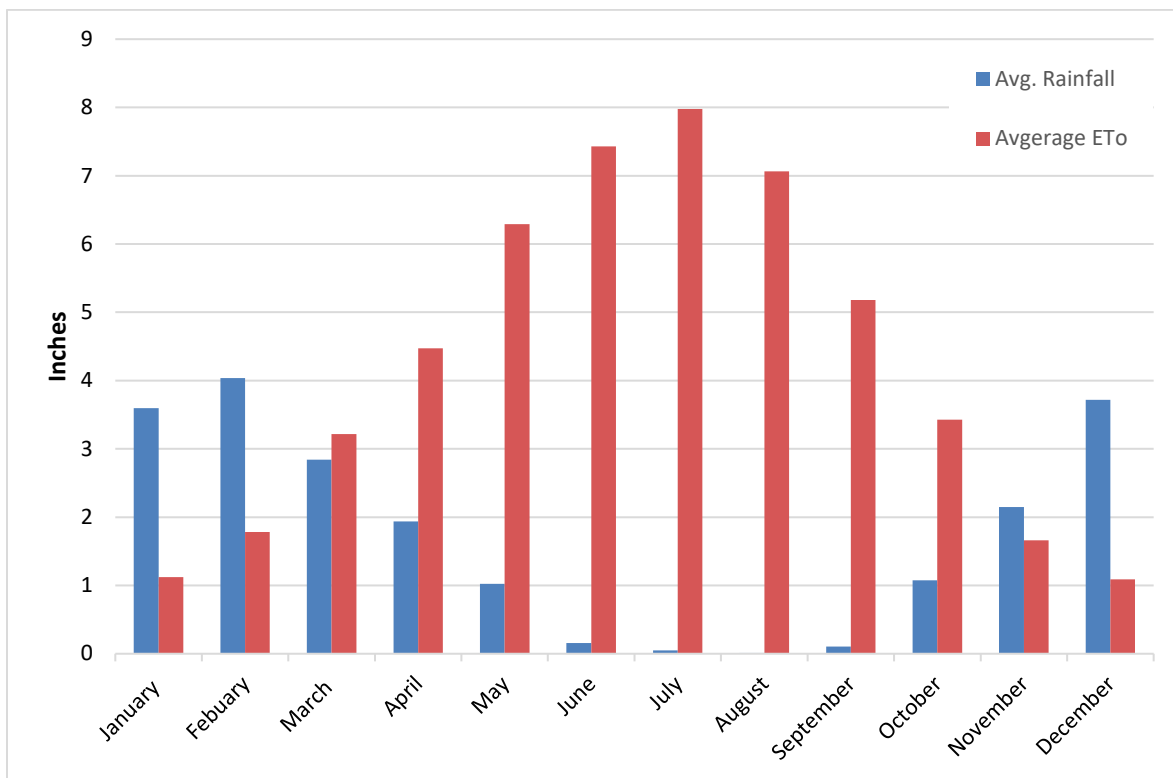


Figure 3-3. Monthly average rainfall and evapotranspiration.

(Data Source: CIMIS Fair Oaks Station 131, 1998-2020)

3-4. Demographics

The Fair Oaks Census Designated Place (CDP) makes up the most of the District's service area and therefore was chosen as demographically representative of the District's service area. According to 2010 U.S. Census Data, the median age of Fair Oaks residents is 44.7 years, and an average household size of 2.43 and. The 2019 Census update for Fair Oaks CDP has a median household income of \$84,717¹.

The District's service area is primarily characterized by residential land use with some commercial and institutional connections. Approximately 95% of the land area is classified as residential use. The overall density of residential development within the District is relatively low with many of the lot sizes ranging from 1.0 to 1.5 acres. Population growth within the District is expected to remain moderate and would primarily require the subdivision of these larger lots. As mentioned previously, the primary area planned for new development is the Gum Ranch development.

3-5. Population

3-5-1. Current Population

The DWR Population Tool is available on DWR's 2020 UWMP website² and was used to determine the current (2020) population as well as the population throughout the District's baseline period. The Population Tool determines service area population for census years by extracting U.S. Census data, at the block level, for District boundaries that existed at each Census year in the tool (1990, 2000, and 2010). For census blocks that straddle the service area boundary, the tool determines the percentage of the census block's land area that is within the service area boundary and applies that percentage to the census block population. Census data for 2020 is not yet available using this tool; therefore, the tool calculates the 2020 population using historical data and current number of service connections.

¹ <https://www.census.gov/quickfacts/fact/table/fairoakscdpcalifornia/PST045219>

² DWR Population Tool available at <https://wuedata.water.ca.gov/secure/Default.asp?>

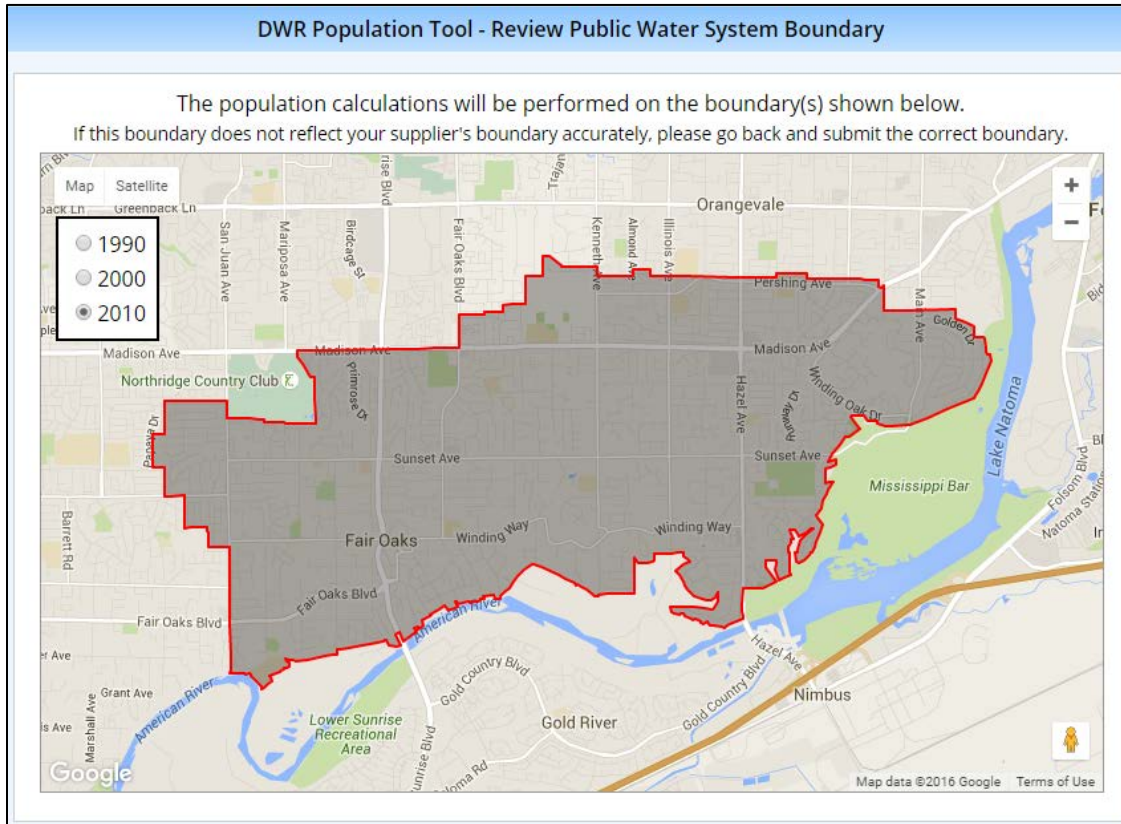


Figure 3- 4. Screenshot of the District's boundary uploaded into the DWR Population Tool.

The 2020 population within the District service area is estimated at 35,377 based on the DWR population tool. A summary of the input and output data from this tool is provided in Attachment B.

3-5-2. Population Projections

The District is fully built out and expects a low rate of population growth. Approximately 95% of the land area is classified as residential use. The overall density of residential development within the District is relatively low with many of the lot sizes ranging from 1.0 to 1.5 acres. In the future, some of these large lots may choose to split into multiple lots.

The primary area within the District where new growth is expected is the Gum Ranch development. The Gum Ranch development includes an area north of Madison Avenue and east of Kenneth Way and was annexed into the District’s service area in 2007 (see Figure 3- 1, previously presented). It involves approximately 340 new single-family dwellings and this project is anticipated to be fully built out by 2030. The District recently completed construction

of Gum Ranch Unit 2; however, only 22 connections of the 159 total connections in Unit 2 are currently active.

Background and Methods of SACOG Population Projections

The Sacramento Area Council of Governments (SACOG) recently completed their 2020 update to the Metropolitan Transportation Plan/Sustainable Communities Strategy (2020 MTP/SCS). At their November 18, 2019 board meeting, the SACOG Board of Directors adopted the 2020 MTP/SCS.

For all MTPs, regional growth projections must be developed and adopted by the SACOG Board of Directors. These projections are based on national and state projections and on current information on the region's economy and housing. The projections are primarily used to support the investments of future transportation infrastructure.

SACOG worked with the Center for Continuing Study of the California Economy and the state departments of Housing and Community Development and Finance to refine these forecasts for use in the 2020 MTP/SCS.

As summarized by SACOG³, the following were considered when developing the growth projections:

- The SACOG region job projections were based on projections of U.S. and California job growth and the competitive position of the SACOG region to capture a share of the state and national job growth.
- The SACOG population projections by age, sex, and ethnic group were developed based on the projected job growth starting with the actual regional population in 2008.
- The household projections are based on projecting forward the household formation trends of the current population by age and ethnic group. The preliminary household projections are demographic projections and do not reflect considerations of housing supply, income, and affordability.
- State and national trends account for the major differences between the 2008 Plan and the 2016 Plan. U.S. immigration and total population growth is lower than previously expected. In addition, California is now expected to get a smaller share of U.S. job and population growth than previously projected.

³ SACOG. *Growth Projections for 2016 and 2040*. Summary retrieved at <<https://www.sacog.org/post/sacog-2020-mtpscsc-modeling-projections-2016-and-2040>>. June 2021.

- The SACOG region's economy is expected to recover slowly with state budget deficits and gridlock restraining job growth in this major sector over the next decade. However, the SACOG region is still expected to outpace the state and nation in job growth to 2020 and 2036.

SACOG Population Projections within the District Boundary

SACOG generated parcel level population forecasts that underlie the 2020 MTP/SCS. The population forecasts use a 2016 base year and project populations for the year 2040. The data is available in several different geographic breakdowns: Traffic Analysis Zones (TAZ), Regional Analysis Districts (RAD), Jurisdiction and County levels.

The SACOG projected population by TAZ was used to estimate the projected population increases within the FOWD boundary because the TAZs provided the greatest level of detail. The District completely contains 6 TAZs and partially contains 23 TAZs. Figure 3-5 overlays the District boundary onto the SACOG TAZ boundaries.

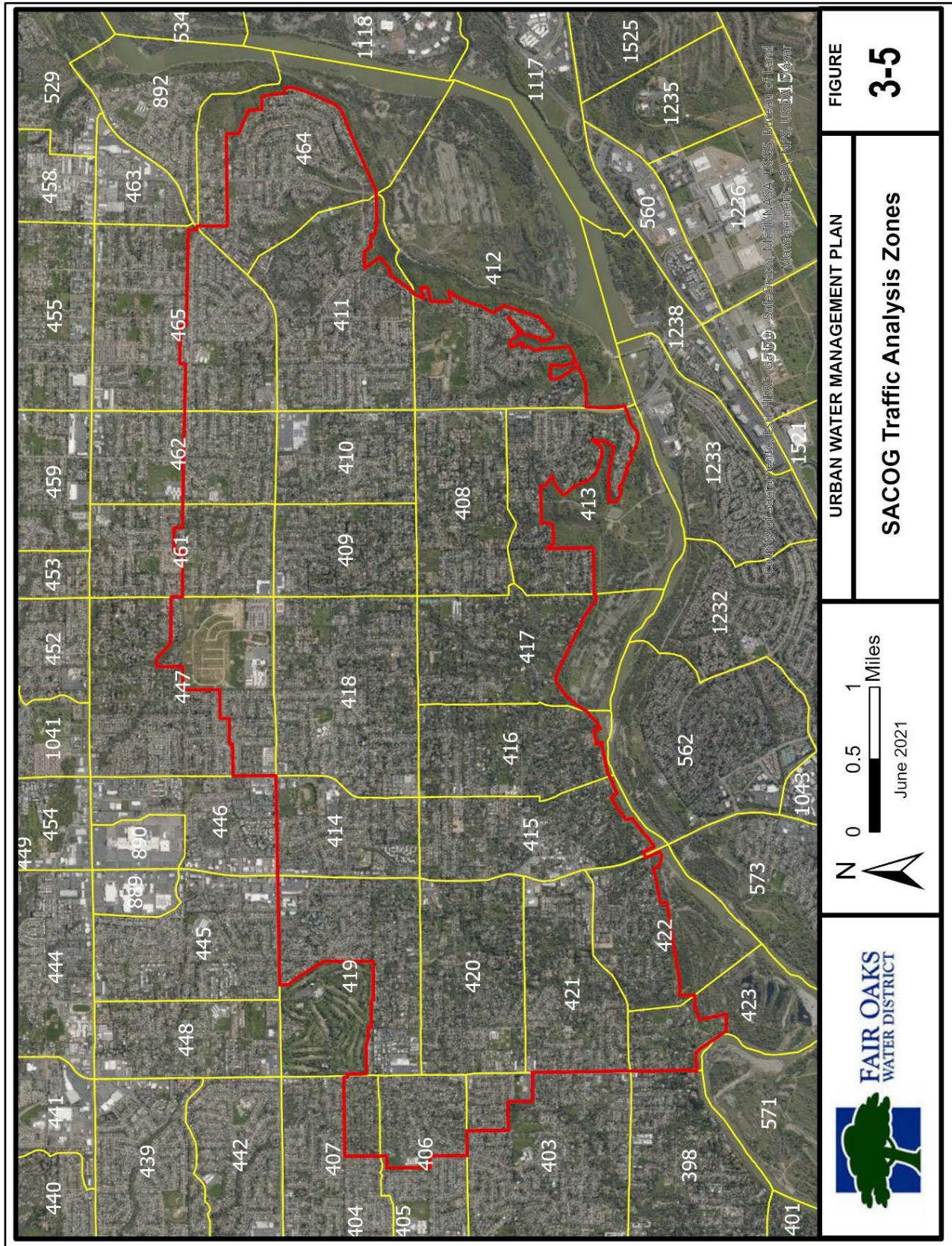


Figure 3-5. SACOG Traffic Analysis Zones.

Growth statistics for each TAZ were provided in the SACOG dataset. For TAZ boundaries that straddle the service area boundary, the percentage of the TAZ’s land area that is within the service area boundary was determined using GIS software and that percentage was applied to the TAZ population (the same method that the DWR Population Tool uses on census blocks). For a TAZ that is 100% within the service area boundary, it was anticipated that 100% of the associated TAZ population data was applicable to the District service area. For areas where the overlap was not exact, the area of overlap as a percentage was applied to the data to develop an estimate of applicable population.

The total population within the District service area was tabulated for SACOG’s 2016 and 2040 analysis years. SACOG’s anticipated population growth rate (%’s) within this timeframe was determined for the District’s service area. A summary of this analysis and resulting growth rates (%’s) is provided in Attachment K.

The 2020 population established from DWR’s population tool (Section 3-5-1) was used as the starting point for the growth projections, and SACOG annual growth rates (%’s) within the District were applied to project the population out to 2035 (Table 3-1).

Table 3-1. Population - Current and Projected

Population Served	2020	2025	2030	2035	2040
	35,377	35,961	36,555	37,159	37,772
NOTES: 2020 population based on DWR Population Tool. Projections beyond 2020 based on SACOG estimated growth rates (%’s) within the District service area.					

4.0 SYSTEM WATER USE

Section 10631 of the Act requires that an evaluation of water use be performed for the District.

4-1. Historical Water Use

Historical water use data from 2016 to 2020 were analyzed to provide an overview of water use trends for the District. The historical water use data is based on the District’s Public Water System Statistics reports submitted to the Department of Water Resources (DWR).

Figure 4-1 shows the total water use for the District from 2016 through 2020, broken down by the supply source (surface water vs. groundwater).

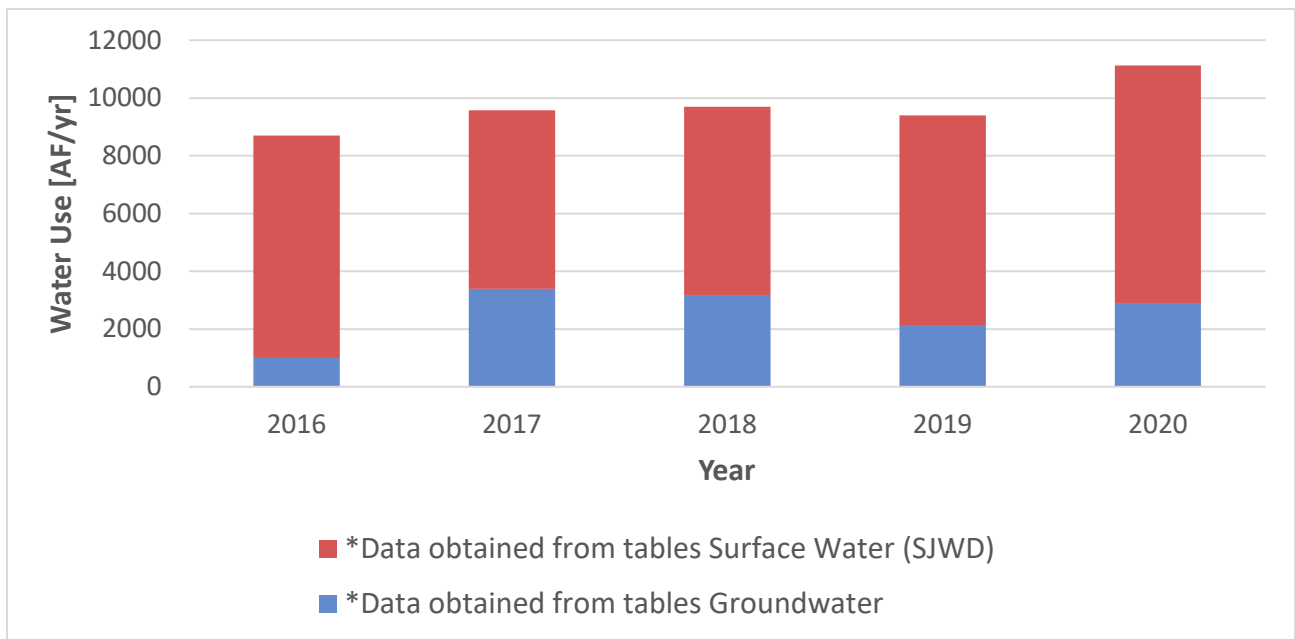


Figure 4- 1. Historical water use from 2016 through 2020.

4-2. Water Use By Customer Type

A breakdown of water use by customer type in 2020 is provided in Table 4- 1 for 2020.

Table 4- 1. 2020 water use by customer type.

Use Type	2020 Actual	
	Level of Treatment When Delivered Drop down list	Volume (AF) ^a
Single Family	Drinking Water	8,047
Multi-Family	Drinking Water	642
Commercial	Drinking Water	274
Institutional/Governmental	Drinking Water	254
Landscape	Drinking Water	642
Operation & Maintenance (O& M)	Drinking Water	12
Unaccounted	Drinking Water	581
TOTAL		10,452
NOTES: AF = acre-feet.		

^a Source: https://wuedata.water.ca.gov/awwa_plans

Unaccounted use is demand that is not covered by the other sectors which include water use by recently vacated parcels, metered construction water, or metered water utilized for water main cleaning. The majority of the District's water use (83%) was in the residential sector (single family and multi-family). The District underwent a comprehensive upgrade to their meter program and has kept fully metered records since 2012. The non-metered deliveries primarily include fire flows. The proportions of water use by customer type have remained relatively consistent since 2010.

Currently, no raw water or recycled water is provided by the District; all water supplied is potable water.

4-3. Projected Water Use

Future water demands were estimated using SACOG's projected population rates and employment growth rates from the 2020 MTS/SCS (see discussion in Section 3-5-2). As was described in Section 3-5-2, SACOG's Traffic Analysis Zone (TAZ) data was used to determine population and employment growth rates within the District's service boundary.

Projected population growth rates were used to determine the growth for residential (single-family and multi-family) water use. Projected employment growth rates were used to determine the growth for commercial/institutional and landscape water use. Water use was projected for the years 2025, 2030, 2035, and 2040.

Table 4- 2 presents water use projections out to 2040 which are broken down by use type.

Table 4- 2. Projections of total water use out to 2035 broken down by use type.

Use Type	Additional Description	Projected Water Use <i>Reported To the Extent that Records are Available</i>			
		2025	2030	2035	2040
Single Family		8,073	8,100	8,126	8,153
Multi-Family		644	646	648	650
Commercial		275	276	277	278
Industrial		255	256	257	258
Landscape		644	646	649	651
Other	O&M	12	12	12	12
Other	Unaccounted	627	678	732	790
TOTAL		10,531	10,614	10,701	10,792

NOTES: Units are in acre-feet per year

Figure 4-2 presents the same water use projections in graphical form.

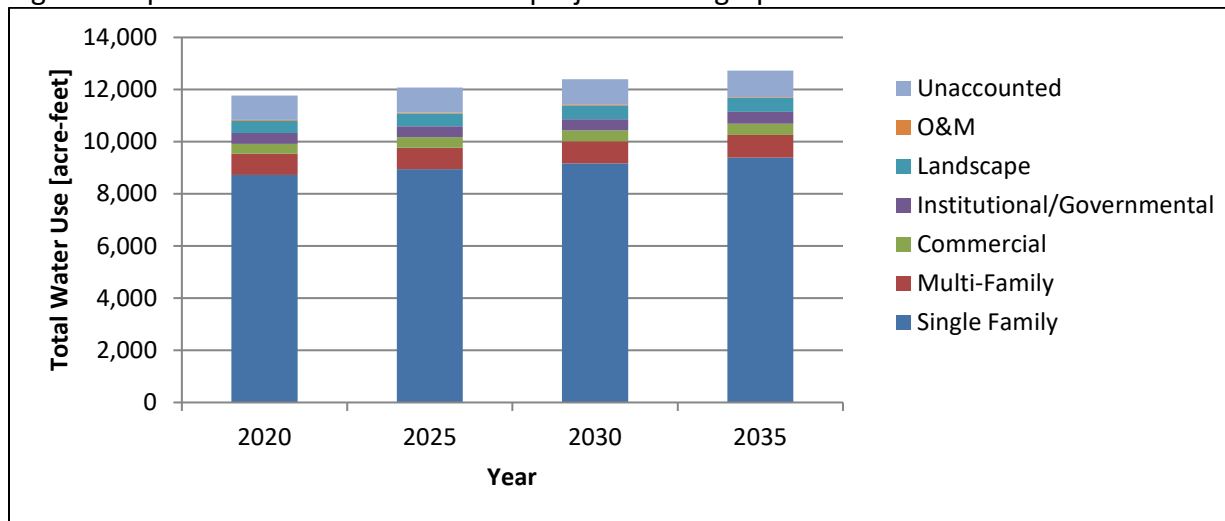


Figure 4- 2. Projections of total water use out to 2035 broken down by use type.

From the 2020 water use target, SACOG population growth rates were used to determine the growth in residential water use out to 2040. SACOG projected a 7.9% growth rate for the District’s population between 2016 and 2040, which equates to 0.33% per year in this timeframe. This annual growth rate was applied to the 2025 single-family and multi-family water uses to determine projections out to 2040.

SACOG’s projected employment growth rates were used to determine the growth for commercial/institutional and landscape service connections within the District service area out to 2040. SACOG projected an 8.3% growth rate for employment between 2016 and 2040 which equates to 0.34% per year in this timeframe. This annual growth rate was applied to the 2020 commercial, institutional, and landscape water uses to determine projections out to 2035.

Water use for Operations & Maintenance (O&M) purposes and unaccounted for water was held consistent throughout the projections at 0.25% and 8%, respectively, of total water deliveries which is representative of the District’s past water use records.

All projected water use is potable water. These water use projections also include system losses (see Section 4-4.) and demand from low-income housing (see Section 4-6). Recycled and raw water are not used and are not planned for use in the District’s service area within the reported 2040-time horizon. The projections do not include any estimated future water savings that may result from implemented codes, standards, or ordinances (see Section 4-5).

Table 4- 3. Total water use projections in Acre-feet out to 2040.

	2020	2025	2030	2035	2040
Potable Water	10,452	10,531	10,614	10,701	10,792
TOTAL WATER USE	10,452	10,531	10,614	10,701	10,792

4-4. Distribution System Water Losses

Distribution system water losses are the physical water losses from the water distribution system between the supply (either SJWD or groundwater well) and the point of customer consumption. Since 2016, suppliers are required to quantify their water distribution losses in accordance with CCR Section 638.1 et seq. and submit them to DWR each year. The District has been conducting annual water audits of the distribution system using the approach described in the American Water Works Association (AWWA) Manual M36 – Water Audits and Loss Control



Programs. The 2016-2019 AWWA reporting worksheets were used to determine system water losses and can be found in Attachment G. The District has not completed the 2020 water loss audit but has estimated 2020 losses based on the average annual losses reported since 2016.

Table 4- 4. Water loss audit reporting.

Reporting Period Start Date (mm/yyyy)	Volume of Water Loss (AF)
01/2016	520
01/2017	608
01/2018	538
01/2019	553
01/2020	555
NOTES: The 2020 water loss audit is not yet available but is estimated based on the average annual loss reported since 2016. Units are in acre-feet.	

4-5. Estimated Future Water Savings

Water savings from codes, standards, ordinances, or transportation and land use plans (aka- “passive savings”) generally decrease customer water use and are allowed to be incorporated into the District’s demand projections.

The District is on track to achieve the 20% water use reduction by the year 2020 as required by SBX7-7 which is incorporated in the water use projections, detailed in section 5. The District’s conservation is being accomplished primarily through public outreach campaigns and not through formal adoption of codes, ordinances, rate surcharges, etc.

The District plans to continue implementing the Best Management Practices (BMPs) that are outlined and discussed in Chapter 9.0, but has not included any “passive savings” in its water use projections.

Table 4- 5. Inclusions in water use projections.

Are Future Water Savings Included in Projections?	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	n/a
Are Lower Income Residential Demands Included In Projections?	Yes

4-6. Water Use for Lower Income Households

Senate Bill 1087 requires that the water use projections of an UWMP include the projected water use for future single-family and multi-family lower income residential housing as identified in the housing element of any city and/or county in the service area of the supplier.

Housing elements rely on the Regional Housing Needs Allocation (RHNA) generated by the State Department of Housing and Community Development (HCD) to allocate the regional need for housing to the regional Council of Governments (COG) (or a HCD for cities and counties not covered by a COG) for incorporation into housing element updates. Before the housing element is due, the HCD determines the total regional housing need for the next planning period for each region in the state and allocates that need. The COGs then allocate to each local jurisdiction its “fair share” of the RHNA, broken down by income categories; very low, low, moderate, and above moderate, over the housing element’s planning period.

SACOG’s *Regional Housing Needs Plan (2021-2029)* was adopted in March 2020. Four income categories are included in the Plan: very low income (less than 50% median family income [MFI]); low income (50% to 80% MFI); moderate income (80% to 120% MFI); and above moderate income (above 120% MFI).

SACOG identified the target proportion of low-income households in unincorporated Sacramento County from 2021 to 2029 as 12.6% and very low-income households as 21%. The aggregate of these low-income categories includes 33.6% of new housing.

SACOG’s 2020 MTS/SCS growth forecast includes growth projections for number of dwelling units out to 2040. As was described in Section 3-5-2, SACOG’s Traffic Analysis Zone (TAZ) data was used to determine dwelling unit growth within the District’s service boundary.

Since it is unknown what percentage of these new dwelling units are scheduled to be low-income households, SACOG’s aggregate target number for low-income housing in the unincorporated Sacramento County was used. 33.6% of the new dwelling units that are expected within the District’s service area were estimated to be in the low-income categories. Table 4- 6 summarizes the projected water use for those low-income households.

Table 4- 6. Low-income residential water use projections.

Use Type	Projected Water Use			
	2025	2030	2035	2040
Single Family	51	86	120	154
Multi-Family	4	7	10	12
TOTAL	55	93	130	167

NOTES: Units in acre-feet/year.

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

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

4-7. Data Provided to Wholesale Agency

The District coordinated with its wholesale agency, SJWD, and provided them with both the population projections and the water use projections that are presented in Table 3-1 and Table 4- 2, respectively. The supporting documentation of the exchange of data with SJWD is included in Attachment F.

Table 4- 7 was also provided to SJWD which distinguishes the portion of the water use projections that are anticipated to be served by surface water (i.e.- SJWD water). The District’s conjunctive use goal is to serve 90% of their demands with surface water and 10% of their demands with groundwater. The volumes listed in Table 4- 7 represent 90% of the District’s total water use projections.

Table 4- 7. Surface water use projections provided to SJWD.

Type	Wholesaler	Contracted Volume	2025	2030	2035	2040
Surface Water	SJWD	Varies	9,407	9,478	9,553	9,631

NOTES: Units in acre-feet/year. Volumes listed only include projected surface water demands. Surface water demands represent 90% of the District's total demands.

4-8. Future Conservation

Senate Bill (SB) 606 and Assembly Bill (AB) 1668, along with possible future regulations, will impact water providers over the coming years, requiring indoor, outdoor, and commercial, industrial, and institutional water use goals, water loss standards, annual water budgets, and documented preparation for long-term water shortages. All the water use goals together will form a total urban water use objective specific for each water agency. DWR has provided recommended standards for indoor residential water use, and other urban water use goals are currently being developed and are expected to be released in late 2021. The State Water Board is anticipated to adopt the element that includes the total water use objective in 2022, and agencies will begin reporting their water use compared to their urban water use objective beginning in 2024, with compliance anticipated by 2027. The District did not incorporate any water new water use goals into the demand projections presented above because no new goals have been adopted by the State at this point.

4-9. Climate Change

The U.S. Department of the Interior, Bureau of Reclamation along with their local non-federal sponsors recently conducted a climate change study of call the American River Basin Study (ARBS). The purpose of the ARBS was to refine and update data, tools, analyses, and adaptation strategies specific to the American River Basin. Under the “new normal” of a changing climate, the ARBS aims to improve the resolution of regional climate change data and to develop regionally specific mitigation and adaptation strategies. The ARBS Study Area includes the American River Watershed as well as the North and South Groundwater Subbasins which includes the District’s service area.

The ARBS found that while climate change currently does have an impact on the basin, impacts are largely seen closer to the end of the century, and not within the timeline of the UWMP. Therefore, the District did not include climate change impacts in supply and demand scenarios within this UWMP. The finalized ARBS report is expected to be published summer of 2021.

5.0 SBX7-7 BASELINES AND TARGETS

Senate Bill 7 of Special Extended Session 7 (SBX7-7), enacted in 2009, required all water suppliers to increase water use efficiency with the overall goal to decrease per-capita water consumption within the state by 20% by the year 2020. For the development of the 2015 UWMP, the District set a 2020 water use target using Target Method 1. The following section details the District’s compliance with the 2020 water use target.

5-1. Compliance with 20% by 2020 Water Use Target

As part of the 2015 UWMP, retail suppliers identified their 2020 demand reduction targets with one of four methods identified in SBX7-7:

Target Method 1: 80% of 10- to 15-year baseline gallons per-capita per day (GPCD).

Target Method 2: The sum of the following performance standards:

- Indoor residential use
- Landscape use, including dedicated and residential meters or connections equivalent to the State Model Landscape Ordinance (70% of reference evapotranspiration)
- 10% reduction in baseline commercial, industrial institutional (CII) water use by 2020.

Target Method 3: 95% of Hydrologic Regional Target from the 20 x 2020 Water Conservation Plan

Target Method 4: Identify water savings obtained through approved practices and subtract them from the baseline GPCD.

Target Method 1 was used for calculating the District’s 2020 water use target. A summary of the baseline periods and the target water uses is presented in Table 5- 1. The 2015 interim target is the value halfway between the baseline and the 2020 target water use.

Table 5- 1. Summary of Baselines and GPCD Targets (DWR Table 5-1)

Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	1995	2004	348	279
5 Year	2004	2008	315	
*All cells in this table are populated from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)				

As discussed in Section 3-5-1, 2020 population was determined to be 35,377 by using the DWR tool and the gross water usage for 2020 was 10,452 AFY. Therefore, the District’s 2020 compliance value is 264 GPCD which is below the 2020 target of 279 GPCD. The District did not make any adjustment to the gross water use. Table 5- 2 confirms that the District succeeded in meeting its 2020 water usage compliance target.

Table 5- 2. Assessment of 2020 Compliance

2020 GPCD			2020 Confirmed Target GPCD	Did Supplier Achieve Targeted Reduction for 2020? (Y/N)
Actual 2020 GPCD	2020 TOTAL Adjustments	Adjusted 2020 GPCD		
264	0	264	279	Y
<i>*All cells in this table are populated from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)</i>				

6.0 WATER SUPPLY CHARACTERIZATION

The District typically receives approximately 90% of its water supply from treated surface water from the American River through its wholesale supplier, San Juan Water District (SJWD). In addition, groundwater wells supplement the surface water supply to meet conjunctive use objectives, peak demands and for emergency supply. Groundwater meets the remaining 10% of the District's water demands. The percentages of surface water and groundwater used by the District may change contingent on the development of regional conjunctive use efforts, local groundwater quality, and changing water quality regulations. The District will determine the appropriate mix of surface water and groundwater to meet the needs of its customers.

The District also has 5 interties with neighboring agencies for emergency purposes. The use of these interties is limited due to their conveyance capacities and the availability of water from these potential suppliers. For example, two neighboring districts with interties, Orange Vale Water Company and Citrus Heights Water District, also receive water from SJWD. If surface water from SJWD was to be interrupted, these districts would be unlikely to be able to provide FOWD with additional water.

6-1. San Juan Water District Background

SJWD was formed in 1954 and is a wholesaler and retailer of potable water. The wholesale area includes the service areas of the Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water Company, and portions of the City of Folsom (north of the American River).

Before SJWD was formed, water was supplied to the area by the North Fork Ditch Company (the Company). The Company provided water for dredge mining along the American River and also sold water to Citrus Heights Irrigation District, Fair Oaks Irrigation District, and Orange Vale Water Company. Because many of the Company's facilities would be impacted with the construction of Folsom Dam, a committee was formed by residents of Citrus Heights Irrigation District, Fair Oaks Irrigation District, and Orange Vale Water Company to study the development of a publicly owned water supply system to continue supplying the area with wholesale water. The San Juan Suburban Water District (now SJWD) was formed by the acquisition of the Company including its pre-1914 water rights of 33,000 acre-feet (ac-ft) from the American River.

The Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water Company and San Juan Water District are all considered to be members of the San Juan family of water agencies (San Juan Family).

SJWD diverts surface water from the Folsom Reservoir. Surface water is then treated at the Sydney N. Peterson Water Treatment Plant (WTP), which is owned and operated by SJWD. The capacity of the Peterson WTP is 150 million gallons per day (MGD). After being treated at the Peterson WTP,

water is conveyed to the 62-million-gallon Hinkle Reservoir. Hinkle Reservoir provides water storage to meet fluctuations in demand and to provide emergency supply if the WTP is taken out of service. From the Hinkle Reservoir, water is distributed via pipelines to customers of SJWD. Two transmission pipelines provide treated surface water to the FOWD.

The District has a current wholesale water supply agreement with SJWD with a term through February 28, 2045. For the purposes of this UWMP, the District’s surface water supplies from SJWD are anticipated to be 15,000 acre-feet per year. Current SJWD surface water supply consists of the following:

1. **Pre-1914 Water Rights:** SJWD has a pre-1914 water right and a post-1914 water right with a combined maximum diversion rate of 75 cubic feet per second (cfs) up to a total of 33,000 acre-feet per year. The water rights are designated by the State Water Resources Control Board (SWRCB) as A005830 and S000656.
2. **Placer County Water Agency Contract:** SJWD’s contract provides 12,500 acre-feet per year from Placer County Water Agency (PCWA). This contract extends through 2041 and places a first priority on use in Placer County but allows any excess water to be used in Sacramento County. The “Warren Act” contract states that the PCWA water conveyed under the contract can only be used in Placer County, unless the place of use of PCWA’s water rights is changed and the United States Bureau of Reclamation (USBR) agrees in writing to expand place of use. The PCWA contract allows SJWD to use this supply to serve wholesale and retail customer demands in both Placer County and Sacramento County.
3. **Central Valley Project (CVP) Water:** SJWD has one contract with the USBR for the diversion of 24,200 acre-feet of CVP water. The contract number with the USBR is No. 6-07-20-W1373-LTR1.

The District has two metered connections to the SJWD’s transmission main system.

6-2. Overview of Groundwater Supplies

Within the District, groundwater is produced from 4 operating wells that vary in design capacity from 1,000 gallons per minute (gpm) to 2,500 gpm. The wells are located primarily in the central portion of the District’s water system and are used to meet short-term water supply or maintain the District’s water system pressure.

Table 6- 1 lists the existing active wells for the District. The District currently has a total design capacity of 10,653 acre-feet per year and a firm normal year design capacity of 6,618 acre-feet per year. The firm capacity was determined by assuming that the largest production well is offline.

Table 6- 1. Existing District wells and well capacity

Well Name	Design Capacity (gpm)	Design Capacity (AF/year)
Madison	1,100	1,775
Northridge	1,000	1,614
Town	2,500	4,035
Heather	2,000	3,228
Total Capacity	6,600	10,653
Total Firm Capacity ⁽¹⁾	4,100	6,618
<p>Note</p> <ol style="list-style-type: none"> 1. Total Firm Capacity anticipates the District’s largest production well is offline. 2. Actual well capacities are lower than original design capacity. 		

6-2-1. Groundwater Basin Description

California has 10 hydrologic regions as defined by DWR. The Sacramento River Hydraulic Region covers 27,200 square miles and stretches from the Sacramento-San Joaquin Delta to the Oregon border. The Sacramento River Hydraulic Region consists of 93 basins and sub basins. Within the Sacramento Valley, the North American Subbasin covers a total area of approximately 548 square miles and is bordered by the Feather and Sacramento Rivers to the west, Bear River to the north, American River on the south, and on the east by the Sierra Nevada mountains.

The Sacramento Groundwater Authority (SGA) manages the southern area of the North American Subbasin. The southern area has been designated by the Water Forum as the North Area Groundwater Basin (Basin). The Basin is bounded by the Sacramento River on the west, the American River on the south, Folsom Reservoir on the east and the northern Sacramento County line on the north. The groundwater resources of Sacramento County have been extensively studied and reported by DWR and others.

In 1998, the SGA was formed to manage the Sacramento region’s North Area Groundwater Basin (Basin), which includes the District service area. SGA was established in part by the Sacramento Area Water Forum (Water Forum). The Water Forum is a diverse group of local water utilities, business and agricultural leaders, and representatives from the environmental community that reached consensus on preserving the lower American River while ensuring a reliable water supply for the region. In 1999, the Water Forum members approved the Water Forum Agreement, which consists of a multitude of actions necessary to provide a regional solution to water shortages, environmental degradation along the American River, and groundwater contamination.



The SGA is a joint power authority authorized by an agreement signed by the County of Sacramento and the Cities of Citrus Heights, Folsom, and Sacramento. SGA has 16 board members, of which the District is a member. The mission of SGA is to manage, protect and sustain the groundwater resources of the Basin consistent with the Water Forum Agreement for the benefit of the water users within the Basin and to coordinate with other water management entities and activities throughout the region. In an effort to sustain the groundwater resources and coordinate with the 14 overlying water purveyors of the Basin, SGA prepared a Groundwater Management Plan (GMP). In December 2014, SGA adopted the current GMP⁴. In addition to being a member of SGA and agreeing to the recommendations of the GMP, the District also decided to adopt this GMP for groundwater operations within their service area.

The 2014 GMP discusses groundwater level trends based on long-term monitoring wells in the basin. The following is a summary of this discussion:

Declining groundwater levels in the central area of the North Basin were a concern for local water resource managers for decades. Groundwater levels were dropping on a long-term average of more than a foot per year for several decades and a cone of depression formed in the center of the SGA. The current state of this depression is a substantial improvement over the situation in the mid-1990s when the depth to groundwater at the center of the depression was about twenty feet deeper than it is now. This improvement resulted largely from implementation of local groundwater management, especially conjunctive use operations. At this time, the groundwater depression is being managed to serve the groundwater cleanup effort associated with groundwater contamination at the former McClellan AFB.

In general, the remainder of the North Basin does not show distinctive regional groundwater elevation patterns other than to mimic the local topography. This results in groundwater generally flowing from east to west across the basin until it encounters the central groundwater depression.

DWR has monitored a series of domestic, irrigation and other observation wells in the North Basin for decades. Hydrographs depicting groundwater level trends in the North Basin's long-term monitoring wells show that groundwater elevations are now stable in the basin and even rising in some areas.

The North Basin's water resources were developed differently in the Western, Central and Eastern areas. Because of this, it is appropriate to discuss groundwater levels in each of these

⁴ https://www.sgah2o.org/wp-content/uploads/2016/06/GMP_SGA_2014_Final.pdf

areas separately. The Basin is broken down into three specific areas and the groundwater levels are summarized below:

- Western Area – groundwater elevations are fairly stable over the period of record and that recent groundwater elevations ranged from about MSL to over 15 feet above MSL. Wells in the area typically experience only seasonal fluctuations. Long-term trends of increased or decreased levels are not evident in this area.
- Central Area – groundwater elevations currently range from about 10 feet above MSL in the southeastern corner of this area near the American River to about 30 feet below mean sea level (msl) near the center of the area. Historically, significant drawdown has been observed, about 80 feet in 35 years beginning when groundwater levels were measured in 1955. Groundwater levels in this area continued their steady decline until around the mid-1990s, when water levels stabilized due, in substantial part, to expanded conjunctive use operations. Water levels have continued to rise overall since that time, with slight declines during the 2007 through 2009 dry conditions experienced in the State.
- Eastern Area – The groundwater levels varies from one well to another and tend to mimic its rolling topography, higher near the American River and foothills, but declining away from the river and foothills. There were no notable changes in the recent groundwater elevations. Measured groundwater elevations have varied no more than two feet from October 1998 through 2012. The District is located within the Eastern Area.

SGA maintains a centralized database for the member agencies' groundwater facilities. SGA continually monitors groundwater level trends and has compiled groundwater-related data from water purveyors and DWR for inclusion in data storage and accounting tool. SGA maintains its Integrated Groundwater and Surface Water Model (IGSM), performs comprehensive data analysis, and the Data Management System. The Data Management System is a critical tool in SGA's monitoring program. The program includes the monitoring of groundwater elevations, monitoring of groundwater quality, providing locations of known groundwater contamination sites, monitoring and assessing the potential for land surface subsidence resulting from groundwater extraction, and developing a better understanding of the relationship between surface water and groundwater along the Sacramento and American Rivers.

Water bearing formations beneath the District occur in two major strata. The upper water-bearing units include the geologic formations of the Victor, Fair Oaks, and Laguna Formations and are typically unconfined. The lower water-bearing unit consists primarily of the Mehrten Formation, which exhibits confined conditions. The Mehrten Formation is the most productive fresh water-bearing unit in the eastern Sacramento Valley, though some of the permeable layers of the Fair Oaks Formation produce moderate amounts of water. Much of the recharge of these aquifer

systems comes from the Sacramento and American Rivers and their tributaries where gravel deposits exist. To a lesser extent, aquifer recharge also occurs where the Mehrten Formation reaches the surface in the foothills in eastern Sacramento and western El Dorado County. Supply wells in the Sacramento Region draw water primarily from the Mehrten and Fair Oaks formations and typically produce 500-1,500 gpm of good to excellent quality water.

The North American Subbasin is not adjudicated and based on the DWR' official departmental bulletins, California's Groundwater Bulletin 118 Update 2003 and Bulletin 160, The California Water Plan Update 2013, the North American Subbasin is not specifically identified as a basin in a critically overdraft condition. The Bulletin 118 individual basin description for the North American Subbasin (February 2004) suggests that annual pumping exceeds the amount of water annually recharged, however, a detailed groundwater budget is not provided. SGA does not classify the Basin as overdrafted; however, it recognizes that groundwater levels fluctuate over time and that historic groundwater extractions have resulted in a net depletion of groundwater stored in the Basin.

In an effort to protect the groundwater resources of the Basin, the estimated average annual sustainable yield recommendation for the Basin is 131,000 acre-feet as established by the Water Forum. Although there are areas within the Basin that are experiencing decreased groundwater levels, the pumping extractions have not exceeded the safe yield. The SGA is implementing programs to sustain the viability of groundwater resources.

6-2-2. Recharge Facilities

The Basin is recharged by natural sources. Natural recharge occurs when groundwater producers use surface water in lieu of pumping groundwater. The Basin generally operates as a reservoir in which the net amount of water stored is increased in wet years allowing groundwater levels to rise. The reduction in groundwater pumping naturally recharges the Basin. Other natural sources of recharge for the Basin consist of percolation from surface water, precipitation, and infiltration from streams. The Basin is mainly recharged by areas along the American and Sacramento Rivers where extensive sand and gravel deposits are present.

6-2-3. Historical Groundwater Pumping

The District's conjunctive use goal has typically been to have approximately 10% of its water supplies come from groundwater. Table 6- 2 summarizes the District's total groundwater usage over the past 5 years.

Table 6- 2. Groundwater volume pumped in recent years.

<input checked="" type="checkbox"/> All or part of the groundwater described below is desalinated.						
Groundwater Type	Location or Basin Name	2016	2017	2018	2019	2020
Alluvial Basin	Sacramento North Area Groundwater Basin	998	3,159	3,151	2,139	2,868
TOTAL		998	3,159	3,151	2,139	2,868
Units of measure (AF)						

No limitations have been encountered by the District in pumping groundwater during this time.

6-3. Stormwater Recovery

Stormwater within the District boundary is not currently recovered for reuse. To date, the District does not have future plans for initiating a stormwater recovery program.

6-4. Wastewater and Recycled Water

Municipal wastewater is generated in the District’s service area from a combination of residential and commercial sources. The quantities of wastewater generated are generally proportional to the population and the water use in the service area.

The Sacramento Area Sewer District (SASD) is responsible for wastewater collection within the District’s service area; the Sacramento Regional County Sanitation District (“Regional San”) treats the wastewater at their Sacramento Regional Wastewater Treatment Plant (SRWWTP) in Elk Grove, CA.

Sacramento Regional County Sanitation District

Regional San was contacted in June 2021 in coordination with this UWMP, and the following provides a summary of wastewater treatment facilities and operations:

- All wastewater is treated at the SRWWTP in Elk Grove, CA. No wastewater is treated within the FOWD service area.
- Treated effluent is discharged to the Sacramento River via a diffuser at Freeport Blvd. No wastewater is discharged within the FOWD service area.



- In September 2020, SRWWTP started to transition its biological treatment to include nutrient removal, with sodium hypochlorite disinfection and dechlorination using sodium bisulfite. Full conversion took place in May 2021. Construction is underway to build new filtration facilities. A portion of the treated effluent undergoes additional treatment at the on-site Water Recycling Facility.
- SRWWTP received 49,654 MG (wastewater influent) in 2020.
- SRWWTP discharged 39,609 MG (wastewater effluent) in 2020.
- The onsite Water Recycling Facility produced 114 MG of recycled water in 2020.
- Regional San does not have any current recycled water activities in the FOWD service area and only operates a small, on-site recycled water program (0.5% of their total effluent) at the SRWWTP in Elk Grove.
- Currently, Regional San does not have any future plans (in the next 20 years) for recycled water in the Fair Oaks area.

Sacramento Area Sewer District

SASD was also contacted in June 2021 to estimate the volume of wastewater collected in their system for 2020. SASD does not meter wastewater running through their collection system and doesn't typically calculate this volume on an annual basis. The District's service area is approximately 3.5% of the SASD service area. For the purposes of Table 6- 3, the 2020 influent volume provided by Sacramento Regional County Sanitation Department (SRCSD) was used as an estimate of 2020 wastewater volume.

Table 6- 3.Wastewater collected within the SASD service area (DWR Table 6-2)

100%	Percentage of 2020 service area covered by wastewater collection system					
100%	Percentage of 2020 service area population covered by wastewater collection system					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Acre-feet Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party?
Sacramento Area Sewer District	Estimated	5,333	Sacramento Regional County Sanitation District	Sacramento Regional WWTP	No	No
Total Wastewater Collected from Service Area in 2020:		5,333				
*NOTES: The total influent to the SRWWTP in 2020 was provided by SASD to be 152,383 acre-feet. FOWD makes up approximately 3.5% of SASD's service area. Units are in acre-feet.						

6-4-1. Potential and Projected Recycled Water Use

As discussed in the previous section, there are currently no planned recycled water projects within the District service area. However, studies have been completed in the past to evaluate potential recycled water opportunities.

The Sacramento County Water Reclamation Study prepared in 1994 initiated an evaluation of the feasibility of recycled water use within the urban water districts of Sacramento County. Various markets for recycled water including agricultural irrigation, urban landscape irrigation, industrial water, groundwater recharge, and wetland enhancement were evaluated using economic and non-economic criteria. The report identified 27 users within the District that could utilize recycled water such as schools, parks, and churches. The total estimated demand was 806 acre-feet per year in 1994. These demands do not include residential landscape irrigation. Although 27 users were identified within the District service area, it is possible some of the users receive water from sources other than the District such as private groundwater wells. If recycled water was used at these sites, the total water demand of the District would not be reduced.



Although a potential recycled water demand of 806 acre-feet was identified within the District based on the 1994 study, the number may be much less based on dedicated irrigation accounts. The potential for recycled water demand is not anticipated to drastically increase since the District is close to build-out and schools and parks are already in place.

The extent to which recycled water is available in the future in the District's service area depends on the growth of the Regional San recycled water program. In the short-term, recycled water is not a viable option to reduce the District's total water demand because it is a significant distance from the source of recycled water at the SRWWTP in Elk Grove. The cost of conveying recycled water to the District's service area from the regional plant would be prohibitively expensive. Therefore, future use of recycled water within the District is not anticipated through 2035.

The only feasible way recycled water could be available to the District would be if Regional San built a satellite water reclamation facility north of the American River. However, it is not currently planned and unlikely that satellite reclamation plants would be built in the foreseeable future as part of Regional San's water recycling program.

6-5. Desalinated Water Opportunities

Desalination is viewed as a way to develop a local, reliable source of water that assists agencies to reduce their demand on surface water, reduce groundwater overdraft, and in some cases make unusable groundwater available for municipal uses. At this time, there are no identified projects within the District for desalination of seawater or impaired groundwater.

6-6. Exchanges or Transfers

At this time, the District does not anticipate participating in any transfer or exchange opportunities. However, the District continues to consider water exchange opportunities with neighboring purveyors, such as Carmichael Water District. One preliminary concept would include a new intertie and inline booster pump station that would provide a means for the two agencies to share water for an emergency or for other purposes. On a regional level, the RWA and SGA are exploring transfers and exchanges options that would benefit water agencies in the region, including the District. These transfer and exchange options include potential participation in the region's conjunctive use efforts such as groundwater banking and programmatic water transfers.

6-7. Future Water Projects

The District continually reviews practices that will provide its customers with adequate and reliable water supplies. The District's staff continues work to ensure safe water quality and that the District's water supply will meet its customers' present and future needs in an environmentally and economically responsible manner.

The District’s projected water demands are discussed in Chapter 4.0. A relatively limited increase in water demand is expected through 2035, primarily due to the fact that the District is almost entirely built out. The purpose of the planned water supply projects are primarily to maintain the District’s level of service by replacement or upgrades of aging facilities, support regional conjunctive use efforts, and provide water supply to developments on an as-needed basis as opposed to support large, sustained population growth.

The District identified the following planned water supply projects:

- The District is developing a new groundwater well at the existing storage tank and booster pump station located at Skyway Drive. The District anticipates this well to be in service in mid-2022.
- The District is re-drilling their New York well which is currently inactive. This well will also be equipped to serve as an Aquifer Storage and Recovery (ASR) site. The District anticipates this well to be in service in 2023.

The additional anticipated yield for these projects are summarized in Table 6-4.

Table 6- 4. Expected Future Water Supply Projects or Programs (DWR Table 6-7)

Name of Future Projects or Programs	Joint Project with other suppliers?		Description	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier*
	(y/n)	If Yes, Supplier Name				
Skyway Well	No	n/a	n/a	2022	Average Year	3,387
New York Well	No	n/a	n/a	2023	Average Year	3,710
*Units of measure (AF)						

6-8. Summary of Existing and Planned Sources of Water

Existing water sources were described in detail in Sections 6-1 and 6-2. The District’s existing water supplies are listed in Table 6- 5. The projected, available water supplies are listed in Table 6- 6.

Table 6- 5. Actual 2020 retail water supplies (DWR Table 6-8)

Water Supply	Additional Detail on Water Supply	2020		
		Actual Volume	Water Quality	Total Right or Safe Yield
Groundwater	District Wells	2,868	Drinking Water	10,968
Purchased or Imported Water	SJWD Surface Water	7,585	Drinking Water	15,000
Total		10,453		25,968
<i>Units of measure (AF)</i>				

Table 6- 6. Projected water supplies (DWR Table 6-9)

Water Supply	Additional Detail on Water Supply	Projected Water Supply *							
		2025		2030		2035		2040	
		Reasonably Available Volume	Total Right or Safe Yield	Reasonably Available Volume	Total Right or Safe Yield	Reasonably Available Volume	Total Right or Safe Yield	Reasonably Available Volume	Total Right or Safe Yield
Groundwater (not desalinated)	District Wells	10,968	10,968	10,968	10,968	10,968	10,968	10,968	10,968
Purchased or Imported Water	SJWD Surface Water	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Total		25,968	25,968	25,968	25,968	25,968	25,968	25,968	25,968
*NOTES: Groundwater volume does not include expected future water supply identified in Table 6-7. Units are in acre-feet per year.									
<i>Units of measure (AF)</i>									

To remain conservative with the estimate of the District’s safe yield for its groundwater supplies, the District’s planned wells (discussed in Section 6-7) were not included in the groundwater supply projections.

6-9. Energy Intensity

As listed in CWC Section 10631.2. (a), water suppliers must report information that could be used to calculate energy intensity. The District’s annual energy intensity for the distribution system, excluding purchased water, is identified in Table 6- 7 bellow. The District used the total consumption approach as outlined in the 2020 UWMP Guidance.

Table 6- 7. Recommended Energy Reporting – Total Utility Approach

		Urban Water Supplier Operational Control		
Start Date for Reporting Period	1/1/2020	Sum of All Water Management Processes	Non-Consequential Hydropower	
End Date	12/31/2020			
<i>Water Volume Units Used</i>	AF	Total Utility	Hydropower	Net Utility
<i>Volume of Water Entering Process (volume unit)</i>		2,868	0	2,868
<i>Energy Consumed (kWh)</i>		2,119,195	0	2,119,195
<i>Energy Intensity (kWh/vol. converted to MG)</i>		2,268	0.0	2,268
Notes: 1. 0 kWh of self-generated renewable energy. 2. The data quality is a combination of estimates and metered data. 3. The data collected from the District’s monthly energy bill. 4. Energy use is for pumping groundwater production.				

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7.0 WATER SUPPLY RELIABILITY

For the purposes of this UWMP, reliability is a measure of water supply availability in various seasonal and climatic conditions, such as multiple year droughts. The combination of demand management and conjunctive supply options available to the District help to reduce the frequency and severity of shortages. The reliability of the District's water supply is dependent on the reliability of both surface water supplies and groundwater supplies. Surface water supplies are managed and delivered by San Juan Water District (SJWD), while the groundwater supplies are locally managed by the District with regional oversight provided by the Sacramento Groundwater Authority (SGA). The District's conjunctive use goals have typically been to serve 90% of its demands with surface water and 10% with groundwater. The following sections provide a discussion of the District's surface and groundwater supply reliability.

7-1. Surface Water Supply Reliability and Constraints

As previously noted, the District is a member agency of the San Juan Family and receives surface water from SJWD. The reliability of portions of SJWD's water supply is potentially limited by the following:

- Legal constraints that could result in United States Bureau of Reclamation (USBR) cutbacks on Central Valley Plan (CVP) supplies,
- Voluntary restrictions per the Water Forum Agreement terms

In response to these challenges, SJWD continues to develop and encourage projects and programs to ensure reliability now and into the future. The following subsections provide a brief summary of the various SJWD surface water supply contract sources, consideration of the terms of the Water Forum Agreement, and an analysis of SJWD supply reliability.

7-1-1. CVP Water Supply Reliability

Although SJWD has contracts with USBR for the delivery of CVP water, the contracted amount is not guaranteed each year. The amount of water available to the CVP contractors is based on the hydrologic conditions and operational flexibility opportunities within the CVP supplies. Each year USBR announces the water supply allocation for CVP water supplies. For example, SJWD's two USBR contracts are subject to reductions during drought periods.

7-1-2. Water Forum and Hodge Decision

Limitations on the amount of water that can be diverted from the American River have been defined by the Water Forum Agreement based on unimpaired flows to Folsom Reservoir. The Water Forum Agreement as it applies to the San Juan Family stipulates the following:

- “Most years” are defined as years when the projected March through November unimpaired inflow to Folsom Reservoir is greater than 950,000 acre-feet. In most years, SJWD may divert up to 82,200 acre-feet.
- “Drier years” are defined as years when the projected March through November unimpaired inflow to Folsom Reservoir is less than 950,000 acre-feet and equal to or greater than the 400,000 acre-feet. In drier years, SJWD will divert a decreasing amount of surface water from 82,200 ac-ft to 54,200 ac-ft in proportion to the decrease in unimpaired inflow to Folsom reservoir from 950,000 to 400,000 acre-feet. In drier years, SJWD plans to reduce its water demands and use groundwater to meet additional demands.
- “Driest years (conference years)” are defined as years when the projected March through November unimpaired inflow to Folsom Reservoir is less than 400,000 acre-feet. In the driest years, SJWD will reduce their diversion to 54,200 acre-feet, which is equivalent to their baseline amount (maximum diversion through 1995). In the driest years, SJWD will reduce its water demands and use groundwater to meet additional demands. SJWD will also meet with other Water Forum signatories to discuss how the available water should be managed to meet water purveyor demands and minimum flow requirements of the American River.

The Hodge decision can also legally constrain surface water diversions if minimum Hodge Flows in the Lower American River are not met. The Hodge decision was a judgment of the Superior Court for the County of Alameda (Environmental Defense Fund, Inc. vs. East Bay Municipal Utility District (EBMUD), Case No. 425955) that directed EBMUD to divert from the lower American River based on its CVP contractual entitlement only when specified flows would remain in the river. These flows came to be known as Hodge Flows. The Hodge Flows are 2,000 cfs from October 15 through the end of February, 3,000 cfs from March 1 through June 30, and 1,750 cfs from July 1 through October 14. “Below Hodge Conditions” refers to conditions when bypassing flow at Sacramento’s Fairbairn WTP is less than the defined Hodge Flows. Although the Hodge Decision applies only to parties to that lawsuit, Water Forum signatories volunteer to observe the flow requirements when reasonable and feasible.

7-2. Groundwater Reliability and Constraints

The District’s groundwater supply is anticipated, and has historically proven to be, reliable under all hydrologic conditions. Under a dry and multiple-dry year scenario, it is anticipated that groundwater use will increase to offset potential surface water supply reductions in accordance with the commitments of the Water Forum Agreement. Additional discussions on groundwater reliability are presented in Sections 6-2 and 7-4.

7-3. Water Quality Constraints

A summary of water quality issues and their impact to supply reliability is provided in this section.

As required by the Safe Drinking Water Act, the District provides annual Water Quality Reports to its customers; also known as Consumer Confidence Reports (CCR). This mandate is governed by the United States Environmental Protection Agency (USEPA) and the California Division of Drinking Water to inform customers of their drinking water quality. In accordance with the Safe Drinking Water Act, the District monitors regulated and unregulated compounds in its water supply and in years past, the water delivered to the District meets the standards required by the state and federal regulatory agencies. A copy of the District's 2020 CCR is included in Attachment L.

7-3-1. Surface Water Quality

The District receives treated surface water from SJWD. SJWD diverts American River water stored behind Folsom Dam and treats it with conventional filtration and chlorine disinfection at the Sydney N. Peterson WTP located west of Folsom Dam. SJWD tests its water for over 200 contaminants on a daily, weekly, monthly, and/or annual basis. SJWD is responsible for delivering treated surface water that meets state and federal standards to the District. The SJWD continues to provide high quality surface water to the District and there are no anticipated water supply impacts due to surface water quality issues.

7-3-2. Groundwater Quality

In general, the District's wells are of excellent water quality. Each of the District's groundwater wells is regularly sampled and confirmed to comply with Title 22 drinking water regulations. In addition, the SGA manages the Basin and conducts a comprehensive water quality monitoring program. SGA collects data from over 260 wells in the region for inclusion in the Data Management System. The Data Management System includes groundwater quality data from 1991 through the present. The groundwater quality issues facing the Basin were addressed in SGA's *Groundwater Management Plan: Sacramento County – North Basin*⁵ dated December 2014 and are summarized below for the region. While most of the constituents listed do not impact the District's wells, information specific to the District is provided where appropriate.

Total Dissolved Solids (TDS)

TDS has a recommended secondary maximum contaminant level (MCL) drinking water standard (associated with the aesthetics of the water) of 500 milligrams per liter (mg/L). There were 255 distinct samples from wells analyzed as part of a 2011 Groundwater Quality Vulnerability

⁵ https://www.sgah2o.org/wp-content/uploads/2016/06/GMP_SGA_2014_Final.pdf

Assessment. With respect to TDS, the quality of water in the basin is very good, with an average TDS of 268 mg/L.

Nitrates

The primary MCL for nitrate in drinking water is 45 mg/L. Tests have shown that nitrate levels in public supply wells are generally not of concern in the SGA area. Of 252 samples from public supply wells tested during the period, the average concentration was 11.5 mg/L with a maximum observed concentration of 51 mg/L.

Arsenic

The drinking water standard for arsenic is set at 10 ug/L. SGA member wells with elevated levels of arsenic are generally found in the western portion of the basin in the vicinity of Rio Linda/Elverta. Outside of this area, groundwater in the North Basin typically has arsenic at concentrations below 5 ug/L.

Hexavalent Chromium

A California MCL of 10 ug/L for Hexavalent Chromium became effective on July 1, 2014. As a result of the recent MCL, SGA obtained CrVI results from the California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) database from 2001 into 2014. Of the 215 wells for which data are available, the average concentration is approximately 5.2 ug/L. Of the 215 wells, 19 have concentrations exceeding the MCL and another 25 are close to the MCL (>7.5 ug/L). The areas of biggest concern appear to be the north of Interstate 80 near the communities of Rio Linda, Antelope, and North Highlands.

Iron

The secondary MCL for iron is 300 micrograms per liter (µg/L). In general, dissolved iron is not considered a significant problem in SGA-area public supply wells, but it is fairly routinely encountered. Of 196 distinct wells with available sample results, six wells were below the detection level of 10 ug/L. Of the wells with detections, 56 wells had concentrations exceeding the secondary MCL (SGA, 2011). Note that these represent the maximum detections observed in a given well, so the well may not routinely sample above these concentrations.

Manganese

The secondary MCL for manganese is 50 µg/L. In general, dissolved manganese is not a significant problem in the SGA public supply wells. With a distribution similar to the occurrence of iron, but to a lesser extent, wells in the SGA region produce water with elevated manganese concentrations. Of the 183 distinct wells sampled during the period, 55 wells were below the detection level of 10 ug/L. Of the remaining wells, 35 wells had concentrations exceeding the secondary MCL.

Contaminant Plumes

The identified plumes within the Basin north of the American River are from the former McClellan Air Force Base (AFB) and the Gencorp/Aerojet property. The McClellan AFB plume is down gradient from the District's wells and does not impact groundwater quality for the District.

The Aerojet contaminant plume originates from historical improper waste disposal from its 8,000-acre rocket propellant manufacturing facility located south of the American River. The primary contaminants of concern are Trichloroethene (TCE) and Perchlorate. The TCE component of the plume extends from the Aerojet property near Rancho Cordova, CA to north of the American River into the southern end of the District's service area. The Aerojet plume is a regulated Superfund site per the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and is closely monitored by water purveyors in the region and regulatory agencies including the USEPA, the Central Valley Regional Water Quality Control Board, and the Department of Toxic Substances Control.

Since the plume's discovery within the District's service area, Aerojet has installed a groundwater remedy that includes extraction and treatment of the contaminated groundwater. The remedy is designed specifically to intercept and capture the contaminant plume before it reaches the District's supply wells. A network of monitoring wells is also in place that are closely monitored by Aerojet and the District to ensure the installed remedy continues to protect the District's supply wells. Should the District's wells become contaminated in the future, provisions are in place to secure and provide replacement water supplies to offset the District's lost capacity.

7-3-3. Groundwater Quality Programs

The District has conducted a vulnerability assessment of its drinking water wells in the past and the groundwater sources were found to be most vulnerable to possible contamination from commercial urban activities such as active and historic gas stations, dry cleaners, leaking underground storage tanks, and sewer collection systems. The District continues to monitor its groundwater wells for the first indication of problems as part of its water management strategy.

Likewise, SGA supports and is involved in addressing water quality concerns of the Basin. Some of the programs and activities include:

- *Groundwater Quality Monitoring* – SGA has installed a series of shallow (less than 200 feet deep) monitoring wells in the basin funded by a Local Groundwater Assistance Grant from the Department of Water Resources. These wells serve as an early warning system for contaminants that could be migrating to greater depths, where the majority of municipal drinking water wells are completed. In addition, SGA has incorporated water quality data from wells within the United States Geological Survey (USGS) National Water Quality Assessment (NAWQA) program and worked with Air Force Real Property Agency (AFRPA) to

identify a subset of monitoring wells located in and around the former McClellan AFB that will also be integrated into future SGA monitoring efforts.

- *Groundwater Resource Protection* – The first line of defense for groundwater resource protection is the prevention of contamination. Prevention measures include proper well construction and destruction practices, development of wellhead protection measures, protection of recharge areas, control of the migration and remediation of contaminated groundwater, and control of saline water intrusion. One protection measure is the establishment of the consultation zone. If a well’s location is proposed within 2,000 feet (consultation zone) of a known contaminant plume, Sacramento County Environmental Management Department requires a special review of the permit by appropriate regulatory agencies.

7-3-4. Distribution System Water Quality

Distribution system water quality monitoring is performed for several water quality parameters in the District, including general physical parameters, presence of coliform bacteria, disinfectant and disinfection by-product levels, and corrosivity of the water by monitoring lead and copper levels at customers’ water taps. All monitoring parameters and levels currently meet drinking water standards. The ability to continue to meet these standards is not expected to change in the foreseeable future and does not present a potential impact to water supply reliability.

7-3-5. Water Quality Effects on Water Management Strategies and Supply Reliability

The District has not experienced any significant water quality problems in the past. Although the District has not had water quality problems in the past, groundwater contamination is a specific water quality threat that may impact the District’s planning and operational strategies for a safe and reliable water supply in the future. The District’s plan is to mitigate for potential problems prior to any loss in supply. Currently and in the future, the District does not anticipate any reduction in supply due to water quality issues. The following describe water management strategies being implemented by the District in response to the threat of groundwater contamination.

- *Aerojet Plume*: The District’s water management strategy related to the threat of groundwater contamination included successfully collaborating with Aerojet and regulatory agencies to install groundwater extraction and treatment facilities to treat and contain the TCE plume. Groundwater monitored wells continue to be installed and tested as part of the required remedy to measure plume migration and confirm capture. The District will also continue its involvement on the Groundwater Contamination Committee, through the SGA, to increase the awareness of groundwater contamination and the effects it would have on future drinking water supplies.

The District has the right to beneficially use groundwater underlying the District service area to meet its customers' need for drinking water. Even if none of the District's wells are contaminated, Aerojet's extraction facilities may hinder the District's right to develop groundwater resources in the future. Per the Water Forum Agreement, the San Juan Family of water agencies (including the District) is committed to increasing its use of groundwater during drier years and therefore protection within the Basin is essential. Protection of the Basin must involve both the removal of contaminants and in-basin disposal alternatives for the treated groundwater to minimize the depletion of the Basin by excessive pumping for remediation purposes.

It continues to be the District's opinion that any water extracted from the Basin, within the community of Fair Oaks, by Aerojet is subject to the prior water rights of the District. The District's four water supply wells draw groundwater from aquifers where contamination is present and from which Aerojet operates its groundwater extraction system. This groundwater must remain within the Basin and any water that leaves the Basin must be replaced, to the District, gallon for gallon by another source of supply.

- *Methyl Tertiary-Butyl Ether (MTBE)*: Although MTBE has not been detected in any of the District's wells, there are a number of identified sites with leaky underground storage tanks (LUST) throughout the District's service area. Within the Basin, approximately 190 active LUST sites have been identified. In response to the MTBE contamination, the District filed a lawsuit in 2003 against nine oil and petroleum-related companies in conjunction with nine other litigants. The suit seeks funding from the responsible parties to pay for the investigation, monitoring, and removal of oxygenates from the Basin. As of 2010, the responsible parties are monitoring the groundwater and providing results to the District.

In conclusion, there are no projected impacts to water supply due to water quality issues.

7-4. District Water Supply Reliability by Type of Year

As mentioned earlier, the District assumes to receive up to 15,000 acre-feet per year of surface water from SJWD. In the Water Forum Agreement, the San Juan family committed to providing supplemental water (groundwater use, water rationing, and conservation) to decrease their use of surface water during the dry and driest years. The reduction in SJWD's normal wholesale surface water supply of 82,200 acre-feet to 54,200 acre-feet during a single-dry year and multiple-dry years is anticipated to be supplemented by groundwater from San Juan wholesale member agency wells.

SJWD anticipates an increase in supply during a single-dry year or multiple-dry year scenario as part of their compliance with the Water Forum Agreement. In their 2020 UWMP, SJWD made the assumption that wholesale customer agencies will implement their respective Water Shortage Contingency Plans and will increase demand by 5% (to reflect increased demand in those years for landscape irrigation supplies) during single-dry and multiple-dry year scenarios.

The District's water deliveries from SJWD have never been restricted in the past, but for the purposes of this UWMP, the District is assuming that their available surface water supply will be reduced by 15% during single-dry and multiple-dry years. Therefore, the entire 15,000 acre-feet of surface water is considered available to the District in a normal year, and 12,750 acre-feet of surface water is available in single-dry and multiple-dry year scenarios.

The San Juan Family is signatory to the Water Forum Agreement and each of the San Juan Family members share the responsibility for reduction of surface water supplies as well as increases in groundwater production when required. The District recognizes the Water Forum Agreement and understands the importance of using groundwater supplies during drier periods to offset the use of surface water.

As discussed in previous sections, the District's groundwater supply is anticipated, and has historically proven to be, reliable under all hydrologic conditions. Additionally, climate change is not anticipated to impact the reliable supply within the UWMP timeline. Under single-dry and multiple-dry year scenarios, it is anticipated that groundwater use will increase to offset potential surface water supply reductions in accordance with the commitments of the Water Forum Agreement.

The District will also implement conservation measures defined in their Water Shortage Contingency Plan as discussed in Chapter 8.0 and Attachment H. At this time, the District anticipates meeting 90% of its water demands with surface water. In addition, the District may enter into an agreement with SJWD in the future to pump groundwater in-lieu of purchasing surface water to assist the San Juan Family in meeting its water demands.

An analysis of precipitation records was conducted to determine which years on record would be appropriate representations of a normal year, a single-dry year, and multiple-dry years. Historical precipitation data for the Folsom Dam gage (Station ID: FLD) was downloaded from the DWR California Data Exchange Center (CDEC)⁶. This gage had complete monthly precipitation records from 1955 to 2005 which was used as the period of record for the analysis. The following tables present the years that were selected as good representations of average years and dry years and the anticipated available supplies if these types of years repeat.

Table 7- 1. Basis of water year data - Surface Water Supplies (DWR Table 7-1A).

Year Type	Base Year	Available Supplies if Year Type Repeats	
		Volume Available (AF)	% of Average Supply
Average Year	2001	15,000	100%
Single-Dry Year	1977	12,750	85%
Consecutive Dry Years 1st Year	1987	12,750	85%
Consecutive Dry Years 2nd Year	1988	12,750	85%
Consecutive Dry Years 3rd Year	1989	12,750	85%
Consecutive Dry Years 4th Year	1990	12,750	85%
Consecutive Dry Years 5th Year	1991	12,750	85%

NOTES: Units are in acre-feet.

Table 7- 2. Basis of water year data - Groundwater Supplies (DWR Table 7-1B).

Year Type	Base Year	Available Supplies if Year Type Repeats	
		Volume Available (AF)	% of Average Supply
Average Year	2001	10,968	100%
Single-Dry Year	1997	10,968	100%
Consecutive Dry Years 1st Year	1987	10,968	100%
Consecutive Dry Years 2nd Year	1988	10,968	100%
Consecutive Dry Years 3rd Year	1989	10,968	100%
Consecutive Dry Years 4th Year	1990	10,968	100%
Consecutive Dry Years 5th Year	1991	10,968	100%

NOTES: Units are in acre-feet.

⁶ California Data Exchange Center (CDEC). *Folsom Dam Precipitation Data*. Period of Record 1955-Present. Available at: <http://cdec.water.ca.gov/cgi-progs/staMeta?station_id=FLD>.

The District did not project any increases in a single-dry year or multiple-dry year demand from a normal year demand. The District’s water records indicate a similar trend. Although historically for the District demands slightly decreased during drier periods, the demands applied in the water supply reliability analysis remain constant for a single-dry year and multiple dry years.

It’s likely that the District’s surface water supplies are vulnerable to water shortages due to the climatic environment and changes in unimpaired flow to Folsom Reservoir. The groundwater supplies, however, are not as vulnerable and will be used when surface water supplies are decreased. Therefore, the District’s overall water supplies are not expected to be impacted by changes in climate. Response to a future drought or other water shortages would follow the implementation of the appropriate stage of the District’s Water Shortage Contingency Plan as discussed in Attachment H.

The District’s water availability analysis was completed for normal, single-dry, and multiple-dry years as presented in Table 7- 3, Table 7- 4, and Table 7- 5, respectively. The existing water supplies are not expected to change in the future and will remain constant through 2040.

Table 7- 3. Normal year supply and demand projections (DWR Table 7-2).

	2025	2030	2035	2040
Supply totals <i>(from Table 6-9)</i>	33,065	33,065	33,065	33,065
Demand totals <i>(from Table 4-3)</i>	10,531	10,614	10,701	10,792
Difference	22,534	22,451	22,364	22,273
<i>*Units of measure (AF)</i>				

Table 7- 4. Single-dry year supply and demand projections (DWR Table 7-3).

	2025	2030	2035	2040
Supply totals*	23,718	23,718	23,718	23,718
Demand totals*	10,531	10,614	10,701	10,792
Difference	13,187	13,104	13,017	12,926
<i>*Units of measure (AF)</i>				

Table 7- 5. Multiple-dry year supply and demand projections (DWR Table 7-4).

		2025*	2030*	2035*	2040*
First year	Supply totals	23,718	23,718	23,718	23,718
	Demand totals	10,531	10,614	10,701	10,792
	Difference	13,187	13,104	13,017	12,926
Second year	Supply totals	23,718	23,718	23,718	23,718
	Demand totals	10,531	10,614	10,701	10,792
	Difference	13,187	13,104	13,017	12,926
Third year	Supply totals	23,718	23,718	23,718	23,718
	Demand totals	10,531	10,614	10,701	10,792
	Difference	13,187	13,104	13,017	12,926
Fourth Year	Supply totals	23,718	23,718	23,718	23,718
	Demand totals	10,531	10,614	10,701	10,792
	Difference	13,187	13,104	13,017	12,926
Fifth Year	Supply totals	23,718	23,718	23,718	23,718
	Demand totals	10,531	10,614	10,701	10,792
	Difference	13,187	13,104	13,017	12,926
*NOTES: Volumes in acre-feet per year.					

7-5. Regional Supply Reliability

Section 10620(f) of the Act asks urban water suppliers to evaluate water management tools and options to maximize water resources and minimize the need for imported water from other regions. The District understands the limited nature of water supply in California and is committed to optimizing its available water resources. For this reason, the District has strived to maintain reliable water supply from local resources, namely the American River watershed (including Folsom Reservoir) and groundwater. The District maintains a robust portfolio of water supply options that provide for true conjunctive use of surface and groundwater resources.



Additionally, the District is committed to collaborating with neighboring water agencies, the San Juan Water District Family of water agencies, and other organizations that seek to promote the beneficial use of limited water resources in the Sacramento region. The District is a regular participant in regional water resources planning efforts, is signatory to the Water Forum Agreement, involved in the Water Forum Successor Effort, Regional Water Authority, and the Sacramento Groundwater Authority.

The District has implemented a comprehensive water conservation program including completion of meter retrofits on all of its water service connections. In an effort to expand the breadth of offered programs, the District partners with its wholesale supplier (San Juan Water District), energy and sewer utilities, and other agencies that support water conservation programs.

7-6. Drought Risk Assessment

A new provision of the Water Code directs Suppliers to prepare a Drought Risk Assessment (DRA). The DRA considers a drought period lasting five consecutive years, starting from the year following the when the assessment is conducted. For this UWMP, the DRA considers five consecutive dry years from 2021 through 2025. The District may conduct an interim update or updates to this DRA within the five-year cycle of its UWMP update.

The DRA analysis allows the District to examine the management of its supplies during stressed hydrologic conditions and an opportunity to evaluate if they may need to enact its WSCP during the next actual drought period lasting at least five years.

The projected gross water use for the five-year DRA is based on unrestricted potable demand. The reliability of supplies over a five-consecutive year drought is described in Section 7-4. Table 7-12 compares the total projected supply and demand for the 5-year DRA for 2021 through 2025. As shown, the District does not expect to enact its WSCP for a 5-year consecutive year drought based on the unrestricted potable demand projections and the current supply portfolio and reliability.

Table 7-12. Five-Year Drought Risk Assessment to address Water Code Section 10635(b) (DWR Table 7-5).

2021	Total
Total Water Use	10,716
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	13,002
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	13,002
Resulting % Use Reduction from WSCP action	0%

Con't. Table 7-12.

2022	Total
Total Water Use	10,980
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	12,738
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	12,738
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	11,244
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	12,474
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	12,474
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	11,508
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	12,210
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	12,210
Resulting % Use Reduction from WSCP action	0%

Con't. Table 7-12

2025	Total
Total Water Use	11,768
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	11,950
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	11,950
Resulting % Use Reduction from WSCP action	0%

8.0 WATER SHORTAGE CONTINGENCY PLAN

The Water Shortage Contingency Plan (WSCP) is a detailed plan which identifies how the District intends to respond to foreseeable and unforeseeable water shortages. A water shortage occurs when the supply is reduced to a level that cannot support the normal demand at any given time or if the state mandates a cutback regardless of supplies. The intent of this document is to provide guidance to the District's governing body, its staff, and the public, by identifying anticipated water shortages and response actions to allow for efficient management of any water shortage with predictability and accountability. The WSCP is a standalone document (see Attachment H) that can be modified as needed and describes the following:

1. **Water Supply Reliability Analysis:** Identifies the key issues that may trigger a shortage condition within the service area.
2. **Annual Water Supply and Demand Assessment Procedures:** Describes the methodology for assessing the system's reliability for the coming year and the steps to formally approve any water shortage levels and response actions.
3. **Standard Shortage Stages:** Establishes water shortage levels to clearly identify and prepare for shortages.
4. **Shortage Response Actions:** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand.
5. **Communication Protocols:** Describes communication protocols to ensure customers, the public, and government agencies are informed of shortage conditions and requirements.
6. **Compliance and Enforcement:** Defines compliance and enforcement actions available to administer demand reductions.
7. **Legal Authority:** Lists the legal authorities available to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation:** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies.
9. **Monitoring and Reporting:** Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if additional shortage response actions should be activated or if efforts are successful and response actions should be adjusted.
10. **WSCP Refinement Procedures:** Discusses the factors that may trigger updates to the WSCP as new information becomes available.

11. **Special Water Features Distinctions:** Identifies exemptions for pools and spas.
12. **Plan Adoption, Submittal, and Availability:** Describes the process for the WSCP adoption, submittal, and availability after each revision.

9.0 DEMAND MANAGEMENT MEASURES

In 1998, the District became signatory to the *Memorandum of Understanding Regarding Urban Water Conservation in California* (MOU) and a member of the California Urban Water Conservation Council (CUWCC), establishing a firm commitment to the implementation of the Best Management Practices (BMPs) or Demand Management Measures (DMMs). The CUWCC is a consensus-based partnership of agencies and organizations concerned with water supply and conservation of natural resources in California. By becoming a signatory, the District committed to implementing a specific set of locally cost-effective conservation practices. The MOU was revised by the CUWCC on December 10, 2008.

The District is in full compliance with the CUWCC's MOU. Brief descriptions of the District's implemented measures are also included in the following sections.

9-1. Water Waste Prevention Ordinances

This BMP is implemented through a Board approved conservation Policy, Number 6060, titled "Water Conservation." The policy has 5 different stages: (1) Normal water supply, (2) water alert, (3) water warning, (4) water crisis: short-term and long-term, and (5) water emergency: short term and long term. This policy sets forth water use enforcement policies, jurisdiction to declare a stage level and definitions for water use at each stage. Water conservation restrictions include:

- Use of potable water which results in flooding or runoff in gutters or streets.
- Use of free-flowing hoses.
- Use of water for washing streets, parking lots, driveways, sidewalks, or buildings except as necessary for health, aesthetic, or sanitary purposes.
- Use of potable water for filling or refilling of swimming pools.
- Use of potable water for construction purposes.
- Use of potable water for more than minimal landscaping.

In addition to the list above, reduction of indoor water use may be required as well as more stringent measures described in the Policy. This Policy prohibits negligent or wasteful use of water, creates a process for mandatory conservation and rationing, and promotes the use of water saving devices.

9-2. Metering

The District has installed meters on all service connections as required by AB 2572. Service connections have been billed volumetrically since January 1, 2012.

9-3. Conservation Pricing

All retail customers in the District are currently billed volumetrically.

9-4. Public Education and Outreach

The District administers public information programs for its customers and receives additional public outreach support through its partnership with RWA's Regional Water Efficiency Program (RWEF). The RWEF has a regional outreach program coordinated with support from a Public Outreach and School Education Committee comprised of RWEF member conservation coordinators and Public Information Officers.

The District also partners with RWA's RWEF to provide customers with a school education program. The RWEF program has focused mainly on K-8 programs. RWEF has continued to use the legacy Sacramento Bee Newspapers in Education (NIE), now called Media in Education (MIE) program that originated back in the mid-1990s as part of the Sacramento Area Water Works Association (SAWWA) program in order to meet the baseline requirements for school education outreach. The annual budgeted direct expenses for the regional school education program for 2020 were \$25,000.

9-5. Programs to Assess and Manage Distribution System Real Loss

The District has implemented a number of measures to reduce unaccounted for water including:

- Conducting leak detection and repair programs - locating system leaks and repairing leaks immediately
- Identification and Replacement of steel piping that is in service within the District boundaries

9-6. Water Conservation Program Coordination and Staffing Support

The District has one Conservation Coordinator who has several responsibilities including submitting annual reports to the DWR.

9-7. Other Demand Management Measures

The following is a list of current and typical program offerings are provided for information purposes only. The District plans to continue to partner with SJWD, RWA and SMUD to support incentive programs.

- *Residential Assistance Programs*

The District partners with RWA's Regional Water Efficiency Program to provide customers with conservation information. In addition to taking part in RWA's program, the District includes audits as an integral part of their metering program, distributes brochures at events, and provides welcome packets to all new owners in the District, encouraging customers to participate in their audit program.

- *Landscape Water Surveys*

The District's program "Free Water Assessment Program" also provides customers with free landscape water surveys in which an expert comes to the customer's residence and examines the existing irrigation system, before offering recommendations that should increase the efficiency and effectiveness of the system. The representative also provides suggested timelines for best irrigation and planting.

- *High-Efficiency Clothes Washers*

The District's customers are eligible to participate in the HECW provided in partnership with SMUD. The water efficiency of clothes washers is represented by the "water factor," which is a measure of the amount of water used to wash a standard load of laundry. Washers with a lower water factor save more water.

- *WaterSense Specification (WSS) Toilets*

The District's customers are eligible to participate in the 1.28 gallon per flush HET exchange program. The District offers a free HET to single family residential (Maximum of 2) and multifamily residential (Maximum of 10) customers in exchange for toilets that flush greater than 3.5 gallons per flush. The District has partnered with Regional Water Authority Regional Water Efficiency Programs and SRCSD.

- *Commercial, Industrial, and Institutional (CII) DMMs*

The District offers all of its conservation programs through the District newsletter when published, bill inserts, billing notices, website and events. Currently, the toilet replacement project offers HET rebates to CII customers.

- *Large Landscape*

The District offers irrigation audits to large landscape accounts through District newsletters, bills and community events. Information includes audit availability, controllers and services availability, over watering evaluations, specific drought watering instructions, drought resistant landscapes, irrigation strategies and other conservation methods.

9-8. Implementation over the Past Five Years

Highlights of the District's recent actions and conservation measures include but are not limited to:

- *Residential Assistance Programs*
- *Landscape Water Surveys*
- *High-Efficiency Clothes Washers*
- *WaterSense Specification (WSS) Toilets*

9-9. Planned Demand Management Measures (DMM) Activities

Effective implementation of BMPs is critical to ensuring the long-term success of The District's conservation efforts. The District will utilize quantitative methods to assess the effectiveness of each BMP, to the extent practicable. The District will track the impact of new conservation pricing by using its upgraded billing system to carefully monitor consumption of residential customers.

The effectiveness of implementing Public Education BMPs will be measured by tracking the number of public outreach events and education programs where customers receive information on conservation. A successful public information program should encourage customers to take advantage of conservation incentives being offered by the District, RWA, SJWD, and SMUD as Programmatic DMMs. By encouraging conservation, these measures will continue to contribute to reducing the District's water use.

10.0 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The Act requires the encouragement of public participation and a public hearing prior to the adoption of the 2020 UWMP and WSCP. In order to reach the “diverse social, cultural, and economic elements of the population” within the District’s service area, a public hearing was held on August 9, 2021 at the District Office in Fair Oaks, California and included a presentation to the public. This session was held for review and comment of the draft UWMP and WSCP before adoption by the District.

The following notifications were sent to all cities and counties within which the District provides water:

- **60-Day Notification Letters:** Letters were sent at least 60-days prior to the public hearing to provide notification that the District was preparing its 2020 UWMP.
- **Notice of Public Hearing:** Letters were sent out at least 2 weeks prior to the public hearing to provide notice of the planned time and location of the public hearing. These letters were also to inform that a Public Draft of the District’s 2020 UWMP and WSCP was available for public review on the District’s website and at the District office.

Both notification letters are included in Attachment D.

Table 10- 1. Notifications to Cities and Counties.

City Name	60 Day Notice	Notice of Public Hearing
Citrus Heights	Yes	Yes
Folsom	Yes	Yes
Rancho Cordova	Yes	Yes
County Name	60 Day Notice	Notice of Public Hearing
Sacramento County	Yes	Yes

In addition to letter notifications, the District published notices in the Sacramento Bee which included the time and place of the public hearing as well as the location where the draft Plan was available for public inspection (Attachment E). Two newspaper notices were published: the first was 2 weeks prior to the public hearing, and the second was 1 week prior to the public hearing.

The public hearing provided an opportunity for the District's customers, residents, and employees in the service area to learn about the District's water supply and the plans to continue providing reliable, safe, and high-quality water into the future. With no comments received from the public, the District Board adopted the 2020 UWMP and WSCP at their August 9, 2021 meeting. The resolution adopting the UWMP and WSCP by the Board of Directors is included as Attachment I.

Within 30 days following the Board adoption, the UWMP and WSCP was submitted and distributed as follows:

- Electronic submittal to DWR
- CD submittal to the California State Library
- CD submittal to all cities and counties within which the District provides water
- Posting on the District website for public access

Amendments to the District's 2020 UWMP and WSCP will be made on an as needed basis. Should the District need to amend the adopted 2020 UWMP or WSCP in the future, the District will hold a public hearing for review of the proposed amendments to the document and send a 60-day notification letter to all cities and counties within their service area and notify the public in same manner as set forth in this UWMP. Once the amended document is adopted, a copy finalized version will be distributed to the California State Library, DWR (electronically using the WUEdata reporting tool), and all cities and counties within the District's water service area within 30 days of adoption. The finalized version will also be made available to the public online on the District's website.

Attachment A: UWMP Checklist Arranged by Subject



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Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Section 1-1 and 1-2
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1-4
x	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.0 and 2-1
x	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2-3
x	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 2-3 and 10.0
x		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	Section 4-7 and Attachment F
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	
x	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 3-1
x	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3-3
x	x	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3-5-2
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3-4
x	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 3-5-1
x	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 3-4
x	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4-1 through 4-3
x	x	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4-4 and Attachment C
x	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	System Water Use	Section 4-5
x	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4-8
x	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 4-4
x	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4-6
x	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 4-9
x		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 5-1
x		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5-1
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	
x		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	N/A
x		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	N/A
x		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Attachement C
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 7-4
x	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, including changes in supply due to climate change.	System Supplies	Section 7-4
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 6.0
x	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 6-7

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 6-8
x	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6-2 and 6-8
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6-2-1
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6-2-1
x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6-2-1 (not adjudicated)
x	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	Section 6-2-1
x	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6-2-1 and 6-2-3
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 6-8
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6-6
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6-4
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6-4
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6-4
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6-4
x	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6-4
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6-4
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6-5
x	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 6-4
x	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 6-7
x	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Supplies, Energy Intensity	Section 6-9
x	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7-3
x	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7-5
x	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7-4
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 7-6
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 7-4
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 7-4
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Section 7-4
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 7-4

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Attachment H
x	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	Attachment H
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	Attachment H
x		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	Attachment H
x		Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Attachment H
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Attachment H
x		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	Attachment H
x		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Attachment H
x		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	Attachment H
x	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Attachment H
x	x	Section 8.12	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	Section 10.0
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 9.0
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 10.0 and Attachments D and E
x	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.0 and Attachment I
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.0
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	N/A
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 10.0

Attachment B: DWR Standardized UWMP Tables for Retail Urban Water Supplies



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Submittal Table 2-1 Retail Only: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 *
3410009	Fair Oaks Water District	14,390	10,452
TOTAL		14,390	10,452

NOTES: Volume in acre-feet per year.

Select Only One	Type of Plan		Name of RUWMP or Regional Alliance <i>if applicable</i> (select from drop down list)
<input checked="" type="checkbox"/>	Individual UWMP		
	<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 Urban Water Management Plan (RUWMP)		
NOTES:			

Submittal Table 2-3: Supplier Identification	
Type of Supplier (select one or both)	
<input type="checkbox"/>	Supplier is a wholesaler
<input checked="" type="checkbox"/>	Supplier 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 date that the fiscal year begins (mm/dd)	
<i>01/01</i>	
Units of measure used in UWMP * (select from drop down)	
Unit	AF
NOTES:	

Submittal Table 2-4 Retail: Water Supplier Information Exchange

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

Wholesale Water Supplier Name

San Juan Water District (SJWD)

NOTES:

Submittal Table 3-1 Retail: Population - Current and Projected

Population Served	2020	2025	2030	2035	2040	2045(opt)
	35,377	35,961	36,555	37,159	37,772	

NOTES: 2020 population based on DWR Population Tool. Projections beyond 2020 based on SACOG estimated growth rates (%'s) within the District service area.

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable¹ Water - Actual

Use Type	2020 Actual		
<p>Drop down list May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool</p>	<p>Additional Description (as needed)</p>	<p>Level of Treatment When Delivered Drop down list</p>	<p>Volume²</p>
Add additional rows as needed			
Single Family		Drinking Water	8,047
Multi-Family		Drinking Water	642
Commercial		Drinking Water	274
Industrial		Drinking Water	254
Landscape		Drinking Water	642
Other	O&M	Drinking Water	12
Other	Unaccounted	Drinking Water	581
TOTAL			10,452
NOTES: Units are in acre-feet per year			

Submittal Table 4-2 Retail: Use for Potable and Non-Potable ¹ Water - Projected						
Use Type	Additional Description (as needed)	Projected Water Use ² <i>Report To the Extent that Records are Available</i>				
		2025	2030	2035	2040	2045 (opt)
<u>Drop down list</u> May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool						
Add additional rows as needed						
Single Family		8,073	8,100	8,126	8,153	
Multi-Family		644	646	648	650	
Commercial		275	276	277	278	
Industrial		255	256	257	258	
Landscape		644	646	649	651	
Other	O&M	12	12	12	12	
Other	Unaccounted	627	678	732	790	
TOTAL		10,531	10,614	10,701	10,792	0
¹ Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4. measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.						
² Units of						
NOTES: Units are in acre-feet per year						

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)

	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable <i>From Tables 4-1R and 4-2 R</i>	10,452	10,531	10,614	10,701	10,792	0
Recycled Water Demand ¹ <i>From Table 6-4</i>	0	0	0	0	0	0
TOTAL WATER USE	10,452	10,531	10,614	10,701	10,792	0

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

NOTES: Units are in acre-feet per year

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting

Reporting Period Start Date (mm/yyyy)	Volume of Water Loss ^{1,2}
01/2016	520
01/2017	607.93
01/2018	538.34
01/2019	553.28
01/2020	554.89

NOTES: The 2020 water loss audit is not yet available but is estimated based on the average annual loss reported since 2016. Units are in acre-feet.

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections

Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) <i>Drop down list (y/n)</i>	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, or otherwise are utilized in demand projections are found.	n/a
Are Lower Income Residential Demands Included In Projections? <i>Drop down list (y/n)</i>	Yes

NOTES:

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

Baseline Period	Start Year *	End Year *	Average Baseline GPCD*	Confirmed 2020 Target*
10-15 year	1995	2004	348	279
5 Year	2004	2008	315	

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

NOTES:

Submittal Table 5-2: 2020 Compliance **From**
SB X7-7 2020 Compliance Form
Retail Supplier or Regional Alliance Only

2020 GPCD			2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* <i>(Adjusted if applicable)</i>		
264	0	264	279	Y

**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*

NOTES:

Submittal Table 6-1 Retail: Groundwater Volume Pumped

<input type="checkbox"/>	Supplier does not pump groundwater. The supplier will not complete the table below.					
<input type="checkbox"/>	All or part of the groundwater described below is desalinated.					
Groundwater Type <i>Drop Down List</i> May use each category multiple times	Location or Basin Name	2016*	2017*	2018*	2019*	2020*
Alluvial Basin	Sacramento North Area Groundwater Basin	998	3159	3151	2139	2868
TOTAL		998	3,159	3,151	2,139	2,868

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

NOTES: Units are in acre-feet

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020

There is no wastewater collection system. The supplier will not complete the table below.

100% Percentage of 2020 service area covered by wastewater collection system *(optional)*

100% Percentage of 2020 service area population covered by wastewater collection system *(optional)*

Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <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>
Sacramento Area Sewer District	Estimated	5,333	Sacramento Regional County Sanitation District	Sacramento Regional WWTP	No	No
Total Wastewater Collected from Service Area in 2020:		5,333				

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

NOTES: The total influent to the SRWWTP in 2020 was provided by SASD to be 152,383 acre-feet. FOWD makes up approximately 3.5% of SASD's service area. Units are in acre-feet.

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

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

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number (optional) ²	Method of Disposal <i>Drop down list</i>	Does This Plant Treat Wastewater Generated Outside the Service Area? <i>Drop down list</i>	Treatment Level <i>Drop down list</i>	2020 volumes ¹				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
Total							0	0	0	0	0

¹ Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.
² If the **Wastewater Discharge ID Number** is not available to the UWMP preparer, access the SWRCB CIWQS regulated facility website at <https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?inCommand=reset&reportName=RegulatedFacility>

NOTES:

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

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

Name of Supplier Producing (Treating) the Recycled Water:

Name of Supplier Operating the Recycled Water Distribution System:

Supplemental Water Added in 2020 (volume) *Include units*

Source of 2020 Supplemental Water

Beneficial Use Type <i>Insert additional rows if needed.</i>	Potential Beneficial Uses of Recycled Water (Describe)	Amount of Potential Uses of Recycled Water (Quantity) <i>Include volume units¹</i>	General Description of 2020 Uses	Level of Treatment <i>Drop down list</i>	2020 ¹	2025 ¹	2030 ¹	2035 ¹	2040 ¹	2045 ¹ (opt)
Agricultural irrigation										
Landscape irrigation (exc 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)										
Reservoir water augmentation (IPR)										
Direct potable reuse										
Other (Description Required)										
Total:					0	0	0	0	0	0

2020 Internal Reuse

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

NOTES:

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



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

Beneficial Use Type	2015 Projection for 2020 ¹	2020 Actual Use ¹
<i>Insert additional rows as needed.</i>		
Agricultural irrigation		
Landscape irrigation (exc 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)		
Reservoir water augmentation (IPR)		
Direct potable reuse		
Other (Description Required)		
Total	0	0

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

NOTE:

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use

<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.
-------------------------------------	---

	Provide page location of narrative in UWMP
--	--

Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
----------------	-------------	-----------------------------	---

Add additional rows as needed

Total	0
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***Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.**

NOTES:

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
<input 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.					
43	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other suppliers?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List</i>	Expected Increase in Water Supply to Supplier* <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Supplier Name</i>				
<i>Add additional rows as needed</i>						
Skyway Well	No			2022	Average Year	3,387
New York Well	No			2023	Average Year	3,710
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.						
NOTES: Units are in acre-feet per year						

Submittal Table 6-8 Retail: Water Supplies — Actual

Water Supply		2020		
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	Actual Volume*	Water Quality Drop Down List	Total Right or Safe Yield* (optional)
Add additional rows as needed				
Groundwater (not desalinated)	District Wells	2,868	Drinking Water	10,968
Purchased or Imported Water	SJWD Surface Water	7,585	Drinking Water	15,000
Total		10,453		25,968
<i>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i>				
NOTES: Units are in acre-feet.				

Submittal Table 6-9 Retail: Water Supplies — Projected

Water Supply		Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	2025		2030		2035		2040		2045 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
		Add additional rows as needed									
Groundwater (not desalinated)	District Wells	10,968	10,968	10,968	10,968	10,968	10,968	10,968	10,968		
Purchased or Imported Water	SJWD Surface Water	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000		
Total		25,968	25,968	25,968	25,968	25,968	25,968	25,968	25,968	0	0
<p><i>*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.</i></p> <p>NOTES: Groundwater volume does not include expected future water supply identified in Table 6-7. Units are in acre-feet per year.</p>											

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)

Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		<input type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	% of Average Supply
Average Year	2001	15000	100%
Single-Dry Year	1977	12750	85%
Consecutive Dry Years 1st Year	1987	12750	85%
Consecutive Dry Years 2nd Year	1988	12750	85%
Consecutive Dry Years 3rd Year	1989	12750	85%
Consecutive Dry Years 4th Year	1990	12750	85%
Consecutive Dry Years 5th Year	1991	12750	85%

NOTES :Multiple versions of Table 7-1 are being used. This table refers to surface water (purchased water from SJWD). Units are in acre-feet per year.

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)

Year Type	Base Year If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 2019-2020, use 2020	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		<input type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available *	% of Average Supply
Average Year	2001	10968	100%
Single-Dry Year	1997	10968	100%
Consecutive Dry Years 1st Year	1987	10968	100%
Consecutive Dry Years 2nd Year	1988	10968	100%
Consecutive Dry Years 3rd Year	1989	10968	100%
Consecutive Dry Years 4th Year	1990	10968	100%
Consecutive Dry Years 5th Year	1991	10968	100%

NOTES: Multiple versions of Table 7-1 are being used. This table refers to groundwater (District wells). Units are in acre-feet.

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison

	2025	2030	2035	2040	2045 (Opt)
Supply totals (autofill from Table 6-9)	33,065	33,065	33,065	33,065	0
Demand totals (autofill from Table 4-3)	10,531	10,614	10,701	10,792	0
Difference	22,534	22,451	22,364	22,273	0

NOTES:

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

	2025	2030	2035	2040	2045 (Opt)
Supply totals*	23,718	23,718	23,718	23,718	0
Demand totals*	10,531	10,614	10,701	10,792	0
Difference	13,187	13,104	13,017	12,926	0

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

NOTES:

Submittal Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison

		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	23,718	23,718	23,718	23,718	
	Demand totals	10,531	10,614	10,701	10,792	
	Difference	13,187	13,104	13,017	12,926	0
Second year	Supply totals	23,718	23,718	23,718	23,718	
	Demand totals	10,531	10,614	10,701	10,792	
	Difference	13,187	13,104	13,017	12,926	0
Third year	Supply totals	23,718	23,718	23,718	23,718	
	Demand totals	10,531	10,614	10,701	10,792	
	Difference	13,187	13,104	13,017	12,926	0
Fourth year	Supply totals	23,718	23,718	23,718	23,718	
	Demand totals	10,531	10,614	10,701	10,792	
	Difference	13,187	13,104	13,017	12,926	0
Fifth year	Supply totals	23,718	23,718	23,718	23,718	
	Demand totals	10,531	10,614	10,701	10,792	
	Difference	13,187	13,104	13,017	12,926	0

NOTES:

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

2021	Total
Total Water Use	10,716
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	13,002
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	13,002
Resulting % Use Reduction from WSCP action	0%

2022	Total
Total Water Use	10,980
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	12,738
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	12,738
Resulting % Use Reduction from WSCP action	0%

2023	Total
Total Water Use	11,244
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	12,474
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	12,474
Resulting % Use Reduction from WSCP action	0%

2024	Total
Total Water Use	11,508
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	12,210
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	12,210
Resulting % Use Reduction from WSCP action	0%

2025	Total
Total Water Use	11,768
Total Supplies	23,718
Surplus/Shortfall w/o WSCP Action	11,950
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	11,950
Resulting % Use Reduction from WSCP action	0%

Submittal Table 8-1
Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions <i>(Narrative description)</i>
1	Up to 10%	District Stage 2: Water Alert - includes prohibiting wasteful uses of water and repairs of leaks in a timely manner.
2	Up to 20%	District Stage 3: Water Warning - includes additional landscape and vehicle washing restrictions.
3	Up to 30%	District Stage 3 and Stage 4: Water Crisis - includes additional landscape restrictions and water served at restaurants upon request. Flushing of sewers or hydrants is prohibited.
4	Up to 40%	District Stage 4: Water Crisis - includes additional landscape restrictions and water served at restaurants upon request. Flushing of sewers or hydrants is prohibited.
5	Up to 50%	District Stage 4: Water Crisis - includes additional landscape restrictions and water served at restaurants upon request. Flushing of sewers or hydrants is prohibited.
6	>50%	District Stage 5: Water Emergency - landscape and pasture irrigation is prohibited. Installation of new turf is prohibited.

NOTES: See WSCP for crosswalk of District's shortage levels compared to those mandated by statute.

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only</i> <i>Drop Down List</i>
<i>Add additional rows as needed</i>				
1	Landscape - Restrict or prohibit runoff from landscape irrigation	0-5%	Excess Runoff	Yes
1	Landscape - Prohibit certain types of landscape irrigation	0-5%	Free-flowing hoses for all hoses	Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	0-1%	Uncorrected plumbing or irrigation leaks	Yes
1	Other - Prohibit use of potable water for washing hard surfaces	0-1%	Washing of streets, driveways, sidewalks, building	Yes
2	Landscape - Prohibit certain types of landscape irrigation	0-5%	Full flow of landscape and pasture irrigation	Yes
3	CII - Restaurants may only serve water upon request	0-1%	Serving water at restaurants only when requested by customers	Yes
4/5	Landscape - Prohibit certain types of landscape irrigation	0-5%	Irrigating of ornamental turf on public street medians is prohibited	Yes
4/5	CII - Restaurants may only serve water upon request	0-1%	Serving water at restaurants only when requested by customers	Yes
6	CII - Other CII restriction or prohibition	10-15%	Flushing of sewers or fire hydrants	Yes
6	Other	0-5%	New connection to the District's water distribution system	Yes

NOTES: See WSCP for crosswalk of District's shortage levels compared to those mandated by statute.

Submittal Table 8-3: Supply Augmentation and Other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>			
2, 3, 4, 5	Other Actions (describe)	Varies	Mandatory reduction of indoor water use
2	Other Actions (describe)	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
3	Other Actions (describe)	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
4	Other Actions (describe)	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
5	Other Actions (describe)	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
6	Other Actions (describe)	15-25%	Landscape and pasture irrigation is prohibited.

NOTES: See WSCP for crosswalk of District's shortage levels compared to those mandated by statute.

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

City Name	60 Day Notice	Notice of Public Hearing
Citrus Heights	Yes	Yes
Folsom	Yes	Yes
Rancho Cordova	Yes	Yes
County Name <i>Drop Down List</i>	60 Day Notice	Notice of Public Hearing
Sacramento County	Yes	Yes
NOTES:		

Attachment C: SB X7-7 Verification Form



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SB X7-7 Table 0: Units of Measure Used in 2020 UWMP*

(select one from the drop down list)

Acre Feet

**The unit of measure must be consistent throughout the UWMP, as reported in Submittal Table 2-3.*

NOTES:

SB X7-7 Table 2: Method for 2020 Population Estimate

Method Used to Determine 2020 Population
(may check more than one)

<input type="checkbox"/>	1. Department of Finance (DOF) or American Community Survey (ACS)
<input type="checkbox"/>	2. Persons-per-Connection Method
<input checked="" type="checkbox"/>	3. DWR Population Tool
<input type="checkbox"/>	4. Other DWR recommends pre-review

NOTES:

SB X7-7 Table 3: 2020 Service Area Population

2020 Compliance Year Population

2020	35,377
-------------	--------

NOTES:

SB X7-7 Table 4: 2020 Gross Water Use

Compliance Year 2020	2020 Volume Into Distribution System <i>This column will remain blank until SB X7-7 Table 4-A is completed.</i>	2020 Deductions					2020 Gross Water Use
		Exported Water *	Change in Dist. System Storage* (+/-)	Indirect Recycled Water <i>This column will remain blank until SB X7-7 Table 4-B is completed.</i>	Water Delivered for Agricultural Use*	Process Water <i>This column will remain blank until SB X7-7 Table 4-D is completed.</i>	
	10,453			-		-	10,453

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

NOTES:

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

Complete one table for each source.

Name of Source		Surface Water	
This water source is (check one) :			
<input type="checkbox"/>	The supplier's own water source		
<input type="checkbox"/>	A purchased or imported source		
Compliance Year 2020	Volume Entering Distribution System ¹	Meter Error Adjustment ² <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System
	7,585	-	7,585
¹ Units of measure (AF, MG, or CCF) must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.			
		² Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document	
NOTES			

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

Complete one table for each source.

Name of Source		Groundwater	
This water source is (check one) :			
<input type="checkbox"/>	The supplier's own water source		
<input type="checkbox"/>	A purchased or imported source		
Compliance Year 2020	Volume Entering Distribution System ¹	Meter Error Adjustment ² <i>Optional</i> (+/-)	Corrected Volume Entering Distribution System
	2,868		2,868
¹ Units of measure (AF, MG, or CCF) must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3.			
		² Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document	
NOTES:			

SB X7-7 Table 4-B: 2020 Indirect Recycled Water Use Deduction (For use only by agencies that are deducting indirect recycled water)

2020 Compliance Year	2020 Surface Reservoir Augmentation				2020 Groundwater Recharge			Total Deductible Volume of Indirect Recycled Water Entering the Distribution System	
	Volume Discharged from Reservoir for Distribution System Delivery ¹	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/Treatment Loss ¹	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility ^{1,2}	Transmission/Treatment Losses ¹		Recycled Volume Entering Distribution System from Groundwater Recharge
			-		-			-	-

¹ **Units of measure (AF, MG, or CCF)** must remain consistent throughout the UWMP, as reported in SB X7-7 Table 0 and Submittal Table 2-3. ²
 Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.

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

SB X7-7 Table 4-C: 2020 Process Water Deduction Eligibility
(For use only by agencies that are deducting process water) Choose Only One

<input type="checkbox"/>	Criteria 1 - Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
<input type="checkbox"/>	Criteria 2 - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
<input type="checkbox"/>	Criteria 3 - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
<input type="checkbox"/>	Criteria 4 - Disadvantaged Community. Complete SB x7-7 Table 4-C.4

NOTES: Not applicable to FOWD.

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

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

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

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction	2020 Industrial Water Use	Percent Industrial Water	Eligible for Exclusion Y/N
	10,453		0%	NO

NOTES:

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

SB X7-7 Table 4-C.2: 2020 Process Water Deduction Eligibility *(For use only by agencies that are deducting process water using Criteria 2)*

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

2020 Compliance Year	2020 Industrial Water Use	2020 Population	2020 Industrial GPCD	Eligible for Exclusion Y/N
		35,377	-	NO

NOTES:

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

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

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

2020 Compliance Year	2020 Gross Water Use Without Process Water Deduction <i>Fm SB X7-7 Table 4</i>	2020 Industrial Water Use	2020 Non-industrial Water Use	2020 Population <i>Fm SB X7-7 Table 3</i>	Non-Industrial GPCD	Eligible for Exclusion Y/N
	10,453		10,453	35,377	264	NO

NOTES:

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

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

Criteria 4

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

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

1. IRWM DAC Mapping tool <https://gis.water.ca.gov/app/dacs/>

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

2. 2020 Median Income

	California Median Household Income*		Service Area Median Household Income	Percentage of Statewide Average	Eligible for Exclusion? Y/N
	2020	\$75,235			
<input type="checkbox"/>	2020	\$75,235		0%	YES
*California median household income 2015 -2019 as reported in US Census Bureau QuickFacts.					

NOTES

Data from these tables will not be entered into WUEdata.

Instead, the

entire tables will be uploaded to WUEdata as a separate upload in Excel format.

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

SB X7-7 Table 4-D: 2020 Process Water Deduction - Volume

Complete a

separate table for each industrial customer with a process water exclusion

Name of Industrial Customer

Enter Name of Industrial Customer 1

Compliance Year 2020	Industrial Customer's Total Water Use *	Total Volume Provided by Supplier*	% of Water Provided by Supplier	Customer's Total Process Water Use*	Volume of Process Water Eligible for Exclusion for this Customer
					-

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

NOTES:

SB X7-7 Table 5: 2020 Gallons Per Capita Per Day (GPCD)

2020 Gross Water <i>Fm SB X7-7 Table 4</i>	2020 Population <i>Fm</i> <i>SB X7-7 Table 3</i>	2020 GPCD
10,453	35,377	264

NOTES:

SB X7-7 Table 9: 2020 Compliance

Actual 2020 GPCD ¹	Optional Adjustments to 2020 GPCD					2020 Confirmed Target GPCD ^{1,2}	Did Supplier Achieve Targeted Reduction for 2020?
	Enter "0" if Adjustment Not Used			TOTAL Adjustments ¹	Adjusted 2020 GPCD ¹ <i>(Adjusted if applicable)</i>		
	Extraordinary Events ¹	Weather Normalization ¹	Economic Adjustment ¹				
264	-	-	-	-	264	279	YES

¹ All values are reported in GPCD

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

NOTES:

Attachment D: Notification Letters Regarding UWMP Preparation
and UWMP Public Hearing



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June 3, 2021

Mr. Casey Kempenaar
Planning Manager
City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, CA 95621

Subject: Preparation of 2020 Urban Water Management Plan (UWMP) - 60-day Notification

Dear Mr. Kempenaar:

In accordance with the California Water Code (CWC), Fair Oaks Water District (District) is notifying all cities and counties in the area that we provide water supplies that we are in the process of reviewing and considering amendments to our Urban Water Management Plan (UWMP), as required by the CWC at least every 5 years.

The District plans to prepare its 2020 UWMP and adopt it at one of our regularly scheduled Board Meetings. Prior to adopting the UWMP, the document will be made available for public inspection and a Public Hearing will be scheduled. Pursuant to CWC, you are receiving this notice at least 60-days prior to the Public Hearing.

The District expects to have a public draft of the 2020 UWMP available for review at least 2 weeks prior to the Public Hearing which is tentatively set for August 9, 2021. An additional notification letter will be sent to you once the public draft becomes available and once the date and time of the Public Hearing is confirmed.

Should you have any questions or concerns, please feel free to contact me at (916) 844-3513 or psiebensohn@fowd.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul Siebensohn", is written over a white background.

Paul Siebensohn
Technical Services Manager
Fair Oaks Water District

Cc: Ashley Smith, Peterson Brustad, Inc.



June 3, 2021

Mr. Marcus Yasutake
Environmental & Water Resources Director
City of Folsom
50 Natoma Street
Folsom, CA 95630

Subject: Preparation of 2020 Urban Water Management Plan (UWMP) - 60-day Notification

Dear Mr. Yasutake:

In accordance with the California Water Code (CWC), Fair Oaks Water District (District) is notifying all cities and counties in the area that we provide water supplies that we are in the process of reviewing and considering amendments to our Urban Water Management Plan (UWMP), as required by the CWC at least every 5 years.

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Should you have any questions or concerns, please feel free to contact me at (916) 844-3513 or psiebensohn@fowd.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul Siebensohn", is written over a white background.

Paul Siebensohn
Technical Services Manager
Fair Oaks Water District

Cc: Ashley Smith, Peterson Brustad, Inc.



June 7, 2021

Ms. Elizabeth Sparkman
Community Development Director
City of Ranch Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Subject: Preparation of 2020 Urban Water Management Plan (UWMP) - 60-day Notification

Dear Ms. Sparkman:

In accordance with the California Water Code (CWC), Fair Oaks Water District (District) is notifying all cities and counties in the area that we provide water supplies that we are in the process of reviewing and considering amendments to our Urban Water Management Plan (UWMP), as required by the CWC at least every 5 years.

The District plans to prepare its 2020 UWMP and adopt it at one of our regularly scheduled Board Meetings. Prior to adopting the UWMP, the document will be made available for public inspection and a Public Hearing will be scheduled. Pursuant to CWC, you are receiving this notice at least 60-days prior to the Public Hearing.

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Should you have any questions or concerns, please feel free to contact me at (916) 844-3513 or psiebensohn@fowd.com.

Sincerely,

Paul Siebensohn
Technical Services Manager
Fair Oaks Water District
Cc: Ashley Smith, Peterson Brustad, Inc.



June 3, 2021

Mr. Michael Grinstead
Senior Civil Engineer, Water Resources
County of Sacramento
827 7th Street, Suite 301
Sacramento, CA 95814

Subject: Preparation of 2020 Urban Water Management Plan (UWMP) - 60-day Notification

Dear Mr. Grinstead:

In accordance with the California Water Code (CWC), Fair Oaks Water District (District) is notifying all cities and counties in the area that we provide water supplies that we are in the process of reviewing and considering amendments to our Urban Water Management Plan (UWMP), as required by the CWC at least every 5 years.

The District plans to prepare its 2020 UWMP and adopt it at one of our regularly scheduled Board Meetings. Prior to adopting the UWMP, the document will be made available for public inspection and a Public Hearing will be scheduled. Pursuant to CWC, you are receiving this notice at least 60-days prior to the Public Hearing.

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Should you have any questions or concerns, please feel free to contact me at (916) 844-3513 or psiebensohn@fowd.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul Siebensohn", is written above the typed name.

Paul Siebensohn
Technical Services Manager
Fair Oaks Water District

Cc: Ashley Smith, Peterson Brustad, Inc.



July 19, 2021

Mr. Casey Kempenaar
Planning Manager
City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, CA 95621

Subject: Fair Oaks Water District 2020 Urban Water Management Plan (UWMP) –
Notice of Public Hearing

Dear Mr. Kempenaar:

In accordance with the California Urban Water Management Planning Act, Fair Oaks Water District (District) is hosting a public hearing on Monday, August 9, 2021, beginning at 6:30pm, during our regularly scheduled Board Meeting at the District's office (address below). The purpose of the hearing is to allow community input and to adopt the District's 2020 Urban Water Management Plan (UWMP).

A public draft of the UWMP will be available by July 26, 2021, on the District's website (www.fowd.com) or at the District's office during normal business hours Monday through Friday, 8:00am to 4:30pm:

Fair Oaks Water District Office
10326 Fair Oaks Blvd.
Fair Oaks, CA 95628

Should you have any questions or concerns, please feel free to contact me at (916) 844-3513 or psiebensohn@fowd.com.

Sincerely,

Paul Siebensohn
Technical Services Manager
Fair Oaks Water District

Cc: Michael Rossiter, Peterson Brustad, Inc.



July 19, 2021

Mr. Marcus Yasutake
Environmental & Water Resources Director
City of Folsom
50 Natoma Street
Folsom, CA 95630

Subject: Fair Oaks Water District 2020 Urban Water Management Plan (UWMP) –
Notice of Public Hearing

Dear Mr. Yasutake:

In accordance with the California Urban Water Management Planning Act, Fair Oaks Water District (District) is hosting a public hearing on Monday, August 9, 2021, beginning at 6:30pm, during our regularly scheduled Board Meeting at the District's office (address below). The purpose of the hearing is to allow community input and to adopt the District's 2020 Urban Water Management Plan (UWMP).

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10326 Fair Oaks Blvd.
Fair Oaks, CA 95628

Should you have any questions or concerns, please feel free to contact me at (916) 844-3513 or psiebensohn@fowd.com.

Sincerely,

Paul Siebensohn
Technical Services Manager
Fair Oaks Water District

Cc: Michael Rossiter, Peterson Brustad, Inc.



July 19, 2021

Ms. Elizabeth Sparkman
Community Development Director
City of Ranch Cordova
2729 Prospect Park Drive
Rancho Cordova, CA 95670

Subject: Fair Oaks Water District 2020 Urban Water Management Plan (UWMP) –
Notice of Public Hearing

Dear Ms. Sparkman:

In accordance with the California Urban Water Management Planning Act, Fair Oaks Water District (District) is hosting a public hearing on Monday, August 9, 2021, beginning at 6:30pm, during our regularly scheduled Board Meeting at the District's office (address below). The purpose of the hearing is to allow community input and to adopt the District's 2020 Urban Water Management Plan (UWMP).

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10326 Fair Oaks Blvd.
Fair Oaks, CA 95628

Should you have any questions or concerns, please feel free to contact me at (916) 844-3513 or psiebensohn@fowd.com.

Sincerely,

Paul Siebensohn
Technical Services Manager
Fair Oaks Water District

Cc: Michael Rossiter, Peterson Brustad, Inc.



July 19, 2021

Mr. Michael Grinstead
Senior Civil Engineer, Water Resources
County of Sacramento
827 7th Street, Suite 301
Sacramento, CA 95814

Subject: Fair Oaks Water District 2020 Urban Water Management Plan (UWMP) –
Notice of Public Hearing

Dear Mr. Grinstead:

In accordance with the California Urban Water Management Planning Act, Fair Oaks Water District (District) is hosting a public hearing on Monday, August 9, 2021, beginning at 6:30pm, during our regularly scheduled Board Meeting at the District's office (address below). The purpose of the hearing is to allow community input and to adopt the District's 2020 Urban Water Management Plan (UWMP).

A public draft of the UWMP will be available by July 26, 2021, on the District's website (www.fowd.com) or at the District's office during normal business hours Monday through Friday, 8:00am to 4:30pm:

Fair Oaks Water District Office
10326 Fair Oaks Blvd.
Fair Oaks, CA 95628

Should you have any questions or concerns, please feel free to contact me at (916) 844-3513 or psiebensohn@fowd.com.

Sincerely,

Paul Siebensohn
Technical Services Manager
Fair Oaks Water District

Cc: Michael Rossiter, Peterson Brustad, Inc.

Attachment E: Published Notices in the Sacramento Bee



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Beaufort Gazette
 Belleville News-Democrat
 Bellingham Herald
 Bradenton Herald
 Centre Daily Times
 Charlotte Observer
 Columbus Ledger-Enquirer
 Fresno Bee

The Herald - Rock Hill
 Herald Sun - Durham
 Idaho Statesman
 Island Packet
 Kansas City Star
 Lexington Herald-Leader
 Merced Sun-Star
 Miami Herald

el Nuevo Herald - Miami
 Modesto Bee
 Raleigh News & Observer
 The Olympian
 Sacramento Bee
 Fort Worth Star-Telegram
 The State - Columbia
 Sun Herald - Biloxi

Sun News - Myrtle Beach
 The News Tribune Tacoma
 The Telegraph - Macon
 San Luis Obispo Tribune
 Tri-City Herald
 Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
20539	105168	Print Legal Ad - IPL0033788		\$258.25	1	24 L

Attention: Kevin Richman
 ENOTICE
 1701 RD ISLAND AVE NW
 WASHINGTON, DC 20036

Notice of Public Hearing

NOTICE OF PUBLIC HEARING
 In accordance with the California Urban Water Management Planning Act, Fair Oaks Water District (District) is hosting a public hearing on Monday, August 9, 2021, beginning at 6:30pm, during our regularly scheduled Board Meeting at the District's office (address below). The purpose of the hearing is to allow community input and to adopt the District's 2021 Urban Water Management Plan (UWMP). A public draft of the UWMP will be available starting July 26, 2021, on the District's website (www.fowd.com) or at the District's office during normal business hours Monday through Friday, 8:00am to 4:30pm:
 Fair Oaks Water District Office
 10326 Fair Oaks Blvd
 Fair Oaks, CA 95628
 IPL0033788
 Jul 26 2021

DECLARATION OF PUBLICATION (C.C.P.2015.5)

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the printer and principal clerk of the publisher of The Sacramento Bee, printed and published in the City of Sacramento, County of Sacramento, State of California, daily, for which said newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Sacramento, State of California, under the date of September 26, 1994, Action No. 379071; that the notice of which the annexed is a printed copy, has been published in each issue thereof and not in any supplement thereof on the following dates, to wit:

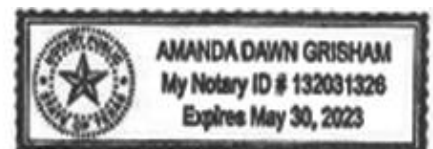
No. of Insertions: 1
 Beginning Issue of: 07/26/2021
 Ending Issue of: 07/26/2021

Legals Clerk

COUNTY OF DALLAS
 STATE OF TEXAS

I certify (or declare) under penalty of perjury that the foregoing is true and correct and that this declaration was executed at Sacramento, California, on 7/26/2021.

Notary Public in and for the state of Texas, residing in Dallas County



Extra charge for lost or duplicate affidavits.
 Legal document please do not destroy!



Beaufort Gazette
 Belleville News-Democrat
 Bellingham Herald
 Bradenton Herald
 Centre Daily Times
 Charlotte Observer
 Columbus Ledger-Enquirer
 Fresno Bee

The Herald - Rock Hill
 Herald Sun - Durham
 Idaho Statesman
 Island Packet
 Kansas City Star
 Lexington Herald-Leader
 Merced Sun-Star
 Miami Herald

el Nuevo Herald - Miami
 Modesto Bee
 Raleigh News & Observer
 The Olympian
 Sacramento Bee
 Fort Worth Star-Telegram
 The State - Columbia
 Sun Herald - Biloxi

Sun News - Myrtle Beach
 The News Tribune Tacoma
 The Telegraph - Macon
 San Luis Obispo Tribune
 Tri-City Herald
 Wichita Eagle

AFFIDAVIT OF PUBLICATION

Account #	Order Number	Identification	Order PO	Amount	Cols	Depth
20539	106653	Print Legal Ad - IPL0034134		\$258.25	1	24 L

Attention: Kevin Richman
 ENOTICE
 1701 RD ISLAND AVE NW
 WASHINGTON, DC 20036

Notice of Public Hearing

NOTICE OF PUBLIC HEARING
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 Fair Oaks Water District Office
 10326 Fair Oaks Blvd
 Fair Oaks, CA 95628
 IPL0034134
 Aug 2 2021

DECLARATION OF PUBLICATION (C.C.P.2015.5)

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the printer and principal clerk of the publisher of The Sacramento Bee, printed and published in the City of Sacramento, County of Sacramento, State of California, daily, for which said newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Sacramento, State of California, under the date of September 26, 1994, Action No. 379071; that the notice of which the annexed is a printed copy, has been published in each issue thereof and not in any supplement thereof on the following dates, to wit:

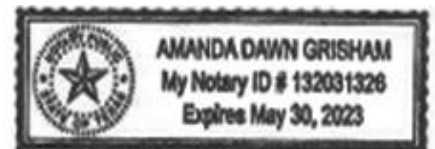
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 Beginning Issue of: 08/02/2021
 Ending Issue of: 08/02/2021

Legals Clerk

COUNTY OF DALLAS
 STATE OF TEXAS

I certify (or declare) under penalty of perjury that the foregoing is true and correct and that this declaration was executed at Sacramento, California, on 8/2/2021.

Notary Public in and for the state of Texas, residing in Dallas County



Extra charge for lost or duplicate affidavits.
 Legal document please do not destroy!

Attachment F: Documentation of Data Exchanged with San Juan Water District



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August 9, 2021

Mr. Tom Gray
General Manager
Fair Oaks Water District
10326 Fair Oaks Boulevard
Fair Oaks, CA 95628

Directors
Edward J. "Ted" Costa
Marty Hanneman
Kenneth H. Miller
Dan Rich
Pamela Tobin
General Manager
Paul Helliker

RE: FOWD 2020 Urban Water Management Plan

Dear Mr. Gray:

I have reviewed the draft 2020 Urban Water Management Plan (UWMPs) for Fair Oaks Water District (FOWD), and would like to offer a few comments. The plan is clear and well-written, and provides an easily-accessible summary of the current and reasonably foreseeable projections of water supply availability and reliability for our mutual customers within the boundaries of the Fair Oaks Water District. We appreciate the use by FOWD of the information that we developed for 2020 UWMPs within our wholesale service area, concerning the availability of surface water supplies.

I do have a few questions and comments about certain statements in the UWMP, as follows.

Section 7-4

The UWMP notes that FOWD has commitments of up to 15,000 AF/yr of surface water supplies from San Juan Water District (SJWD). The current Wholesale Water Supply Agreement between FOWD and SJWD contains no limit to the amount of surface water that SJWD will provide to FOWD, other than the provisions for shortages of surface water supplies contained in that agreement. It appears that the 15,000 AF is based on the language contained on page 31 of the draft 2020 FOWD UWMP, which states that the UWMP assumes that 15,000 AF of surface water supplies will be available for use by FOWD. This is a reasonable assumption, but there are no contractual commitments creating such a limitation.

The second paragraph of this section makes reference to an analysis in SJWD's 2015 UWMP, concerning reductions in surface water demands by wholesale customer agencies (WCAs) during single or multiple dry years. That analysis has been superseded by SJWD's 2020 UWMP, which projects that use by WCAs in single or multiple dry years will increase by 5% (to reflect increased demand in those years for landscape irrigation supplies). Contrary to the assertion in this paragraph that wholesale supplies in single and multiple dry years will be reduced such that available supplies to

FOWD will be reduced from 15,000 acre-feet to 12,740 acre-feet per year, SJWD's 2020 UWMP projects that no such reduction will occur. While FOWD's 2020 UWMP does not project any inadequacy of supplies to meet projected demands through 2040, including in single or multiple dry years, we still recommend that analyses of the availability of surface water supplies be consistent among UWMPs that address that information.

Thank you for the opportunity to provide comments on your 2020 UWMP.

Sincerely,



Paul Helliker
General Manager

Attachment G: Summary Report from AWWA Water Audit Software



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AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association

? Click to access definition
+ Click to add a comment

Water Audit Report for: Fair Oaks Water District
Reporting Year: 2016 1/2016 - 12/2016

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

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

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

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

WATER SUPPLIED

Volume from own sources:	+ ?	5	997.700	acre-ft/yr
Water imported:	+ ?	7	7,703.370	acre-ft/yr
Water exported:	+ ?	n/a	0.000	acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt:	Value:	acre-ft/yr
+ ? 3 0.00%	<input checked="" type="radio"/>	
+ ? 5 0.00%	<input type="radio"/>	
+ ?	<input type="radio"/>	

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

WATER SUPPLIED: **8,701.070** acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	+ ?	5	8,172.000	acre-ft/yr
Billed unmetered:	+ ?	n/a	0.000	acre-ft/yr
Unbilled metered:	+ ?	10	8.000	acre-ft/yr
Unbilled unmetered:	+ ?	8	1.000	acre-ft/yr

AUTHORIZED CONSUMPTION: **8,181.000** acre-ft/yr

Click here: ?
for help using option

Pcnt: Value: acre-ft/yr

Use buttons to select percentage of water supplied OR value

Pcnt: Value: acre-ft/yr

Value: acre-ft/yr

Value: acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

520.070 acre-ft/yr

Apparent Losses

Unauthorized consumption: + ? **21.753** acre-ft/yr

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

Customer metering inaccuracies:	+ ?	3	166.939	acre-ft/yr
Systematic data handling errors:	+ ?		20.430	acre-ft/yr

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

Apparent Losses: **209.121** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? **310.949** acre-ft/yr

WATER LOSSES: **520.070** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: ? **529.070** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?	8	181.0	miles
Number of active AND inactive service connections:	+ ?	10	13,894	
Service connection density:	?		77	conn./mile main

Are customer meters typically located at the curbstop or property line? (length of service line, beyond the property boundary, that is the responsibility of the utility)

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

Average operating pressure: + ? 5 80.0 psi

COST DATA

Total annual cost of operating water system:	+ ?	10	\$7,661,048	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ?	8	\$0.45	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+ ?	5	\$210.40	\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 67 out of 100 ***

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

PRIORITY AREAS FOR ATTENTION:

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

- 1: Water imported
- 2: Customer metering inaccuracies
- 3: Billed metered



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0
American Water Works Association.
Copyright © 2014. All Rights Reserved.

? Click to access definition
+ Click to add a comment

Water Audit Report for: **Fair Oaks Water District (3410009)**
Reporting Year: **2017** 1/2017 - 12/2017

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

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

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

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

WATER SUPPLIED

Volume from own sources:	+	?	5	3,388.600	acre-ft/yr
Water imported:	+	?	5	6,187.270	acre-ft/yr
Water exported:	+	?	n/a	0.000	acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt:	+	?	5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Value:		acre-ft/yr
	+	?	5	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>			acre-ft/yr
	+	?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			acre-ft/yr

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

WATER SUPPLIED: **9,575.870** acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	+	?	5	8,935.000	acre-ft/yr
Billed unmetered:	+	?	n/a	0.000	acre-ft/yr
Unbilled metered:	+	?	10	9.000	acre-ft/yr
Unbilled unmetered:	+	?	5	23.940	acre-ft/yr

AUTHORIZED CONSUMPTION: **8,967.940** acre-ft/yr

Click here: ?
for help using option buttons below

Pcnt: Value:
 23.940 acre-ft/yr

Use buttons to select percentage of water supplied OR value

Pcnt: Value:
0.25% Value:
2.00% Value:
0.25% Value:

WATER LOSSES (Water Supplied - Authorized Consumption)

607.930 acre-ft/yr

Apparent Losses

Unauthorized consumption: **23.940** acre-ft/yr
Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+	?	3	182.531	acre-ft/yr
Systematic data handling errors:	+	?		22.338	acre-ft/yr

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

Apparent Losses: **228.808** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **379.123** acre-ft/yr

WATER LOSSES: **607.930** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **640.870** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+	?	8	181.0	miles
Number of active AND inactive service connections:	+	?	10	13,986	
Service connection density:	?			77	conn./mile main

Are customer meters typically located at the curbstop or property line? (length of service line, beyond the property boundary, that is the responsibility of the utility)

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

Average operating pressure: psi

COST DATA

Total annual cost of operating water system:	+	?	10	\$8,794,618	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	8	\$0.45	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	5	\$235.76	\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 60 out of 100 ***

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

PRIORITY AREAS FOR ATTENTION:

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

- 1: Water imported
- 2: Volume from own sources
- 3: Customer metering inaccuracies



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association

?	Click to access definition
+	Click to add a comment

Water Audit Report for: **Fair Oaks Water District (3410009)**
 Reporting Year: **2018** **1/2018 - 12/2018**

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

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

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

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

WATER SUPPLIED

Volume from own sources:	+	?	5	3,151.200	acre-ft/yr
Water imported:	+	?	3	6,539.370	acre-ft/yr
Water exported:	+	?	n/a	0.000	acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt:	+	?	5	Value:		acre-ft/yr
				<input checked="" type="radio"/>	<input type="radio"/>	
				<input type="radio"/>	<input type="radio"/>	
				<input type="radio"/>	<input type="radio"/>	

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

WATER SUPPLIED: **9,690.570** acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	+	?	7	9,128.000	acre-ft/yr
Billed unmetered:	+	?	n/a	0.000	acre-ft/yr
Unbilled metered:	+	?	n/a	0.000	acre-ft/yr
Unbilled unmetered:	+	?	5	24.226	acre-ft/yr

AUTHORIZED CONSUMPTION: **9,152.226** acre-ft/yr

Click here: ? for help using option buttons below

Pcnt: Value:

24.226 acre-ft/yr

Use buttons to select percentage of water supplied
 OR
 value

Pcnt: Value:

0.25% 24.226 acre-ft/yr

1.00% 24.226 acre-ft/yr

0.25% 24.226 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

538.344 acre-ft/yr

Apparent Losses

Unauthorized consumption: **24.226** acre-ft/yr

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

Customer metering inaccuracies:	+	?	5	92.202	acre-ft/yr
Systematic data handling errors:	+	?	?	22.820	acre-ft/yr

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

Apparent Losses: **139.248** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **399.095** acre-ft/yr

WATER LOSSES: **538.344** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **562.570** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+	?	9	181.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	10	13,936	
Service connection density:	?	?	?	77	conn./mile main

Are customer meters typically located at the curbstop or property line? (length of service line, beyond the property boundary, that is the responsibility of the utility)

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

Average operating pressure: psi

COST DATA

Total annual cost of operating water system:	+	?	10	\$8,996,586	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	10	\$0.50	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	7	\$257.01	\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 60 out of 100 *****

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

PRIORITY AREAS FOR ATTENTION:

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

- 1: Water imported
- 2: Volume from own sources
- 3: Customer metering inaccuracies



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association

?	Click to access definition
+	Click to add a comment

Water Audit Report for: **Fair Oaks Water District (CA3410009)**
 Reporting Year: **2019** **1/2019 - 12/2019**

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

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

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

WATER SUPPLIED

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

Volume from own sources:	+	?	5	2,138.760	acre-ft/yr
Water imported:	+	?	9	7,260.020	acre-ft/yr
Water exported:	+	?	n/a	0.000	acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt:	+	?	3	[Progress Bar]	Value:		acre-ft/yr
	+	?	5	[Progress Bar]			acre-ft/yr
	+	?	[]	[Progress Bar]			acre-ft/yr

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

WATER SUPPLIED: **9,398.780** acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	+	?	7	8,822.000	acre-ft/yr
Billed unmetered:	+	?	n/a	0.000	acre-ft/yr
Unbilled metered:	+	?	n/a	0.000	acre-ft/yr
Unbilled unmetered:	+	?	5	23.497	acre-ft/yr

AUTHORIZED CONSUMPTION: **8,845.497** acre-ft/yr

Click here: ?
for help using option buttons below

Pcnt:	+	?	[]	[Progress Bar]	Value:	23.497	acre-ft/yr
-------	---	---	-----	----------------	--------	--------	------------

Use buttons to select percentage of water supplied
OR
value

Pcnt:	+	?	0.25%	[Progress Bar]	Value:		acre-ft/yr
-------	---	---	-------	----------------	--------	--	------------

	+	?	1.00%	[Progress Bar]			acre-ft/yr
	+	?	0.25%	[Progress Bar]			acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

553.283 acre-ft/yr

Apparent Losses

Unauthorized consumption: **23.497** acre-ft/yr

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

Customer metering inaccuracies:	+	?	5	89.111	acre-ft/yr
Systematic data handling errors:	+	?	[]	22.055	acre-ft/yr

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

Apparent Losses: **134.663** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **418.620** acre-ft/yr

WATER LOSSES: **553.283** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **576.780** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+	?	9	181.0	miles
Number of <u>active AND inactive</u> service connections:	+	?	10	14,241	
Service connection density:	?	[]	[]	79	conn./mile main

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

Average length of customer service line: **+** **?** **[]**

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

Average operating pressure: **+** **?** **5** **80.0** psi

COST DATA

Total annual cost of operating water system:	+	?	10	\$9,760,382	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	10	\$0.50	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	5	\$268.11	\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 74 out of 100 *****

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

PRIORITY AREAS FOR ATTENTION:

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

- 1: Customer metering inaccuracies
- 2: Variable production cost (applied to Real Losses)
- 3: Volume from own sources

Attachment H: Fair Oaks Water District 2020 Water Shortage
Contingency Plan



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2020 WATER SHORTAGE CONTINGENCY PLAN

AUGUST 27, 2021

PREPARED BY:



80 Blue Ravine Road, Suite 280
Folsom, CA 95630
(916) 608-2212

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ACRONYMS

Acronym	Definition	Page
AWSAR	Annual Water Shortage Assessment Report	1
CGC	California Government Code	15
CWC	California Water Code	1
DWR	Department of Water Resources	1
FOWD	Fair Oaks Water District	1
LHMP	Local Hazard Mitigation Plan	13
SJWD	San Juan Water District	11
UWMP	Urban Water Management Plan	1
WSCP	Water Shortage Contingency Plan	1

1.0 WATER SHORTAGE CONTINGENCY PLAN

This Water Shortage Contingency Plan (WSCP) presents Fair Oaks Water District's (FOWD or District) plan and approach for identifying and mitigating various water shortage conditions should they arise, such as drought or system emergencies. This WSCP satisfies the requirements of California Water Code (CWC) §10632 and has been produced as part of FOWD's 2020 Urban Water Management Plan (UWMP) update, although the WSCP can be amended, as needed, without the need to amend the UWMP. It is noted, the CWC does not exclude the District from taking actions not specifically contained in its WSCP in response to supply shortage conditions.

2.0 WATER SUPPLY RELIABILITY ANALYSIS

As part of FOWD's UWMP, reliability planning was conducted to evaluate the District's ability to meet demands. Two separate efforts were conducted to characterize both long- and near-term reliability scenarios. The Water Reliability Assessment is conducted for a normal year, single dry year, and a drought lasting five consecutive years, and is used to evaluate long-term supplies with demands over the next 25 years, in five-year increments. The Drought Risk Assessment assumes the occurrence of a drought over the next five years and aims to assess the District's near-term reliability.

Results from the Water Reliability Assessment indicate FOWD has ample supplies through 2045 to meet demands under the normal, single dry year, and five-year drought conditions. Similarly, the District's Drought Risk Assessment indicates sufficient supplies to meet expected demands during an assumed drought occurring in the next five consecutive years (2021-2025).

3.0 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

As established by CWC Section 10632.1, urban water suppliers must conduct annual water supply and demand assessments and submit an annual water shortage assessment report to DWR. Beginning by July 1, 2022, the District must prepare an annual water supply and demand assessment (Annual Assessment) and submit an Annual Water Shortage Assessment Report (AWSAR) to DWR. The Annual Water Shortage Assessment Report will be due by July 1 of every year. Per CWC, the Annual Assessment must include:

- A written description of the decision-making process that the District will use each year to determine its water supply reliability.
- The key data inputs and assessment methodology used to evaluate the supplier's water supply reliability for the current year and one dry year¹.

3-1 Decision-Making Process

The AWSAR evaluates the system's reliability for the coming year based on recent water use and before any projected response actions are implemented to identify potential shortages and response actions. This approach allows the District's staff to plan and prepare for water shortages to ensure proactive responses are implemented to mitigate impacts to its customers. The District

¹ The District can consider more than one dry year.

will follow the decision-making process and timeline summarized in Table 3-1.

Table 3-1. Decision-Making Process and Timeline.

Task	Timeline
District General Manager and Technical Services Manager will perform the annual supply and demand assessment and prepare the AWSAR.	Completed by May 15th
District GM will meet with the Board of Directors to discuss AWSAR and results. District GM will declare a water shortage when deemed appropriate after considering results from AWSAR.	Completed by May 31 st
Technical Services Manager to finalize AWSAR	Completed by June 30 th
AWSAR Submittal	Submit AWSAR by July 1 st
AWSAR Availability	AWSAR to be available no later than 30 days after submittal to DWR

The District will prepare its Annual Assessment using the following key data and analytical procedures (which may be modified as needed):

- Prepare supply estimates for each water source on a monthly basis for the analysis period.
- Update unconstrained customer demand and estimate anticipated actual water use on a monthly basis for the analysis period.
- Update infrastructure assessment, including estimated water supply production capability on a monthly basis for the analysis period.
- Identify and quantify any locally applicable factors that may influence or disrupt supplies during the analysis period.
- Refine the definition of “dry year” as relevant to dry conditions.
- Identify any shortfall between projected supply and anticipated demand.
- Identify and incorporate any applicable constraints (infrastructure, regulatory, etc.).
- Develop, analyze, and propose water resource management strategies to address any shortfall between projected supply and anticipated demand with reference to the water shortage stages identified in this WSCP.
- Present the Annual Assessment (and resulting water shortage stage declaration, if applicable) to District decision-makers.

If the results of the Annual Assessment indicate the need for any alternative water shortage response actions which may be addition to those specified in Section 5, below, the alternative response actions will be described and submitted in the Annual Assessment, as specified in CWC 10632.2.

4.0 SIX STANDARD WATER SHORTAGE STAGES

The following subsections and tables present information on the District’s supply scenarios, including the six water shortage stages. Results from the Annual Water Supply and Demand Assessment are used to determine if a respective shortage stage needs to be declared.

No provisions of this WSCP shall apply to fire hydrants, fire mains, fire sprinkler lines or other equipment used solely for fire protection purposes. Nor shall any provisions apply to any health care or convalescent facility or any other type of facility where the health and welfare would be affected by restrictions on water used. Such facilities are encouraged to conserve water to the extent possible. However, this WSCP does apply to the outdoor grounds, yards, and parking areas of these facilities.

The stages presented in this WSCP differ, consistent with DWR guidance, from the State identified shortage levels of 10, 20, 30, 40, 50, and greater than 50 percent shortage. Pursuant to CWC §10632(a)(3)(B), Table 4-1 cross-references this WSCP’s shortage levels to the State identified levels above. FOWD supply characteristics and reliability are better suited for the existing four drought stages identifying 10, 25, 50, and >50 percent supply shortages.

Table 4-1. Corresponding Shortage Levels

FOWD WSCP Stages		State Mandated Shortage Levels
Stage 1 – Normal Water Supply		
Stage 2 – Water Alert	10%	Stage 1: Up to 10%
Stage 3 – Water Warning	25%	Stage 2: Up to 20%
Stage 3– Water Warning Stage 4 – Water Crisis: Short-Term Stage 4 – Water Crisis: Long-Term	25%/50%	Stage 3: Up to 30%
Stage 4 – Water Crisis: Short-Term Stage 4 – Water Crisis: Long-Term	50%	Stage 4: Up to 40%
Stage 4 – Water Crisis: Short-Term Stage 4 – Water Crisis: Long-Term	50%	Stage 5: Up to 50%
Stage 5 – Water Emergency: Short-Term Stage 5 – Water Emergency: Long-Term	>50%	Stage 6: Greater than 50%

4-1 Stage 1: Normal Water Supply

Under Normal Water Supply conditions, the District's water supply and distribution system is expected to be able to meet all the water demands of its customers in the immediate future.

Regulations for Normal Water Supply are applicable to all stages and include the following:

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Washing vehicles is permitted only with the use of an automatic shut off hose bib nozzle. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Voluntarily limit irrigating of ornamental landscapes to THREE DAYS PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number should irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS. Customers with street addresses that end with an EVEN number should irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS. Irrigating on MONDAYS is discouraged.
5. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
6. Irrigating of ornamental turf on public street medians is prohibited.
7. Inspect all irrigation systems, repair leaks, adjust spray heads to eliminate avoidable over-spray and adjust watering schedules.
8. Leaking customer pipes, toilets or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
9. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
10. Washing streets, parking lots, driveways or sidewalks is prohibited.
11. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
12. Voluntarily reduce water use by 20% compared to 2013.

4-2 Stage 2 – Water Alert

When the following actions are implemented, these actions together are expected to eliminate up to a 10% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Washing vehicles is permitted only with the use of an automatic hose bib shut off nozzle.

Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.

4. Irrigating of ornamental landscapes or turf shall be limited to a maximum of THREE DAYS PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number may irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS. Customers with street addresses that end with an EVEN number may only irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS. NO irrigating is permitted on MONDAYS.
5. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
6. Irrigating of ornamental turf on public street medians is prohibited.
7. Inspect all irrigation systems, repair leaks, adjust spray heads to eliminate avoidable over-spray and adjust watering schedules.
8. Leaking customer pipes, toilets or faulty sprinklers shall be repaired within five (5) working days or less if warranted by the severity of the problem.
9. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
10. Washing streets, parking lots, driveways or sidewalks is prohibited.
11. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
12. Reduce landscape and pasture irrigation by 5 – 10%. Customers with 'smart' irrigation timers or controllers are asked to set their controllers to achieve 90 to 95% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.
13. Reduce indoor water use by 5 – 10%. Contact your water provider for tips and techniques to reduce indoor water use.
14. Restaurants shall serve water only upon request.
15. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

4-3 Stage 3 – Water Warning

When the following actions are implemented, these actions together are expected to eliminate up to a 25% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. No spray irrigating between 8am-8pm to eliminate evaporation. Hand watering with the use of an automatic hose bib shut off nozzle is allowed.
5. Irrigating of ornamental landscapes or turf shall be limited to a maximum of THREE DAYS

PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number may irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS. Customers with street addresses that end with an EVEN number may irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS. NO irrigating is permitted on MONDAYS.

6. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
7. Irrigating of ornamental turf on street medians is prohibited.
8. Inspect all irrigation systems, repair leaks, adjust spray heads to eliminate avoidable over-spray and adjust watering schedules.
9. Leaking customer pipes, toilets or faulty sprinklers shall be repaired within two (2) working days or less if warranted by the severity of the problem.
10. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
11. Washing streets, parking lots, driveways or sidewalks is prohibited.
12. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
13. Reduce landscape and pasture irrigation by 11 – 25%. Customers with 'smart' irrigation timers or controllers are asked to set their controllers to achieve 75 to 89% of the evapotranspiration (ET) rate. Drip irrigation systems are excluded from this requirement.
14. Reduce indoor water use by 11 – 25%. Contact your water provider for tips and techniques to reduce indoor water use.
15. Restaurants shall serve water only upon request.
16. Users of construction meters and fire hydrant meters will be monitored for efficient water use.

4-4 Stage 4 – Water Crisis: Short-Term

The declaration of Short-Term Stage 4 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

When the following actions are implemented, these actions together are expected to eliminate up to a 50% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.
3. No spray irrigating between 8am-8pm to eliminate evaporation. Hand watering with the use of an automatic hose bib shut off nozzle is allowed.
4. Irrigating of ornamental landscapes or turf shall be limited to a maximum of TWO DAYS

PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number may irrigate only on TUESDAYS and SATURDAYS. Customers with street addresses that end with an EVEN number may irrigate only on WEDNESDAYS and SUNDAYS. NO irrigating is permitted on MONDAYS.

5. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
6. Irrigating of ornamental turf on street medians is prohibited.
7. Inspect all irrigation systems, repair leaks, adjust spray heads to eliminate avoidable over-spray and adjust watering schedules.
8. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
9. Leaking customer pipes, toilets or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
10. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
11. Washing streets, parking lots, driveways, sidewalks, or buildings is prohibited.
12. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
13. Reduce landscape and pasture irrigation by 26 – 50%. Customers with 'smart' irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration (ET) rate. Drip irrigation systems are NOT excluded from this requirement.
14. Reduce indoor water use by 26 – 50%. Contact your water provider for tips and techniques to reduce indoor water use.
15. Restaurants shall serve water only upon request.
16. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
17. Irrigating outside of newly constructed homes and buildings that is not delivered by drip or micro spray systems is prohibited.

4-5 Stage 4 – Water Crisis: Long-Term

The declaration of Long-Term Stage 4 water conservation requirements will be declared by the agency's Board of Directors in a regular or special session. A Long-term declaration is for water shortage conditions expected for a duration of more than 45 days.

When the following actions are implemented, these actions together are expected to eliminate up to a 50% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Water shall be confined to the customer's property and shall not be allowed to run-off to adjoining properties or to the roadside ditch or gutter. Care shall be taken not to water past the point of saturation.

3. Irrigating of ornamental landscapes or turf shall be limited to a maximum of THREE DAYS PER WEEK based on an ODD-EVEN schedule. Customers with street addresses that end with an ODD number may irrigate only on TUESDAYS, THURSDAYS, and SATURDAYS. Customers with street addresses that end with an EVEN number may irrigate only on WEDNESDAYS, FRIDAYS, and SUNDAYS. NO irrigating is permitted on MONDAYS.
4. The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.
5. Irrigating of ornamental turf on public street medians is prohibited.
6. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
7. Leaking customer pipes or faulty sprinklers shall be repaired within 24 hours or less if warranted by the severity of the problem.
8. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool draining and refilling shall be allowed only for health, maintenance, or structural considerations.
9. Washing streets, parking lots, driveways, sidewalks, or buildings is prohibited.
10. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
11. Reduce landscape and pasture irrigation by 26 – 50%. Customers with 'smart' irrigation timers or controllers are asked to set their controllers to achieve 50 to 74% of the evapotranspiration (ET) rate. Drip irrigation systems are NOT excluded from this requirement.
12. Reduce indoor water use by 26 – 50%. Contact your water provider for tips and techniques to reduce indoor water use.
13. Restaurants shall serve water only upon request.
14. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
15. Irrigating outside of newly constructed homes and buildings that is not delivered by drip or micro spray systems is prohibited.

4-6 Stage 5 – Water Emergency: Short-Term

The declaration of Short-Term Stage 5 water conservation requirements may be declared by the agency's General Manager or his/her designee and subject to ratification by the agency's Board of Directors in a regular or special session. A short-term declaration is for water shortage conditions expected for a duration of 45 days or less.

When the following actions are implemented, these actions together are expected to eliminate a >50% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. Landscape and pasture irrigation is prohibited. Only irrigation of mature trees is allowed.
3. Washing vehicles is prohibited. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes, toilets or faulty tree irrigation lines shall be repaired

immediately. Water service will be suspended until repairs are made.

5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds, or streams. Water use for ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings is prohibited.
7. Customers are encouraged to take advantage of the water agency's conservation programs and rebates.
8. Reduce indoor water use by more than 50%. Contact your water provider for tips and techniques to reduce indoor water use.
9. Restaurants shall serve water only upon request.
10. Water flow for testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District's system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
11. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
12. Installation of new turf or landscaping is prohibited.
13. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.

4-7 Stage 5 – Water Emergency: Long-Term

The declaration of Long-Term Stage 5 water conservation requirements will be declared by the agency's Board of Directors in a regular or special session. A Long-term declaration is for water shortage conditions expected for a duration of more than 45 days.

When the following actions are implemented, these actions together are expected to eliminate a >50% gap between supply and demand.

1. Water shall be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
2. All outdoor irrigation is prohibited.
3. Washing vehicles is prohibited. Free-flowing hoses for all uses are prohibited. Automatic shut-off devices shall be attached on any hose or filling apparatus in use.
4. Leaking customer pipes and toilets shall be repaired immediately. Water service will be suspended until repairs are made.
5. All pools, spas, and ornamental fountains/ponds shall be equipped with a recirculation pump and shall be constructed to be leak-proof. Pool covers are recommended to reduce evaporation. No potable water from the District's system shall be used to fill or refill swimming pools, artificial lakes, ponds, or streams. Water use for commercial and multi-family residential ornamental ponds and fountains is prohibited.
6. Washing streets, parking lots, driveways, sidewalks, or buildings is prohibited.
7. Customers are encouraged to take advantage of the water agency's conservation

- programs and rebates.
- 8. Reduce indoor water use by more than 50%.
- 9. Restaurants shall serve water only upon request.
- 10. Water flow for testing and construction purposes from water agency fire hydrants and blow-offs is prohibited. No potable water from the District’s system shall be used for construction purposes including but not limited to dust control, compaction, or trench jetting. Use of reclaimed water for construction purposes is encouraged.
- 11. Flushing of sewers or fire hydrants is prohibited except in case of emergency and for essential operations.
- 12. Installation of new turf or landscaping is prohibited.
- 13. Automobiles or equipment shall be washed only at commercial establishments that use recycled or reclaimed water.
- 14. New connections to the District water distribution system will not be allowed.
- 15. Water Crisis/Emergency tiered pricing will be implemented.
- 16. No commitments will be made to provide service for new water service connections.

5.0 SHORTAGE RESPONSE ACTIONS

The following table presents the individual estimated demand savings of each response action. Actual savings will likely vary greatly based on external influences, shortage stage level, and general customer understanding of drought severity. It is assumed the savings estimates are not necessarily additive, but when implemented together as a program with all the actions in each respective stage, they are intended and estimated to eliminate each stage’s identified supply to demand shortage gap.

5-1 Demand Reduction

The goal of demand reduction is to balance supply and demand. The District offers various rebates to encourage conservation (i.e., High Efficiency Toilet rebate and Smart Water Sprinkler Controller rebate). In addition to rebates, the demand reduction actions that will be implemented at each shortage level are shown in Table 5-1.

Table 5-1. Demand Reduction Actions.

State Mandated Shortage Level	Demand Reduction Actions.	How much is this going to reduce the shortage gap?	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
1	Landscape - Restrict or prohibit runoff from landscape irrigation	0-5%	Excess Runoff	Yes
1	Landscape - Prohibit certain types of landscape irrigation	0-5%	Free-flowing hoses for all hoses	Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	0-1%	Uncorrected plumbing or irrigation leaks	Yes

State Mandated Shortage Level	Demand Reduction Actions.	How much is this going to reduce the shortage gap?	Additional Explanation or Reference	Penalty, Charge, or Other Enforcement?
1	Other - Prohibit use of potable water for washing hard surfaces	0-1%	Washing of streets, driveways, sidewalks, building	Yes
2	Landscape - Prohibit certain types of landscape irrigation	0-5%	Full flow of landscape and pasture irrigation	Yes
3	Restaurants may only serve water upon request	0-1%	Serving water at restaurants only when requested by customers	Yes
4/5	Landscape - Prohibit certain types of landscape irrigation	0-5%	Irrigating of ornamental turf on public street medians is prohibited	Yes
4/5	Restaurants may only serve water upon request	0-1%	Serving water at restaurants only when requested by customers	Yes
6	Other restriction or prohibition	10-15%	Flushing of sewers or fire hydrants	Yes
6	Other	0-5%	New connection to the District's water distribution system	Yes

NOTES: See Table 4-1 for crosswalk of District's shortage levels compared to those mandated by statute.

5-2 Supply Augmentation

The District’s conjunctive use goals have typically been to serve 90% of its demands with surface water and 10% with groundwater. Upon the declaration of a water shortage, the San Juan Water District (SJWD) will allocate surface water supplies on a pro-rata basis, using the ratio of the average amount of surface water supplies delivered to the District during the five prior non-shortage years, divided by the average of the total wholesale surface water deliveries to the retail agencies in that period. The SJWD will deliver the resulting proportion of available SJWD surface water supplies to District in a water shortage. The District is solely responsible for water supply reliability in our service area and will meet the remaining water demand of our customers during a water shortage with groundwater from District facilities. The District expects to mitigate water shortages through supply augmentation methods such as those outlined in Table 5-2 below.

Table 5-2. Supply Augmentation and Other Actions.

State Mandated Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?	Additional Explanation or Reference
2, 3, 4, 5	Other Actions- Customers must repair leaks, breaks and malfunctions in a timely manner	Varies	Mandatory reduction of indoor water use
2	Landscape – Limit landscape irrigation to specific days	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
3	Landscape – Limit landscape irrigation to specific days	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
4	Landscape – Limit landscape irrigation to specific days	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
5	Landscape – Limit landscape irrigation to specific days	0-10%	Reduce landscape and pasture irrigation. Customers with "smart" irrigation timers or controllers are asked to set the controllers to achieve 90 to 95% of the evapotranspiration (ET) rate.
6	Other Actions – Other Landscape restriction or prohibition	15-25%	Landscape and pasture irrigation is prohibited.
NOTES: See Table 4-1 for crosswalk of District's shortage levels compared to those mandated by statute.			

5-3 Operational Changes

The District has identified a series of restrictions that will be implemented at different shortage levels. Examples of these restrictions are included in Table 5-2.

5-4 Additional Mandatory Restrictions

The District has identified a series of restrictions that will be implemented at different shortage levels. These prohibitions are included in the demand reduction actions in Table 5-1.

5-5 Emergency Response Plan

Besides drought, the District may experience a catastrophic interruption of the water supply as a result of natural disasters such as earthquake or flooding, a regional power outage, terrorism, wildfire, or sabotage. The District's Emergency Operations Plan outlines the District's planned responses to emergencies associated with disasters, technological incidents, or other dangerous conditions created either by man or nature.

5-6 Seismic Risk Assessment and Mitigation Plan

Sacramento and Placer counties have completed Local Hazard Mitigation Plans (LHMP) under the federal Disaster Mitigation Act of 2000 (Public Law 106-390). Per DWR requirements, a copy of the most recent adopted plan by each County is included by way of electronic reference at the following locations:

- Sacramento County (2016):
<https://waterresources.saccounty.net/stormready/Pages/Local-Hazard-Mititagtion-%20Report.aspx>
- Placer County (2016):
<https://www.placer.ca.gov/DocumentCenter/View/397/Complete2016-LHMP--Including-ChaptersAnnexes-and-Appendices-PDF>

Sacramento County is currently in the process of updating the LHMP 2016. The update includes participation with other entities, including Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, Isleton, Rancho Cordova, and other special districts. The update is anticipated to be completed and finalized during 2021.

5-7 Shortage Response Action Effectiveness

Measuring reductions in water use is part of regular procedures, whether during normal or water shortage conditions. Water is produced and introduced into the distribution system in response to customer demand and is tracked monthly as an indicator of overall demand. The potential savings for the shortage response actions are available in Table 4-1.

6.0 COMMUNICATION PROTOCOLS

Communication protocols for the WSCP include public outreach and notification to customers and entities within the District upon a change in stage declaration. Information shall include and describe the appropriate shortage response actions for the declared stage. Such communication will be delivered by direct-mail, District website, and media outlets.

FOWD will coordinate with the San Juan Water District if anticipated water supplies and demands necessitate the declaration of a local emergency.

7.0 COMPLIANCE AND ENFORCEMENT

The District shall terminate water service to the property of a customer who receives two violations for noncompliance with conditions set forth herein.

- Upon observation by authorized District personnel of a water waste condition, the District shall issue a warning with the first two observations by personal service or by notice left on premises requesting compliance with the District's conservation rules.
- Upon observation by authorized District personnel of a **third** water waste condition at the same property address, the customer shall be issued a violation by personal service or by notice left on premise and a copy mailed to customer at the premises. The customer shall be notified, in writing, that if an additional observation of water waste is documented, the District shall issue a third violation notice and begin termination actions of water service to the subject address. In lieu of service termination, the District may opt to impose a penalty charge for water waste. The District shall indicate in writing said penalty charge in the violation notice. If the customer is not the property owner, a copy of the writing shall be mailed to the owner of record.
- Upon observation by authorized District personnel of a **fourth**, or subsequent water waste condition at the same property address, the customer shall be issued a violation notice by personal service or by notice left on premises and a copy mailed to the customer at the premises. The owner/customer shall then be notified, in writing by certified mail, that the water service to the subject address shall be terminated in fifteen (15) days. Reconnection to the District's system after said termination procedure shall be subject to a reconnect charge equal to the District's actual incurred costs to date, including penalty fees, or to a minimum charge as follows, whichever is greater:
 - 1st reconnect charge \$100.00 per service connection.
 - 2nd reconnect charge \$200.00 per service connection.
 - 3rd reconnect charge \$300.00 per service connection.
 - 4th reconnect charge \$400.00 per service connection.
- Prior to the scheduled termination, the customer may choose to pay the District's costs associated with the subject action, and any penalty costs in lieu of terminating service. The customer may, in writing, request a meeting with the District's General Manager to discuss the proposed termination of service. Payment of the penalty charge and fees shall avoid said termination and shall be considered a "waiver of appeal".
- If the customer requests a meeting with the General Manager and said meeting does not resolve the proposed termination of service to the customer's satisfaction, the customer may request a hearing before the Board of Directors. Such request shall be made in writing and delivered to the District office within five (5) days from the date of the meeting between the customer and the District's General Manager.

- If such request is made for a hearing before the Board, the matter shall be scheduled at the earliest possible date. A written notice of such hearing shall be mailed to customer at the premises at least ten (10) days prior to the date of such hearing.
- Reconnection to the District's system after said termination procedure shall be subject to a reconnect charges equal to the District's actual incurred costs to date, including penalty fees, and other related charges. The District must receive payment for said charges before the water service is restored.

If the customer is not issued a warning or violation for a period of one year from the date of the last observed conservation rules violation, enforcement actions shall revert to paragraph (1) of this section.

- Subsequent violations shall be treated in the same manner as a 4th water waste or 2nd violation (subsequent reconnect charges applied).

8.0 LEGAL AUTHORITIES

FOWD was organized under the provisions of Division 11 of the CWC. The District's current policy No. 6060 authorizes the General Manager to authorize implementation of stage 4/5 water conservation measures.

The District's Board will vote to adopt its UWMP and WSCP as stated in Resolutions No. 21-04 and No. 21-05, respectively. The two Resolutions authorize the implementation and enforcement of this WSCP, which is included in the 2020 UWMP.

FOWD also coordinates with San Juan Water District which it receives water supply services for the possible proclamation of a "local emergency" pursuant to the California Emergency Services Act (see CGC §8558).

9.0 FINANCIAL CONSEQUENCES OF WSCP

The District has recently transitioned to a commodity-based billing approach. District completed a metering implementation program in 2011 and started charging all customers based on volumetric rates in 2012. The District relies significantly more on revenue associated with customer water use to ensure it remains revenue neutral. Therefore, reductions in water sales are a significant concern going forward, and the District has implemented protocols to prevent deficit conditions.

Additional monitoring, public outreach, and enforcement is expected to increase total costs to the District when operating under a water shortage condition. These additional efforts become prioritized for current staff, and other normal work efforts and projects are likely to be delayed or reassigned. If conditions warrant, the District may need to hire additional staff or seek assistance through third-party service providers.

The District maintains a cash reserve account to offset a temporary reduction in water sales in the event of a short-term catastrophic event or limited drought. While reduced demands would result in decreased operations costs (such as water purchases and pumping), a long-term event would

likely require budgetary adjustments to fund the District at needed levels. In the event that it becomes necessary for the District to utilize its reserves, the District may have to increase rates and all rate increases will require completion of a Proposition 218 public approval process.

10.0 MONITORING AND REPORTING

The District will monitor customer use through water metering. Data collected from the meters allows close tracking of water demands during a declared shortage stage. The ability to track performance metrics allow refinement and enhancement of the WSCP by providing valuable data, including information on customer use and system loss. Meter usage monitoring also offers insight regarding the efficacy of a declared shortage stage and associated shortage response actions.

Reporting on the implementation of the WSCP will be provided by District staff at regularly scheduled Board meetings. District staff will update the Board (and public) on the Water Conservation Program, including information on the performance of the declared shortage stage.

The District will also report information to the State regarding implementation of this WSCP as required.

11.0 WSCP REFINEMENT PROCEDURES

The District's WSCP is an adaptive plan that allows for active refinement to respond to particular shortage conditions. The general procedures for refinement are presented below.

1. For each shortage response action, compare expected results with actual shortage response and identify any shortfall or over achievement.
2. Revise expected reduction for a specific shortage response action based on updated information.
3. Assess the aggregate expected reductions (from revised shortage response actions) for each shortage stage.
4. Revise stage declaration or modify stage shortage response actions to better balance demands with supplies.

The procedures presented above aim ensure an adaptive WSCP that is able to be relied upon under various and changing circumstances.

12.0 SPECIAL WATER FEATURE PROCEDURES

The District has separate response actions, enforcement actions, and monitoring programs for both decorative water features and pools and spas. These shortage response actions are included in each Stage. Decorative water features that are not pools or spas will be defined as artificial ponds, lakes, waterfalls, fountains, or non-pool or non-spa water features.

13.0 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

The WSCP (including subsequent updates) shall be adopted in accordance with standard District procedures, including requirements for public participation (public hearing), and approval by the FOWD Board of Directors. Upon adoption, the WSCP will be submitted to DWR within 30 days. The adopted WSCP will be available on the District's website, as well as at the District office.

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Attachment I: Board Resolution Adopting the 2020 Urban Water Management Plan and Water Shortage Contingency Plan

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RESOLUTION NO. 21-04

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE FAIR OAKS WATER DISTRICT

A RESOLUTION ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN

WHEREAS, the Fair Oaks Water District Urban Water Management Plan is prepared and submitted to fulfill the requirements of the California Urban Water Management Planning Act of 1983, Assembly Bill No. 797, Water Code Section 10610 et seq.; and

WHEREAS, the District has prepared and made available for public review a draft Urban Water Management Plan July 22nd, and a properly noticed public hearing regarding said Plan was conducted by the Board of Directors on August 9, 2021; and

WHEREAS, the Board of Directors intends that the Plan shall serve as a guideline to assist the District in its efforts to encourage conservation and efficient use of water.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Fair Oaks Water District as follows:

1. That the 2020 Urban Water Management Plan is hereby adopted; and the District Secretary is hereby authorized and directed to file the plan with the California Department of Water Resources; and
2. The District General Manager is hereby directed to implement the program as set forth in the 2020 Urban Water Management Plan, subject to review and express authorization of the Board of Directors for actions requiring approval of the Board of Directors.

I certify that the foregoing Resolution was adopted by the Board of Directors of the Fair Oaks Water District at a Regular meeting held on the 9th day of August 2021, by the following vote:

AYES: Directors Marx, Page and Sarkovich

NOES:

ABSTAIN:

ABSENT: Directors McRae and Reid

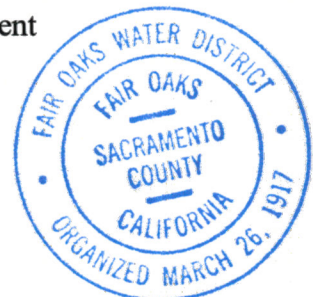


Misha Sarkovich, President
Board of Directors

ATTEST: _____



Tom R. Gray, General Manager / Secretary



RESOLUTION NO. 21-05

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE FAIR OAKS WATER DISTRICT

A RESOLUTION ADOPTING THE 2020 WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Urban Water Management Planning Act of 1983, Assembly Bill No. 797, Water Code Section 10610 et seq. mandate that every urban supplier of water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre feet of water annually, prepare and adopt by Board resolution a Water Shortage Contingency Plan (WSCP) as part of its 2020 Urban Water Management Plan (UWMP); and

WHEREAS, the District desires to adopt the WSCP and to incorporate it as part of its 2020 UWMP; and

WHEREAS, the District has prepared and made available for public review a draft WSCP on July 22, 2021, and a properly noticed public hearing regarding said Plan was conducted by the Board of Directors on August 9, 2021; and

WHEREAS, the Board of Directors intends that the WSCP shall serve as a guideline to ensure the District in its efforts to supply all District customers with a reliable water supply.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Fair Oaks Water District as follows:

1. That the 2020 Water Shortage Contingency Plan is hereby adopted; and the District Secretary is hereby authorized and directed to file the Plan with the California Department of Water Resources; and
2. The District General Manager is hereby directed to implement the program as set forth in and made part of the 2020 Urban Water Management Plan, subject to review and express authorization of the Board of Directors for actions requiring approval of the Board of Directors.


I certify that the foregoing Resolution was adopted by the Board of Directors of the Fair Oaks Water District at a Regular meeting held on the 9th day of August 2021, by the following vote:

AYES: Directors Marx, Page and Sarkovich

NOES:

ABSTAIN:

ABSENT: Directors McRae and Reid

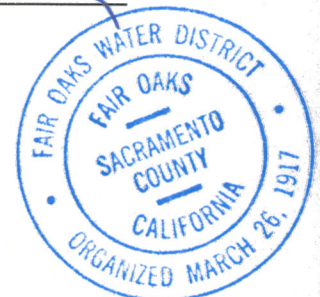


Misha Sarkovich, President
Board of Directors

ATTEST: _____



Tom R. Gray, General Manager / Secretary



Attachment J: DWR Population Tool Output



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

Confirmation Information

Generated By	Water Supplier Name	Confirmation #	Generated On
Ashley Smith	Fair Oaks Water District	7638593375	6/9/2021 10:28:36 AM

Boundary Information

Census Year	Boundary Filename	Internal Boundary ID
1990	FOWD_Pre2007.kml	801
2000	FOWD_Pre2007.kml	801
2010	FOWD_Current_Bndy.kml	800
1990	FOWD_Pre2007.kml	801
2000	FOWD_Pre2007.kml	801
2010	FOWD_Current_Bndy.kml	800
1990	FOWD_Pre2007.kml	801
2000	FOWD_Pre2007.kml	801
2010	FOWD_Current_Bndy.kml	800
1990	FOWD_Pre2007.kml	801
2000	FOWD_Pre2007.kml	801
2010	FOWD_Current_Bndy.kml	800

Baseline Period Ranges

10 to 15-year baseline period

Number of years in baseline period:

Year beginning baseline period range:

Year ending baseline period range¹: 2004

5-year baseline period

Year beginning baseline period range:

Year ending baseline period range²: 2008

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

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

Persons per Connection

Year	Census Block Level		Persons per Connection
	Total Population	Number of Connections *	
1990	35,279	11891	2.97
1991	-	-	2.95
1992	-	-	2.92
1993	-	-	2.90
1994	-	-	2.87
1995	-	-	2.85
1996	-	-	2.83
1997	-	-	2.80
1998	-	-	2.78
1999	-	-	2.75
2000	35,869	13147	2.73
2001	-	-	2.72
2002	-	-	2.70
2003	-	-	2.69
2004	-	-	2.68
2005	-	-	2.67
2006	-	-	2.65
2007	-	-	2.64
2008	-	-	2.63
2009	-	-	2.61
2010	36,681	14129	2.60
2011	-	-	2.59
2012	-	-	2.57
2013	-	-	2.56
2014	-	-	2.54
2015	-	-	2.53
2020	-	-	2.46 **

Population Using Persons-Per-Connection				
Year		Number of Connections *	Persons per Connection	Total Population
10 to 15 Year Baseline Population Calculations				
Year 1	1995	12639	2.85	36,021
Year 2	1996	12788	2.83	36,139
Year 3	1997	12938	2.80	36,252
Year 4	1998	12952	2.78	35,981
Year 5	1999	13050	2.75	35,940
Year 6	2000	13147	2.73	35,869
Year 7	2001	13179	2.72	35,807
Year 8	2002	13248	2.70	35,823
Year 9	2003	13370	2.69	35,979
Year 10	2004	13471	2.68	36,075
5 Year Baseline Population Calculations				
Year 1	2004	13471	2.68	36,075
Year 2	2005	13544	2.67	36,095
Year 3	2006	13643	2.65	36,181
Year 4	2007	13700	2.64	36,154
Year 5	2008	13843	2.63	36,352
2020 Compliance Year Population Calculations				
	2020	14390	2.46 **	35,377

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**Attachment K: SACOG Population Forecast by Traffic Analysis Zone
(TAZ)**

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FOWD POPULATION PROJECTIONS

TAZ #	Total TAZ Acres	TAZ Acres within FOWD	Percentage of TAZ within FOWD	City	SACOG Data ^a for Total TAZ						SACOG Data ^a for Portion of TAZ within FOWD					
					2016			2040			2016			2040		
					Population	Dwelling Units	Employment	Population	Dwelling Units	Employment	Population	Dwelling Units	Employment	Population	Dwelling Units	Employment
398	384.9	0.0	0.0%	Carmichael	2,460	1,129	468	2,569	1,194	468	0	0	0	0	0	0
403	603.2	57.4	9.5%	Carmichael	4,120	1,816	576	4,378	1,907	625	392	173	55	417	181	59
406	254.3	141.2	55.5%	Carmichael	2,107	759	410	2,056	774	410	1,170	421	228	1,141	430	228
407	305.3	53.0	17.4%	Carmichael	3,164	1,202	274	3,565	1,281	274	549	209	47	619	222	47
408	322.7	322.7	100.0%	Fair Oaks	1,138	510	251	1,180	532	254	1,138	510	251	1,180	532	254
409	246.7	246.7	100.0%	Fair Oaks	1,125	498	241	1,196	516	241	1,125	498	241	1,196	516	241
410	242.1	242.1	100.0%	Fair Oaks	1,741	782	616	1,812	827	616	1,741	782	616	1,812	827	616
411	496.7	471.3	94.9%	Fair Oaks	3,397	1,557	487	3,607	1,610	500	3,223	1,477	462	3,422	1,528	475
412	1029.2	285.0	27.7%	Fair Oaks	1,347	550	290	1,338	550	294	373	152	80	370	152	81
413	540.3	282.4	52.3%	Fair Oaks	1,602	740	281	1,705	750	281	837	387	147	891	392	147
414	238.3	238.3	100.0%	Fair Oaks	1,958	788	776	2,083	832	845	1,958	788	776	2,083	832	845
415	342.7	327.9	95.7%	Fair Oaks	2,207	1,046	1,512	2,517	1,196	1,971	2,111	1,001	1,447	2,408	1,145	1,886
416	315.3	302.6	96.0%	Fair Oaks	1,468	642	219	1,806	771	222	1,409	616	210	1,734	740	213
417	446.6	319.1	71.5%	Fair Oaks	812	347	117	872	347	123	580	248	84	623	248	88
418	510.5	510.5	100.0%	Fair Oaks	3,146	1,298	725	3,383	1,375	754	3,146	1,298	725	3,383	1,375	754
419	521.9	341.2	65.4%	Fair Oaks	3,783	1,533	1,540	3,932	1,588	1,560	2,474	1,002	1,007	2,571	1,038	1,020
420	378.0	378.0	100.0%	Fair Oaks	2,330	938	472	2,484	976	485	2,330	938	472	2,484	976	485
421	312.8	312.0	99.7%	Fair Oaks	1,396	551	740	1,714	675	790	1,392	550	738	1,710	673	788
422	331.6	192.9	58.2%	Fair Oaks	1,549	633	408	1,668	654	442	901	368	238	970	381	257
423	269.5	94.5	35.1%	Fair Oaks	203	70	196	198	75	196	71	25	69	69	26	69
445	374.4	1.0	0.3%	Citrus Heights	3,656	1,535	1,572	3,674	1,575	1,871	9	4	4	9	4	5
446	243.8	0.5	0.2%	Citrus Heights	3,632	1,975	1,604	3,687	1,975	1,794	8	4	3	8	4	4
447	619.0	254.6	41.1%	Fair Oaks	3,542	1,436	674	4,238	1,685	714	1,457	591	277	1,743	693	294
461	319.6	162.1	50.7%	Orangevale	2,203	896	576	2,349	948	634	1,117	454	292	1,191	481	321
462	321.4	160.2	49.8%	Orangevale	2,254	1,003	740	2,297	1,012	780	1,123	500	369	1,145	504	389
464	625.9	332.2	53.1%	Orangevale	2,391	987	398	2,506	990	411	1,269	524	211	1,330	525	218
465	576.1	255.7	44.4%	Orangevale	5,008	1,955	1,033	5,193	2,037	1,150	2,222	868	459	2,305	904	510
571	869.2	0.1	0.0%	Rancho Cordova West	3,700	1,295	395	368	1,304	404	0	0	0	0	0	0
892	310.3	0.0	0.0%	Orangevale	1,494	615	346	1,492	615	358	0	0	0	0	0	0
					Totals:			34,127	14,387	9,509	36,814	15,329	10,294			
					Growth Rates:			--	--	--	7.9%	6.5%	8.3%			
					Annual Growth Rate:			--	--	--	0.33%	0.27%	0.34%			

Annual Growth Rates from 2016-2040

FOWD PROJECTED POPULATION

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Population	35,377	35,493	35,610	35,726	35,844	35,961	36,079	36,198	36,316	36,436	36,555	36,675	36,795	36,916	37,037	37,159	37,281	37,403	37,526	37,649	37,772

2020 Population from DWR Population Tool

Annual growth rate of 0.0.33% applied between 2020-2040

^a Data Source: SACOG. Modeling Projections for 2016 and 2040. Dated May 2021.

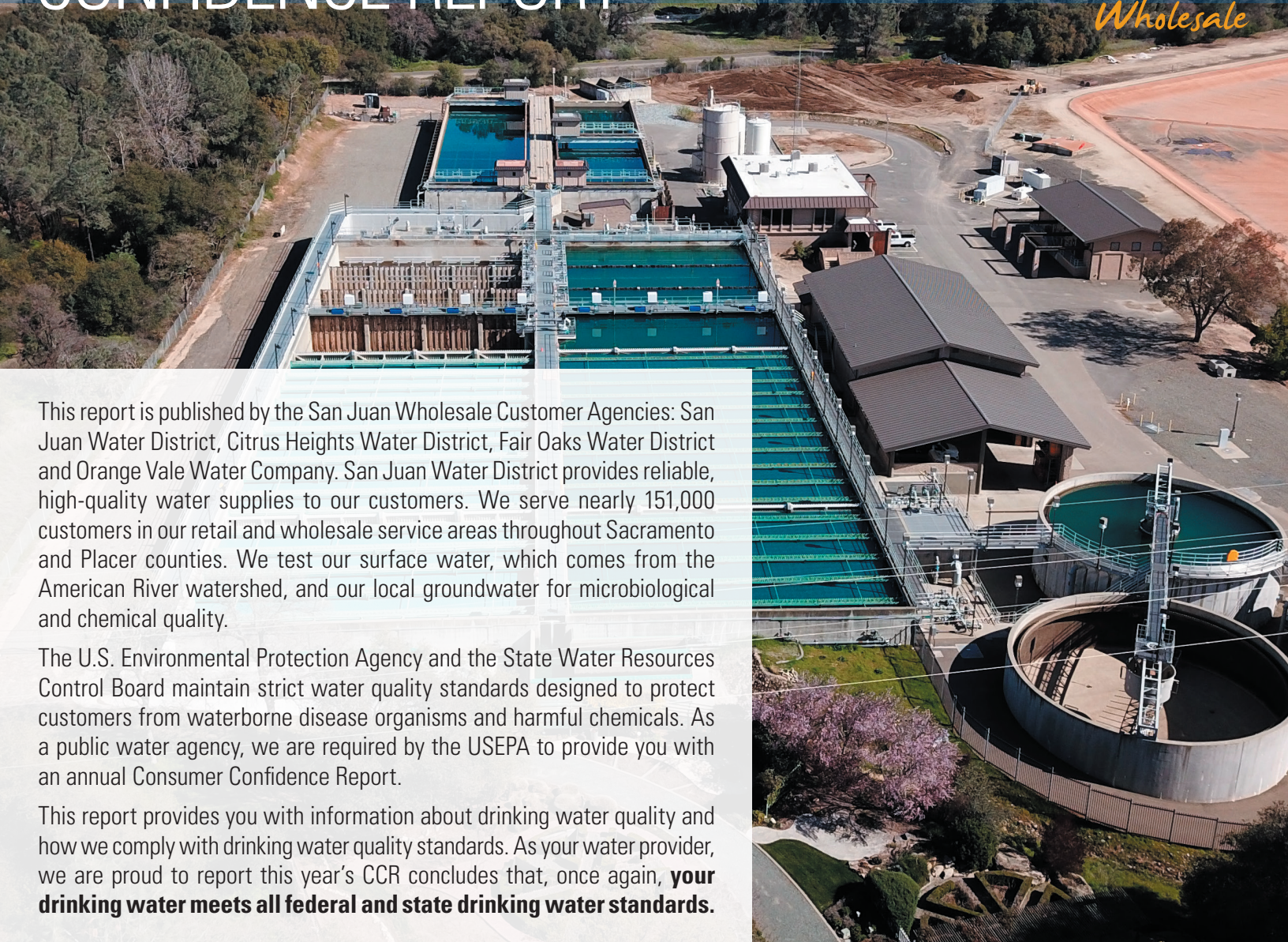
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Attachment L: Fair Oaks Water District 2020 Consumer Confidence Report



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2020 CONSUMER CONFIDENCE REPORT



This report is published by the San Juan Wholesale Customer Agencies: San Juan Water District, Citrus Heights Water District, Fair Oaks Water District and Orange Vale Water Company. San Juan Water District provides reliable, high-quality water supplies to our customers. We serve nearly 151,000 customers in our retail and wholesale service areas throughout Sacramento and Placer counties. We test our surface water, which comes from the American River watershed, and our local groundwater for microbiological and chemical quality.

The U.S. Environmental Protection Agency and the State Water Resources Control Board maintain strict water quality standards designed to protect customers from waterborne disease organisms and harmful chemicals. As a public water agency, we are required by the USEPA to provide you with an annual Consumer Confidence Report.

This report provides you with information about drinking water quality and how we comply with drinking water quality standards. As your water provider, we are proud to report this year's CCR concludes that, once again, **your drinking water meets all federal and state drinking water standards.**

WHERE DOES YOUR WATER COME FROM?

Water from the Agencies comes from two sources: treated surface water and groundwater. San Juan Water District diverts and treats surface water from Folsom Lake. This treated water is then distributed to the Agencies. Orange Vale Water Company and San Juan Water District receive 100 percent of their supply from treated surface water. If you are a consumer of Citrus Heights or Fair Oaks Water Districts, your water is a mixture of treated surface water from San Juan Water District and groundwater from local wells.

SJWD – 100% surface water

OVWC – 100% surface water

CHWD – 88% surface water, 12% groundwater

FOWD – 74.22% surface water, 25.78% groundwater

Source water assessments have been conducted for all the water sources to enable the Agencies to understand the activities that have the greatest potential for contaminating the drinking water supplies. The groundwater sources were assessed in 2002 and the surface water source was evaluated in 2001. New wells for Citrus Heights Water District were assessed in 2008, 2009, and 2015. A new well for Fair Oaks Water District was assessed in 2014. These assessments were conducted in accordance with State Water Board guidelines and copies of the complete assessments are available for review at the respective agency offices.

San Juan Water District conducted the evaluation of the Folsom Lake source. It was found to be most vulnerable to potential contamination from the Folsom Lake State Recreation Area facilities, high-density housing and associated activities such as sewer and septic systems and fertilizer, pesticide and herbicide application, as well as illegal activities and dumping. The source water is typically treated using conventional treatment with filtration and disinfection that is designed to remove many contaminants. Again this year, your water meets all federal and state drinking water standards.

Citrus Heights and Fair Oaks water districts conducted assessments of their local groundwater wells. It was found that all the wells are vulnerable to commercial urban activities, such as active and historic gas stations, dry cleaners, leaking underground storage tanks, known contaminant plumes, automobile repair shops, and sewer collection systems, none of which are associated with any detected contaminants. One well for Fair Oaks Water District was found to be vulnerable to irrigation, associated with low level detects of nitrate.

Although Orange Vale Water Company does not currently utilize available local groundwater, assessments found that wells within their service area would be most vulnerable to rural grazing activities.

WHAT'S IN YOUR WATER?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

A NOTE FOR SENSITIVE POPULATIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

GENERAL INFORMATION ON LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The San Juan Family Agencies are responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/lead.

The San Juan Family Agencies also conducts lead tap sampling in schools if requested. One school requested lead tap sampling by Fair Oaks Water District in 2020.

KEY TO ABBREVIATIONS

PPB	parts per billion or micrograms per liter (µg/L)
PPM	parts per million or milligrams per liter (mg/L)
pCi/L	picocuries per liter
NTU	nephelometric turbidity units
µS/CM	microsiemens per centimeter
ND	not detected
NR	not required
N/A	not applicable

WATER QUALITY DEFINITIONS

Maximum Contaminant Level (MCL) — The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Public Health Goal (PHG) — The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG) — The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL) — The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) — The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS) — MCLs, MRDLs and Treatment Techniques (TT) for contaminants that affect health, along with their monitoring and reporting requirements.

Treatment Technique (TT) — A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL) — The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Notification Level (NL) — Health-based advisory level set by the State Water Board for constituents with no MCL. This is not an enforceable standard, although requirements and recommendations may apply if detected above this level.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR) RESULTS

USEPA requires public water systems to collect data for unregulated constituents in drinking water supplies under the Unregulated Contaminant Monitoring Rule program. Currently, these constituents have no drinking water standards but may be regulated in the future. The fourth round (UCMR4) was conducted from 2018 – 2020.

More information on the UCMR4 round can be found at www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule. Fair Oaks Water District was required to monitor in 2018, while San Juan Water District, Citrus Heights Water District, and Orange Vale Water Company conducted sampling in 2019. Several constituents were detected, none at any level of human health concern.

Constituent	Range (ug/L)	Average (ug/L)	Human Health Advisory	Potential Sources
Manganese	ND – 1.9 ¹ ND – 3.24 ² 1.8 – 9.92 ³ 0.56 – 4.9 ⁴	1.9 ¹ 1.05 ² 3.81 ³ 2.72 ⁴	USEPA Lifetime Health Advisory - 300 ug/L State Board Notification Level – 500 ug/L	Naturally-occurring metal
HAA5	ND - 25 ¹ 18.97 – 31.6 ² 19.46 – 21.22 ³ 22.8 – 33 ⁴	6.7 ¹ 21.14 ² 20 ³ 27.1 ⁴	State Water Board Maximum Contaminant Level – 60 ug/L	By-product of drinking water disinfection
HAA6Br	ND – 1.44 ⁴	1.03 ⁴	None	By-product of drinking water disinfection
HAA9	ND - 17 ¹ 15.57 – 32.62 ² 20.04 – 22.21 ³ 23.42 – 34.38 ⁴	14.5 ¹ 24.66 ² 20.85 ³ 28.11 ⁴	None	By-product of drinking water disinfection
Bromide	ND - 32 ¹	24.7 ¹	None	Naturally-occurring compound

1 – Fair Oaks Water District (wells, treated surface water from SJWD, and distribution system – 2018 and 2019)

2 – SJWD (treated surface water and distribution system - 2019)

3 – Citrus Heights Water District (wells, treated surface water from SJWD, and distribution system - 2019)

4 – Orange Vale Water Company (treated surface water from SJWD and distribution system - 2019)

SAN JUAN WHOLESALE CUSTOMER AGENCIES – 2020 TABLE OF DETECTED CONSTITUENTS

DETECTED PRIMARY DRINKING WATER CONSTITUENTS regulated to protect your health

CONSTITUENT	UNITS	PHG or (MCLG) or (MRDLG)	MCL or (MRDL)	San Juan Surface Water Including Orange Vale Water Company(a)			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Arsenic	PPB	0.004	10	ND	ND	2019	ND - 2.2	ND	2016, 2019	ND - 4.6	ND	2019	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium	PPM	2	1	ND	ND	2019	ND - 0.11	ND	2016, 2019	ND	ND	2019	Erosion of natural deposits and wastes from metal refineries
Fluoride	PPM	1	2.0	ND	ND	2019	ND - 0.18	0.11	2016, 2019	ND - 0.11	0.11	2019	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as N)	PPM	10	10	ND	ND	2020	1.4 - 2.6	2.2	2020	ND	ND	2020	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Uranium	pCi/L	0.43	20	NR	N/A	N/A	ND - 1.3	ND	2017	ND	ND	2018	Erosion of natural deposits
Chlorine Residual - distribution system	PPM	[4]	[4]	0.37 - 0.98 (0.3 - 0.9)	0.68 (0.65)	2020	0.22 - 1.1	0.73	2020	0.2 - 0.83	0.53	2020	Drinking water disinfectant added for treatment
Total Trihalomethanes - distribution system	PPB	N/A	80	32 - 46 (21 - 40)	46 (44)	2020	ND - 38	41	2020	7 - 36	36.8	2020	By-product of drinking water disinfection
Haloacetic Acids - distribution system	PPB	N/A	60	20 - 46 (13 - 29)	46 (33)	2020	ND - 29	26	2020	ND - 27	24.0	2020	By-product of drinking water disinfection
Control of Disinfection By-Product Precursors (TOC) (treated water) (b)	PPM	N/A	TT = 2	0.8 - 1.25	0.97	2020	NR	N/A	N/A	NR	N/A	N/A	Various natural and manmade sources
CONSTITUENT	UNITS	PHG OR (MCLG)	MCL	LEVEL FOUND		YEAR SAMPLED	LEVEL FOUND		YEAR SAMPLED	LEVEL FOUND		YEAR SAMPLED	MAJOR SOURCES
Turbidity (b)	NTU	N/A	TT = 1 NTU	0.038		2020	NR		N/A	NR		N/A	Soil runoff
	% Samples	N/A	TT = ≤0.3 NTU	100		2020	NR		N/A	NR		N/A	
CONSTITUENT	UNITS	PHG OR (MCLG)	MCL	HIGHEST MONTHLY RESULT	# MONTHS WITH POSITIVE SAMPLE	YEAR SAMPLED	HIGHEST MONTHLY RESULT	# MONTHS WITH POSITIVE SAMPLE	YEAR SAMPLED	HIGHEST MONTHLY RESULT	# MONTHS WITH POSITIVE SAMPLE	YEAR SAMPLED	MAJOR SOURCES
Total Coliform Bacteria	% Samples	(0)	>5% monthly samples positive	2.32 (N/A)	1 (N/A)	2020	0	0	2020	0	0	2020	Naturally present in the environment
CONSTITUENT	UNITS	PHG OR (MCLG)	AL	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	90th PERCENTILE	# SAMPLED/ # EXCEED AL	YEAR SAMPLED	MAJOR SOURCES
Lead (c)	PPB	0.2	15	ND (ND)	30/1 (30/1)	2018 (2018)	ND	30/0	2018	ND	31/0	2019	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	PPM	0.3	1.3	0.067 (0.11)	30/0 (30/0)	2018 (2018)	0.095	30/0	2018	0.063	31/0	2019	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

DETECTED SECONDARY DRINKING WATER CONSTITUENTS regulated for aesthetic qualities

CONSTITUENT	UNITS	PHG or (MCLG)	MCL	San Juan Surface Water Including Orange Vale Water Company			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Total Dissolved Solids	PPM	N/A	1,000	30	30	2019	220 - 260	245	2016, 2019	110 - 190	140	2019	Runoff/leaching from natural deposits
Specific Conductance	µS/CM	N/A	1,600	53 - 88	72.5	2020	280 - 360	325	2016, 2019	120 - 240	182	2020	Substances that form ions when in water
Sulfate	PPM	N/A	500	3.8	3.8	2019	8.4 - 12	10.6	2016, 2019	4.3 - 15	8.45	2019	Runoff/leaching from natural deposits
Chloride	PPM	N/A	500	1.8	1.8	2019	12 - 18	15.5	2016, 2019	3.2 - 7.4	4.4	2019	Runoff/leaching from natural deposits
Turbidity	NTU	N/A	5	0.018 - 0.038	0.023	2020	ND - 0.1	ND	2016, 2019	ND	ND	2019	Soil runoff

DETECTED UNREGULATED DRINKING WATER CONSTITUENTS (d)

CONSTITUENT	UNITS	PHG or (MCLG)	NL	San Juan Surface Water Including Orange Vale Water Company			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Bicarbonate Alkalinity	PPM	N/A	NONE	13	13	2019	130 - 180	150	2016, 2019	54 - 93	74	2019	Bicarbonate alkalinity is the measure of the capacity of water or any solution to neutralize or "buffer" acids, represented as the bicarbonate ion.
Hardness	PPM	N/A	NONE	12	12	2019	110 - 150	132.5	2016, 2019	47 - 83	65	2019	Hardness is the sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium.
Sodium	PPM	N/A	NONE	1.6	1.6	2019	16 - 22	19	2016, 2019	4.9 - 17	9.1	2019	Naturally occurring salt in the water
Calcium	PPM	N/A	NONE	3.3	3.3	2019	24 - 33	29.25	2016, 2019	12 - 21	16	2019	Erosion of natural deposits
Magnesium	PPM	N/A	NONE	1	1	2019	12 - 16	14.25	2016, 2019	4.2 - 8.3	6.3	2019	Erosion of natural deposits

(a) – Data for OVWC Distribution System is shown in parenthesis.

(b) – Only surface water sources must comply with PDWS for Control of Disinfection By-Product Precursors and turbidity. Turbidity is a measure of the cloudiness of water.

We monitor for it because it is a good indicator of the effectiveness of our filtration system.

(c) – One school requested Fair Oaks Water District conduct monitoring for lead in 2020

(d) – Unregulated contaminant monitoring helps determine where certain contaminants occur and whether they need to be regulated.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.



2020 CONSUMER CONFIDENCE REPORT

Yearly Water Quality Report

San Juan Wholesale Customer Agencies

P.O. Box 2157
Granite Bay, CA 95746

Board of Directors

Pamela Tobin
Kenneth H. Miller
Edward J. "Ted" Costa
Marty Hanneman
Dan Rich

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Favor de comunicarse San Juan Family Agency para asistirlo en español.

Этот отчет содержит важную информацию о вашей питьевой воде. Пожалуйста, свяжитесь с San Juan Family Agency для получения помощи на русском языке.

YOUR DRINKING WATER MEETS ALL STATE AND FEDERAL DRINKING WATER STANDARDS



Jackie Foley, Water Treatment Plant Operator III >

CONTACT US

If you have any questions about this report or your water supply, please contact your local water provider. Each of the member agencies holds monthly board meetings that are open to the public as indicated below.



Contact Person:
Brian Hensley
(916) 725-6873
bhensley@chwd.org
chwd.org

Board Meetings:
3rd Wednesday each month
6:30 p.m.
6230 Sylvan Road
Citrus Heights



Contact Person:
Shawn Huckaby
(916) 844-3507
shuckaby@fowd.com
fowd.com

Board Meetings:
2nd Monday every month
6:30 p.m.
10326 Fair Oaks Boulevard
Fair Oaks



Contact Person:
Mark DuBose
(916) 988-1693
mdubose@orangevalewater.com
orangevalewater.com

Board Meetings:
1st Tuesday each month
4:00 p.m.
9031 Central Avenue
Orangevale



Contact Person:
Greg Turner
(916) 791-1715
gturner@sjwd.org
sjwd.org

Board Meetings:
4th Wednesday each month, except
November and December where
they occur on the 2nd Wednesday
6:00 p.m.
9935 Auburn-Folsom Road
Granite Bay

LEARN MORE ABOUT YOUR WATER AT SJWD.ORG

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