

Cambria Community Services District



2023-2024 Annual Water Shortage Assessment

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Introduction

This report presents findings from the Cambria Community Services District's (CCSD) 2023-2024 Annual Water Supply and Demand Assessment (AWSDA). It describes the key data inputs, evaluation criteria, and methodology for addressing the CCSD's water system reliability for the coming year and the steps to formally declare any water shortage levels and response actions.

Beginning in 2022, the California Water Code Section 10632.1 requires urban water suppliers to conduct an AWSDA and submit an annual water shortage assessment report to the Department of Water Resources (DWR) on or before July 1 of each year.

The AWSDA serves as a tool to help identify potential water supply shortages and to implement water shortage response actions to mitigate possible supply gaps. The CCSD's Water Shortage Contingency Plan (WSCP)¹ includes six stages of water shortage, each with its own set of shortage response actions. Each stage aims to achieve a percentage reduction in customer demands, as illustrated in Figure A.

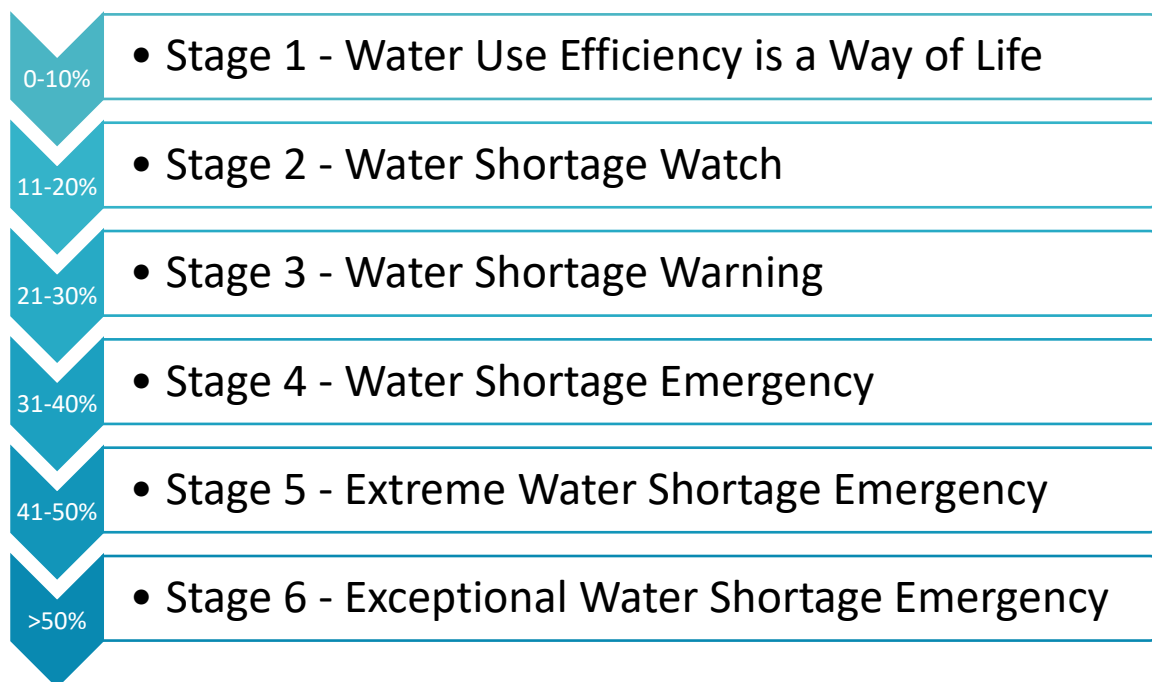


Figure A - 2020 Water Shortage Contingency Plan Stages

¹ <https://www.cambriacsd.org/water-shortage-contingency-plan>

Definitions & Acronyms

Annual Assessment – Annual Water Supply and Demand Assessment to be conducted by urban water suppliers every year as required by California Water Code Section 10632(a).

Annual Shortage Report – Annual Water Shortage Assessment Report to be submitted annually by urban water suppliers on or before July 1 as required by California Water Code Section 10632.1. The Annual Shortage Report consists of information including anticipated shortages and triggered shortage response actions determined as a result of the Annual Assessment.

Current Year – For the purpose of this Annual Shortage Report, the Current Year is defined as the twelve-month period from July 1, 2022, through June 30, 2023.

CWC – California Water Code

Demand Reduction Actions – Measures taken to reduce water demand including outreach and education actions to promote voluntary reductions and water use restrictions. A Demand Reduction Action is considered a Water Shortage Response Action.

DWR – Department of Water Resources in the California Natural Resources Agency

Next Year – For the purpose of this Annual Water Shortage Report, the Next Year is defined as the twelve-month period starting on July 1, 2023 and ending on June 30, 2024.

UWMP – Urban Water Management Plan

Urban Retail Water Supplier – A water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

Water Shortage Response Actions – A measure taken to reduce the gap between available water supplies and unconstrained demand and includes demand reduction actions, supply augmentation actions, operational changes, mandatory prohibitions, and other actions.

WSCP – Water Shortage Contingency Plan

CCSD Water Supply Portfolio

The CCSD's water supply portfolio consists of groundwater from two coastal aquifers, the San Simeon and Santa Rosa aquifers. The California Department of Water Resources (DWR) Bulletin No. 118 identifies these two sources as the San Simeon and Santa Rosa groundwater basins, numbers 3-35 and 3-36, respectively. Appendix E of the CCSD 2020 Urban Water Management Plan² (UWMP) contains the Bulletin 118 summary description of each of these aquifers, neither of which is listed as being in overdraft status by the State Water Resources Control Board (SWRCB). The basins are recharged primarily by underflow from the San Simeon and Santa Rosa Creeks. A map of the San Simeon and Santa Rosa aquifers is shown in Figure B.

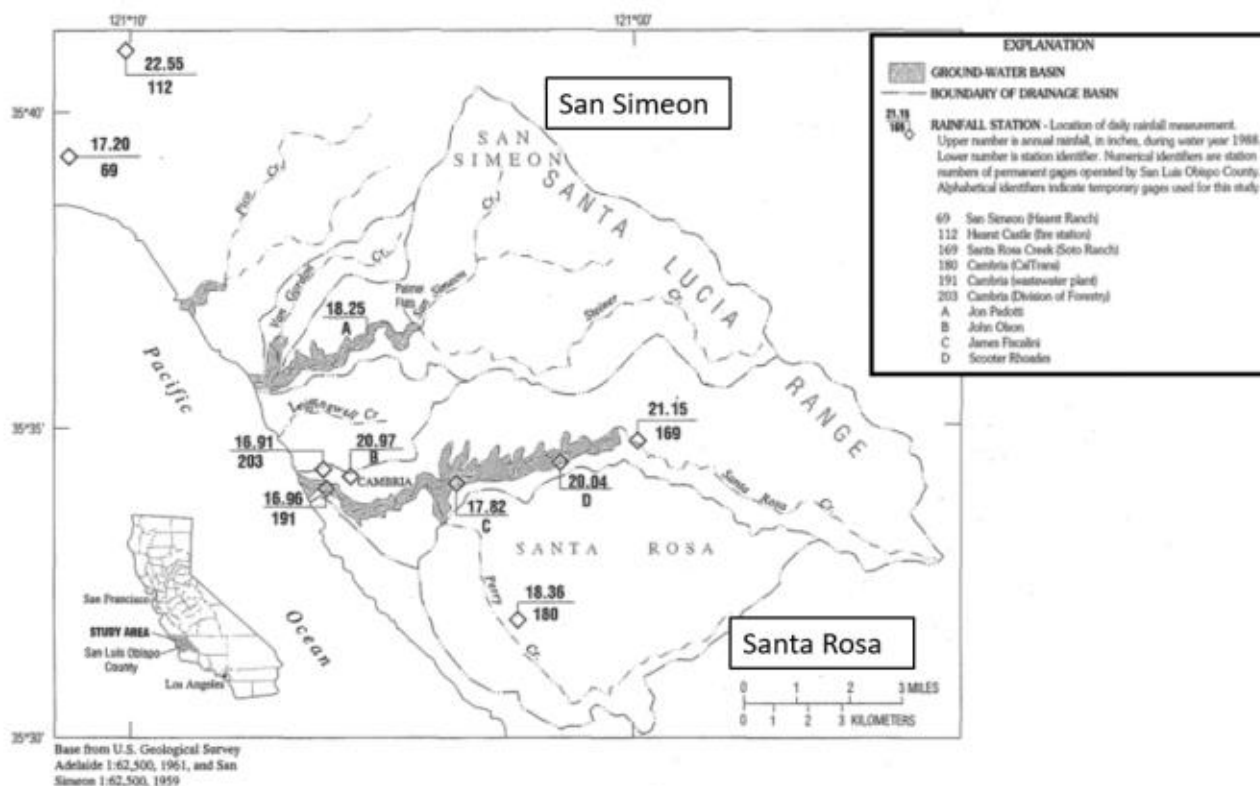


Figure B - Map of San Simeon and Santa Rosa Aquifers

² <https://www.cambriacsd.org/urban-water-management-plan>

The CCSD relies on 5 production wells: Well SS1, Well SS2, and Well SS3, in the San Simeon aquifer and Well SR3 and Well SR4 in the Santa Rosa aquifer. CCSD also uses Wells WBE, WBW, SS4, and 9P2 for monitoring the aquifer levels.

The CCSD also owns and operates the Water Reclamation Facility (WRF) which extracts water from below the CCSD's wastewater percolation ponds, treats it to an advanced degree, and then reinjects it back into the groundwater aquifer about 1700-linear feet north of the WRF and west of the CCSD's San Simeon well field. WRF injection serves to protect the hydraulic gradient separating the freshwater well field from the downstream wastewater percolation ponds and seawater from the Pacific Ocean. It also increases available production volume, with approximately 60% of injected water eventually migrating to the San Simeon Well Field.

The WRF is currently operated under an emergency permit from the County of San Luis Obispo which limits operation to Extreme and Exceptional Water Shortage Emergencies (Stages 5 and 6, respectively) of the WSCP.

Supply Constraints

The CCSD's water extractions are licensed by the SWRCB. The SWRCB license for San Simeon Creek allows a maximum of 799 AFY annually from the San Simeon aquifer, while limiting dry season pumping to 370 AFY maximum from the time that the creek ceases flow at the Palmer Flats gauging station, until October 31. The Santa Rosa Creek license limits the Santa Rosa aquifer pumping to 218 AFY annually, with a dry season pumping limit of 155.3 AFY from May 1 to October 31. This amount of water is not necessarily available every year due to the nature of the two creek aquifers.

The San Simeon and Santa Rosa aquifers are relatively shallow and porous, with the groundwater levels typically recharged every year during the wet or rainy season. With CCSD and other pumping, as well as natural outflow to the ocean, groundwater levels generally exhibit a characteristic pattern of consistent high levels during the wet season, steady decline during the dry season, and rise when the wet season resumes.

During the wet season, the aquifers are continuously recharged via surface water flow from San Simeon and Santa Rosa Creeks. However, when the dry season begins, recharge is reduced or eliminated and the amount of water in storage in the aquifer and groundwater levels decline. At the point recharge from surface water ceases, there is a limited or finite amount of water available within the aquifers to support municipal, agricultural, and environmental needs until it refills during the next wet season.

Besides the physical characteristics of the aquifers, there are key permitting conditions that affect how the CCSD operates its well fields. In addition to the wet and dry season production limits mentioned above, CCSD staff carefully monitors groundwater levels and the gradient between the percolated mound of treated wastewater at the percolation ponds and the upgradient potable wells (see [Water Shortage Evaluation Criteria](#)).

Current Year Unconstrained Customer Demand

Table 1 shows the breakdown of projected demands by customer category for the next year (July 2023-June 2024). This assessment used an average of the 2019, 2021 and 2022 reporting years of data to arrive at the projected potable water demands. During 2019 and 2021 period, the CCSD remained in a Stage 2 Water Shortage Condition under the legacy Emergency Water Conservation Program. While the Stage 2 Water Shortage Condition was technically in effect from July 2018 through June 2021, demand reduction measures were not enforced by resolution of the Board. Therefore, it is assumed that demand was not noticeably constrained by the Stage 2 declaration. In the summer of 2022, a Stage 2 or 3 Water Shortage Condition was in effect, however, the lack of conservation achieved in those months allows them to be considered unconstrained demand.

Table 1. Water Demand Projections (DWR Table 2)

Water Demands ¹															
Use Type	Start Year: 2023 Volumetric Unit Used: AF														
Additional Description	Level of Treatment for Non-Potable Supplies	Projected Water Demands - Volume													Total by Water Demand Type
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
Demands Served by Potable Supplies															
Single Family			26.2	26.2	23.7	23.7	21.0	21.0	21.2	21.2	21.6	21.6	26.0	26.0	279
Multi-Family			1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.5	1.5	17
Commercial			13.2	13.2	11.6	11.6	10.5	10.5	8.8	8.8	10.2	10.2	12.6	12.6	134
Other Potable	Vacation Rentals		0.6	0.6	0.7	0.7	0.8	0.8	0.6	0.6	0.2	0.2	0.4	0.4	6
Other Potable	Riparian deliveries & Internal		2.8	2.8	2.2	2.2	1.9	1.9	1.8	1.8	2.1	2.1	2.3	2.3	26
Losses			7.6	4.6	5.9	5.8	6.0	3.0	5.2	1.9	5.7	7.6	2.6	4.2	60
Total by Month (Potable)			52	49	45	45	41	38	39	36	41	43	45	47	522
Demands Served by Non-Potable Supplies															
															0
Total by Month (Non-Potable)			0	0	0	0	0	0	0	0	0	0	0	0	0

Notes: Considered factors impacting demands include: prior year demand, utility billing data (full-time/part-time ratios), and length of dry season

¹Projections are based on best available data at time of submitting the report and actual demand volumes could be different due to many factors.

These projections are consistent with those generated by the CCSD’s Decision System Support (DSS) Model³ when 2019, 2021, and 2022 base years are utilized. Staff’s analysis included the following assumptions derived from utility billing data:

³ ©Maddaus Water Management; utilized for demand projections in the 2020 UWMP

- *Vacation rental water use is equivalent to that of a single-family residence*
- *17% of residential accounts are occupied part-time*
- *2.5% of residential accounts are vacant*

Population

The 2020 Census and 2020 American Communities Surveys both represent a dwindling population for the Cambria Census Designated Place (Cambria CDP); however, staff analysis of utility billing data does not align with Census data. According to the 2020 Census, Cambria CDP has a population of 5,678 with a total of 4,046 housing units and an occupancy rate of just 67%. However, an analysis of 2022 CCSD utility billing data reflects an 80.5% occupancy rate with only 2.5% of residential accounts reporting true zero consumption (i.e. vacant). Approximately 17% of utility billing accounts register usage on a part-time basis. CCSD staff attributes the bulk of the variance between Census and billing data to the high percentage of part-time and full-time vacation rentals along with a large stock of second homes, both of which the Census designates as vacant properties.

Current Year Potable Water Supplies

Defining a Dry Year

The CCSD's 2020 UWMP uses the base year of 2014 for the single-dry year in its water supply reliability assessment. During 2014, the CCSD was only able to pump 64% of its average supply volume. The dry year of 2014 was preceded by a wet season of abnormally low precipitation, recording about 7 inches at the Santa Rosa at Main rain gauge in Cambria and 12

Guidance from the Department of Water Resources

CWC section 10632(a)(2)(B) requires that all urban water suppliers evaluate supply reliability for the current year and one dry year. Per the State's [Annual Water Supply and Demand Assessment Guidance](#), "For the Dry Year, the water supplies should be adjusted for assumed dry-year conditions, which may affect availability of local surface and ground waters as well as imported supplies."

inches at the Rocky Butte rain gauge in San Simeon⁴. The current 2022-2023 water year resulted in double the average precipitation, with approximately 44 inches recorded at the Santa Rosa at Main gauge and 98 inches recorded at the Rocky Butte station. A comparison of rainfall data is included in Table 2.

Table 2. Rainfall Data from Local Rain Gauges for the 2013-14, 2021-22, 2017-2018 water years

	2013-14	Percent of Average	2022-23	Percent of Average	2017-18	Percent of Average
Santa Rosa at Main	7.01"	37%	44.32"	223%	15.0"	73%
Rocky Butte	11.85"	30%	97.76"	251%	30.0"	70%

Due to the very different amounts of precipitation received in the current year versus the historical single-dry year, this assessment relied on actual pumping volumes from 2017-2018 for single-dry year supply projections. The 2017-2018 supply was impacted by a preceding three-year period consisting of two years with below-average precipitation (65-90 percent of average) and an abnormally wet water year with precipitation levels similar to the current year. This three-year cycle closely mimics the past three water years: two dry years followed by an extremely wet year and this pattern is why the 2017-2018 water year's below-average precipitation is a reasonable assumption for the single-dry year.

In comparison, the 2015 dry season was 233 days long with Palmer Flats flow stopping on May 17, 2015, and resuming January 6, 2016. The 2022 dry year was 195 days long with flow stopping on May 22, 2022 and resuming December 3, 2022. This year, Palmer Flats is predicted to cease flow in early September. The dry season for 2017-2018 was 134 days long, a short dry season comparatively. However, with the expected late cease-flow date for Palmer Flats this year in early September, even without rain until January 2024, a shorter dry season (120 to 150 days) is a reasonable assumption.

⁴ Source: San Luis Obispo County Public Works. Accessed May 2022. <https://wr.slocountywater.org/>

While it may seem unreasonable to assume that a pumping regime like that of 2017-2018 will be suitable for 2023-2024, given the vastly different levels of precipitation dry season conditions and demands, the purpose of this assessment is to plan and be prepared for an abnormally dry year ahead. For the Cambria area, this would mean late or inadequate wet season precipitation and incomplete aquifer recharge for the 2023-2024 water year. Under this scenario, dry season demand management will be necessary to ensure adequate supply through the fall and winter and well into the spring of 2024.

Table 3 projects the total available groundwater supplies for the Next Year beginning July 1, 2023.

Table 3. Water Supplies (DWR Table 3)

Water Supplies ¹																
Water Supply	Start Year:	2023											Volumetric Unit Used:	AF		
	Additional Detail on Water Supply	Projected Water Supplies - Volume												Water Quality	Total Right or Safe Yield	
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun			Total by Water Supply Type
Potable Supplies																
Groundwater (not desal.)		55.5	49.2	40.7	38.4	41.2	43.8	44.7	39.3	38.2	39.0	43.5	46.2	519.9		1017
Total by Month (Potable)		55.5	49.2	40.7	38.4	41.2	43.8	44.7	39.3	38.2	39.0	43.5	46.2	519.9		1017
Non-Potable Supplies																
														0		
Total by Month (Non-Potable)		0	0	0	0	0	0	0	0	0	0	0	0	0		0

Notes: Hydrological and regulatory conditions include limited dry season storage, minimum groundwater levels, and maintenance of a hydraulic gradient (see discussion under *Water Shortage Evaluation Criteria* and *CCSD Water Supply Portfolio*). Other plausible constraints are discussed under *Infrastructure Capabilities and Plausible Constraints*.

¹Projections are based on best available data at time of submitting the report and actual supply volumes could be different due to many factors.

Infrastructure Capabilities and Plausible Constraints

If the water year of 2023-2024 fails to provide full aquifer recharge, operation of the CCSD’s WRF under the existing emergency use permit would be required to support dry season pumping in 2024. The impacts of and required response to such a scenario would be analyzed in the 2024-2025 AWSDA.

A break on the transmission water main that supplies water from the San Simeon Well Field (SSWF) to the town of Cambria occurred on December 23, 2021. An emergency bypass pipeline was installed, and the original transmission main was abandoned in place. While the SSWF was out of service, the community of Cambria relied solely on the Santa Rosa Well Field (SRWF) for potable water supply. Mandatory conservation was still in effect from the 2021 dry season, so supply

capacity for the community was not severely impacted. Depending on the scope and duration of the permanent replacement project, future supplies may be impacted during project activities. That project is not anticipated to occur during the reporting period for this assessment.

The CCSD has redundancy in water sources with a total of five (5) wells in two (2) separate aquifers. If one well or aquifer or the transmission infrastructure were to experience problems, it could be taken off-line without disruptions to immediate supply while the problem is remedied, as happened during the SSWF transmission main failure noted above. In addition, all critical water infrastructure is equipped with backup generators to allow the system to provide an uninterrupted supply of water during electrical power outages.

Other plausible constraints include additional restrictions on pumping protocols and basin management which may be imposed upon the CCSD by natural resource agencies, including the California Coastal Commission (Coastal). CCSD is subject to the terms and conditions of Coastal Development Permit 132-18 (as amended by Permit 482-10), which include reserving 20% of the permitted water production capacity for public commercial or recreational use, and utilizing the SRWF as a supplemental source of supply during years when the full yield at the SSWF cannot be safely removed. Recent regulatory actions by the Commission suggest a difference in interpretation of certain permit conditions. It is unclear what supply impact may result from the resolution of this matter.

Water Shortage Evaluation Criteria

- Dry Season Start Date
 - Santa Rosa: May 1, per the CCSD's water license issued by the State Water Resources Control Board. The maximum amount allowed to be diverted from the Santa Rosa Creek aquifer during the dry season is 155.3 acre-feet.

- San Simeon: The date of surface flow cessation at Palmer Flats, per the CCSD's water license issued by the State Water Resources Control Board. The maximum amount allowed to be diverted from the San Simeon Creek aquifer during the dry season is 370 acre-feet.
- Rainfall totals
 - Rainfall data will be obtained from the County of San Luis Obispo's Public Works Department. The two gauges associated with the CCSD service area are Rocky Butte and Santa Rosa at Main. Data from both gauges will be analyzed for the assessment.
- Groundwater levels
 - Groundwater levels are measured at a total of 31 well sites each month, but the critical well sites for the purpose of this assessment include the San Simeon Well Field production wells (SS1, SS2 and SS3), Santa Rosa Well 4 (SR4), and the Windsor Bridge monitoring wells (WBE and WBW). When the water level at the Windsor Bridge wells falls below 3.0 feet above mean sea level, the CCSD must cease diversions from the Santa Rosa wells.
- 9P2/SS4 gradient
 - The 9P2/SS4 gradient (Gradient) is measured twice per month and represents the difference in groundwater elevation between monitoring wells 9P2, located at the CCSD wastewater percolation ponds, and monitoring well SS4, located just south-west of the San Simeon Well Field. A positive gradient means groundwater elevation at the San Simeon Well Field is higher than groundwater levels at the percolation ponds. Conversely, a negative gradient indicates that groundwater levels at the percolation ponds are higher than at the well field, which could result in migration of impaired water from the percolation ponds and saltwater lagoon towards the freshwater aquifer beneath the well field. When the 9P2/SS4 gradient falls to -0.9 for more than three months during the dry

season, operation of the percolation ponds for wastewater disposal must cease.

Status of Water Shortage Evaluation Criteria

Table 4 depicts the locally applicable water shortage evaluation criteria as a percent of normal as of April 1st. April 1st was chosen as a meaningful point-in-time for this evaluation because 90% of precipitation is typically received by this date. Except for the impacts of basin management (i.e. supplementing San Simeon production with Santa Rosa production), none of these criteria are anticipated to improve after April 1st until the commencement of seasonal precipitation in the following water year.

Table 4. Averages as of April 1 Using 2000-2023 Data

% of Average	WBE	WBW	SR4	Gradient	Average SS Wells
100%	5.73	5.51	53.42	2.57	20.80
91%	5.21	5.01	48.62	2.34	18.93
90%	5.16	4.96	48.08	2.31	18.72
81%	4.64	4.46	43.27	2.08	16.85
80%	4.58	4.41	42.74	2.06	16.64
71%	4.07	3.91	37.93	1.82	14.77
70%	4.01	3.86	37.40	1.80	14.56
61%	3.49	3.36	32.59	1.57	12.69
60%	3.44	3.30	32.05	1.54	12.48

As of April 1, 2023, observed measurements of the above criteria were as follows:

- **WBE: 4.69**
- **WBW: 4.38**
- **SR4: 57.00**
- **9P2/SS4 Gradient: 2.40**
- **SSWF Average Well Level: 33.28**

All recent production has come from the SSWF. Implementing responsible dry-season supplementation with SRWF production should help lessen the decline in San Simeon well levels as the dry season progresses, prolonging the use of the SSWF into the late

summer months without resulting in dramatic decreases in groundwater levels and the need for increased conservation.

Supply and Demand Analysis

Table 5 presents the projected supply surplus or shortage with and without WSCP actions for each month of the reporting period. The actual surplus or shortage for wet season months (October – April) will vary depending on the amount and timing of seasonal precipitation. To adequately prepare for insufficient precipitation, demand management must be implemented during the dry season to ensure supply reliability for the following wet season. This table will be updated monthly and included in the Utilities Report for the Board’s review, as the actual benefits from demand reduction are known and recorded.

Table 5. Potable Water Shortage Assessment (DWR Table 4)

Annual Water Supply and Demand Assessment for §10632.1														
													= Auto calculated	
													= From prior tables	
													= For manual input	
Potable Water Shortage Assessment ¹														
	Start Year: 2023						Volumetric Unit Used:				AF			
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total	
Anticipated Unconstrained Demand	52	49	45	45	41	38	39	36	41	43	45	47	522.34	
Anticipated Total Water Supply	55.5	49.2	40.7	38.4	41.2	43.8	44.7	39.3	38.2	39.0	43.5	46.2	519.90	
Surplus/Shortage w/o WSCP Action	3.6	0.4	-4.6	-6.9	-0.2	5.4	5.8	3.6	-2.9	-4.0	-1.8	-0.8	-2.4	
% Surplus/Shortage w/o WSCP Action	7%	1%	-10%	-15%	-1%	14%	15%	10%	-7%	-9%	-4%	-2%	0%	
State Standard Shortage Level	1	1	2	2	1	2	2	1	1	1	1	1	1	
Planned WSCP Actions														
Benefit from WSCP: Supply Augmentation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Benefit from WSCP: Demand Reduction	5.2	4.9	9.1	9.1	4.1	7.7	7.8	3.6	4.1	4.3	4.5	4.7	69.0	
Revised Surplus/Shortage with WSCP	8.8	5.2	4.4	2.2	3.9	13.1	13.6	7.2	1.2	0.3	2.7	3.9	66.6	
% Revised Surplus/Shortage with WSCP	17%	11%	10%	5%	9%	34%	35%	20%	3%	1%	6%	8%	13%	

¹Assessments are based on best available data at time of submitting the report and actual volumes could be different due to many factors.

Rather than targeting the minimum amount required to compensate for an anticipated shortage (i.e., 10% in September), staff will call for the full 20% reduction in demand. This conservative approach will provide an added buffer to protect fall and winter supplies in a scenario of incomplete aquifer recharge.

Thus, the projected recommended actions are implementing a Stage 2 Water Shortage Watch Condition starting in September which will achieve the desired demand reduction benefits, averaging at least 9% per month throughout the remaining dry season, but with a target of 20% per month. Currently, CCSD customers are voluntarily conserving an average of 8% per month under a Stage 1 condition⁵.

Planned Shortage Response Actions

Table 6 includes the planned shortage response actions determined to be necessary to achieve the required reduction in demand. They are consistent with those outlined in the WSCP with the following exceptions:

- Water Use Efficiency Walk Throughs (surveys) are currently offered at no cost to all customers starting in Stage 2 Water Shortage conditions.
- Staff recommends that the Board of Directors consider increasing water waste patrols at all stages.
- Staff recommends that the Board of Directors consider providing high-efficiency plumbing and landscape irrigation system rebates and giveaways during Stage 2 and higher declarations, budget permitting.
- Staff recommends that the Board of Directors consider prohibiting the refilling of water cisterns with potable water from CCSD supplies during Stage 2.

Successful demand management requires effective public outreach and communication, adequate financial and staffing resources, and the flexibility to respond to customer needs and concerns as they arise. Exceptions to any of the planned shortage response actions may be authorized in accordance with Section 4.12.150 of the CCSD municipal code.

⁵ Compared to 2021 demand

Table 6. Planned Shortage Response Actions (DWR Table 5)

Planned Water Shortage Response Actions			July 1, 2023 to June 30, 2024			
Anticipated Shortage Level	ACTIONS: Demand Reduction, Supply Augmentation, and Other Actions.	Is Action Already Being Implemented? (Y/N)	How much is action going to reduce the shortage gap?		When is shortage response action anticipated to be implemented?	
			Enter Amount	Select % or Volume Unit	Start Month	End Month
1	Offer Water Use Surveys	Yes	1	%	July	June
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Yes	<1	%	July	June
1	Landscape - Other landscape restriction or prohibition	Yes	<1	%	July	June
1	CII - Lodging establishment must offer opt out of linen service	Yes	<1	%	July	June
1	CII - Restaurants may only serve water upon request	Yes	<1	%	July	June
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Yes	5-10	%	July	June
1	Other - Prohibit use of potable water for construction and dust control	Yes	<1	%	July	June
1	Other - Prohibit use of potable water for washing hard surfaces	Yes	1	%	July	June
1	Pools and Spas - Require covers for pools and spas	Yes	<1	%	July	June
1	Other water feature or swimming pool restriction	Yes	<1	%	July	June
2	Increase Water Waste Patrols	No	1	%	July	December
2	Expand Public Information Campaign	Yes	5	%	July	June
2	Provide Rebates on Plumbing Fixtures and Devices	Yes	1	%	July	June
2	Landscape - Limit landscape irrigation to specific days	No	5-10	%	July	December
2	Landscape - Prohibit certain types of landscape irrigation	No	3.33	%	July	December
2	Provide Rebates for Landscape Irrigation Efficiency	No	3.33	%	July	June
3	Increase Water Waste Patrols	No	1	%	December	June
3	Expand Public Information Campaign	No	3	%	December	June
3	Landscape - Limit landscape irrigation to specific days	No	5-10	%	December	June
3	Decrease Line Flushing	No	<1	%	December	June
3	Reduce System Water Loss	No	2	%	December	June

NOTES: During Stage 1, refilling of pools and spas shall be limited to essential need. During Stage 1, irrigation of parks, school ground areas, and public medians is limited to twice per week. During Stage 1, new landscaping must be limited to native or drought-tolerant plants. During Stage 2, landscape irrigation is limited to 3 days per week with potable water for no more than 15 minutes per day per station. During Stage 3, landscape irrigation is limited to 2 days per week with potable water for no more than 15 minutes per day per station.

Phased Ongoing Reassessments

Monthly reports as to the effectiveness of the planned water shortage response actions and the status of water shortage evaluation criteria shall be provided to the Board of Directors as part of the General Manager's or Utilities' Report. Reassessments will be active and iterative as conditions change throughout the dry season. Changes to the recommended water shortage response actions may be required to affect the desired reduction in demand.

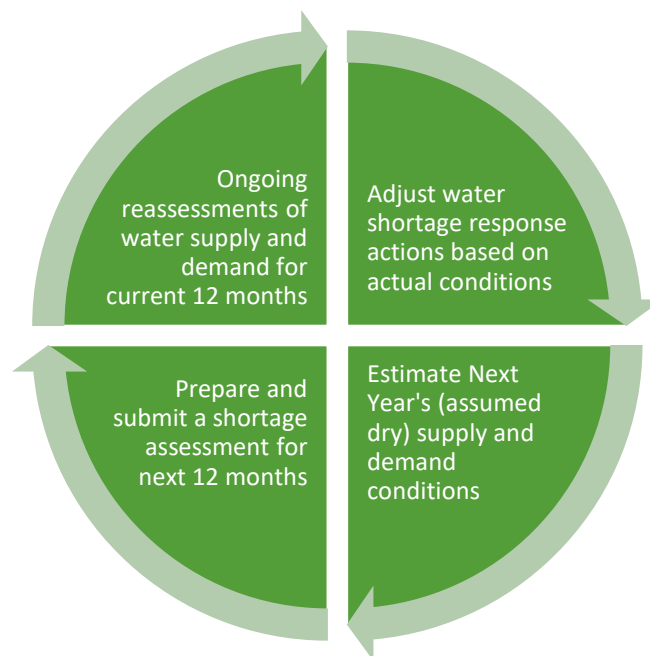


Figure C - Dynamic Approach to Water Supply and Demand Assessment

GUIDANCE FROM THE DEPARTMENT OF WATER RESOURCES

The actual water supply conditions will depend not only on the replenishment of water supplies through inflows from precipitation, but also depend on the effectiveness of any current or recent-past water shortage response actions taken within the Supplier's service area.