



# 2020 Urban Water Management Plan

Final

JUNE 2021

CAMBRIA COMMUNITY SERVICES DISTRICT





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# 2020 Urban Water Management Plan

JUNE 2021



Prepared by Water Systems Consulting, Inc.



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# ACRONYMS & ABBREVIATIONS

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°C	Degrees Celsius
°F	Degrees Fahrenheit
AB	Assembly Bill
AF	Acre Foot
AFY	Acre Feet per Year
AHHG	Area of Historic High Groundwater
AMR	Automatic Meter Reader
APA	Administrative Procedures Act
AWWA	American Water Works Association
BMP	Best Management Practice
CALWARN	California Water/Wastewater Agency Response Network
CAT	Climate Action Team
CCF	Hundred Cubic Feet
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFS	Cubic Feet per Second
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Irrigation System
CUWCC	California Urban Water Conservation Council
DCR	DWR SWP Delivery Capacity Report
DDW	SWRCB Division of Drinking Water
DFW	California Department of Fish and Wildlife
DIP	Ductile Iron Pipe
DMM	Demand Management Measure
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
ERNIE	Emergency Response Network of the Inland Empire
ESA	Endangered Species Act
ET	Evapotranspiration
ETo	Reference Evapotranspiration

GAC	Granulated Activated Carbon
GIS	Geographic Information System
GPCD	Gallons per Capita per Day
GPM	Gallons per Minute
LAFCO	Local Agency Formation Commission
MAF	Million Acre-Feet
MCL	Maximum Contaminant Level
MF	Multi-family
MG	Million Gallons
MGD	Million Gallons per Day
MOU	Memorandum of Understanding
MSL	Mean Sea Level
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
QWEZ	Qualified Water Efficient Landscaper
RIX	Rapid Infiltration and Extraction
RPA	Reasonable and Prudent Alternative
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SBX7-7	Senate Bill 7 of Special Extended Session 7
SF	Single Family
SOC	Synthetic Organic Chemicals
SOI	Sphere of Influence
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TCE	Trichloroethylene
UV	Ultraviolet
UWMP	Urban Water Management Plan
UWMP Act	Urban Water Management Planning Act
VOC	Volatile Organic Compound
WBIC	Weather Based Irrigation Controller
WSCP	Water Shortage Contingency Plan
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

# Executive Summary

This section summarizes the 2020 Urban Water Management Plan (UWMP) for the Cambria Community Services District (CCSD). It describes the 2020 UWMP in a manner that is accessible to non-technical readers. This summary describes the fundamental purposes of the UWMP, including water service reliability, future challenges, and strategies for managing risks to water reliability.

CCSD provides water service, wastewater collection and treatment, fire protection, garbage collection, and a limited amount of street lighting and recreation to the unincorporated town of Cambria within San Luis Obispo County. A map of CCSD's service area is shown in **Figure ES-1**.

The Urban Water Management Planning Act (UWMP Act) requires an urban water supplier, providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet per year (AFY) to adopt an UWMP every five years, demonstrating water supply reliability under normal as well as drought conditions. This UWMP was prepared in compliance with California Water Code (CWC) requirements for UWMPs following guidance from California Department of Water Resources (DWR) and is intended to guide long-term water resources planning for CCSD.

## IN THIS SECTION

- Outreach and Engagement
- Water Demand Projections
- Water Sources and Uses
- Water Supply Reliability

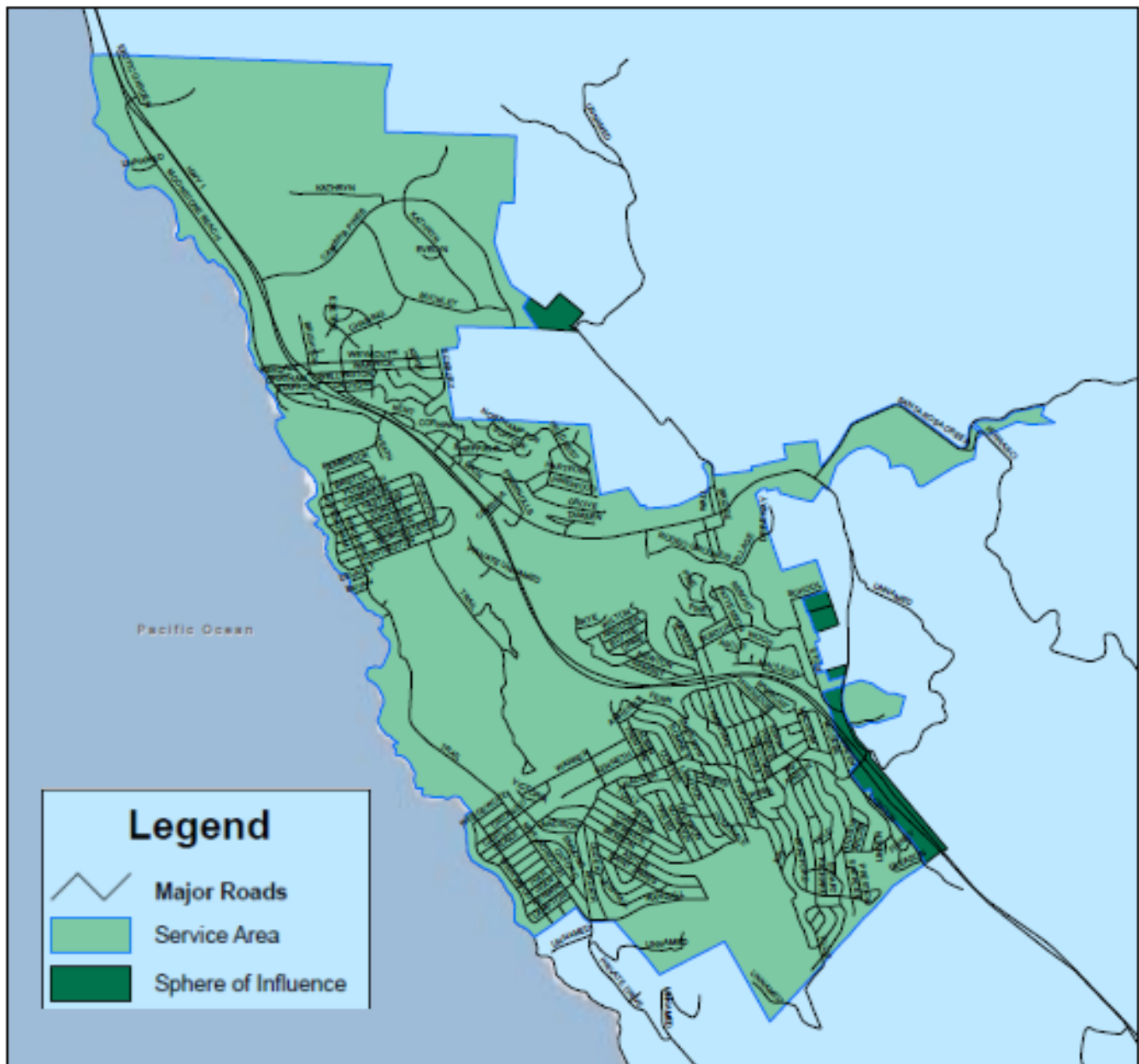
## Purpose and Organization of the Plan

This UWMP provides DWR with a detailed summary of present and future water resources and demands within CCSD's service area and assesses CCSD's water resource needs. Specifically, the UWMP provides water supply planning for a 25-year planning period in five-year increments and identifies water supplies needed to meet existing and future demands. The demand analysis identifies supply reliability under three hydrologic or rainfall conditions: an average (or normal) year, a single-dry year, and multiple dry years (drought conditions). This 2020 UWMP serves as an update to the 2015 UWMP and complies with new requirements and regulations.

New to the 2020 UWMP, water suppliers are required to prepare a standalone Water Shortage Contingency Plan (WSCP) that can be updated independently of the UWMP. The WSCP documents a supplier's plans to manage and mitigate an actual water shortage condition, should one occur because of drought or other impacts on water supplies. An overview of the WSCP is described in the body of this UWMP, and the WSCP is included as **Chapter 8**. The WSCP is being proposed for adoption in conjunction with the 2020 UWMP to meet CWC requirements.

## Outreach and Engagement

CCSD has coordinated with nearby water suppliers and regional public agencies during the preparation of its UWMP. Recognizing that coordinating among other relevant public agencies is a key requirement for its UWMP, CCSD notified these agencies of plans to develop and update this planning document. CCSD also provided a public review period for the Draft UWMP and held a public hearing to solicit input from stakeholders and the public.



**Figure ES-1. CCSD Service Area**

Cambria is known for its outstanding natural environment, which includes native forests of Monterey Pine, creek-side areas, and a scenic coastline. The beauty of the area combined with a mild climate tempered by sea breezes has led to Cambria's popularity and attraction to retirees and tourists. Rainfall averages approximately 12 inches per year and is generally limited to the winter months.

## Water Demands and Uses

CCSD serves potable drinking water to its customers. Potable drinking water demand includes all municipal uses (residential and commercial). Over the last five years, CCSD used an average of 536 AFY of potable water. CCSD residential demand accounts for about 66% of the total demand in 2020 and a summary of 2020 demands are shown in **Table ES-1**.

**Table ES-1. 2020 Water Demands, AFY**

USE TYPE	VOLUME
Single Family	340
Multi-Family	18
Commercial	114
Losses	61
Other	8
<b>TOTAL</b>	<b>539</b>

The Water Conservation Bill of 2009 (SBX7-7) requires individual retail water suppliers to set water conservation targets for 2020 to support an overall State goal of reducing urban potable per capita water use by 20% by 2020. CCSD's investments in water conservation have helped its customers achieve its 2020 SBX7-7 water use reduction target. CCSD's 2020 per capita water use target is 105 gallons per capita per day (GPCD) while the actual consumption in 2020 was 79.8 GPCD. CCSD is continuously implementing demand management measures to continue meeting its SBX7-7 water use target and position for future State-mandated water use efficiency standards that are currently under development by DWR.

The timing of future growth in CCSD service area is subject to the permitting and approval of future projects by other agencies, economic conditions, and other factors that may not be under the direct control of the CCSD. Therefore, any projections on population growth should be viewed with caution. Due to the building moratorium in Cambria, there has been no population growth between 2010 and 2020. For the purposes of future water planning in this UWMP, it is assumed that new service connections will not be allowed until 2026. From 2026 – 2043, a population growth rate of approximately 1% per year for single family only is projected, until a goal of 4,650 residential units is reached, as show in **Table ES-2**. Current and projected demands, based on projected water use by customer category and assumptions regarding passive savings, are shown in **Table ES-3**.

**Table ES-2 Current and Projected Population**

POPULATION SERVED	2020	2025	2030	2035	2040	2045
Cambria CSD	6,032	6,000	6,300	6,500	6,800	6,900
<b>TOTAL</b>	<b>6,032</b>	<b>6,000</b>	<b>6,300</b>	<b>6,500</b>	<b>6,800</b>	<b>6,900</b>



**Table ES-3. Projected Demands for Water, AFY**

USE TYPE	PROJECTED WATER USE				
	2025	2030	2035	2040	2045
Single Family	350	350	360	370	370
Multi-Family	20	20	20	20	20
Commercial	140	150	150	160	160
Losses	60	60	70	70	70
Other Potable	10	10	10	10	10
<b>TOTAL</b>	<b>580</b>	<b>590</b>	<b>610</b>	<b>630</b>	<b>630</b>

Beginning in year 2030, approximately 50 AF per year of no-net-increase in diversion from aquifer recycled water use is anticipated by converting existing CCSD customers from potable, groundwater-source-based use to non-potable outdoor irrigation using recycled water as feasible. From 2035 on an additional 50 AF of outdoor irrigation with recycled water is estimated for future project demands. Landscape irrigation feasibility is based on an earlier 2004 Recycled Water Master Plan and will be driven by available funding and potential downstream habitat concerns. Current and projected potable and recycled water demands are shown in **Table ES-4**.

**Table ES-4. Total Gross Water Use**

	2020	2025	2030	2035	2040	2045
<b>Potable and Raw Water</b> From Table 4-1R and 4-2R	539	580	590	610	630	630
<b>Recycled Water Demand<sup>1</sup></b> From Table 6-4R	-	-	50	100	100	100
<b>TOTAL WATER USE</b>	<b>539</b>	<b>580</b>	<b>640</b>	<b>710</b>	<b>730</b>	<b>730</b>

<sup>1</sup> Recycled Water Demand does not include demand associated with the Seawater Intrusion Barrier since the demand for this use is met using treated Wastewater Effluent.

## Water Supplies

The CCSD's water supply portfolio consists of groundwater from two coastal aquifers, the San Simeon and Santa Rosa aquifers. Municipal production from the San Simeon and Santa Rosa aquifers is limited by the constraints contained with the CCSD's Water Rights License (Permit No. 17287 and 20387) and Waste Discharge Requirements and Water Recycling Requirements (WDR) (Permit No. R3-2019-0051). **Table ES-5** shows the historical and current water use by aquifer.

**Table ES-5. Historical and Current by Source, AFY.**

GROUNDWATER TYPE	LOCATION OR BASIN NAME	2016	2017	2018	2019	2020
Alluvial Basin	San Simeon Creek Basin	247	360	298	409	397
Alluvial Basin	Santa Rosa Creek Basin	247	217	238	121	142
<b>- TOTAL</b>		<b>494</b>	<b>578</b>	<b>536</b>	<b>530</b>	<b>540</b>

**Table ES-6** lists the projected volume of water supplies for the CCSD service area for potable and non-potable supplies. The projected amount of reasonably available volume of potable supply shown in **Table ES-6** is based on analysis of different year types and historic production amounts. Additional detail regarding this analysis is available in **Section 7.1.2**.

**Table ES-6. Projected Water Supplies, AFY**

		PROJECTED WATER SUPPLY									
		2025		2030		2035		2040		2045	
WATER SUPPLY	ADDITIONAL DETAIL ON WATER SUPPLY	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	REASONABLY AVAILABLE VOLUME	TOTAL RIGHT OR SAFE YIELD
Groundwater (not desalinated)	San Simeon Creek Basin and Santa Rosa Creek Basin	725 <sup>1</sup>	1,017	725	1,017	725	1,017	725	1,017	725	1,017
Recycled Water	Water Reclamation Facility	21		21		21		21		21	
Recycled Water	Landscape Irrigation (excludes golf courses)			50		100		100		100	
<b>- TOTAL</b>		<b>746</b>	<b>1,017</b>	<b>796</b>	<b>1,017</b>	<b>846</b>	<b>1,017</b>	<b>846</b>	<b>1,017</b>	<b>846</b>	<b>1,017</b>

<sup>1</sup>Based on historic production in an average year type (i.e., 2018). See Section 7.1.2.2 for additional information.

## Water Supply Reliability

Every urban water supplier in California is required to assess the reliability of its water service under a normal year, a single-dry year, and multiple dry years hydrologic conditions, and specifically to assess the drought risk over the next five years. Water service reliability depends on variability of supplies and availability of infrastructure to meet projected demand. Evaluating the water service reliability is critical for water management as it can help identify potential shortfalls before they occur. Water managers can then take proactive steps to mitigate shortages by encouraging water use efficiency, securing new water supplies, and/or investing in infrastructure.

For this 2020 UWMP, the supply reliability assessment considered factors that could limit the expected quantity of current and projected water sources through 2045. Multiple drought scenarios were considered, the quantitative impacts of the aforementioned factors on water supply and demand were evaluated, and possible methods for addressing these issues were identified.

CCSD's water service reliability assessment results indicates that water shortages can be avoided over the next 25 years under normal, single-dry, and five consecutive dry years conditions through supplemental supplies provided by the WRF. Permitting of the WRF is crucial to ensure CCSD's water supplies are reliable during drought conditions. The long-term five consecutive dry year supply and demand comparison is shown in **Table ES-7**.

For the drought risk assessment that assesses surpluses or shortfalls over a five-year drought extending from today through 2025, WSCP Use Reductions or water conservation measures are required to reduce demand because it is assumed that a regular Coastal Development Permit for the WRF will not be obtained till 2025. A start year of 2025 for the WRF has been chosen as a conservative estimate for growth assumptions. The short-term five consecutive dry year supply and demand comparison is shown in **Table ES-8**.

**Table ES-7. Multiple Dry Year Supply and Demand Comparison**

		2025	2030	2035	2040	2045
First	Supply Totals	725 <sup>1</sup>	725	725	725	725
Year	Demand Totals	580	590	610	630	630
-	<b>DIFFERENCE</b>	<b>145</b>	<b>135</b>	<b>115</b>	<b>95</b>	<b>95</b>
Second	Supply Totals	733	733	733	733	733
Year	Demand Totals	580	590	610	630	630
-	<b>DIFFERENCE</b>	<b>153</b>	<b>143</b>	<b>123</b>	<b>103</b>	<b>103</b>
Third	Supply Totals	717 <sup>2</sup>	717	717	717	717
Year	Demand Totals	580	590	610	630	630
-	<b>DIFFERENCE</b>	<b>137</b>	<b>127</b>	<b>107</b>	<b>87</b>	<b>87</b>
Fourth	Supply Totals	717	717	717	717	717
Year	Demand Totals	580	590	610	630	630
-	<b>DIFFERENCE</b>	<b>137</b>	<b>127</b>	<b>107</b>	<b>87</b>	<b>87</b>
Fifth	Supply Totals	744	744	744	744	744
Year	Demand Totals	580	590	610	630	630
-	<b>DIFFERENCE</b>	<b>164</b>	<b>154</b>	<b>134</b>	<b>114</b>	<b>114</b>

<sup>1</sup>Supply availability for each year of the Multiple Dry Year Scenario is based on actual production for the Base Years, as defined in Section 7.1.2.

<sup>2</sup>In the third, fourth, and fifth year of the Multiple Dry Year Scenario, 250 AF of additional supply is assumed to be available from the WRF. This additional supply is necessary to meet the projected demands without conservation. Additional information on the WRF and its ability to augment groundwater supplies is available in Section 6.2.2.

Table ES-8. DWR 7-5 Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b)

2021	Gross Water Use	580
	Total Supplies	725
	Surplus/Shortfall without WSCP Action	145
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	145
	Resulting Percent Use Reduction from WSCP Action	0%
2022	Gross Water Use	580
	Total Supplies	733
	Surplus/Shortfall without WSCP Action	153
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	153
	Resulting Percent Use Reduction from WSCP Action	0%
2023	Gross Water Use	580
	Total Supplies	467
	Surplus/Shortfall without WSCP Action	-113
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	116
	Revised Surplus/Shortfall	3
	Resulting Percent Use Reduction from WSCP Action	20%
2024	Gross Water Use	580
	Total Supplies	467
	Surplus/Shortfall without WSCP Action	-113
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	116
	Revised Surplus/Shortfall	3
	Resulting Percent Use Reduction from WSCP Action	20%
2025	Gross Water Use	580
	Total Supplies	494
	Surplus/Shortfall without WSCP Action	-86
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	116
	Revised Surplus/Shortfall	30
	Resulting Percent Use Reduction from WSCP Action	20%

## Water Shortage Contingency Plan

CCSD has developed a comprehensive WSCP to provide reliability during shortage situations. A water shortage occurs when the water supply available is insufficient to meet the normally expected customer water use at a given point in time. A shortage may occur due to several reasons, such as water supply quality changes, climate change, drought, regional power outage, and catastrophic events (e.g., earthquakes). Additionally, the State may declare a statewide drought emergency and mandate that water suppliers reduce demands, as occurred in 2014. The purpose of the WSCP is to conserve the available water supply and protect the water supply's integrity while also protecting and preserving public health, welfare, and safety. Preparation provides the tools to maintain reliable supplies and reduce the impacts of supply interruptions during a water shortage.

The WSCP serves as the operating manual that CCSD will use to respond through proactive, rather than reactive, mitigation strategies to address water shortages. The WSCP is used to provide guidance to CCSD's Board of Directors, staff, and the public by identifying anticipated water shortages and response actions to manage any water shortage with predictability and accountability in an efficient manner. The WSCP is not intended to provide absolute direction; rather, it is intended to provide a working framework and options to help guide the CCSD's response to water shortages.

CCSD's WSCP is incorporated into the UWMP as a separate Chapter that can be modified as needed. The WSCP includes six shortage stages to identify and respond to water shortage emergencies. **Table ES-9** shows the six WSCP shortage stages, which trigger a series of actions that may include measures to reduce demand, augment supply, change typical operations, or impose mandatory prohibitions. The actions are intended to increase supplies or reduce demand to mitigate the impact of a water shortage condition.

As mentioned above, there are long-term and short-term water supply shortages with significant overlap in regard to stages, mandatory prohibitions, and consumption reduction methods as described in the following sections. **Table ES-10** summarizes the possible actions identified by CCSD staff to implement during a water shortage as well as the criteria that would trigger each water shortage stage. This table of actions is designed as a menu of options; CCSD is not required to implement each action for each stage. Actions identified in earlier stages may also be used in later stages (e.g., actions identified in Stages 1-3 may be implemented in Stage 4 as well as other Stage 4 actions, etc.).



Table ES-9. Water Shortage Contingency Plan Levels

SHORTAGE LEVEL	PERCENT SHORTAGE RANGE <sup>1</sup> (NUMERICAL VALUE AS A PERCENT)	SHORTAGE RESPONSE ACTIONS
1	Up to 10%	<b>“Water Conservation is a Way of Life”</b> Inform customers of existing conservation ordinances and incentive programs; water waste prohibitions always in effect
2	Up to 20%	<b>“Water Shortage Watch”</b> - Citations for violations of shortage response actions - Commence public outreach campaign - If Stage 3 is imminent, then schedule Board Hearing at least 14 days prior to Stage 3 action
3	Up to 30%	<b>“Water Shortage Warning”</b> - All of the above, plus increased restrictions on use of potable water - Increase public outreach campaign to include weekly Farmer’s Market booth and product giveaways or demos - If Stage 4 is imminent, schedule Board Hearing at least 14 days prior to action
4	Up to 40%	<b>“Water Shortage Emergency”</b> - All of the above, and establish water use allocations - Board meeting second month of billing cycle - recommend remaining in Stage 4 or moving to Stage 5, 3, 2, or 1 - Prepare WRF for operation
5	Up to 50%	<b>“Extreme Water Shortage Emergency”</b> - All of the above, and reduce allocation, enforce excess use penalty - Mandatory audits for customers exceeding allocation - Board Meeting at second month of enforcement billing cycle, recommend remaining at Stage 5, move to Stage 6, 4, 3, 2, or 1 - Operate WRF as needed
6	>50%	<b>“Exceptional Water Shortage Emergency”</b> - Continue allocation enforcement; potable water for human health, sanitation, and fire protection only - Board Meeting at second month of enforcement billing cycle, recommend remaining at Stage 6, or move to Stage 5, 4, 3, 2 or 1 - Operate WRF as needed

<sup>1</sup>One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.

**Table ES-10. Shortage Response Actions**

STAGE	CRITERIA	SUGGESTED ACTIONS
<b>1 – UP TO 10% WATER USE REDUCTION</b>	<p>Baseline - Water Use Efficiency is a Way of Life</p> <p>Dry season starts in June or later</p> <p>Rainfall at 86-100% of normal</p> <p>Average SS well levels at or above 100% of normal (<math>\geq 20.1</math> ft)</p> <p>WBE/WBW well levels at or above 100% of normal (WBE is <math>\geq 5.6</math> ft and WBW is <math>\geq 5.6</math> ft)</p> <p>9P2/SS4 gradient at or above 100% of normal (<math>\geq 3.0</math> ft)</p>	<p><b>THE FOLLOWING ARE PROHIBITED AT ALL TIMES UNDER CHAPTER 4.08 OF THE CCSD MUNICIPAL CODE:</b></p> <p>The watering of grass, lawns, ground-cover, shrubbery, open ground, crops, and trees herein after collectively called "landscape or other irrigation," in a manner or to an extent which allows excess water to run-off the area being watered. Every water user is deemed to have under his or her control at all times his or her water distribution lines and facilities and to know the manner and extent of his or her water use and excess run-off;</p> <p>The watering of grass, lawns, ground-cover, shrubbery, open ground, crops or trees or other irrigation within any portion of the district in violation of the following schedule and procedures: a. Watering shall be accomplished with a person in attendance; b. Watering shall not take place between the hours of ten a.m. and six p.m.; and c. Watering shall be limited to the amount of water necessary to maintain landscaping.</p> <p>The washing of sidewalks, walkways, driveways, parking lots, windows, buildings, and all other hard-surfaced areas by direct hosing unless utilizing high-pressure, low-volume systems;</p> <p>The escape of water through breaks or leaks within the water user's plumbing or distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. Water must be shut off within two hours after the water user discovers such leak or break or receives notice from the district of such leak or break, whichever occurs first. Such leak or break shall be corrected within an additional six hours;</p> <p>The serving of water to customers by any eating establishment except when specifically requested;</p> <p>Except as approved in advance in writing by the general manager of the district, the use of water by governmental entities or agencies for: (1) routine water system flushing for normal maintenance, (2) routine sewer system flushing for normal maintenance, and (3) fire personnel training;</p> <p>Washing vehicles by use of an unrestrained hose. Use of a bucket for washing a vehicle and rinsing with a hose with a shutoff at the point of release is permitted subject to non-wasteful applications. Vehicle is defined as any mechanized form of transportation including, but not limited to, passenger cars, trucks, recreational vehicles (RVs), campers, all-terrain vehicles (ATVs), motorcycles, boats, jet skis, and off-road vehicles;</p> <p>Use of potable water from the district's water supply system for compacting or dust control purposes;</p> <p>Using unmetered water from any fire hydrant, except as required for fire suppression;</p> <p>It is unlawful for any consumer to remove, replace, alter, or damage any water meter or components thereof.</p> <hr/> <p>Landscape irrigation using non-potable water sources is encouraged; no restrictions.</p> <p>Irrigation of parks, school ground areas, and road median landscaping will not be permitted more than twice a week.</p> <p>Irrigation of ornamental turf on public medians with potable water is prohibited.</p> <p>No application of potable water to outdoor landscapes (turf and ornamental landscapes) within 48 hours before, during, or after a rainfall event with measurable rainfall. Measurable rainfall for the region is defined as greater than or equal to 0.5 inches.</p>

STAGE	CRITERIA	SUGGESTED ACTIONS
		<p>New landscaping should be limited to native or drought tolerant plants when a Stage 1 water conservation program is in effect.</p> <p>Limits on watering duration. Watering or irrigating of lawns, landscape or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than 15 minutes per day per station. This subsection does not apply to landscape irrigation systems that exclusively use high efficiency irrigation equipment, very low-flow drip type irrigation systems when no emitter produces more than two gallons of water per hour, and weather-based controllers or high-efficiency stream rotor sprinklers.</p> <p>Operators of hotels, motels, and other commercial establishments offering lodgings shall post in each room a notice of water shortage conditions, encouraging water conservation practices.</p> <p>Lodging establishment must offer opt out of linen service.</p> <p>Require covers for pools and spas.</p> <p>Watering to maintain the level of water in swimming pools shall occur only when essential.</p>
<b>2 – UP TO 20% WATER USE REDUCTION</b>	<p>Drought Watch</p> <p>Dry season starts in June or later</p> <p>Rainfall at 71-85% of normal</p> <p>Average SS well levels at 91-100% of normal (18.2-20.1 ft)</p> <p>WBE/WBW well levels at 91-100% of normal (WBE is 5.2-5.6 ft and WBW is 5.1-5.6 ft)</p> <p>9P2/SS4 gradient at 91-100% of normal (2.8-3.0 ft)</p>	<p>Up to 3 days per week landscape irrigation when using potable water; no more than 15 minutes per day per station.</p> <p>Car washing is only permitted using a commercial carwash that recirculates water or by high pressure/low volume wash systems.</p> <p>Commercial car wash and laundry systems. Installation of new or replacement non re-circulating water systems in commercial conveyor car wash or commercial laundry systems is prohibited.</p> <p>Use of graywater, as that term is defined in the California Health &amp; Safety Code, or recycled water for irrigation is permitted on any day and at any time, subject only to any permits issued by the County.</p> <p>Construction operations receiving water from a construction meter or water truck shall not use water unnecessarily for any purpose other than those required by regulatory agencies. Construction projects requiring watering for new landscaping materials shall adhere to the designated irrigation requirements set forth in this plan and shall only install native or drought-tolerant plant species.</p> <p>District will commence public outreach campaign regarding water shortage watch restrictions including presentations and/or materials provided to local schools and street signage.</p>
<b>3 – UP TO 30% WATER USE REDUCTION</b>	<p>Water Shortage Warning</p> <p>Dry season starts in May or later</p> <p>Rainfall at 56-70% of normal</p> <p>Average SS well levels at 81-90% of normal (16.1-18.1 ft)</p> <p>WBE/WBW well levels at 81-90% of normal (WBE is 4.6-5.1 ft and WBW is 4.6-5.0 ft)</p>	<p>Irrigation on public medians with potable water is prohibited.</p> <p>Decorative water features that use potable water must be drained and kept dry.</p> <p>Wash only full loads of laundry and/or dishes.</p> <p>Filling, refilling, or replenishing swimming pools, spas, ponds, streams, and artificial lakes is prohibited.</p> <p>Tune-up irrigation system by checking for and repairing leaks and damaged sprinklers.</p> <p>Up to two days per week of landscape irrigation when using potable water; no more than 15 minutes per day per station.</p> <p>Shorten showers and turn off faucets while brushing teeth or shaving.</p> <p>District will expand outreach campaign to include a staffed booth at the weekly Farmer's Market. Water efficient product giveaways will be provided, budget permitting.</p>

STAGE	CRITERIA	SUGGESTED ACTIONS
	9P2/SS4 gradient at 81-90% of normal (2.5-2.7 ft)	Fix leaky faucets, toilets, showerheads, pipes, and other water plumbing immediately.
<b>4 – UP TO 40% WATER USE REDUCTION</b>	Drought Emergency	Up to one day per week of landscape irrigation when using potable water; no more than 10 minutes per day per station.
	Dry season starts in April or later	Maintenance of existing landscaping necessary for fire protection as specified by the Fire Chief of the Cambria CSD Fire Department; if fire-protection landscaping is not sustainable by irrigation one (1) days per week, irrigation may be increased to not more than two (2) days per week;
	Rainfall at 41-55% of normal	Maintenance of existing landscaping for erosion control; if erosion-control landscaping is not sustainable by irrigation one (1) day per week, may be irrigated up to two (2) days per week.
	Average SS well levels at 71-80% of normal (14.1-16.0ft)	Implement monthly meter reading; customer notification re: percentage of allocation used
	WBE/WBW well levels at 71-80% of normal (WBE is 4.1-4.5 ft and WBW is 4.0-4.5 ft)	Existing pools shall not be emptied and refilled using potable water unless required for public health and safety purposes.
	9P2/SS4 gradient at 71-80% of normal (2.2-2.4 ft)	No new will serves for projects including pool or spa installation will be permitted. Staff directed to communicate with water users in the 90th percentile of their customer class to help reduce consumption. Previous waivers for watering or water use in excess of drought restrictions will be revoked. Washing of personal vehicles at home (including autos, trucks, trailers, motor homes, boats, or others) is prohibited. Water use allocation per permanent resident: 3 units per month. Commercial water use allocation: 3 units per EDU or fraction thereof; or average of last 12 months water use, whichever is less. Vacation rental allocation: 3 units per month. Upon the declaration of a water shortage emergency, no new water meters allowed, except for health and safety, unless water demand is offset to a net zero increase. Achieving net zero water increase is when potable water use of proposed development is no greater than current demand within the District's service area prior to installation of the new meters. The District will separately develop a "Net Zero Water Increase Program." The objective of the Program shall be to provide a means to continue sustainable growth during continuing water shortage conditions. No new temporary construction meter permits will be issued by the District. The District will suspend consideration of annexations to its service area unless the annexation increases the water supply available to the District by more than the anticipated demands of the property to be annexed. Staff directed to prepare WRF for operation.
<b>5 – UP TO 50% WATER USE REDUCTION</b>	Extreme Drought Emergency	No irrigation of turf, landscapes and/or ornamental gardens with potable water sources.
	Dry season starts in March or earlier	Water use for public health and safety purposes only. Customer rationing may be implemented.
	Rainfall at 26-40% of normal	No new construction meters will be issued. Dedicated irrigation meters will be locked by CCSD staff.
	Average SS well levels at 61-70% of normal (12.1-14.0 ft)	Staff directed to perform mandatory water audits for water users in the 90th percentile. No replacement water may be provided for ponds or lakes. Aeration equipment should be managed in such a way as to eliminate evaporative loss of water.

STAGE	CRITERIA	SUGGESTED ACTIONS
	<p>WBE/WBW well levels at 61-70% of normal (WBE is 3.5-4.0 ft and WBW is 3.4-3.9 ft)</p> <p>9P2/SS4 gradient at 61-70% of normal (1.9-2.1 ft)</p>	<p>Water use allocation per permanent resident: 2 units per month. Commercial water use allocation: 2 units per EDU or fraction thereof; or 75% of average of last 12 months water use, whichever is less. Vacation rental allocation: 2 units per month.</p> <p>Penalty charges for violation of water use allocations. Water use that exceeds allocation by less than 25% will be subject to a five-hundred percent (500%) surcharge levied on all usage above the customer's allocation. Water use that exceeds allocation by more than 25% will be subject to a one-thousand percent (1000%) surcharge levied on all usage above the customer's allocation. The tiered penalty structure is designed to acknowledge those customers who make a good faith effort to reduce consumption but go over their allocation by a small amount.</p> <p>Staff directed to operate WRF.</p> <p>No water for commercial car washes.</p> <p>No planting of new landscaping (seed, sod, or other plant materials).</p>
<p><b>6 – GREATER THAN 50% WATER USE REDUCTION</b></p>	<p>Exceptional Drought Emergency</p> <p>Dry season starts in March or earlier</p> <p>Rainfall at &lt;25% of normal</p> <p>Average SS well levels at &lt;60% of normal (≤12.0 ft)</p> <p>WBE/WBW well levels at &lt;60% of normal (WBE is ≤3.4 ft and WBW is ≤3.3 ft)</p> <p>9P2/SS4 gradient at &lt;60% of normal (≤1.8 ft)</p>	<p>All landscape and non-essential outdoor water use for all Customers in all areas of the District's retail water service area shall be prohibited.</p> <p>Water rationing and penalties for exceeding allocations to remain in effect.</p> <p>Water use for public health and safety purposes only.</p> <p>Staff directed to operate WRF.</p>

# 1

## URBAN WATER MANAGEMENT PLAN

# Introduction and Lay Description

**This chapter provides a brief overview of the Cambria Community Services District (CCSD) and the purpose of this 2020 Urban Water Management Plan (UWMP). It also describes how the UWMP is organized and its relation to other local and regional planning efforts that CCSD is involved in.**

The Cambria Community Services District provides water service to the unincorporated town of Cambria within San Luis Obispo County. The Cambria Community Services District provides water supply, wastewater collection and treatment, fire protection, garbage collection, and a limited amount of street lighting and recreation. When it was formed in 1976, the Cambria Community Services District became a successor to an earlier Cambria County Water District, which was formed in 1959.

CCSD has a five-member elected Board of Directors. Land use authority for the service area is under the auspices of San Luis Obispo County, which also provides the area services for police, flood control, and roadways.

### IN THIS SECTION

- California Water Code
- UWMP Organization
- Relation to Other Efforts

## 1.1 The California Water Code

In 1983, the State of California Legislature (Legislature) enacted the Urban Water Management Planning Act (UWMP Act). The law required an urban water supplier, providing water for municipal purposes to more than 3,000 customers or serving more than 3,000 acre-feet per year (AFY) to adopt an UWMP every five years, demonstrating water supply reliability under normal as well as drought conditions. The UWMP Act applies to wholesale and retail suppliers.

Since the original UWMP Act was passed, it has undergone significant expansion, particularly since the CCSD's previous UWMP was prepared in 2015. Prolonged droughts, groundwater overdraft, regulatory revisions, and changing climatic conditions affect the reliability of each water supplier as well as the statewide water reliability overseen by California Department of Water Resources (DWR), the State Water Resources Control Board (State Water Board), and the Legislature. Accordingly, the UWMP Act has grown to address changing conditions, and the current requirements are found in Sections 10610-10656 and 10608 of the California Water Code (CWC).

DWR provides guidance for urban water suppliers by preparing an Urban Water Management Plan Guidebook 2020 (Guidebook) (California Department of Water Resources, 2021), conducting workshops, developing tools, and providing program staff to help water suppliers prepare comprehensive and useful water management plans, implement water conservation programs, and understand the requirements in the CWC. Suppliers prepare their own UWMPs in accordance with the requirements and submit them to DWR. DWR then reviews the plans to make sure they have addressed the requirements identified in the CWC and submits a report to the Legislature summarizing the status of the plans for each five-year cycle. The Guidebook, finalized in April 2021, was used to complete this 2020 UWMP.

The purpose of this UWMP is for CCSD to evaluate long-term resource planning and establish management measures to ensure adequate water supplies are available to meet existing and future demands. The UWMP provides a framework to help water suppliers maintain efficient use of urban water supplies, promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a response mechanism during drought conditions or other water supply shortages.

### **The UWMP is a valuable planning tool used for multiple purposes including:**

- Provides a standardized methodology for water utilities to assess their water resource needs and availability.
- Serves as a resource to the community and other interested parties regarding water supply and demand, conservation, and other water-related information.
- Provides a key source of information for cities and counties when considering approval of proposed new developments and preparing regional long-range planning documents such as city and county General Plans.
- Informs other regional and Statewide water planning efforts, such as Integrated Regional Water Management Plans and the California Water Plan.

CWC 10632 also includes updated requirements for suppliers to prepare a Water Shortage Contingency Plan (WSCP). The WSCP documents a supplier's plans to manage and mitigate an actual water shortage condition, should one occur because of drought or other impacts on water supplies. In the 2015 UWMP cycle, the WSCP was part of the UWMP. For the 2020 update, the WSCP is required to be a standalone document so that it can be updated independently of the UWMP but must be referenced in and attached to the 2020 UWMP. The WSCP is provided in **Chapter 8** of this UWMP.



## 1.2 UWMP Organization

CCSD generally followed DWR's recommended organizational outline in the preparation of its 2020 UWMP.

**Below is a summary of the information included in the various chapters of CCSD's 2020 UWMP:**

### **Chapter 1 – Introduction and Overview.**

This chapter provides background information on the UWMP process, new regulatory requirements, and an overview of the information covered throughout the remaining chapters.

### **Chapter 2 – Plan Preparation.**

This chapter provides information on the processes used for developing the UWMP, including efforts in coordination and outreach.

### **Chapter 3 – System Description.**

This chapter describes CCSD's water system, service area, population demographics, local climate, and land uses.

### **Chapter 4 – System Water Use.**

This chapter describes and quantifies the current and projected water uses through 2045 within the water service area.

### **Chapter 5 – Baselines and Targets.**

This chapter describes the Water Conservation Act of 2009, also known as SBX7-7 (SB 7), Baseline, Targets, and 2020 Compliance.

### **Chapter 6 – System Supplies.**

This chapter describes and quantifies the current and projected potable and non-potable water supplies.

### **Chapter 7 – Water Supply Reliability.**

This chapter describes the water service reliability through 2045 and includes the Drought Risk Assessment (DRA) for the next five years.

### **Chapter 8 – Water Shortage Contingency Plan (WSCP).**

This chapter includes the standalone WSCP.

### **Chapter 9 – Demand Management Measures.**

This chapter describes CCSD's efforts to promote conservation and reduce water demand, including discussions of specific demand management measures.

### **Chapter 10 – Plan Adoption, Submittal, and Implementation.**

This chapter describes the steps taken to prepare CCSD's 2020 UWMP, hold a public hearing, adopt and submit the 2020 UWMP, and implementation of the adopted UWMP.

### 1.3 UWMPs in Relation to Other Efforts

This UWMP characterizes water use, estimates future demands and supply sources, and evaluates supply reliability for normal, single-dry, and five consecutive dry years. The UWMP also requires a standalone WSCP, which is provided in **Chapter 8**.

In addition to the 2020 UWMP, CCSD is involved in several other internal and external planning efforts and collaborates with a variety of stakeholders to achieve coordination and consistency between various planning documents locally and regionally.

**Documents that were leveraged in preparation of this UWMP are:**

- 2020 Cambria Decision Support System (DSS) Model Update and Demand Analysis
- CCSD Water Rights License
- CCSD Waste Discharge Requirements and Water Recycling Requirements
- 2016-2019 AWWA Water Audits
- 2020 Wastewater Annual Report
- 2017 CCSD and Cambria Community Healthcare Districts Multi Jurisdictional Hazard Mitigation Plan

### 1.4 UWMPs and Grant or Loan Eligibility

In order for a water supplier to be eligible for a grant or loan administered by DWR, and potentially other agencies, the supplier must have a current UWMP on file that meets the requirements set forth by the CWC. A current UWMP must also be maintained by the supplier throughout the term of any grants or loans received. CCSD has prepared the 2020 UWMP under guidance from DWR's 2020 UWMP Guidebook.

### 1.5 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

CCSD does not receive imported water from the Delta. Therefore, this section is not applicable.

# 2 URBAN WATER MANAGEMENT PLAN

## Plan Preparation

This chapter of the UWMP provides information on the processes used for developing the UWMP, including efforts in coordination and outreach.

DWR’s 2020 UWMP schedule is summarized below.

DATE	EVENT
December 2020	Draft Guidebook released
December 2020-January 2021	DWR Workshops
March 2021	Draft Final Guidebook released
April 2021	Final Guidebook released
July 1, 2021	UWMPs due to DWR

### IN THIS SECTION

- Plan Preparation
- Coordination and Outreach

A DWR review sheet checklist is provided in **Appendix A**.

## 2.1 Basis for Preparing a Plan

As mentioned in **Chapter 1**, the CWC requires suppliers with 3,000 or more service connections, or those supplying 3,000 AFY or more to prepare an UWMP. Suppliers are required to update UWMPs at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update. CCSD's 2020 UWMP must be submitted to DWR by July 1, 2021.

CCSD is preparing an individual UWMP and is not a member of a Regional UWMP or Regional Alliance. In 2020, CCSD served approximately 6,032 people in its service area, through 4,034 metered connections, and supplied approximately 540 AFY of potable water to customers. CCSD has included all mandatory 2020 data in the development of this UWMP. CCSD does not sell or purchase water from other suppliers.

Throughout this UWMP, water volume is represented in units of AFY, unless otherwise noted, and data is presented on a calendar year basis. Required DWR tables presenting this information are provided in **Table 2-1**, **Table 2-2**, and **Table 2-3**.

**Table 2-1. DWR 2-1R Public Water Systems**

PUBLIC WATER SYSTEM NUMBER	PUBLIC WATER SYSTEM NAME	NUMBER OF MUNICIPAL CONNECTIONS 2020	VOLUME OF WATER SUPPLIED 2020
CA4010014	Cambria CSD	4,034	539
<b>TOTAL</b>		<b>4,034</b>	<b>539</b>

**Table 2-2. DWR 2-2 Plan Identification**

TYPE OF PLAN	MEMBER OF RUWMP	MEMBER OF REGIONAL ALLIANCE	NAME OF RUWMP OR REGIONAL ALLIANCE
Individual UWMP	No	No	Not Applicable

**Table 2-3. DWR 2-3 Agency Identification**

TYPE OF SUPPLIER	YEAR TYPE	FIRST DAY OF YEAR		UNIT TYPE
		DD	MM	
Retailer	Calendar Years	01	01	Acre Feet (AF)

## 2.2 Coordination and Outreach

CCSD coordinated with multiple neighboring and stakeholder agencies to prepare the 2020 UWMP. The coordinated efforts were conducted to 1) inform these agencies of CCSD’s efforts and activities; 2) gather high quality data for use in developing this UWMP; and 3) coordinate planning activities with other related regional plans and initiatives.

CWC Section 10621 requires that Suppliers notify cities and counties to which they serve water that the UWMP and WSCP are being updated and reviewed. The CWC specifies that this must be done at least 60 days prior to the public hearing. To fulfill this requirement, CCSD sent letters of notification of preparation of the 2020 UWMP and 2020 WSCP to all cities and counties within CCSD’s service area 60 days prior to the public hearing as indicated in **Table 2-4** and attached as **Appendix B**.

**Table 2-4. Agency Coordination**

AGENCY/ORGANIZATION	PARTICIPATED IN PLAN DEVELOPMENT	COMMENTED ON DRAFT	ATTENDED PUBLIC MEETINGS	WAS CONTACTED FOR ASSISTANCE	WAS NOTIFIED OF PLAN AVAILABILITY <sup>1</sup>	WAS SENT A NOTICE OF INTENTION TO ADOPT 60 DAYS PRIOR TO PUBLIC HEARING
<b>WATER SUPPLIERS</b>						
San Simeon Community Services District					X	X
<b>PUBLIC AGENCIES</b>						
County of San Luis Obispo					X	X
California Department of Water Resources (DWR)					X	X
California State Library					X	X

<sup>1</sup>Was notified of availability of Draft UWMP and directed to an electronic copy of the draft plan on the CCSD website.

On April 16, 2021, CCSD notified all cities and counties within the service area of their intent to update the UWMP and WSCP by July 1, 2021. This notification served as the 60-day noticing required by the CWC. A copy of this letter is included in **Appendix B**. Per Government Code 6066, the public hearing was noticed in the local newspaper on June 3, 2021 and noticed again on June 10, 2021. The hearing notices are attached as **Appendix C**. The public hearing was held on June 17, 2021 at the Board of Directors meeting prior to the UWMP and WSCP adoption.

In addition, CCSD maintained a copy of the 2020 UWMP and WSCP in its office and at [www.cambriacsd.org](http://www.cambriacsd.org) prior to the public hearing.

CCSD’s Final 2020 UWMP and WSCP were formally adopted by CCSD’s Board of Directors on June 17, 2021. A copy of the Adoption Resolution is included in **Appendix D** and meeting minutes from the public hearing are available on the CCSD website. A hard copy of CCSD’s Final 2020 UWMP and WSCP were sent to the California State Library, DWR (electronically using the WUEdata reporting tool), and all cities and counties within the CCSD’s service area within 30 days of adoption.

To fulfill the requirements of Water Code Section 10642 of the UWMP Act, CCSD made its Final 2020 UWMP available online ([www.cambriacsd.org](http://www.cambriacsd.org)) and at CCSD's public office, between the hours of 9:00 am and 4:00 pm, for public review within 30 days of adoption, on July 17, 2021.

Should CCSD need to amend the adopted 2020 UWMP or WSCP in the future, CCSD will hold a public hearing for review of the proposed amendments to the document. CCSD will send a 60-day notification letter to all cities and counties within CCSD's service area and notify the public. Notification to the public will be published twice in the newspaper, the first notice being a minimum of two weeks prior to the public hearing. Once the amended document is adopted, a copy finalized version will be sent to the California State Library, DWR (electronically using the WUEdata reporting tool), and all cities and counties within CCSD's service area within 30 days of adoption.

The finalized version will also be made available to the public both online ([www.cambriacsd.org](http://www.cambriacsd.org)) and in person at CCSD's public office during normal business hours.

# 3 URBAN WATER MANAGEMENT PLAN

## System Description

**This chapter describes CCSD’s water system, service area, population demographics, local climate, and land uses.**

CCSD water supply, wastewater collection and treatment, fire protection, garbage collection, and a limited amount of street lighting and recreation. When it was formed in 1977, CCSD became a successor to an earlier Cambria County Water District, which was formed in 1959. The CCSD has a five-member elected Board of Directors. Land use authority for the service area is under the auspices of San Luis Obispo County, which also provides the area services for police, flood control, and roadways.

### IN THIS SECTION

- Service Area
- Current and Projected Population
- Demographics
- Land Uses



### 3.1 General Description

CCSD provides water service to the unincorporated town of Cambria within San Luis Obispo County. Cambria is located along Highway 1 on the North Coast of San Luis Obispo County approximately 35 miles north of the City of San Luis Obispo. The community is relatively isolated to access north and south from Highway 1 due to the Pacific Ocean being immediately to the west, and the Santa Lucia Mountain Range lying to the east. Highway 46 connects into Highway 1 approximately four miles south of Cambria and provides the main inland connector route to Highway 101, which is approximately 22 miles inland. To travel inland towards Paso Robles, the route along Highway 46 passes over a summit at 1,720 feet above sea level.

The District's service area is also within the Coastal Zone and subject to the Local Coastal Program that was first developed by the County and certified by the California Coastal Commission in 1988. In addition to providing water service within its Urban Services Boundary, the CCSD provides water and wastewater services via a contract to the Hearst San Simeon State Parks campground, which is approximately 2 miles north of Cambria, near the intersection of Highway 1 and Simeon Creek Road. Providing water service beyond its current boundary and previously contracted areas is subject to the Measure P, which was voter-approved during 2006.

This measure requires amending the CCSD's water master plan, completing supporting environmental review, and obtaining voter approval before water service could be extended. Land use is guided through conformance with the San Luis Obispo County North Coast Area Plan, Coastal Zone Land Use Ordinance, and Framework for Planning Coastal Zone, General Plan Land Use, and Circulation Elements.

Prior to 1959, the community water supply was provided by the Cambria Development Company, and earlier by the J.D. Campbell Water Company. The District currently serves a year-round population of about 6,032 as well as a large number of visitors to the Central Coast. **Figure 3-1** shows CCSD service area and sphere of influence areas, which was last adopted by the San Luis Obispo County LAFCO in 2007. The CCSD service area covers approximately four (4) square miles.

The District's potable water is supplied solely from groundwater wells in the San Simeon and Santa Rosa Creek aquifers (underflow of these streams). The California Department of Water Resources 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** contains the Bulletin 118 summary description of each of the two aquifers, neither of which is listed as being in overdraft status by the State.

Due to the steep and varying topography of the service area, there are eight pressure zones within the District's water distribution system. The area is served via a system of five groundwater wells, three-distribution system pumping stations, pressure reducing stations, and four tank sites.



A view of the Beach in Cambria

### 3.2 Service Area Boundary Maps

Figure 3-1 shows an overview of CCSD’s service area.

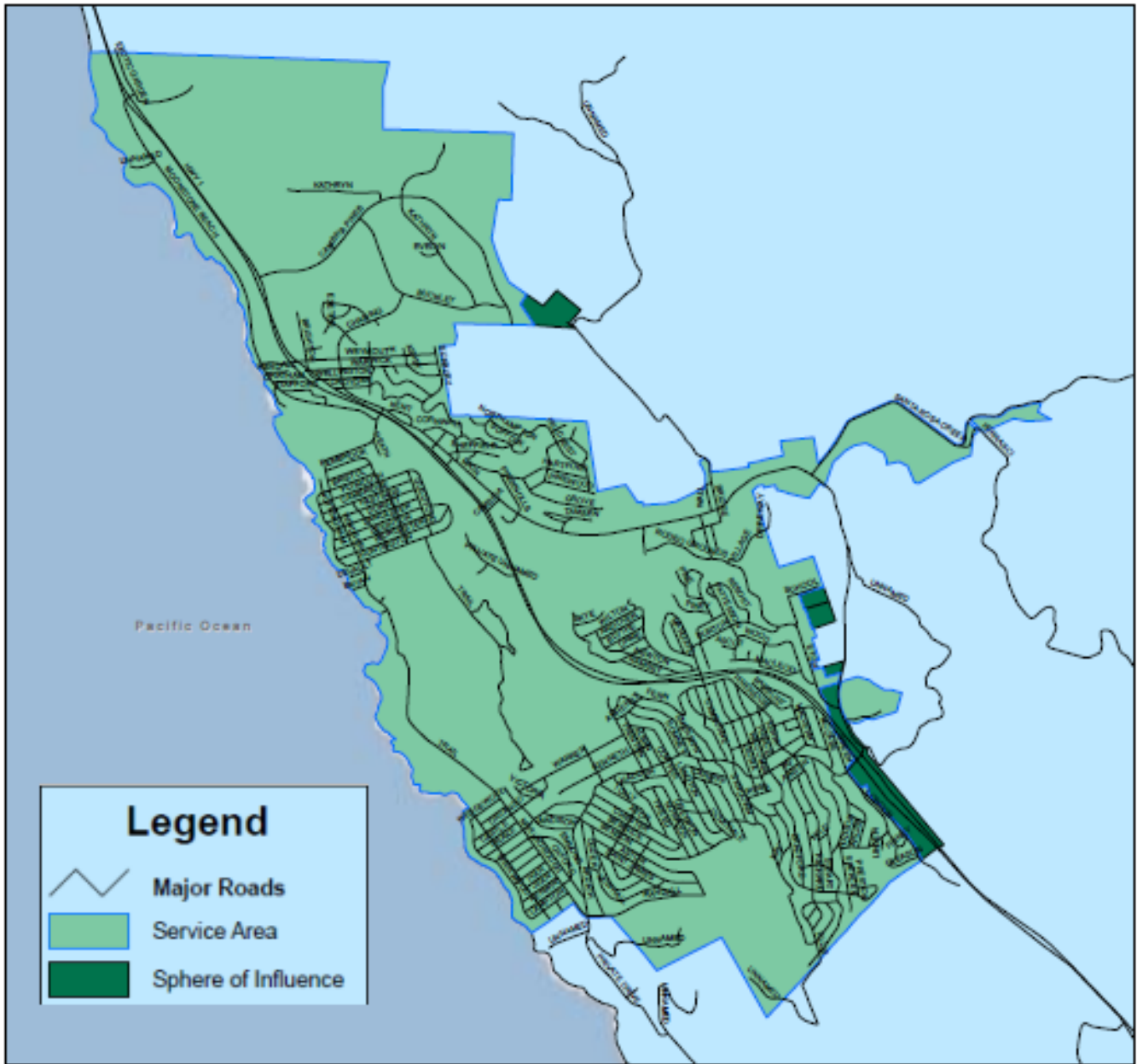


Figure 3-1. CCSD Service Area

Cambria is known for its outstanding natural environment, which includes native forests of Monterey Pine, creek-side areas, and a scenic coastline. The beauty of the area combined with a mild climate tempered by sea breezes has led to Cambria’s popularity and attraction to retirees and tourists. Rainfall averages approximately 12 inches per year and is generally limited to the winter months.

Cambria is within an original Rancho Santa Rosa Mexican land grant area. The town was established in the late 1860s to accommodate shipping of mining and agricultural products in the central coast region. Its importance as a commercial center dissipated around 1900 as mines were depleted and shipping moved further inland by railroad. Today, visitor serving commercial establishments consist of hotels, motels, restaurants, and retail shops. The California States Park operated Hearst Castle is approximately five miles north of Cambria, which also serves to draw tourism to the area.

Much of the water service area is hilly terrain, with lower lying areas existing along the coastline, the Santa Rosa Creek channel, Main Street, and the Highway 1 corridor. The water service area elevations range from near sea level to approximately 550 feet above sea level. There are two commercial retail areas along Main Street, consisting of East Village and West Village. Much of the hilly areas outside of the lower lying commercial areas were subdivided into 25-foot-wide residential lots during the late 1920s by the Cambria Land Development Company.

The dominant geologic feature of San Luis Obispo County and the Cambria area is the Santa Lucia Mountain Range. The San Simeon Creek and Santa Rosa Creek basins lie on the westerly slope of the Santa Lucia Range where drainage is to the Pacific Ocean. The maximum elevation of the Santa Rosa basin is 2,933 feet on Cypress Mountain, and the highest point in the San Simeon basin is 3,432 feet on Rocky Butte.

The Santa Lucia Mountains are made up largely from the Franciscan formation, which in the San Simeon and Santa Rosa basins, is composed of a mélange of greywacke, metavolcanic rocks, and graywacke. The Franciscan formation is partially overlain with uplifted marine sediments of the late Jurassic, Cretaceous, Tertiary, and Quaternary periods. The most recent formations are Holocene alluvial deposits of gravel, sand, silt, and clay, which make up the streambeds of the creeks. These deposits are the only apparent water-bearing formations within the Santa Rosa and San Simeon drainage basins.



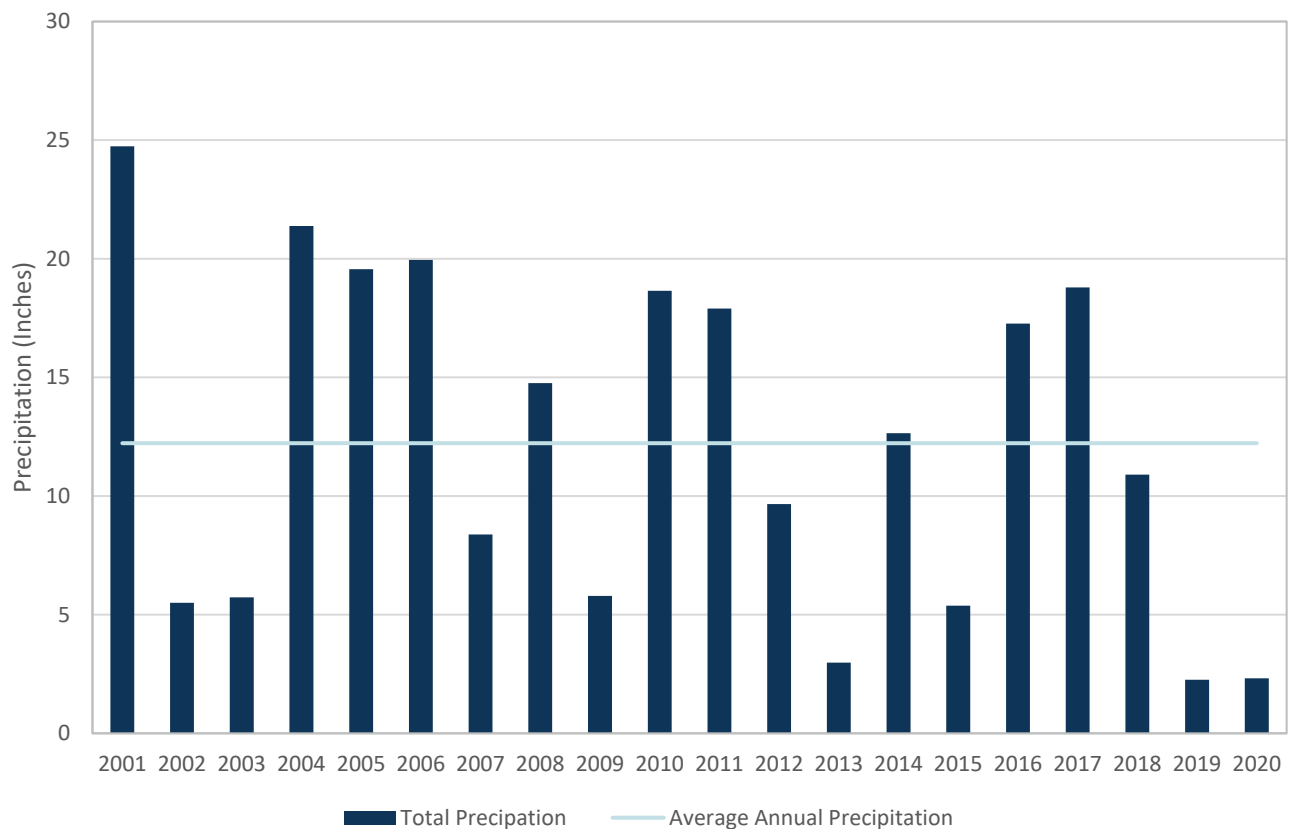
Aerial view of the San Simeon aquifer area

### 3.3 Service Area Climate

The area served by CCSD generally experiences pleasant weather for the most part of the year. Climate data from the California Irrigation Management Information System (CIMIS) collected from Station #160 San Luis Obispo West from November 2000 to December 2020, which collects, precipitation, evapotranspiration (ET<sub>o</sub>), and temperature data, was evaluated (CIMIS, 2021). The area benefits from a relatively low evapotranspiration rate when compared to inland areas due to its location being along the coast. The area also has a Mediterranean rainfall pattern with rains typically occurring during the November through March period. On average, the annual total precipitation is 11.7 inches, with average monthly precipitation ranging from 0 inches to 2.9 inches. The peak summertime irrigation period combined with seasonal tourism results in the maximum daily water demands occurring during the summer. **Table 3-1** shows the monthly averages for precipitation and temperature from 2000 through 2020.

**Figure 3-2** shows the annual precipitation from 2001 through 2020 and illustrates which years fall above or below the annual average precipitation for this period. As shown by this figure, the area can experience multiple years under the average precipitation, making water management more critical to ensure communities are prepared for the next drought.

CCSD’s average monthly temperature ranges from about 51 to 60 degrees Fahrenheit (°F). On average, July through October are the warmest months of the year.



**Figure 3-2. CIMIS San Luis Obispo West Station (#160) Annual Precipitation from 2001 to 2020**

**Table 3-1. CIMIS Station 160 Average Monthly Climate Data (2000-2020)**

<b>MONTH</b>	<b>AVERAGE PRECIPITATION (INCHES)</b>	<b>AVERAGE ETO (INCHES)</b>	<b>AVERAGE AIR TEMP (°F)</b>
January	2.9	2.2	51.5
February	2.4	2.6	51.7
March	1.7	3.8	53.2
April	0.7	4.6	52.5
May	0.3	5.6	55.6
June	0.1	5.8	58.1
July	0.1	6.0	59.7
August	0.0	5.5	60.4
September	0.0	4.7	60.6
October	0.7	3.9	59.8
November	1.1	2.6	55.3
December	2.0	2.1	51.3
<b>YEARLY AVERAGE</b>	<b>11.7</b>	<b>47.2</b>	<b>55.8</b>



### 3.4 Service Area Population and Demographics

The CCSD has had a water connection moratorium in place since November of 2001 due to concerns over long-term reliability of its water supply and a need to increase water storage for fire suppression. To address these concerns, the CCSD completed a series of water master planning studies, which were incorporated by reference into a program-level water master plan EIR (PEIR) that was certified by the CCSD Board on August 21, 2008. The prior studies recommended a multifaceted approach that included improvements to the potable distribution system to enhance firefighting, water conservation, recycled water for non-potable irrigation, and further augmenting and drought-proofing the local potable supply using seawater desalination. Over the years, the CCSD has made steady progress, including the completion of its Pine Knolls storage tanks, and an interconnecting water distribution main across an open space area (the East-West Ranch pipeline, which interconnects the Lodge Hill distribution system with the Park Hill distribution system). In response to a 2014 drought emergency, the CCSD more recently completed its Water Reclamation Facility (WRF) project, which went into service during early 2015. The WRF currently operates under an emergency coastal development permit, which includes conditions to complete a regular coastal development permit. The CCSD is currently in the process of responding to an Information Hold for the regular coastal development permit application, which was submitted in 2014 and subsequently revised due to project modifications. The application will also be supported by Task 2 of the proposed Instream Flow Study, which addresses localized pumping impacts from the WRF. Task 2 work is planned for completion by December 31, 2021.

The earlier 2008 water master plan programmatic EIR addressed growth inducement concerns through the adoption of a build-out reduction program mitigation measure. The build-out reduction program was based on detailed geographical information system mapping and analysis coupled with financial modeling. This work was further reviewed by a local citizens' committee, which met for over a year during its development. The result was a recommended build-out goal of 4,650 existing and future residences. This essentially allowed for an existing water connection wait list of 666 lot owners to proceed at a pace estimated to spread out over 22 years into the future, once the moratorium is lifted, and potentially some number of residential connections not currently on the wait list.

San Luis Obispo County also completed work on the Cambria and San Simeon Acres Community Plans of the North Coast Area plan. The County Board of Supervisors certified their EIR on the community plans, which adopted an alternative for 4,650 existing and future housing units and was subsequently incorporated into the San Luis Obispo County North Coast Area Plan. The County also has a growth management ordinance in place that sets maximum growth rates following review of a periodic Resource Management System report to the County Board of Supervisors (periodic reviews are completed every two years). Layered on top of the County's growth management ordinance, are conditions imposed by the California Coastal Commission from earlier Coastal Development Permits that may also affect the CCSD's growth rate.

The timing of future growth is subject to the permitting and approval of future projects by other agencies, economic conditions, and other factors that may not be under the direct control of the CCSD. Therefore, any projections on population growth should be viewed with caution. Due to the building moratorium in Cambria, there has been no population growth between 2010 and 2020. For the purposes of future water planning in this UWMP it is assumed that new service connections will not be allowed until 2026. From 2026 – 2043, a population growth rate of approximately 1% per year for single family only is projected, until a maximum of 4,650 residential units is reached. The baseline population is calculated using average household size (HHS) from the 2010 U.S. Census for single family (2.18 HHS), 2019 American Community Survey data for occupied multi-family (2.36 HHS), and airDNA data for vacation rental units (4.44 HHS). **Table 3-2** below display CCSD's current and projection population data rounded to the nearest hundred.

**Table 3-2. DWR 3-1R Current and Projected Population**

Population projections have been rounded to the nearest hundred.

POPULATION SERVED	2020	2025	2030	2035	2040	2045
Cambria CSD	6,032	6,000	6,300	6,500	6,800	6,900
<b>TOTAL</b>	<b>6,032</b>	<b>6,000</b>	<b>6,300</b>	<b>6,500</b>	<b>6,800</b>	<b>6,900</b>

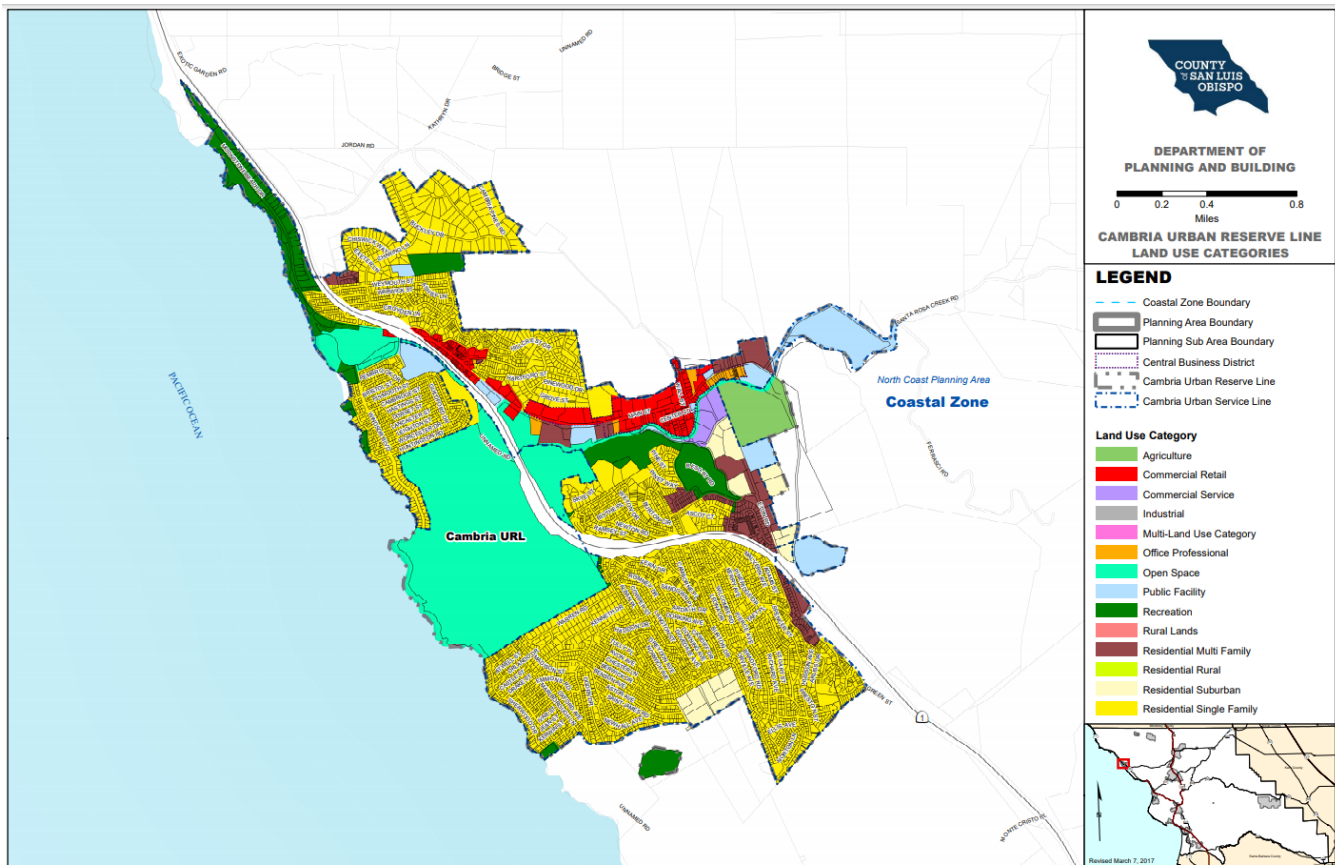
### 3.4.1 Other Social, Economic, and Demographic Factors

According to the 2010 U.S. Census, Cambria had a total population of 6,032, with a median age of 57.1 years. The 2010 vacancy rate of 32% indicates a high percentage of homes may be second or vacation homes. In contrast, the US average for vacancy during 2019 was 12.1 percent. For 2010, the average household size was 2.18 persons per home. When including the vacant homes, the average 2010 household drops to 2.03 persons per home.

The 2010 census data indicated approximately 13.4% of all households in Cambria were within a low-income group (i.e., annual income earned less than \$24,999). Cambria's 2010 median income was approximately \$72,100. To project low-income water demands it was assumed that the 13.4% were evenly distributed between the single-family and multifamily water use sectors. The projected low-income demands using this approach are shown in **Table 4-6 on page 4-5**.

### 3.5 Land Uses within Service Area

The urban part of Cambria encompasses approximately 2,351 gross acres, with a net acreage of approximately 1,790 acres, not counting the land in the road rights of way and beach areas along the bay or ocean. Cambria primarily consists of residential uses (57.1%) with combinations of commercial (4.8%) and public institutional (4.0%) uses along Main Street. The surrounding outlying areas are devoted to agricultural uses (2.2%), primarily grazing. Additionally, a large portion of land is zoned as open space (28.8%), which includes the State-owned floodplain and riparian vegetation at the mouth of the Santa Rosa Creek and areas which have too steep of slopes for residential development (Cambria Community Services District, July 2008)<sup>1</sup>. Cambria’s land use is shown in **Figure 3-3**.



**Figure 3-3. Land Use Map**

<sup>1</sup> U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table D004; generated by Melissa Bland; using data.census.gov; <<https://data.census.gov/cedsci/>>; (5 May 2021).



# 4

## URBAN WATER MANAGEMENT PLAN

# Water Use Characterization

**This chapter describes and quantifies CCSD's past, current, and projected water uses through 2045.**

Accurately tracking and reporting current water demands allow a water supplier to properly analyze the use of its resources and conduct good resource planning. Estimating future demand as accurately as possible allows water agencies to manage their water supply and appropriately plan their infrastructure investments. Assessments of future growth and related water demand, done in coordination with local planning agencies, provide essential information for developing demand projections.

This section describes the urban water system demands, including calculating baseline (base daily per capita) water use and interim and urban water use targets. It quantifies the current water system demand by category and projects them over the planning horizon of the 2020 UWMP.

These projections include metered, and billed water, non-revenue water that is metered and may not be billed and possibly be covered by special agreements, system water losses, as well as water use target compliance.

The section also includes a detailed description of how the baseline and targets were calculated.

### IN THIS SECTION

- Non-Potable vs. Potable Water Use
- Past and Current Use
- Projected Water Demand
- Projected Water Demand for Lower Income Households
- Climate Change Impacts

## 4.1 Non-Potable Versus Potable Water Use

Recycled water is addressed comprehensively in **Chapter 6** of this UWMP, but a summary of recycled water demand is included in **Table 4-3**. **Chapter 4** addresses potable water demand and also provides for the reporting of raw water demand for the year 2020, which is reported in **Table 4-1**.

## 4.2 Past, Current, and Projected Water Use by Sector

Actual and projected CCSD potable water uses for the various customer types metered are shown in **Table 4-1**, **Table 4-2**, and **Table 4-3**.

CCSD tracks registered vacation rental homes, which are used as for-profit commercial enterprises to serve outside visitors, but for the purposes of this UWMP has included them as part of the single family residential demands.

The CCSD does not buy or sell water to other water agencies in the area.

### 4.2.1 Past and Current Water Use

Water use over the past five years has notably reduced from pre-drought levels before 2014. Over the last five years, the average CCSD water use was 535 AFY. The most recent peak in demand occurred in 2013 with a total demand of 731 AFY. It is anticipated that the CCSD's customers will continue to implement conservation behaviors and keep demands lower than pre-drought levels, but that is not guaranteed.

### 4.2.2 Distribution System Water Losses

Distribution system water losses are also known as “apparent and real losses”. The real water losses from the water distribution system are typically leaks within the CCSD distribution system and the supplier's storage facilities, up to the point of customer consumption. Apparent losses may be caused by customer meter inaccuracies, unauthorized consumption, and data handling errors.

Presented in **Table 4-4**, “water loss” is the difference between water production and water consumption and represents “lost” water from both apparent and real losses. Please note that water losses in the following table are NOT equivalent to the estimated non-revenue water presented in **Table 4-1** and **Table 4-2**. Non-revenue water use may include other types of water use including unbilled metered and unmetered authorized consumption.

This 2020 UWMP includes an AWWA audit of the CCSD's CY 2019 period, which began on January 1, 2019 (**Appendix F**). Water loss for CY 2016-2019 can also be found in **Table 4-4**. The 46.2 AF of water loss in 2019 is low (**8.7% of total demand**) when compared with the standard value of 10% or less as being within a reasonable operating range. However, from review of **Table 4-2**, the losses being used in future projections are increasing to 10% and above. CCSD will need to discuss plans to maintain reasonably low water loss amounts in the future.

### 4.2.3 Projected Water Use

The future water demand and associated conservation for the years 2020 to 2045 were calculated using the Decision Support System (DSS Model). The DSS Model is an Excel-based proprietary software created by Maddaus Water Management, which is endorsed by the California Urban Water Conservation Council. Background information on the DSS Model is presented in **Appendix G**. The future water demands do meet the SBX7-7 reduction targets, which will be discussed in **Chapter 5**.

Projected populations are described in **Chapter 3**. **Table 4-2** and **Table 4-3** present projected demands through 2045.

**Chapter 5** discusses CCSD meeting the SBX7-7 target. While the 2020 GPCD was below the SB 7 target, future demand could increase due to a variety of factors and this UWMP conservatively projects demand to proactively develop water resources management strategies for these potential demands. However, the CCSD is aware that future water use standards are under development by DWR, which will supersede SBX7-7 standards, and will likely require demands to be lower than the SBX7-7 target.

Therefore, the CCSD plans to continue encouraging efficient water use and implementing water use efficiency measures to support meeting future water use standards and to enhance resiliency for drought and other water shortage conditions as described in **Chapter 7**, **Chapter 8**, and **Chapter 9**.

#### 4.2.4 Characteristic Five-Year Water Use

In addition to past and projected uses, the UWMP more closely analyzes anticipated conditions for the next five years (2021 – 2025). In the next five years, CCSD anticipates that demands may increase by approximately 40 AFY from current conditions. This increase is based on normal year conditions representing a “rebound” from current 2020 use, which is likely lower than typical unconstrained demand as many of the CCSD’s residents continue to conserve water after the most recent drought that ended in 2017.

Details on an analysis for the next five years are discussed in **Chapter 7**.

**Table 4-1. DWR 4-1R Actual Demands for Water**

USE TYPE	ADDITIONAL DESCRIPTION	LEVEL OF TREATMENT WHEN DELIVERED	2020 VOLUME
Single Family	Includes vacation rental water use	Drinking Water	340
Multi-Family		Drinking Water	18
Commercial		Drinking Water	114
Losses	Non-revenue water	Drinking Water	61
Other		Drinking Water	8
<b>TOTAL</b>			<b>539</b>

**Table 4-2. DWR 4-2R Projected Demands for Water**

USE TYPE	ADDITIONAL DESCRIPTION	PROJECTED WATER USE				
		2025	2030	2035	2040	2045
Single Family	Includes vacation rental home water use	350	350	360	370	370
Multi-Family		20	20	20	20	20
Commercial		140	150	150	160	160
Losses	Non-revenue water	60	60	70	70	70
Other Potable		10	10	10	10	10
<b>TOTAL</b>		<b>580</b>	<b>590</b>	<b>610</b>	<b>630</b>	<b>630</b>

<sup>1</sup> Projections from the DSS Model completed by Maddaus Water Management.

<sup>2</sup> Projected demands have been rounded to the nearest 10 AFY.

**Table 4-3. DWR 4-3R Total Gross Water Use**

	2020	2025	2030	2035	2040	2045
<b>Potable and Raw Water</b> From Table 4-1R and 4-2R	539	580	590	610	630	630
<b>Recycled Water Demand<sup>1</sup></b> From Table 6-4R	-	-	50	100	100	100
<b>TOTAL WATER USE</b>	<b>539</b>	<b>580</b>	<b>640</b>	<b>710</b>	<b>730</b>	<b>730</b>

<sup>1</sup> Recycled Water Demand does not include demand associated with the Seawater Intrusion Barrier since the demand for this use is met using treated Wastewater Effluent.

**Table 4-4. DWR 4-4R 12 Month Water Loss Audit Reporting**

REPORT PERIOD START DATE		VOLUME OF WATER LOSS*
MM	YYYY	
01	2016	66
01	2017	120
01	2018	53
01	2019	46

<sup>1</sup> Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.

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

### 4.3 Water Use for Lower Income Households

**Table 4-5** indicates whether or not CCSD has included future water savings in this 2020 UWMP, where that information is located, and that lower income residential demands have been included.

The 2010 census data indicated approximately 13.4 percent (%) of all households in Cambria were within a low-income group (i.e., annual income earned less than \$24,999). Cambria's 2010 median income was approximately \$72,100. To project low-income water demands it was assumed that the 13.4% were evenly distributed between the single-family and multi-family water use sectors.

The projected low-income demands using this approach are shown in **Table 4-6**.

**Table 4-5. DWR 4-5R Inclusion in Water Use Projections**

Are Future Water Savings Included in Projections? Refer to Appendix K of UWMP Guidebook.	Yes
Are Lower Income Residential Demands Included in Projections?	Yes

**Table 4-6. CCSD Low-Income Projected Water Demands (AF)**

USE TYPE	2025	2030	2035	2040	2045 (OPT)
Single Family	47	48	48	50	50
Multi-Family	2	2	2	2	2
<b>TOTAL</b>	<b>50</b>	<b>50</b>	<b>51</b>	<b>52</b>	<b>52</b>

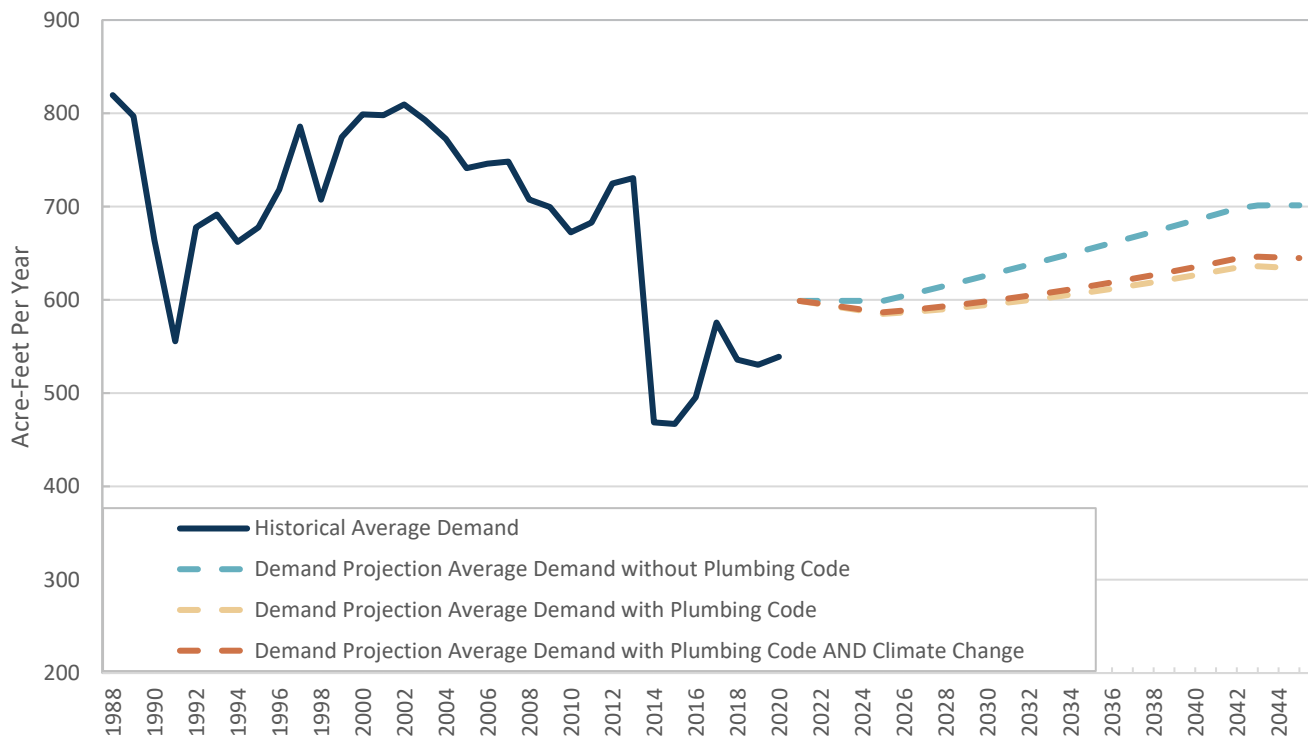
## 4.4 Estimated Water Savings

The projected demands presented in this 2020 UWMP include estimated plumbing code savings, which are considered passive savings. CCSD's process of estimating future water savings, the passive savings methodology, can be found in **Appendix G**. This more recent analysis has shown that future demands can be further reduced depending upon the level of conservation required of any newly constructed homes, as well as continuation of current conservation practices on existing homes. The analyses described in **Appendix G** are summarized in **Figure 4-1** (Maddaus Water Management, Inc., April 2021). The supporting analysis for this plot assumed a 1% annual growth rate until 2042, 0.5% in 2043 and no growth after reaching buildout goal in 2043.

**Figure 4-1** shows the existing CCSD production in blue, which illustrates the exceptional level of conservation achieved in response to the area's epic drought. The DSS Modeling effort conservatively assumed customer demand would increase from current rates but would not rebound to pre-drought (2013) levels at its starting point. From here, the Demand Projection without Plumbing Code plot line shows demands with no conservation occurring, including ones that are currently mandated by the existing plumbing code. The Demand Projection with Plumbing Code plot line shows the future demands with the benefit of the existing plumbing code's more water efficient requirements taken into consideration. The third projection, Demand Projection Average Demand with Plumbing Code AND Climate Change, shows future demand with the benefit of the passive savings from the existing plumbing code and the projected effects of climate change (discussed below in **Section 4.5**).

### 4.5 Climate Change Considerations

The effects of climate change on demand were evaluated in the demand projections in **Figure 4-1** (Maddaus Water Management, Inc., April 2021). The demand is anticipated to increase due to climate change. To capture the effects of climate change, the bump was feathered in starting with no increase initially, rising to a 2.38% climate change factor by 2050. Additional information regarding the climate change estimates can be found in **Appendix G**. However, given the uncertainty regarding these projections the non-climate change demand estimates were utilized.



**Figure 4-1. CCSD Demand Projections**

# 5 URBAN WATER MANAGEMENT PLAN

## SBX7-7 Baseline, Targets and 2020 Compliance

This chapter describes the Water Conservation Act of 2009, also known as SBX7-7, Baseline, Targets, and 2020 Compliance. The goal of this chapter is to demonstrate compliance with the 2020 targeted water-use reduction of 20 percent.

Senate Bill 7 of Special Extended Session 7 (SBX7- 7) was incorporated into the UWMP Act in 2009 and requires that all water suppliers increase water use efficiency with the overall goal to decrease per-capita water consumption within the state by 20 percent by the year 2020. SBX7-7 required DWR to develop certain criteria, methods, and standard reporting forms through a public process that water suppliers could use to establish their baseline water use and determine their water conservation targets.

### IN THIS SECTION

- Target and Baseline Method Summary
- Baselines & Targets
- SBX7-7 Forms and Tables
- 2020 Compliance

SBX7-7 and DWR's Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (California Department of Water Resources, February 2016) specify methodologies for determining the baseline water demand, 2015 interim urban water use target and the 2020 urban water use target for CCSD as described in the following sections. The SBX7-7 Verification Forms, which are required to be submitted to DWR to demonstrate compliance with the SBX7-7 requirements, are presented in **Appendix H**. This section also demonstrates that CCSD achieved its 2020 water use target.



## 5.1 SBX7-7 Forms and Tables

The SBX7-7 Verification Form was submitted as part of the CCSD 2015 UWMP to establish the baseline and 2020 water use target, which remains valid because there are no changes to the service area. A summary of the SBX7-7 Verification Form is presented in **Table 5-1**.

CCSD selected SBX7-7 Method 3, which uses 95% of the Central Coast Hydrologic Region baseline, or 117 GPCD, for the selected target. The selected target must meet the minimum water use reduction defined as 95 percent of the established 5-year GPCD of 111 GPCD, making the 2020 target **105 GPCD**.

As part of the 2020 UWMP, CCSD must demonstrate compliance with its 2020 water use target by completing SBX7-7 2020 Compliance Form. This form is an abbreviated version of the SBX7-7 Verification Form solely for 2020 compliance calculations. A summary of the 2020 SBX7-7 2020 Compliance Form is shown in **Table 5-2**.

CCSD first met the 2020 compliance target in 2010 and continues to reduce GPCD use overall. However, in 2020, there was an almost 17 GPCD increase from the 2015. This increase could potentially be attributed to reduced water conservation requirements in 2020 and to increased residential usage associated with the California Governor’s March 19, 2020 COVID-19 Stay Home Order. Even with this increased demand, CCSD complied with the 2020 SBX7-7 target. A copy of the completed SBX7-7 Forms is included in **Appendix H**.

**Table 5-1. DWR 5-1R Baselines and Targets Summary**

BASILINE PERIOD	START YEAR	END YEAR	AVERAGE BASELINE GPCD*	CONFIRMED 2020 TARGET *
10-15 Year	1997	2006	112	105
5 Year	2003	2007	111	

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

\*All cells in this table are populated manually from the supplier’s SBX7-7 Verification Form.

**Table 5-2. DWR 5-2R 2020 Compliance**

ACTUAL 2020 GPCD*	OPTIONAL ADJUSTMENTS TO 2020 GPCD					ADJUSTED 2020 GPCD*	2020 GPCD* (ADJUSTED IF APPLICABLE)	SUPPLIER ACHIEVED TARGETED REDUCTION IN 2020
	EXTRAORDINARY EVENTS*	ECONOMIC ADJUSTMENT*	WEATHER NORMALIZATION*	TOTAL ADJUSTMENTS*				
79.8	0	0	0	0	0	0	Yes	

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

\*All cells in this table are populated manually from the supplier’s SBX7-7 Verification Form.



URBAN WATER MANAGEMENT PLAN

# Water Supply Characterization

**Chapter 6 describes and quantifies the sources of water available to CCSD's supply portfolio, and actions that are anticipated to meet future water demands.**

The water supply characterization is an assessment of CCSD's water supply during a normal year, a single dry year, a drought period lasting five consecutive years, and future projections through 2045. As part of the water supply analysis, this chapter includes a water service reliability and risk assessment of the San Simeon and Santa Rosa basins to understand the effects of short-term and long-term water management decisions.

## IN THIS SECTION

- Water Supply Analysis
- Projected Water Supplies

## 6.1 Water Supply Analysis Overview

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 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** contains the Bulletin 118 summary description of each of these aquifers, neither of which is listed as being in overdraft status by the 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 6-1**.

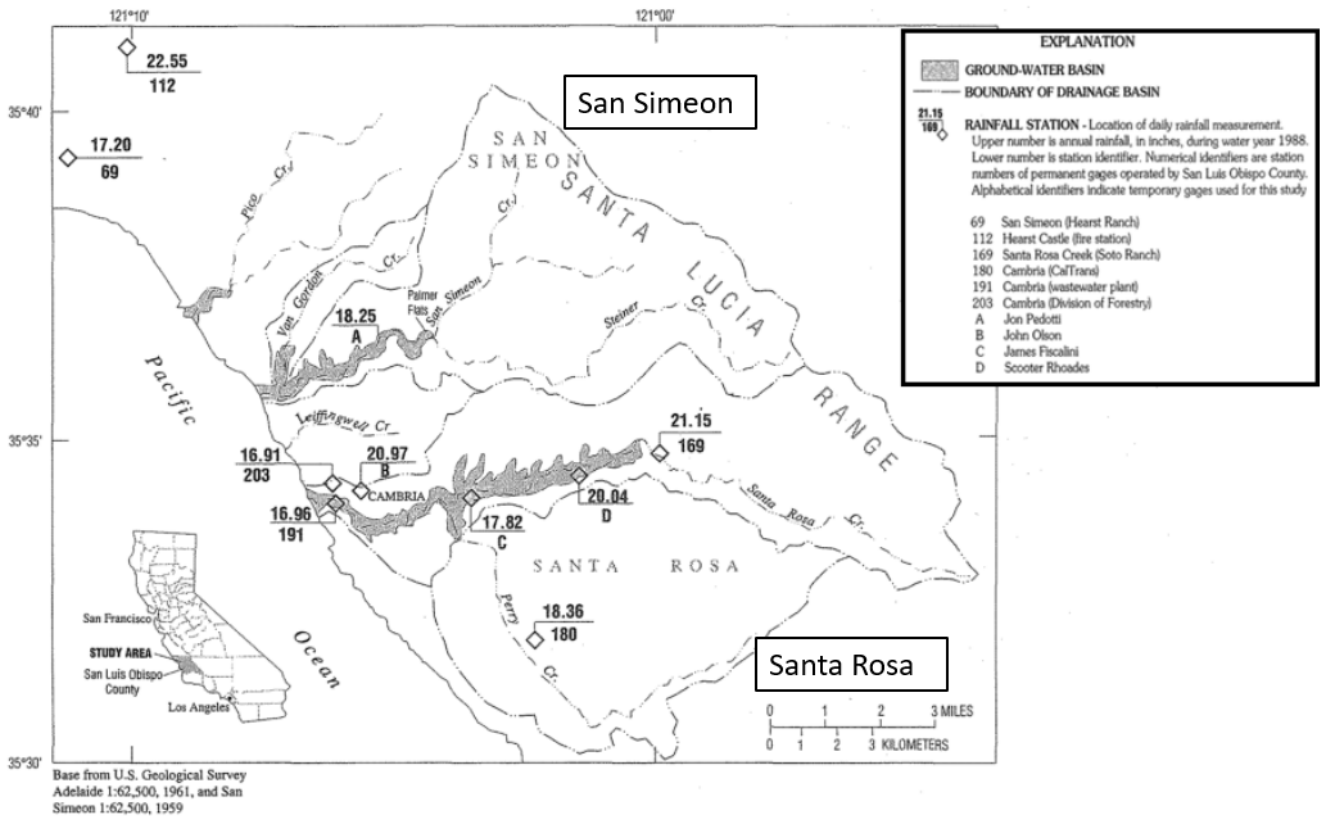


Figure 6-1. Map of San Simeon and Santa Rosa Aquifers

## 6.2 UWMP Water Supply Characterization

### 6.2.1 Purchased or Imported Water

The CCSD does not purchase or import water from outside sources.

### 6.2.2 Groundwater

The San Simeon Creek aquifer wells have been the CCSD's primary water supply since they were installed in 1979. The San Simeon aquifer groundwater is also of better quality than the Santa Rosa aquifer primarily due to the San Simeon aquifer having lower hardness and lower iron and manganese concentrations. The Santa Rosa Creek aquifer was the community's sole water source prior to installation of the San Simeon Creek aquifer wells, and prior to the CCSD becoming the community's local water purveyor. During the mid-1970s and prior to the operation of the CCSD's San Simeon well field, localized areas along the lower Santa Rosa Creek channel experienced land subsidence as well as seawater intrusion. The establishment of the San Simeon wells as the primary water source has lessened the municipal demand on the Santa Rosa Creek aquifer, which has helped mitigate and avoid seawater intrusion and subsidence.

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. Under normal conditions, CCSD splits their production between the two aquifers using an 80/20 ratio. Thus, approximately 80% of their supply come from the San Simeon aquifer and 20% comes from the Santa Rosa aquifer. If the production limits are reached in one aquifer, then the 80/20 split is adjusted accordingly to protect that aquifer.



Santa Rosa Creek Estuary

The CCSD also provides wastewater collection and treatment, with treated secondary wastewater effluent being pumped approximately 2.5 miles north of town to the CCSD's property located down gradient from its San Simeon aquifer potable wells. During the late 1970s to 1994, treated secondary wastewater effluent was surface applied with sprayers onto the ground surface. This past practice was changed to using four percolation basins, which were completed during 1994. The percolated wastewater effluent in this area forms a groundwater mound, which helps slow freshwater flow towards the ocean while also preventing seawater from intruding inland. The percolation ponds are still used today for wastewater effluent discharge, typically with only one of the four ponds operated at any given time.

In response to exceptional drought conditions and an emergency water shortage in 2014, CCSD completed its Water Reclamation Facility (WRF) project on the lower San Simeon Creek property. The WRF extracts water from an existing well (State Well Number 27S/8E-9P7, also known as Well 9P7) at the CCSD's treated wastewater effluent percolation ponds, treats the extracted water using an advanced water treatment plant, and re-injects the treated water at the CCSD's San Simeon Creek





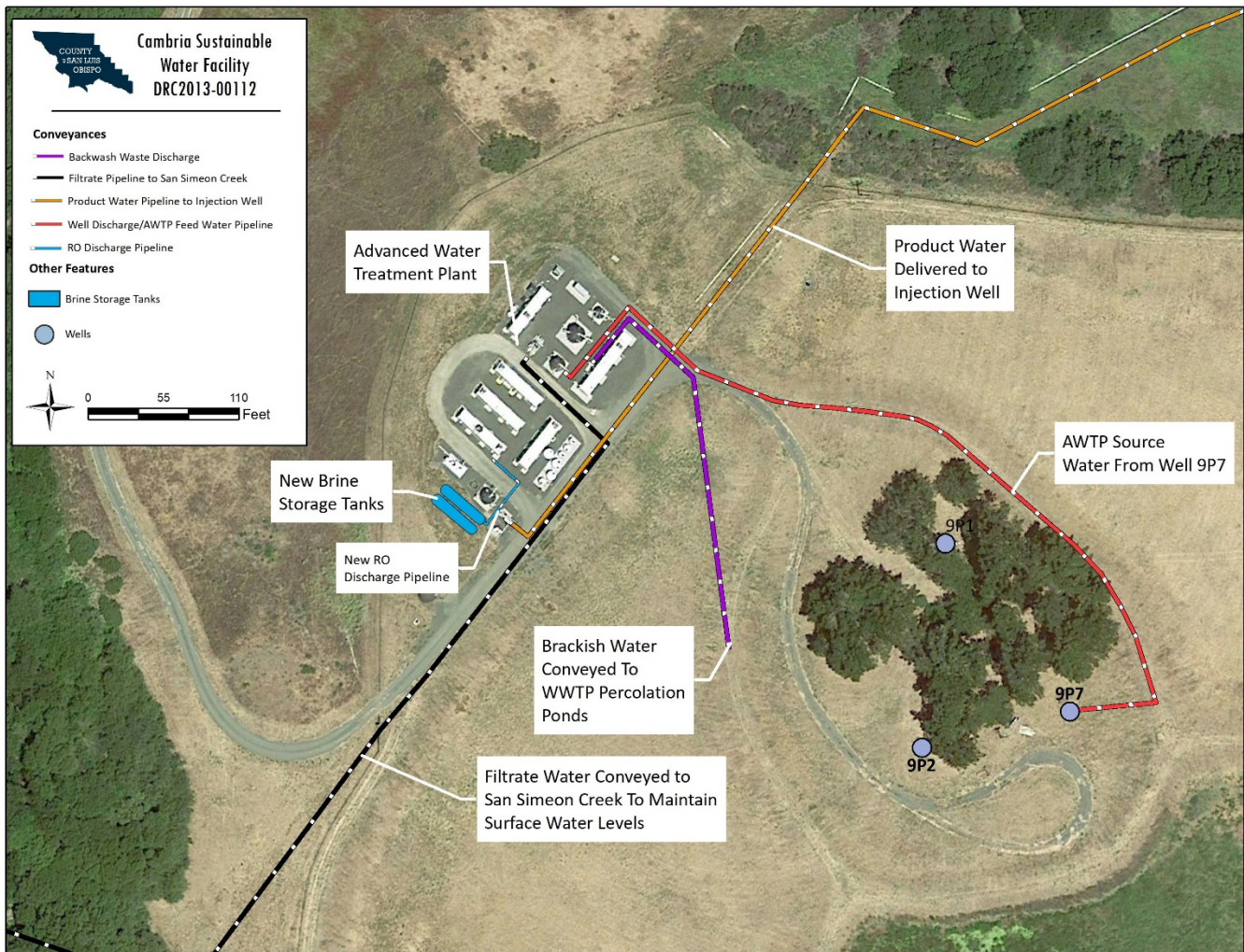
Aerial view of Water Reclamation Facility and percolation ponds

aquifer's potable well field. The WRF was designed to meet the SWRCB's requirements for indirect potable reuse (IPR) of recycled water. The WRF's source water will vary depending on seasonal rainfall and time of year. Typically, it will be a combination of percolated treated wastewater effluent, creek underflow, and dilute saltwater, with the latter coming from a deeper saltwater wedge of seawater. **Figure 6-2** provides an overview of the WRF.

Per the application submitted for the WRF's regular Coastal Development Permit (CDP), an estimated 21 AF of WRF production is estimated to occur during a normal year (described in further detail in **Section 7.1.2** on page 7-3), which is based on a 9-hour daily runtime up to 4 working days per week for a minimum of eight weeks per year at a product water reinjection rate of 400 gpm. Should the IPR system operate continuously over a six-month dry season, its total production would be approximately 250 AFY. A start year of 2025 has been chosen as a conservative estimate for growth

assumptions. By 2025, the CCSD assumes the moratorium on new connections may be lifted due to anticipated approval of the regular CDP for the WRF and associated changes to the County of SLO's Growth Management Ordinance. Actual operating conditions/restrictions for the WRF will not be finalized until approval of the regular CDP.

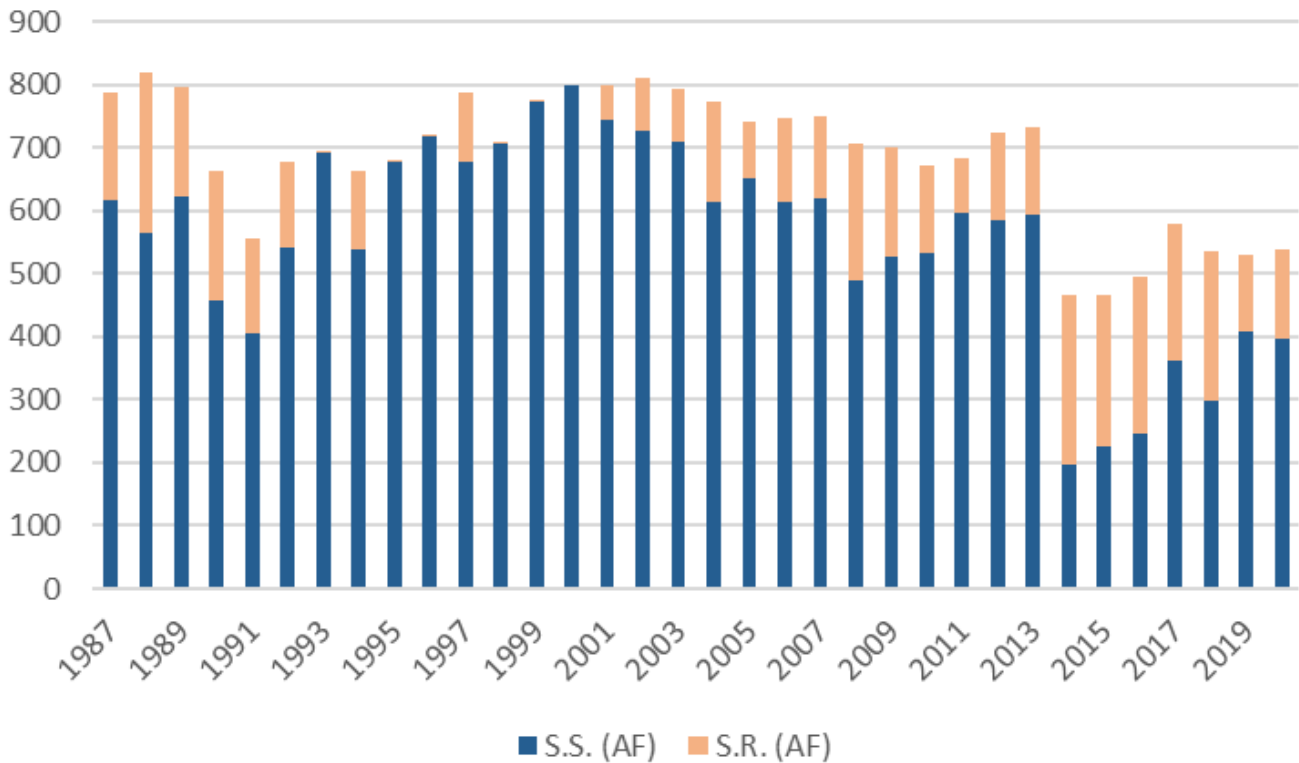




**Figure 6-2. Overview of the Water Reclamation Facility**

**Figure 6-3** shows the annual CCSD pumping from each aquifer for the period of 1987 through 2020. Production dropped substantially during 2014 and 2015 in response to the community’s conservation efforts, which included the CCSD Board’s emergency drought declaration on January 30, 2014. The 2014 Stage 3 declaration included a prohibition on using potable water for all outdoor irrigation.

The Santa Rosa well field is Cambria’s oldest supply source and was relegated to a back-up and augmentation role following start-up of the San Simeon well field in 1979. In 1999 the Santa Rosa well field was shut down after the discovery of an MTBE plume from a nearby gas station. An emergency well SR-4 and associated treatment plant were subsequently installed further upstream from the existing Santa Rosa well field and placed into operation during August of 2001. In response to the 2014 drought emergency, the CCSD separated the Santa Rosa well SR-1 from the potable system and converted it to non-potable use. This coincided with rebuilding the well head treatment facility and bringing well SR-3 back online during midsummer of 2014. Additionally, the CCSD completed its WRF on the lower San Simeon Creek aquifer, which went into operation during January 2015.



**Figure 6-3. CCSD Groundwater Production**

**6.2.2.1 Basin Description**

In addition to the following summary, the CCSD’s November 19, 2015 adopted Groundwater Management Plan (**Appendix I**) describes groundwater planning for the area’s San Simeon Creek groundwater basin and Santa Rosa Creek groundwater basin. Each of these basins are within the north coast area of San Luis Obispo County. Additionally, USGS Report 98-4061 (**Appendix J**) provides a more detailed discussion on the hydrogeology, water quality, and water budgets of these two basins.

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 District and other pumping, 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 that recharge from surface water ceases, there is a limited or finite amount of water available within the aquifers to support municipal, agricultural, and environment needs until it refills during the next wet season. During drought years, when surface water flows and associated recharge stop earlier in the year and there is extended amount of time that the District and other users must rely upon the finite amount of water in these aquifers.

Besides the physical characteristics of the aquifers, there are key permitting conditions that effect how the CCSD may operate its well fields. Municipal production from the San Simeon and Santa Rosa aquifers is limited by the constraints contained with the CCSD’s Water Rights License (Permit No. 17287 and 20387) and Waste Discharge Requirements and Water Recycling Requirements (WDR) (Permit No. R3-2019-0051). The three main operational conditions that effect how CCSD uses their wells are the wet and dry season production, WBE and WBW well level, and the SS4 and 9P2 gradient.

**Wet and Dry Season Production Limits**

The Water Rights License production are limits shown in **Table 6-1**. The SWRCB license 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. Pumping rates are limited to an average 30-day direct diversion rate of 1.43 cubic feet per second (cfs, or 641.83 gpm) for the San Simeon aquifer; and 0.59 cfs (264.81 gpm) for the Santa Rosa aquifer. Diversions to provide water to riparian users as required by the SWRCB are excluded from licensed totals. This amount of water is not necessarily actually available in a given year. In addition to the SWRCB licenses, California Coastal Commission Coastal Development Permit 428-10 limits the CCSD’s annual diversion from both basins to 1,230 AFY. Copies of licenses are provided in **Appendix K**.

**Table 6-1. Water Rights License Production Limits**

<b>WATER RIGHTS PRODUCTION LIMITS</b>	
<b>TOTAL ANNUAL AVAILABLE SAN SIMEON SUPPLY</b>	<b>799 AFY</b>
Available Dry Season San Simeon Supply	370 AFY
<b>TOTAL ANNUAL AVAILABLE SANTA ROSA SUPPLY</b>	<b>218 AFY</b>
Available Dry Season Santa Rosa Supply	155.3 AFY

**WBE and WBW Well Level in the Santa Rosa Aquifer**

Environmental protection is also a key operating concern associated with the Santa Rosa Creek aquifer wells. To address this concern, a key permit condition requires maintaining a minimum groundwater elevation of 3 feet above mean sea level at the monitoring well WBE and monitoring well WBW. During dry years, these monitoring wells may approach the 3-foot minimum elevation during August to September. It was also found that operation of the nearby Shamel Park irrigation well and tides impact monitoring well WBE. When the 3-foot elevation condition occurs, the CCSD stops use of its Santa Rosa Creek aquifer wells (Wells SR-1, SR-3, and SR-4), and shifts its production to the San Simeon Creek wells.

**SS4 and 9P2 Gradient in the San Simeon Aquifer**

A primary concern in the San Simeon Creek aquifer is the hydraulic gradient between the percolated mound of treated wastewater at its percolation ponds and the up-gradient potable wells. The WRF helps preserve this gradient by capturing and restoring the water extracted from the percolation pond area to reuse it while maximizing groundwater elevation and storage at the up-gradient potable well field. To ensure protection of riparian habitat during its operation, the WRF includes a discharge of approximately 100 gallons per minute to the head of the San Simeon Creek lagoon to maintain surface water levels. This protective feature is further backed up and the process refined by an adaptive management plan which includes biological monitoring to ensure favorable conditions are being maintained.

The CCSD is also subject to meeting the state’s surface water treatment rule (SWTR) due to its groundwater sources being under the influence of surface water. To meet these requirements, the CCSD does not operate its San Simeon Well SS-1 whenever surface flow within the San Simeon Creek occurs within 150 feet of the well. San Simeon Wells SS-2 and SS-3 are outside the SWTR’s 150-foot boundary and can continue to operate when there is flow in the creek. The Santa Rosa wells SR-3 and



SR-4 have well head treatment facilities, which allow them to operate while within the SWTR’s 150-foot limit.

The local groundwater aquifers are not adjudicated and are not in an over-drafted condition per DWR.

### 6.2.2.2 Past Five Years

Table 6-2 below shows CCSD pumping over the last five years. Demand has increased slightly from the low of 467 AFY in 2014 and 2015 but it has not returned to pre-drought demands.

**Table 6-2. DWR 6-1R Groundwater Volume Pumped**

GROUNDWATER TYPE	LOCATION OR BASIN NAME	2016	2017	2018	2019	2020
Alluvial Basin	San Simeon Creek Basin	247	360	298	409	397
Alluvial Basin	Santa Rosa Creek Basin	247	217	238	121	142
<b>TOTAL</b>		<b>494</b>	<b>578</b>	<b>536</b>	<b>530</b>	<b>540</b>

### 6.2.3 Surface Water

The CCSD does not withdraw water from streams, lakes, or reservoirs as part of its water supply.

### 6.2.4 Stormwater

The CCSD does not regulate storm water within its services area, as that responsibility rests with San Luis Obispo County and the Regional Water Quality Control Board. However, the CCSD is a signatory member agency of the County’s Integrated Regional Water Management Planning Memorandum of Understanding. This relationship allows for the potential development of future projects that could conceivably integrate storm water projects with improvements towards water supply.

### 6.2.5 Wastewater and Recycled Water

The CCSD does not have an ocean outfall, but rather discharges all of its treated wastewater effluent into percolation basins located along the lower reach of the San Simeon Creek aquifer to minimize potable groundwater losses at the aquifer/ocean interface. Essentially, all of CCSD’s percolated wastewater effluent is used for creating a seawater intrusion barrier. Some of the percolated wastewater effluent is also used as a source water for the CCSD’s WRF when the facility is in operation. In addition, an earlier 2004 recycled water master plan developed a recycled water distribution system backbone for future use of treated wastewater effluent for outdoor, non-potable irrigation.

During 2015 and 2016, 92 AF of recycled water from the WRF was re-injected into the San Simeon Creek aquifer by the CCSD. Based on modeling estimates by the WRF’s geo-hydrologist, approximately 60% of the re-injected water would enter CCSD’s San Simeon Creek aquifer potable water wells, which equates to a net recovery amount of 55 AF. All re-injected water is put to beneficial use as gradient control regardless of the volume eventually extracted as potable drinking water.

### 6.2.5.1 Wastewater Collection, Treatment, and Disposal

The CCSD is responsible for collecting and treating wastewater within its urban services boundary, as well as through a contract with State Parks for the Hearst San Simeon Creek campground. The CCSD maintains approximately 59 miles of sanitary sewers and force mains, 10 lift stations, a wastewater treatment plant, a 2.5-mile-long effluent discharge pipeline, and four effluent percolation ponds to provide these services. The CCSD's wastewater treatment plant provides a secondary level of treatment using an activated sludge process. In recent years, plant operators have modified the secondary process to simulate a Modified Ludzak-Ettinger (MLE) process to further reduce nitrate concentration in the effluent. The operator-installed modifications will be followed with more permanent upgrades in the future. **Table 6-3** lists the volume of wastewater collected within the service area.

### 6.2.5.2 Recycled Water System Description

A 2004 recycled water master plan commissioned by the CCSD developed a backbone distribution system, which was laid out to be reasonably close to the most significant outdoor irrigation customers. These included a planned community park on the east Fiscalini Ranch property, an existing commercial nursery, as well as the middle and elementary schools.

### 6.2.5.3 Potential, Current, and Projected Recycled Water Uses

**Table 6-5** provides a summary of potential recycled water use by user categories suggested within the March 2020 DWR UWMP Guidebook. Essentially, the CCSD installed percolation ponds for its treated wastewater effluent during 1994, which serves as a seawater barrier between the ocean and up-gradient San Simeon Creek potable wells. In 2014, the CCSD completed the WRF project, which included indirect potable reuse of the percolated wastewater effluent.

### Planned vs. Actual Use of Recycled Water

In accordance with methodology recommended within the 2020 DWR UWMP Guidebook, **Table 6-6** compares recycled water use from the 2015 UWMP estimate with actual 2020 use. This shows that the treated wastewater percolated into the groundwater basin at the lower reach of the San Simeon Creek aquifer continues to be the most significant use. The volume of wastewater effluent decreased substantially after potable water conservation measures were adopted in January of 2014 in response to the drought and water shortage emergency. Other reduction measures included the State Parks campground closing its restrooms and showers and replacing them with porta-potties.

**Table 6-3. DWR 6-2R Wastewater Collected within Service Area in 2020**

WASTEWATER COLLECTION			RECIPIENT OF COLLECTED WASTEWATER			
NAME OF WASTEWATER COLLECTION AGENCY	WASTEWATER VOLUME METERED OR ESTIMATED	WASTEWATER VOLUME COLLECTED FROM UWMP SERVICE AREA IN 2020	NAME OF WASTEWATER AGENCY RECEIVING COLLECTED WASTEWATER	WASTEWATER TREATMENT PLANT NAME	WASTEWATER TREATMENT PLANT LOCATED WITHIN UWMP AREA	WWTP OPERATION CONTRACTED TO A THIRD PARTY
Cambria Community Services District	Metered	475	Cambria Community Services District Wastewater Treatment Plant	Cambria Community Services District Wastewater Treatment Plant	Yes	No
<b>TOTAL</b>		<b>475</b>				

**Table 6-4. DWR 6-3R Wastewater Treatment and Discharge within Service Area in 2020**

WASTEWATER TREATMENT PLANT NAME	DISCHARGE LOCATION NAME OR IDENTIFIER	DISCHARGE LOCATION DESCRIPTION	WASTEWATER DISCHARGE ID NUMBER	METHOD OF DISPOSAL	PLANT TREATS WASTEWATER GENERATED OUTSIDE THE SERVICE AREA	TREATMENT LEVEL	2020 VOLUMES				
							WASTEWATER TREATED	DISCHARGED TREATED WASTEWATER	RECYCLED WITHIN SERVICE AREA	RECYCLED OUTSIDE OF SERVICE AREA	INSTREAM FLOW PERMIT REQUIREMENT
Cambria Community Services District Wastewater Treatment Plant	Percolation Ponds	CCSD Property south of San Simeon Creek Rd.	3 400 102001	Percolation ponds	Yes	Secondary, Undisinfected	475	-	475	-	-
<b>TOTAL</b>							<b>475</b>	<b>-</b>	<b>475</b>	<b>-</b>	<b>-</b>

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

<sup>2</sup> 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>

**Table 6-5. DWR 6-4R Recycled Water within Service Area in 2020**

Name of Supplier Producing (Treating) the Recycled Water:		Cambria Community Services District									
Name of Supplier Operating the Recycled Water Distribution System:		Cambria Community Services District Wastewater Treatment Plant									
Supplemental Volume of Water Added in 2020:		0 AF									
Source of 2020 Supplemental Water:		n/a									
BENEFICIAL USE TYPE	POTENTIAL BENEFICIAL USES OF RECYCLED WATER	AMOUNT OF POTENTIAL USES OF RECYCLED WATER	DESCRIPTION OF 2020 USES	LEVEL OF TREATMENT	2020	2025	2030	2035	2040	2045	
Agricultural irrigation											
Landscape irrigation (ex: golf courses)	Year 2030 includes the conversion of existing potable water irrigation customers to non-potable recycled water. 2030-2045 represents future non-potable irrigation demands			Tertiary	-	-	50	100	100	100	
Golf course irrigation											
Commercial use											
Industrial use											
Geothermal and other energy production											
Seawater intrusion barrier	Use of existing percolation pond operation			Secondary, Disinfected - 23	475	475	443	413	433	443	
Recreational impoundment											
Wetlands or wildlife habitat											
Groundwater recharge (IPR)	Included with seawater barrier										
Reservoir water augmentation (IPR)											
Direct potable reuse											
Other											
<b>TOTAL</b>					<b>475</b>	<b>475</b>	<b>493</b>	<b>513</b>	<b>533</b>	<b>543</b>	

Internal Reuse (Not included in Statewide Recycled Water Volume).

\*IPR - Indirect Potable Reuse

For 2020, the volume of wastewater collected from the service area is from metered effluent data, which was reported to the Water Board within the CCSD's annual self-monitoring report. Besides indoor metered water use, this value also includes any infiltration and inflow into the collection system. For subsequent years, the volume of wastewater collected from the service area is estimated to grow slightly with population growth. All wastewater collected is used as a seawater intrusion barrier; for the CCSD's WRF (an indirect potable reuse project constructed during 2014); or, as landscape irrigation. Beginning in year 2030, approximately 50 AF per year of no-net-increase in diversion from aquifer recycled water use is anticipated by converting existing CCSD customers from potable, groundwater-source-based use to non-potable outdoor irrigation using recycled water. From 2035 on an additional 50 AF of outdoor irrigation with recycled water is estimated for future project demands. Landscape irrigation feasibility is based on an earlier 2004 Recycled Water Master Plan and will be driven by available funding and potential downstream habitat concerns. Because of potential downstream habitat concerns, the 2004 Recycled Water Master Plan bifurcated recycled water demands between the conversion of existing groundwater-based customer uses; and potential future project demands.

**Table 6-6. DWR 6-5R 2015 Recycled Water Use Projection Compared to 2020 Actual**

BENEFICIAL USE TYPE	2015 PROJECTION FOR 2020	2020 ACTUAL USE
Agricultural Irrigation		
Landscape Irrigation (excludes golf courses)	-	-
Golf Course Irrigation		
Commercial Use		
Industrial Use		
Geothermal and Other Energy Production		
Seawater Intrusion Barrier	598	475
Recreational Impoundment		
Wetlands or Wildlife Habitat		
Groundwater Recharge (IPR)*		
Surface Water Augmentation (IPR)*		
Direct Potable Reuse		
<b>TOTAL</b>	<b>598</b>	<b>475</b>

6.2.5.4 Actions to Exchange and Optimize Future Recycled Water Use

Table 6-7 summarizes potential methods to encourage future recycled water use. The actions listed provide a summary of potential measures to consider as a means to encourage future end use of recycled water.

**Table 6-7. DWR 6-6R Methods to Expand Future Recycled Water Use**

NAME OF ACTION	DESCRIPTION	PLANNED IMPLEMENTATION YEAR	EXPECTED INCREASE OF RECYCLED WATER USE
Mandatory use ordinance/project conditions of approval	None of these actions have been adopted as policy. Regardless, they are memorialized here for future reference and discussion.	2030	50
Mandatory use ordinance/project conditions of approval	None of these actions have been adopted as policy. Regardless, they are memorialized here for future reference and discussion.	2035	50
<b>TOTAL</b>			<b>100</b>

## 6.2.6 Desalinated Water Opportunities

The CCSD had a project cooperation agreement in place with the Army Corps of Engineers (Army Corps) to complete a water supply project, which was authorized under Section 219 of the Federal Water Resources Development Act (WRDA). This effort lost momentum following the federal ban on earmarking of project funds. Additionally, on December 9, 2011, the California Coastal Commission voted unanimously to object to the Army Corps' consistency determination regarding a proposed geotechnical investigation for desalination intake wells near Santa Rosa State Beach in Cambria. Regardless, the Army Corps did complete a study identifying various long term water supply alternatives during 2013. This study found the treatment of brackish water near San Simeon Creek Road to be the most technically feasible alternative. The WRF was the more feasible alternative when compared to the brackish water alternative as described in the 2013 Army Corps study.

To date of this UWMP, federal funding and subsequent environmental analyses remain to be completed to rekindle the earlier Army Corps efforts. This would likely require the Army Corps to redefine its project by incorporating the WRF. Possible use of federal funds could conceivably be used to fund a Reverse Osmosis reject water disposal pipeline, solar arrays, and a subterranean cut off wall downstream from the reinjection well (to increase the percentage of reinjected water that would make its way to the potable wells).

## 6.2.7 Water Exchanges and Transfers

This section details information regarding CCSD's transfers and/or exchanges.

### 6.2.7.1 Exchanges

The CCSD does not have any existing water transfer agreements in place with other agencies. A major factor is the remote location of Cambria in comparison to the State Water Project aquifer and Nacimiento reservoir pipeline, which are along routes located further inland and east of the Santa Lucia mountain range from Cambria. However, earlier water master planning had investigated the potential for a water transfer agreement with certain member agencies of the Whale Rock Commission, which use the Whale Rock Reservoir located approximately 13 miles south of Cambria near Cayucos. The Whale Rock Reservoir exchange alternative would involve the CCSD reaching an agreement with certain Whale Rock Commission member agencies that have entitlements to Nacimiento Reservoir water in exchange for the use of an equivalent allocation from the Whale Rock reservoir.

### 6.2.7.2 Transfers

A water transfer can be a temporary or permanent sale of water or a water right by the water right holder, a lease of the right to use water from the water right holder, or a sale or lease of a contractual right to water supply. Water transfers can also take the form of long-term contracts for the purpose of improving long-term supply reliability. The potential exists for the formation of voluntary exchange agreements with local agricultural interests. Such agreements may include allowing certain irrigated areas during drought periods in exchange for compensation resulting from the loss of income producing crops. Currently, the CCSD has no exchange agreements in place.

### 6.2.7.3 Emergency Interties

Emergency interties are addressed in **Chapter 7**, Water Supply Reliability.

### 6.2.8 Future Water Projects

Past CCSD water master planning recommended a three-pronged approach towards achieving a long-term reliable water supply, which consists of water conservation, recycled water for non-potable irrigation, and seawater desalination. This supply approach, along with distribution system improvements for improving fire flow and fire storage, were incorporated into a Water Master Plan Program Environmental Impact Report (WMP PEIR), which was certified by the CCSD on August 21, 2008. The California Environmental Protection Act (CEQA) allows tiering from such program EIRs to further address project-specific environmental concerns. Therefore, subsequent supply projects may incorporate the earlier the WMP PEIR while addressing project-specific environmental concerns within project-specific environmental clearances.

**Table 6-8. DWR 6-7R Expected Future Water Supply Projects or Programs**

<b>NAME OF FUTURE PROJECTS OR PROGRAMS</b>	<b>JOINT PROJECT WITH OTHER SUPPLIERS</b>	<b>AGENCY NAME</b>	<b>DESCRIPTION</b>	<b>PLANNED IMPLEMENTATION YEAR</b>	<b>PLANNED FOR USE IN YEAR TYPE</b>	<b>EXPECTED INCREASE IN WATER SUPPLY TO SUPPLIER</b>
Recycled Water	No			2030	All Year Types	50-100
Water Reclamation Facility	No		Indirect Potable Reuse	2025	All Year Types	21-250

Per the application submitted for the WRF's regular Coastal Development Permit (CDP), an estimated 21 AF of WRF production is estimated to occur during a normal year, which is based on a 9-hour daily runtime up to 4 working days per week for a minimum of eight weeks per year at a product water reinjection rate of 400 gpm. Should the IPR system operate continuously over a six-month dry season, its total production would be approximately 250 AFY. A start year of 2025 has been chosen as a conservative estimate for growth assumptions.



### 6.2.9 Summary of Existing and Planned Sources of Water

**Table 6-9** and **Table 6-10** summarize the CCSD potable water supplies from 2020 through 2045 which includes existing groundwater supplies; planned potable water augmentation projects to improve potable supply reliability during dry periods and droughts; and, the planned future use of recycled water for non-potable irrigation. The totals shown here are not intended to reflect the proposed demand, as the supplies may exceed demand to meet reliability needs.

**Table 6-9** lists the actual volume of purchased or imported water for the CCSD service area for potable and non-potable supplies. **Table 6-10** lists the projected volume of water supplies for the CCSD service area for potable and non-potable supplies. The projected amount of reasonably available volume of potable supply shown in **Table 6-10** is based on analysis of different year types and historic production amounts. Additional detail regarding this analysis is available in **Section 7.1.2**.

**Table 6-9. DWR 6-8R Actual Water Supplies**

WATER SUPPLY	ADDITIONAL DETAIL ON WATER SUPPLY	2020		
		ACTUAL VOLUME	WATER QUALITY	TOTAL RIGHT OR SAFE YIELD
Groundwater (not desalinated)	San Simeon Creek Basin and Santa Rosa Creek Basin	540	Drinking Water	1,017
Other	Seawater Intrusion Barrier - Use of existing percolation pond operation	475	Recycled Water	-
<b>TOTAL</b>		<b>1,015</b>		<b>1,017</b>

NOTES: California Coastal Commission Coastal Development Permit 428-10 limits the annual diversion from both basins to 1,230 AFY. Per the CCSD's SWRCB diversion licenses, allowable diversions are limited to 218 AFY from the CCSD's Santa Rosa Creek aquifer wells (based on calendar year 2008 pumpage); and 799 AFY from the CCSD's San Simeon Creek aquifer wells (based on calendar year 2000 pumpage). These amounts total 1,017 AFY (see table 6-1) and are exclusive of riparian water use.

**Table 6-10. DWR 6-9R Projected Water Supplies**

WATER SUPPLY	ADDITIONAL DETAIL ON WATER SUPPLY	PROJECTED WATER SUPPLY									
		2025		2030		2035		2040		2045	
		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	REASONABLY AVAILABLE VOLUME	TOTAL RIGHT OR SAFE YIELD
Groundwater (not desalinated)	San Simeon Creek Basin and Santa Rosa Creek Basin	725 <sup>1</sup>	1,017	725	1,017	725	1,017	725	1,017	725	1,017
Recycled Water	Water Reclamation Facility	21		21		21		21		21	
Recycled Water	Landscape Irrigation (excludes golf courses)			50		100		100		100	
<b>TOTAL</b>		<b>746</b>	<b>1,017</b>	<b>796</b>	<b>1,017</b>	<b>846</b>	<b>1,017</b>	<b>846</b>	<b>1,017</b>	<b>846</b>	<b>1,017</b>

<sup>1</sup>Based on historic production in an average year type (i.e., 2012). See Section 7.1.2.2 for additional information.

## 6.2.10 Special Conditions

### 6.2.10.1 Climate Change Effects

An external climate change growth rate estimate was applied to the CCSD annual water demand projections with passive savings. Customer category demands were increased by 2.38% by 2050 to capture the effect of climate change. This bump was feathered in linearly starting with a zero increase then rising to 2.38% by 2050. This climate change increase was not applied to the non-revenue water volume. The factor is based on changes in temperature and precipitation from CalAdapt, which is based on analysis from California's Fourth Climate Change Assessment. Estimates were for the grid overlaying the Central Coast region originally prepared for the City of Santa Barbara and based on specific years (2020-2050). This analysis was based on an average of 10 climate models, and representative concentration pathways 8.5, which assumed "business as usual" (i.e., emissions continue to rise strongly through 2050 and plateau around 2100).

This resulted in a projected maximum temperature increase from 70.1°F (historical average) to 72.8°F in 2050 and an increase in precipitation from an average historical of 17.3 inches per year to 19.1 inches per year.

It should be noted that the increase in projected precipitation reflects fewer storm events of above-average intensity; in other words, precipitation patterns are projected to be infrequent but severe, resulting in greater percentages of runoff to the ocean and less opportunity for natural percolation into the groundwater table.

### 6.2.10.2 Regulatory Conditions and Project Development

At this time, CCSD does not anticipate regulatory and project specific development that will affect characterization of future water supply availability.

### 6.2.10.3 Other Locally Applicable Criteria

At this time, CCSD does not anticipate any other locally applicable criteria that will affect characterization of future water supply availability.

## 6.3 Energy Intensity

CCSD has not performed an energy audit relating to their water production and distribution, however, a water energy audit will be considered in future optimization efforts. In order to estimate the energy associated with water production and distribution from the San Simeon and Santa Rosa Wells to the CCSD customers, CCSD would need to be able to track the runtime, energy draw, and efficiency for each individual well pump, wellhead treatment plant, pumping station, and associated treatment buildings. Currently, CCSD does not have the individual meters to measure energy associated with water production and distribution.

# 7 URBAN WATER MANAGEMENT PLAN

## Water Service Reliability and Drought Risk Assessment

This chapter describes the long-term reliability of CCSD’s water supplies. Shorter term reliability planning that may require immediate action, such as drought or a catastrophic supply interruption, is addressed in the Water Shortage Contingency Plan (Chapter 8).

The water supply for Cambria is vulnerable to drought because of the limited amount of groundwater storage capacity in the Santa Rosa and San Simeon basins. Storage is small relative to average annual groundwater pumping and during dry years there is an extended amount of time the District must rely upon the limited storage.

### IN THIS SECTION

- Water Service Reliability Assessment
- Drought Risk Assessment

The 2014 drought underscored this vulnerability when projected supplies were less than demands, which led to drought emergency declaration by the CCSD Board. The 2014 emergency declaration led to swift action by the CCSD, which included mandatory conservation measures, restoration of the CCSD’s lower Santa Rosa Well SR3 and its iron and manganese removal treatment filter, as well as completion of the WRF on the lower San Simeon Creek aquifer that used brackish water extracted from an existing well located at the CCSD’s wastewater treatment plant effluent percolation ponds. With this background in mind, the following sections describe the CCSD’s water supply reliability and drought planning, groundwater supply reliability, and related drought analyses and actions.

## 7.1 Water Service Reliability Assessment

CCSD has completed an assessment of the water service reliability based on their current water supplies. The service reliability assessment considered hydrological variability, climate conditions, as well as other factors that have the potential to affect CCSD's ability to meet their water demands.

### 7.1.1 Constraints on Water Sources

The CCSD has historically relied upon its two local coastal groundwater aquifers for its water supply. The relatively small storage in these aquifers make them dependent upon seasonal rains to recharge. When such rainfall arrives late or in low amounts, the aquifers dip in elevation to where the threat of seawater intrusion, subsidence, and a reversal in hydraulic gradient between percolated wastewater and potable wells become key concerns. This was the case in 2013-2014 when weather patterns steered the storm track away from and around the central coast and resulted in an annual rainfall well below average.

As with many areas throughout the state, CCSD's water is a limited and shared resource between municipal, agricultural, and environmental needs. The area's two creeks have been inhabited by listed species, such as the south-central coast steelhead, tidewater goby, southwestern pond turtle, and red-legged frog. Therefore, compliance with the Endangered Species Act is a key driver in decision making related to use of the coastal streams as a water resource. Offshore concerns include the area being in common with the southern extent of the federal, Monterey Bay National Marine



San Simeon Creek

Sanctuary, as well as State Marine Parks. Agricultural operations along the two coastal valleys include cattle ranching, truck crops, avocado orchards, and vineyards. Municipal water needs include providing service to visitor-serving uses such as hotels, motels, campgrounds, as well as residential needs.

The community's isolated location along the coast has made it difficult to connect to distant water supplies, such as the State Water Project and Nacimiento Water Project. For many years, the CCSD pursued seawater desalination as a means to diversify and secure a more reliable supply source. However, the regulatory climate (including denials by state agencies), environmental sensitivity of the area, and growth inducement concerns associated with seawater desalination have proven to be a formidable deterrent toward completing a seawater desalination project. When supplies were limited in the 2014 drought, CCSD considered using a brackish water well at its wastewater effluent percolation ponds. This led to the design and construction of the WRF, which met indirect potable reuse regulations for recycled water that allowed re-injecting the highly treated brackish water back into the San Simeon Creek aquifer near the CCSD's potable well field. In addition to the WRF, the CCSD also restored a



well along the lower reach of Santa Rosa Creek (Well SR3), which allowed access to deeper groundwater in this portion of the aquifer.

## 7.1.2 Year Type Characterization

Scenarios for analysis of supply reliability are based on deliveries in historic water years characterized as “normal” or “average” water years, and “single dry” water years and combinations of these into “consecutive dry water years.” See **Section 7.1.2.1** below for description of these types of years and the reliability during them.

### 7.1.2.1 Types of Years

Recharge into the CCSD’s local groundwater aquifers is dominated by net stream percolation. In most years, the availability of stream flow far exceeds the amount required to replenish the aquifer storage depleted during the previous dry season (both streams are intermittent and cease flowing for a number of months in summer and fall). Wet years do not provide additional storage reserve because once the basins are full; any additional stream recharge is rejected. As a result, the amount of groundwater in storage at the beginning of the dry season is essentially the same over a broad range of hydrologic year types ranging from slightly dry to wet.

Droughts in the two aquifer systems are very threshold dependent. For progressively smaller amounts of annual rainfall and stream flow, the annual amount of available groundwater remains about the same until the point at which winter stream flow is inadequate to fully replenish the basins. Statistical analysis of San Luis Obispo rainfall and local stream discharge was combined with groundwater modeling to determine that incomplete recharge occurs when annual rainfall is less than 10.31-10.95 inches and the average recurrence interval of rainfall less than amount is approximately 18-25 years (Konyenburg & Yates, 1998). For even smaller amounts of annual rainfall, water supply conditions worsen up to the point at which there is no stream flow (and no recharge) at all. Beyond that point, further decreases in rainfall do not make water supply conditions any worse. Zero stream flow occurs with 9.78-9.85 inches of annual rainfall (slightly different for the two basins), corresponding to an average recurrence interval of 31-32 years.

The most extensive rainfall history for the area is from the Cal Poly weather station, which has records dating from the 1872-1873 water year to the present. This weather station is also within proximity of the rainfall isohyet precipitation contour line that crosses Cambria, which indicates a reasonable correlation would be expected between the two locations. **Figure 7-1** provides a plot of the Cal Poly annual rainfall totals, while **Figure 7-2** provides a map showing the isohyet precipitation contours for San Luis Obispo County. From **Figure 7-2**, the amount of rainfall increases substantially within the San Simeon and Santa Rosa watersheds with increasing elevation. This is due to the Santa Lucia mountain range being east of Cambria, and the predominantly inland, west to east direction of storm paths off the Pacific (because storm clouds hold less moisture as they increase in elevation, precipitation totals will typically increase with rising elevations along the area’s western facing mountain slopes). The Cal Poly weather station data was also compared to the San Luis Obispo County Santa Rosa at Main rainfall gauge located at the Corner of Santa Rosa Creek Road and Main Street in Cambria.

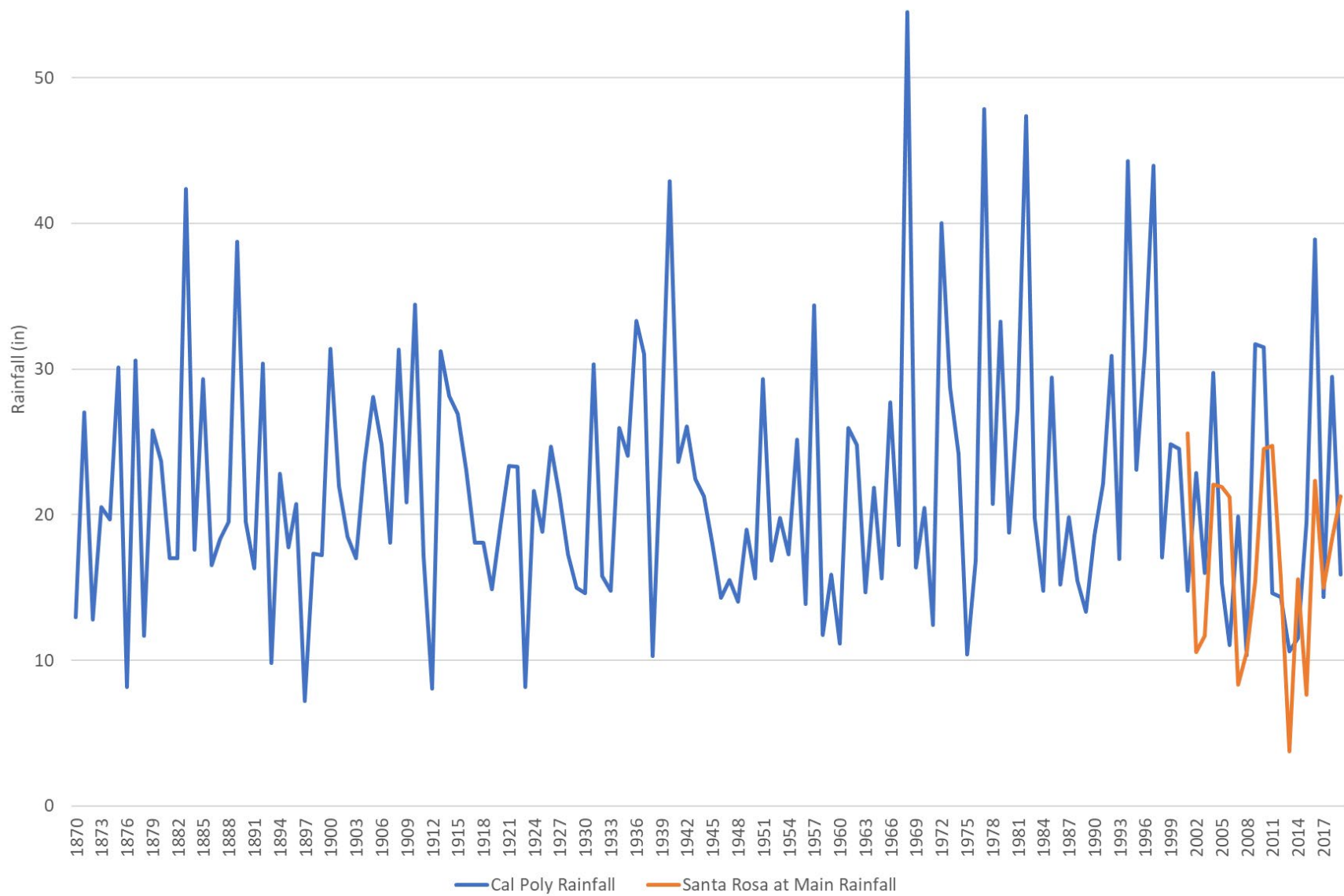
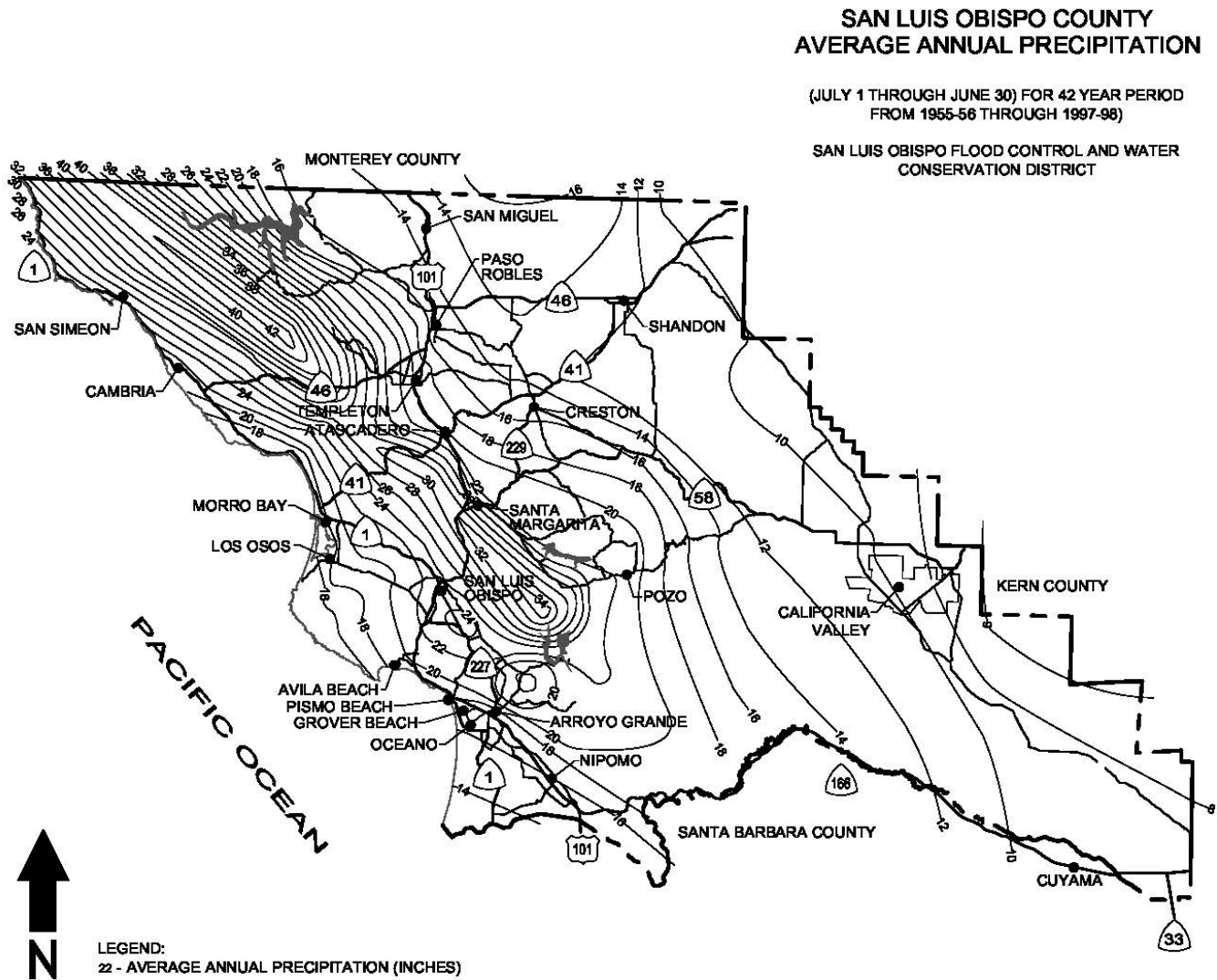


Figure 7-1. Rainfall Totals from Cal Poly Station and Santa Rosa at Main Station





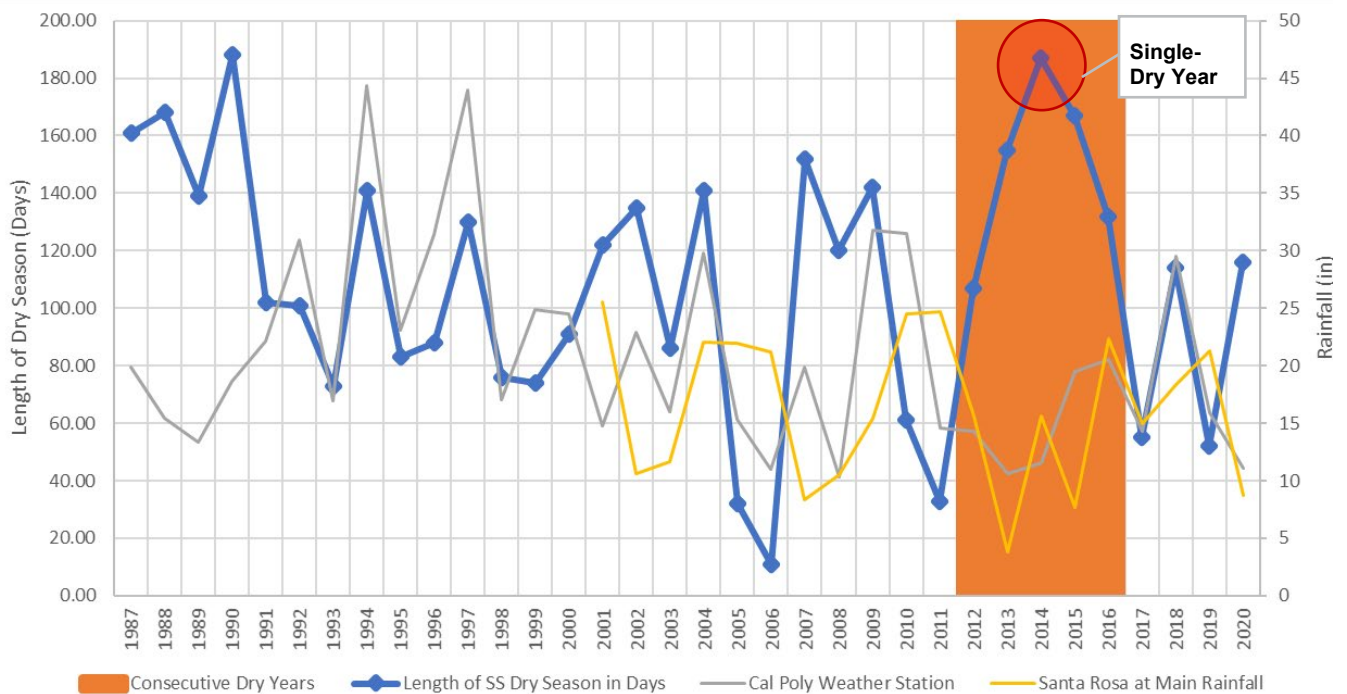
**Figure 7-2. San Luis Obispo County Average Annual Precipitation**

CCSD production limits are tied to a wet and a dry season production. Water Rights Licenses issued by the SWRCB to the CCSD allow a maximum of 799 AF annually from the San Simeon aquifer, while limiting dry season pumping to 370 AF maximum from the time that the creek ceases flow at the Palmer Flats gauging station until October 31. The Santa Rosa Creek SWRCB Water Rights Licenses limits the Santa Rosa aquifer pumping to 218 AF annually, with a dry season pumping limit of 155.3 AF from May 1 to October 31. Because of their Water Rights Licenses, CCSD tracks the length of dry season from the time that the creek ceases flow at the Palmer Flats gauging station until October 31 each year. The length of dry season was used to identify the base years described in this chapter.

The base years were developed using the historical length of San Simeon dry season from 1987-2020, as shown in **Figure 7-3**. A normal or average year represents the average water supply available to the supplier. The average length of dry season was 110 days which corresponds to a dry season starting in July which occurred in 2012.

The single dry year is the year that represents the lowest water supply available to the Supplier. The longest dry season occurred in 1990 (188 days) and 2014 (187 days). The single-dry year selected was 2014 due to the fact that it occurred during the more recent drought.

The five-consecutive year drought is defined as the driest five-year historical sequence for the Supplier (CWC Section 10612). For consecutive dry years, the maximum five-year average dry season length was used which was 2012-2016. The base years are summarized in **Table 7-1**.



**Figure 7-3. Length of Dry Season**

The hydrologic consequences of a year with zero stream recharge were simulated by the U.S. Geological Survey (USGS) using groundwater flow models of the two aquifers (Yates and Van Konynenburg, 1998). Groundwater levels did not recover at all during the winter without stream flow, because rainfall recharge was also zero under those circumstances. Municipal and agricultural pumping were assumed to continue as usual during the second dry season, and groundwater levels continued to decline. In both basins, declines in water levels and storage during the second dry season were greatest near the upper ends of the valleys because groundwater is continually draining down-valley, with or without municipal pumping. During the second dry season, groundwater levels declined an additional 20 feet near the upstream end of the valley, an additional 15 feet near the municipal well field (to 13 feet below sea level) and an additional 6 feet near the State Park campground (to 3 feet below sea level).

The two groundwater basins differ with respect to the three major impacts of excessive water-level declines: seawater intrusion, subsidence and depletion of base flow, and the coastal lagoons. Simulation results indicated that there would be seawater intrusion in the San Simeon basin, but not the Santa Rosa basin. During the year prior to the winter without recharge, there was 320 AFY of groundwater outflow to the ocean. During the subsequent year, this reversed to become 48 AFY of seawater intrusion. Additional simulations were not completed to estimate the pumping reduction needed to eliminate seawater intrusion.

Subsidence would probably occur in the Santa Rosa basin during the dry season following a winter without recharge, but the risk is probably smaller in the San Simeon basin. Subsidence occurred in the Santa Rosa basin during the 1976-1977 drought, when groundwater levels in Cambria dropped to 14-20 feet below sea level (Cleveland, 1980). If a basin contains compressible sediments, subsidence typically occurs when groundwater levels fall substantially below their historical minimum levels, and simulated groundwater levels in Cambria were 25 feet below sea level by the end of the second dry season. Dry season water level declines are approximately proportional to the total amount of dry season pumping.

### 7.1.2.2 Sources for Water Data

CCSD staff records the length of dry season as part of their compliance monitoring. The length of dry season was used to identify the base years in the reliability assessment. Supply availability for the different base year types was estimated based on historical production values for those years, as shown in **Table 7-1**.

**Table 7-1. DWR 7-1R Basis for Water Year Data (Reliability Assessment)**

YEAR TYPE	BASE YEAR	AVAILABLE SUPPLY IF YEAR TYPE REPEATS	
		VOLUME AVAILABLE	PERCENT OF AVERAGE SUPPLY
Average Year	2012	725	100%
Single-Dry Year	2014	467	64%
Consecutive Dry Years 1st Year	2012	725	100%
Consecutive Dry Years 2nd Year	2013	733	101%
Consecutive Dry Years 3rd Year	2014	467	64%
Consecutive Dry Years 4th Year	2015	467	64%
Consecutive Dry Years 5th Year	2016	494	68%

\*Supply availability during these year types is based on actual production during those years

### 7.1.3 Water Service Reliability

This section describes the supply and demand projections for normal, single-dry, and consecutive dry water years. The supply totals are from **Table 6-10 on page 6-17**, which includes production from the CCSD potable wells, flows from the WRF, and future recycled water that may be used for outdoor irrigation. The demand totals assumed the current drought-reduced production will increase slightly but will not return to pre-drought levels, while also using the DSS Model's projection with passive savings. Demands total include CCSD customer demands plus the recycled water that will be used for irrigation. Recycled water demand does not include demand associated with the Seawater Intrusion Barrier since the barrier uses treated Wastewater Effluent as a supply and not potable water. The supply totals include groundwater, recycled water, and water from the WRF. Per the application submitted for the WRF's regular Coastal Development Permit (CDP), an estimated 21 AF of WRF production is estimated to occur during a normal year, which is based on a 9-hour daily runtime up to 4 working days per week for a minimum of eight weeks per year at a product water reinjection rate of 400 gpm. Should the IPR system operate continuously over a six-month dry season, its total production would be approximately 250 AFY.

### 7.1.3.1 Water Service Reliability – Normal Year

**Table 7-2** shows the normal year supply and demand comparison. CCSD’s supply is projected meet the anticipated demand. CCSD will also be able to operate within the pumping limits described in their Water Rights License based on a dry season length that corresponds with a normal year.

**Table 7-2. DWR 7-2R Normal Year Supply and Demand Comparison**

	2025	2030	2035	2040	2045
Supply Totals From Table 6-9R	746	796	846	846	846
Demand Totals From Table 4-3R	580	640	710	730	730
<b>DIFFERENCE</b>	<b>166</b>	<b>156</b>	<b>136</b>	<b>116</b>	<b>116</b>

\*Supply availability during these year types is based on actual production during those years.

\*Demand does not include the demand associated with the Seawater Intrusion Barrier or the WRF since the demand for these uses are met using treated wastewater effluent.

\*Beginning in year 2030, supply and demand include approximately 50 AFY of recycled water use is anticipated by converting existing CCSD customers from potable, groundwater-source-based use to non-potable outdoor irrigation using recycled water. In 2035 on an additional 50 AFY of outdoor irrigation with recycled water is estimated.

### 7.1.3.2 Water Service Reliability – Single Dry Year

Comparison of the projected single-dry year water supply to the projected single-dry year water demand over the next 20 years, in 5-year increments is shown in **Table 7-3** below. The supply totals include an additional 250 AF from the WRF which will need to be in operation to meet the projected demands under the single-dry year scenario. The WRF operation will also be combined with conservation measures to help narrow the gap between the supply and demand. To be conservative, the demand totals below assume there would be no reduction in customer demands during a single dry year condition.

**Table 7-3. DWR 7-3R Single Dry Year Supply and Demand Comparison**

	2025	2030	2035	2040	2045
Supply Totals	717	717	717	717	717
Demand Totals	580	590	610	630	630
<b>DIFFERENCE</b>	<b>137</b>	<b>127</b>	<b>107</b>	<b>87</b>	<b>87</b>

\*Supply availability for Single Dry Year is based on actual production (467 AF) in 2014 (Single Dry Year Base year) plus 250 AF from the WRF, which will need to be in operation to meet the projected demands under the single-dry year scenario.

### 7.1.3.3 Water Service Reliability – Five Consecutive Dry Years

Comparison of the projected consecutive dry year water supplies to the projected multiple dry year water use over the next 20 years, in 5-year increments is shown in **Table 7-4** below. The supply includes 250 AF from the WRF which will need to be in operation to meet the projected demands starting in year 3 of the consecutive dry year scenario. The WRF operation will also be combined with conservation measures to help narrow the gap between the supply and demand while limiting stresses on the groundwater aquifers by reducing production. To be conservative, the demand totals below assume there would be no reduction in customer demands during the consecutive dry year scenario.

Based on projected water supply and demands over the next 25 years, the CCSD has supply capabilities that would be sufficient to meet expected demands through 2045 under single-dry year and multiple-dry year conditions assuming the WRF is in operation. This reliability will be further established when CCSD completes the already-in-progress regular coastal development permitting process for the WRF. Additionally, the conservation measures described in the Water Shortage Contingency Plan will further enhance reliability by providing an additional reduction in future demands beyond those that were used in this section’s analysis.

**Table 7-4. DWR 7-4R Multiple Dry Years Supply and Demand Comparison**

		2025	2030	2035	2040	2045
First Year	Supply Totals	725	725	725	725	725
	Demand Totals	580	590	610	630	630
<b>DIFFERENCE</b>		<b>145</b>	<b>135</b>	<b>115</b>	<b>95</b>	<b>95</b>
Second Year	Supply Totals	733	733	733	733	733
	Demand Totals	580	590	610	630	630
<b>DIFFERENCE</b>		<b>153</b>	<b>143</b>	<b>123</b>	<b>103</b>	<b>103</b>
Third Year	Supply Totals	717	717	717	717	717
	Demand Totals	580	590	610	630	630
<b>DIFFERENCE</b>		<b>137</b>	<b>127</b>	<b>107</b>	<b>87</b>	<b>87</b>
Fourth Year	Supply Totals	717	717	717	717	717
	Demand Totals	580	590	610	630	630
<b>DIFFERENCE</b>		<b>137</b>	<b>127</b>	<b>107</b>	<b>87</b>	<b>87</b>
Fifth Year	Supply Totals	744	744	744	744	744
	Demand Totals	580	590	610	630	630
<b>DIFFERENCE</b>		<b>164</b>	<b>154</b>	<b>134</b>	<b>114</b>	<b>114</b>

\*Supply availability for each year of the Multiple Dry Year Scenario is based on actual production for the Base Years, as defined in Section 7.1.2. In the third, fourth, and fifth year of the Multiple Dry Year Scenario, 250 AF of additional supply is assumed to be available from the WRF. This additional supply is necessary to meet the projected demands without conservation. Additional information on the WRF and its ability to augment groundwater supplies is available in Section 6.2.2.

### 7.1.4 Descriptions of Management Tools and Options

As a retail supplier of the Cambria area’s potable water, the CCSD continues to promote water conservation to make the most efficient use the existing local groundwater supplies. This section describes the CCSD’s retail Demand Management Measures (DMMs), their implementation over the past five years, and future planned conservation measures that will ensure the CCSD continues to meet or exceed water use reduction goals.



#### 7.1.4.1 Water Waste Prevention Ordinance

The CCSD prohibits water waste through enforcement of Chapter 4.08 of its Municipal Code, which is also described within **Section 9.1**. The prohibition of water waste is an ongoing requirement, which applies during drought and non-drought conditions. Enforcement is achieved through coordinated efforts of the CCSD's water and billing departments.

#### 7.1.4.2 Metering

All potable water customers served by the CCSD are metered. The CCSD currently uses AMR meters, which include an electronic flagging feature when leaks are suspected on the downstream, customer-side of the meter. The CCSD billing department coordinates with the water department in notifying customers of suspected leaks. Depending upon specific circumstances, such noticing may be followed up with an on-site inspection to assist customers in determining the cause of their leak to facilitate repair. The CCSD is moving to an advanced metering infrastructure (AMI) system which is proposed for the 2021-2022 fiscal year.

#### 7.1.4.3 Public Education and Outreach

The CCSD routinely provides public information on water conservation via its website, billing inserts, billing notices, public announcements, coordination with the local media, as well as by its website at cambriacsd.org. Tent cards on water conservation are also provided to restaurants and motels. The CCSD is also a member agency of the California Water Use Efficiency Partnership (CalWEP) and the Alliance for Water Efficiency (AWE), which provides water use efficiency resources and programming, including the annual Peer2Peer training and networking event. The CCSD website contains 'how to' information on reading meters and checking for leaks, as well as other water conservation tips and resources. CCSD water bills include information about customer's past use to allow for a quick assessment of water consumption trends. The CCSD has placed an added emphasis on testing pressure-regulating valves on residential homes based on experience from residential surveys. To facilitate testing, pressure gages are loaned to customers free of charge for testing pressures downstream from their pressure-regulating valve. The District's website also contains information explaining pressure-regulating valve testing.

#### 7.1.4.4 Programs to Assess and Manage Distribution System Real Loss

The CCSD routinely monitors its water production and consumption and investigates unaccounted water to determine water loss. Staff have also attended training offered by the California-Nevada Section of the AWWA on water loss auditing, which is in response to SB 555 that was passed by the State during 2015. **Appendix F** provides a copy of the CCSD's 2020 Water Loss Audit. Per the results of previous audits, the CCSD will continuously improve metering and documentation for authorized non-metered water use (E.g., assigning construction hydrants to fire trucks for use in non-emergency tasks such as hydrant testing) as well as estimating and documenting losses from leak repairs. The CCSD field staff routinely check and respond to water leaks and are on-call 24/7 to immediately respond and take corrective action. In 2020, Water Department staff began tracking leak repairs and associated losses using the CCSD's geographic information system, Diamond Maps.

#### 7.1.4.5 Water Conservation Program Coordination and Staffing Support

The Utilities Department administers the CCSD's water conservation program, which includes rebates, giveaways, outreach, water loss auditing, and administration of the retrofit program and demand offset program. Future training of staff sharing these duties will be sought out from CalWEP and other

sources. The Utilities Department Program Manager is required to obtain a Grade I Water Use Efficiency Practitioner certification through the AWWA.

7.1.4.6 Implementation over the Past Five Years

Water conservation implementation over the past five years has included the CCSD’s continuing efforts on its retrofit on resale program, overhauling the demand offset program, rebates for smart water systems such as the Flume Smart Water Monitor, as well as free water efficient devices such as low-flow showerheads and automatic shut-off hose nozzles. The CCSD has historically maintained a points bank to track conservation measures used to offset demands from any future water connections within its serviced area. Essentially, this program determines the number of retrofit-in-lieu points required based on the proposed development, which are then purchased and withdrawn from the points bank. As conservation measures occur, points are added back into the bank. Previous efforts included the CCSD commissioning Maddaus Water Management to complete a Water Use Efficiency Plan (WUEP) in 2013. This effort resulted in an update to the number of points required based on the review demands by various sized residential homes and using the 90th percentile of those findings as a basis. The WUEP effort resulted in the CCSD Board adopting Program B in February 2013. The process used to develop the WUEP included analyzing conservation measures and programs using a Water Demand Management Decision Support System Model (DSS Model). As part of this 2020 UWMP, the CCSD has updated the DSS Model, which is further described within **Appendix G**.

**Table 7-5. CCSD Elements of Conservation Program B**

GENERAL MEASURES	RESIDENTIAL MEASURES	COMMERCIAL MEASURES
Public Information	High Efficiency Toilets Rebates*	Large Meter Replacement and Leak Monitoring*
Water Loss (NRW) Control Program	Clothes Washer Rebates	Clothes Washer Rebates
AMR Conservation Benefits*	Water Use Efficiency Surveys	Water Use Efficiency
Conservation Pricing Update*	Showerhead Giveaway*	High Efficiency Urinal Rebates
Prohibit Water Waste and Practices (Ordinance)*	Require Fixture Replacement by a Deadline*	Require Fixture Replacement by a Deadline*
	Require Irrigation and Landscape Upgrades	Require Irrigation and Landscape Upgrades
	Distribute Hot Water Recirculation Pumps*	

\*Denotes continue and/or expand current measure

## 7.2 Drought Risk Assessment

CWC Section 10635(b) requires every urban water supplier to include, as part of its UWMP, a drought risk assessment (DRA) for its water service area to incorporate in the development of the DMMs and water supply projects and programs. The DRA analysis allows suppliers to consider how to manage their water supplies during stressed hydrologic conditions in relation to variations in demand and supports the evaluation of the supplier's WSCP.

### 7.2.1 Data, Methods, and Basis for Water Shortage Condition

**CCSD leverages data collected as part of their management tools described in Section 7.1.4 and also listed below.**

- CCSD uses AMR meters to detect leaks and will notify customers if a leak is detected,
- Compares well production and consumption totals to track unaccounted for water, and
- Implemented a points bank to offset new water demands. Points are offset by implementing water conservation measures.

As part of normal operation, CCSD also tracks well levels and flow at Palmer Flats as part of their existing permits.

The DRA is based on the driest five-year historic sequence experienced by CCSD as required by CWC Section 10612. The CWC Section 10635 requires the analysis consider plausible changes on projected supplies and demands due to climate change, anticipated regulatory changes and other locally applicable criteria.

For CCSD, years 2012 to 2016 represent the driest five-consecutive years based on the length the San Simeon dry season. CCSD used this five-year historic sequence to complete its DRA.

### 7.2.2 DRA Water Source Reliability and Total Water Supply and Use Comparison

The CCSD demand totals assumed the current drought-reduced production will increase slightly but will not return to pre-drought levels. The demand totals do not include the recycled water that will be used for irrigation because that program is not anticipated to start until 2030. To be conservative, the supply from the WRF was not included in the supply totals in **Table 7-6** because the facility is currently only permitted to run under emergency conditions. The five-year drought risk assessment predicts that demand will need to be reduced by 20% due to reduced supply availability in years 3 through 5.



**Table 7-6. DWR 7-5 Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b)**

2021	Gross Water Use	580
	Total Supplies	725
	Surplus/Shortfall without WSCP Action	145
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	145
	Resulting Percent Use Reduction from WSCP Action	0%
2022	Gross Water Use	580
	Total Supplies	733
	Surplus/Shortfall without WSCP Action	153
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	0
	Revised Surplus/Shortfall	153
	Resulting Percent Use Reduction from WSCP Action	0%
2023	Gross Water Use	580
	Total Supplies	467
	Surplus/Shortfall without WSCP Action	-113
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	116
	Revised Surplus/Shortfall	3
	Resulting Percent Use Reduction from WSCP Action	20%
2024	Gross Water Use	580
	Total Supplies	467
	Surplus/Shortfall without WSCP Action	-113
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	116
	Revised Surplus/Shortfall	3
	Resulting Percent Use Reduction from WSCP Action	20%
2025	Gross Water Use	580
	Total Supplies	494
	Surplus/Shortfall without WSCP Action	-86
	<b>PLANNED WSCP ACTIONS (USE REDUCTION AND SUPPLY AUGMENTATION)</b>	
	WSCP (Supply Augmentation Benefit)	0
	WSCP (Use Reduction Savings Benefit)	116
	Revised Surplus/Shortfall	30
	Resulting Percent Use Reduction from WSCP Action	20%

# 8 URBAN WATER MANAGEMENT PLAN Water Shortage Contingency Plan

**This chapter describes the CCSD's Water Shortage Contingency Plan, including shortage stages and shortage response actions.**

The CWC Section 10632 requires that every urban water supplier that serves more than 3,000 acre-feet per year or have more than 3,000 connections to prepare and adopt a standalone Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan. This WSCP is a proposed plan for a range of water shortage situations, including supply shortages of greater than 50%. The WSCP will be updated based on new requirements every five years and will be adopted as a current update for submission to the California Department of Water Resources (DWR).

#### IN THIS SECTION

- Water Supply Reliability
- Standard Shortage Stages
- Shortage Response Plan

The WSCP identifies specific criteria that will be used to declare and determine the severity of long-term supply shortages including annual rainfall, groundwater conditions, or limited production capacity (for destruction of critical supply facilities).

Short-term supply shortages may be caused by constrained production capacity or natural or man-made catastrophic emergencies and include, but are not limited to, the following events: power outages, winter storms, wildfires, earthquakes, structural failures, contamination, and bomb threats. These types of emergencies may limit CCSD's immediate ability to provide adequate water service to meet the requirements for human consumption, sanitation, and fire protection. Such emergencies are usually limited in duration and, at the time of declaration, are not expected to last more than a few weeks; thus, consumption reduction measures and prohibitions may differ from those needed for long-term shortages.

**CCSD's WSCP is organized into the following main sections to align with the CWC Section 16032 requirements:**

### **Water Supply Reliability Analysis**

Summarizes CCSD's water supply analysis and reliability and identifies any key issues that may trigger a shortage condition.

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

Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.

### **Standard Shortage Stages**

Establishes water shortage levels to clearly identify and prepare for shortages.

### **Shortage Response Actions**

Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand as well as minimize social and economic impacts to the community.

### **Communication Protocols**

Describes communication protocols under each stage to ensure customers, the public, and government agencies are informed of shortage conditions and requirements.

### **Compliance and Enforcement**

Defines compliance and enforcement actions available to administer demand reductions.

### **Legal Authority**

Lists the legal ordinance that grants CCSD the authority to declare a water shortage and implement and enforce response actions.

### **Financial Consequences of WSCP Implementation**

Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.

### **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, if efforts are successful, and if response actions should be adjusted.

### **WSCP Refinement Procedures**

Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.

### **Special Water Features Distinctions**

Defines considerations and definitions for water use for decorative features versus pools and spas. Decorative features include ornamental fountains, ponds, and other aesthetic features. Water for these features is allowed to sustain aquatic life.

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

Describes the process for the WSCP adoption, submittal, and availability after each revision.

## 8.1 Water Supply Reliability Analysis

This section was completed pursuant to CWC Section 10632(a)(1) and describes the key findings of the water supply reliability analysis in **Chapter 7** and conducted pursuant to CWC Section 10635. As discussed in **Chapter 7**, CCSD has completed an assessment of the water service reliability based on their current water supplies. The service reliability assessment considered hydrological variability, climate conditions, as well as other factors that have the potential to affect CCSD's ability to meet their water demands.

As part of the 2020 UWMP requirements, **Chapter 7** includes a supply reliability analysis for the following scenarios: normal year, single-dry year, and five-year consecutive dry years. CCSD expects to meet demands under all water year scenarios with groundwater (supplemented by WRF) while continuing to promote conservation. CCSD anticipates utilizing between approximately 467 to 725 AFY from the San Simeon and Santa Rosa aquifers depending on the year type. It is anticipated that this range of supply volume will be available to meet CCSD's demands either by using the WRF, reducing demand via conservation, or implementing a combination of both.

**Chapter 7** also includes a required Drought Risk Assessment (DRA) to analyze supply reliability for 2021-2025. The DRA analyzes historical production data and length of dry season to allow CCSD to view patterns and more reliably determine if there could be any water shortages within a given time frame. Also, future demand and supply estimates for the planning period are analyzed to determine if there are any gaps between supply and demand. As mentioned above, CCSD will be able to meet demand by leveraging the WRF, conservation, or a combination of both.

Since CCSD's only current source of water is groundwater, CCSD is committed to promoting conservation and utilizing the WRF to improve its supply portfolio and subsequent reliability as described in **Chapter 7**.

## 8.2 Annual Water Supply and Demand Assessment

The CCSD continuously tracks water supply conditions to help forecast the estimated supply availability based on either the estimated dry season start date, streamflow monitoring, estimated dry season length, or the hydrologic year-type classification. The metrics that the CCSD utilizes to assess supply availability are included in the criteria for the WSCP.

### 8.3 Six Standard Water Shortage Levels

CWC Section 10632 (a)(3)(B) authorizes Suppliers to continue using their existing water shortage levels that may have been included in past WSCPs.

CCSD utilizes six shortage stages to identify and respond to water shortage emergencies. **Table 8-1** summarizes the mandatory prohibitions associated with each water shortage stage. It should be noted that the CCSD’s prohibition on water waste is in place at all times, regardless of whether a drought stage has been declared. Therefore, the phrasing “At all times” is used to indicate this is required regardless of a particular stage. Section 4.08.050 of the CCSD municipal code allows for increasing levels of fines for any waste of water, which could also lead to shutting off service.

**Table 8-1. DWR 8-1 Water Shortage Contingency Plan Levels**

SHORTAGE LEVEL	PERCENT SHORTAGE RANGE <sup>1</sup> (NUMERICAL VALUE AS A PERCENT)	SHORTAGE RESPONSE ACTIONS
1	Up to 10%	<p><b>“Water Conservation is a Way of Life”</b></p> <p>Inform customers of existing conservation ordinances and incentive programs; water waste prohibitions always in effect</p>
2	Up to 20%	<p><b>“Water Shortage Watch”</b></p> <ul style="list-style-type: none"> <li>- Citations for violations of shortage response actions</li> <li>- Commence public outreach campaign</li> <li>- If Stage 3 is imminent, then schedule Board Hearing at least 14 days prior to Stage 3 action</li> </ul>
3	Up to 30%	<p><b>“Water Shortage Warning”</b></p> <ul style="list-style-type: none"> <li>- All of the above, plus increased restrictions on use of potable water</li> <li>- Increase public outreach campaign to include weekly Farmer’s Market booth and product giveaways or demos</li> <li>- If Stage 4 is imminent, schedule Board Hearing at least 14 days prior to action</li> </ul>
4	Up to 40%	<p><b>“Water Shortage Emergency”</b></p> <ul style="list-style-type: none"> <li>- All of the above, and establish water use allocations</li> <li>- Board meeting second month of billing cycle - recommend remaining in Stage 4 or moving to Stage 5, 3, 2, or 1</li> <li>- Prepare WRF for operation</li> </ul>
5	Up to 50%	<p><b>“Extreme Water Shortage Emergency”</b></p> <ul style="list-style-type: none"> <li>- All of the above, and reduce allocation, enforce excess use penalty</li> <li>- Mandatory audits for customers exceeding allocation</li> <li>- Board Meeting at second month of enforcement billing cycle, recommend remaining at Stage 5, move to Stage 6, 4, 3, 2, or 1</li> <li>- Operate WRF as needed</li> </ul>
6	>50%	<p><b>“Exceptional Water Shortage Emergency”</b></p> <ul style="list-style-type: none"> <li>- Continue allocation enforcement; potable water for human health, sanitation, and fire protection only</li> <li>- Board Meeting at second month of enforcement billing cycle, recommend remaining at Stage 6, or move to Stage 5, 4, 3, 2 or 1</li> <li>- Operate WRF as needed</li> </ul>

<sup>1</sup>One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.

## 8.4 Shortage Response Actions

CCSD Municipal Code Chapter 4.08 entitled “Waste of Water,” prohibits water waste at all times, regardless of whether there may a particular water conservation stage in place. This approach was originally adopted by the CCSD Board during 2000 as Ordinance 4-2000, which has since been codified within the CCSD Municipal Code.

As mentioned above, there are long-term and short-term water supply shortages with significant overlap in regard to stages, mandatory prohibitions, and consumption reduction methods as described in the following sections. **Table 8-2** summarizes the possible actions identified by CCSD staff to implement during a water shortage as well as the criteria that would trigger each water shortage stage. This table of actions is designed as a menu of options; CCSD is not required to implement each action for each stage. Actions identified in earlier stages may also be used in later stages (e.g., actions identified in Stages 1-3 may be implemented in Stage 4 as well as other Stage 4 actions, etc.).

**Table 8-2. Shortage Response Actions**

STAGE	CRITERIA	SUGGESTED ACTIONS
<b>1 – UP TO 10% WATER USE REDUCTION</b>	Baseline - Water Use Efficiency is a Way of Life	<p><b>THE FOLLOWING ARE PROHIBITED AT ALL TIMES UNDER CHAPTER 4.08 OF THE CCSD MUNICIPAL CODE:</b></p> <p>The watering of grass, lawns, ground-cover, shrubbery, open ground, crops, and trees herein after collectively called "landscape or other irrigation," in a manner or to an extent which allows excess water to run-off the area being watered. Every water user is deemed to have under his or her control at all times his or her water distribution lines and facilities and to know the manner and extent of his or her water use and excess run-off;</p> <p>The watering of grass, lawns, ground-cover, shrubbery, open ground, crops or trees or other irrigation within any portion of the district in violation of the following schedule and procedures: a. Watering shall be accomplished with a person in attendance; b. Watering shall not take place between the hours of ten a.m. and six p.m.; and c. Watering shall be limited to the amount of water necessary to maintain landscaping.</p> <p>The washing of sidewalks, walkways, driveways, parking lots, windows, buildings, and all other hard-surfaced areas by direct hosing unless utilizing high-pressure, low-volume systems;</p> <p>The escape of water through breaks or leaks within the water user's plumbing or distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. Water must be shut off within two hours after the water user discovers such leak or break or receives notice from the district of such leak or break, whichever occurs first. Such leak or break shall be corrected within an additional six hours;</p> <p>The serving of water to customers by any eating establishment except when specifically requested;</p> <p>Except as approved in advance in writing by the general manager of the district, the use of water by governmental entities or agencies for: (1) routine water system flushing for normal maintenance, (2) routine sewer system flushing for normal maintenance, and (3) fire personnel training;</p> <p>Washing vehicles by use of an unrestrained hose. Use of a bucket for washing a vehicle and rinsing with a hose with a shutoff at the point of release is permitted subject to non-wasteful applications. Vehicle is defined as any mechanized form of transportation including, but not limited to, passenger cars, trucks, recreational vehicles (RVs), campers, all-terrain vehicles (ATVs), motorcycles, boats, jet skis, and off-road vehicles;</p>
	Dry season starts in June or later	
	Rainfall at 86-100% of normal	
	Average SS well levels at or above 100% of normal (≥20.1 ft)	
	WBE/WBW well levels at or above 100% of normal (WBE is ≥5.6 ft and WBW is ≥5.6 ft)	
9P2/SS4 gradient at or above 100% of normal (≥3.0 ft)		

STAGE	CRITERIA	SUGGESTED ACTIONS
		<p>Use of potable water from the district's water supply system for compacting or dust control purposes;</p> <p>Using unmetered water from any fire hydrant, except as required for fire suppression;</p> <p>It is unlawful for any consumer to remove, replace, alter, or damage any water meter or components thereof.</p> <hr/> <p>Landscape irrigation using non-potable water sources is encouraged; no restrictions. Irrigation of parks, school ground areas, and road median landscaping will not be permitted more than twice a week.</p> <p>Irrigation of ornamental turf on public medians with potable water is prohibited.</p> <p>No application of potable water to outdoor landscapes (turf and ornamental landscapes) within 48 hours before, during, or after a rainfall event with measurable rainfall. Measurable rainfall for the region is defined as greater than or equal to 0.5 inches.</p> <p>New landscaping should be limited to native or drought tolerant plants when a Stage 1 water conservation program is in effect.</p> <p>Limits on watering duration. Watering or irrigating of lawns, landscape or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than 15 minutes per day per station. This subsection does not apply to landscape irrigation systems that exclusively use high efficiency irrigation equipment, very low-flow drip type irrigation systems when no emitter produces more than two gallons of water per hour, and weather-based controllers or high-efficiency stream rotor sprinklers.</p> <p>Operators of hotels, motels, and other commercial establishments offering lodgings shall post in each room a notice of water shortage conditions, encouraging water conservation practices.</p> <p>Lodging establishment must offer opt out of linen service.</p> <p>Require covers for pools and spas.</p> <p>Watering to maintain the level of water in swimming pools shall occur only when essential.</p>
<p><b>2 – UP TO 20% WATER USE REDUCTION</b></p>	<p>Drought Watch</p> <p>Dry season starts in June or later</p> <p>Rainfall at 71-85% of normal</p> <p>Average SS well levels at 91-100% of normal (18.2-20.1 ft)</p> <p>WBE/WBW well levels at 91-100% of normal (WBE is 5.2-5.6 ft and WBW is 5.1-5.6 ft)</p> <p>9P2/SS4 gradient at 91-100% of normal (2.8-3.0 ft)</p>	<p>Up to 3 days per week landscape irrigation when using potable water; no more than 15 minutes per day per station.</p> <p>Car washing is only permitted using a commercial carwash that recirculates water or by high pressure/low volume wash systems.</p> <p>Commercial car wash and laundry systems. Installation of new or replacement non re-circulating water systems in commercial conveyor car wash or commercial laundry systems is prohibited.</p> <p>Use of graywater, as that term is defined in the California Health &amp; Safety Code, or recycled water for irrigation is permitted on any day and at any time, subject only to any permits issued by the County.</p> <p>Construction operations receiving water from a construction meter or water truck shall not use water unnecessarily for any purpose other than those required by regulatory agencies. Construction projects requiring watering for new landscaping materials shall adhere to the designated irrigation requirements set forth in this plan and shall only install native or drought-tolerant plant species.</p> <p>District will commence public outreach campaign regarding water shortage watch restrictions including presentations and/or materials provided to local schools and street signage.</p>



STAGE	CRITERIA	SUGGESTED ACTIONS
<p><b>3 – UP TO 30% WATER USE REDUCTION</b></p>	<p>Water Shortage Warning</p> <p>Dry season starts in May or later</p> <p>Rainfall at 56-70% of normal</p> <p>Average SS well levels at 81-90% of normal (16.1-18.1ft)</p> <p>WBE/WBW well levels at 81-90% of normal (WBE is 4.6-5.1 ft and WBW is 4.6-5.0 ft)</p> <p>9P2/SS4 gradient at 81-90% of normal (2.5-2.7 ft)</p>	<p>Irrigation on public medians with potable water is prohibited.</p> <p>Decorative water features that use potable water must be drained and kept dry.</p> <p>Wash only full loads of laundry and/or dishes.</p> <p>Filling, refilling, or replenishing swimming pools, spas, ponds, streams, and artificial lakes is prohibited.</p> <p>Tune-up irrigation system by checking for and repairing leaks and damaged sprinklers.</p> <p>Up to two days per week of landscape irrigation when using potable water; no more than 15 minutes per day per station.</p> <p>Shorten showers and turn off faucets while brushing teeth or shaving.</p> <p>District will expand outreach campaign to include a staffed booth at the weekly Farmer's Market. Water efficient product giveaways will be provided, budget permitting.</p> <p>Fix leaky faucets, toilets, showerheads, pipes, and other water plumbing immediately.</p>
<p><b>4 – UP TO 40% WATER USE REDUCTION</b></p>	<p>Drought Emergency</p> <p>Dry season starts in April or later</p> <p>Rainfall at 41-55% of normal</p> <p>Average SS well levels at 71-80% of normal (14.1-16.0ft)</p> <p>WBE/WBW well levels at 71-80% of normal (WBE is 4.1-4.5 ft and WBW is 4.0-4.5 ft)</p> <p>9P2/SS4 gradient at 71-80% of normal (2.2-2.4 ft)</p>	<p>Up to one day per week of landscape irrigation when using potable water; no more than 10 minutes per day per station.</p> <p>Maintenance of existing landscaping necessary for fire protection as specified by the Fire Chief of the Cambria CSD Fire Department; if fire-protection landscaping is not sustainable by irrigation one (1) days per week, irrigation may be increased to not more than two (2) days per week;</p> <p>Maintenance of existing landscaping for erosion control; if erosion-control landscaping is not sustainable by irrigation one (1) day per week, may be irrigated up to two (2) days per week.</p> <p>Implement monthly meter reading; customer notification re: percentage of allocation used</p> <p>Existing pools shall not be emptied and refilled using potable water unless required for public health and safety purposes.</p> <p>No new will serves for projects including pool or spa installation will be permitted.</p> <p>Staff directed to communicate with water users in the 90th percentile of their customer class to help reduce consumption.</p> <p>Previous waivers for watering or water use in excess of drought restrictions will be revoked.</p> <p>Washing of personal vehicles at home (including autos, trucks, trailers, motor homes, boats, or others) is prohibited.</p> <p>Water use allocation per permanent resident: 3 units per month. Commercial water use allocation: 3 units per EDU or fraction thereof; or average of last 12 months water use, whichever is less. Vacation rental allocation: 3 units per month.</p> <p>Upon the declaration of a water shortage emergency, no new water meters allowed, except for health and safety, unless water demand is offset to a net zero increase. Achieving net zero water increase is when potable water use of proposed development is no greater than current demand within the District's service area prior to installation of the new meters. The District will separately develop a "Net Zero Water Increase Program." The objective of the Program shall be to provide a means to continue sustainable growth during continuing water shortage conditions.</p> <p>No new temporary construction meter permits will be issued by the District.</p>



STAGE	CRITERIA	SUGGESTED ACTIONS
		<p>The District will suspend consideration of annexations to its service area unless the annexation increases the water supply available to the District by more than the anticipated demands of the property to be annexed.</p> <p>Staff directed to prepare WRF for operation.</p>
<p><b>5 – UP TO 50% WATER USE REDUCTION</b></p>	<p>Extreme Drought Emergency</p> <p>Dry season starts in March or earlier</p> <p>Rainfall at 26-40% of normal</p> <p>Average SS well levels at 61-70% of normal (12.1-14.0 ft)</p> <p>WBE/WBW well levels at 61-70% of normal (WBE is 3.5-4.0 ft and WBW is 3.4-3.9 ft)</p> <p>9P2/SS4 gradient at 61-70% of normal (1.9-2.1 ft)</p>	<p>No irrigation of turf, landscapes and/or ornamental gardens with potable water sources.</p> <p>Water use for public health and safety purposes only. Customer rationing may be implemented.</p> <p>No new construction meters will be issued.</p> <p>Dedicated irrigation meters will be locked by CCSD staff.</p> <p>Staff directed to perform mandatory water audits for water users in the 90th percentile.</p> <p>No replacement water may be provided for ponds or lakes. Aeration equipment should be managed in such a way as to eliminate evaporative loss of water.</p> <p>Water use allocation per permanent resident: 2 units per month. Commercial water use allocation: 2 units per EDU or fraction thereof; or 75% of average of last 12 months water use, whichever is less. Vacation rental allocation: 2 units per month.</p> <p>Penalty charges for violation of water use allocations. Water use that exceeds allocation by less than 25% will be subject to a five-hundred percent (500%) surcharge levied on all usage above the customer's allocation. Water use that exceeds allocation by more than 25% will be subject to a one-thousand percent (1000%) surcharge levied on all usage above the customer's allocation. The tiered penalty structure is designed to acknowledge those customers who make a good faith effort to reduce consumption but go over their allocation by a small amount.</p> <p>Staff directed to operate WRF.</p> <p>No water for commercial car washes.</p> <p>No planting of new landscaping (seed, sod, or other plant materials).</p>
<p><b>6 – GREATER THAN 50% WATER USE REDUCTION</b></p>	<p>Exceptional Drought Emergency</p> <p>Dry season starts in March or earlier</p> <p>Rainfall at &lt;25% of normal</p> <p>Average SS well levels at &lt;60% of normal (≤12.0 ft)</p> <p>WBE/WBW well levels at &lt;60% of normal (WBE is ≤3.4 ft and WBW is ≤3.3 ft)</p> <p>9P2/SS4 gradient at &lt;60% of normal (≤1.8 ft)</p>	<p>All landscape and non-essential outdoor water use for all Customers in all areas of the District's retail water service area shall be prohibited.</p> <p>Water rationing and penalties for exceeding allocations to remain in effect.</p> <p>Water use for public health and safety purposes only.</p> <p>Staff directed to operate WRF.</p>

## 8.5 Demand Reduction

In accordance with the new UWMP requirements for the 2020 reporting cycle, CCSD has identified a variety of demand reduction actions (and their estimated water savings potential) that could be used, but are not required, to offset supply shortages as shown in **Table 8-2**. These actions include, but are not limited to conservation programs, leak detection and repair, and the prohibitions of using potable water for certain applications such as no washing of hard surfaces (except for health and safety reasons) or for turf irrigation. Although it is difficult to estimate the volume of savings for each action, CCSD expects to meet required reductions through a combination of response actions and outreach and communication efforts. The estimated water savings potential summarized in **Table 8-3** represent a range based on information from published industry references and based on CCSD staff experiences with previous demand reductions. CCSD will implement various demand reduction actions in conjunction with outreach and communication efforts to the extent necessary to mitigate any impacts from a water shortage. **Table 8-3** summarizes the various actions and estimated maximum potential savings required to be submitted to DWR as part of the UWMP.

**Table 8-3. DWR 8-2 Demand Reduction Actions**

SHORTAGE LEVEL	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE
All	Expand Public Information Campaign	0-3%	Inform customers of existing conservation ordinances and incentive programs
All	Landscape - Restrict or prohibit runoff from landscape irrigation	0-3%	Watering of landscaping, which allows excess water runoff [CCSD Municipal Code 4.08.030 (1)]
All	Other - Prohibit use of potable water for washing hard surfaces	0-3%	Washing of sidewalks, driveways, and other hard-surfaced areas by direct hosing. [CCSD Municipal Code 4.08.030(2)]
All	CII - Restaurants may only serve water upon request	0-3%	Serving of water to customers by any eating establishment except when specifically requested [CCSD Municipal Code 4.08.030 (5)]
All	Other - Require automatic shut of hoses	0-3%	Washing vehicles by use of an unrestrained hose. [CCSD Municipal Code 4.08.030 (7)]
All	Other - Prohibit use of potable water for construction and dust control	0-3%	Use of potable water from CCSD's water supply system for compacting or dust control purposes. [CCSD Municipal Code 4.08.030 (8)]
All	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	15%	[CCSD Municipal Code 4.08.030 (4)]
Stage 6	Landscape - Prohibit all landscape irrigation	>35%	Irrigation of gardens and landscaping with potable water [CCSD Municipal Code 4.12C (2)]
Stage 3 and up	Other	0-3%	Use of potable water for fire drills [CCSD Municipal Code 4.12C (1)]
All	Landscape - Limit landscape irrigation to specific times	13-35%	[CCSD Municipal Code 4.08.030 2.b]
Stage 3 and up	Water Features - Restrict water use for decorative water features, such as fountains	0-3%	[CCSD Municipal Code Chapter 4.12CA.1]

The actions identified in this table represent allowable entries by DWR in submittal table 8-2 for the UWMP.

Stage 4 - Water use allocations are assigned as outlined below.

- Permanent resident: 3 units per month.
- Commercial water use allocation: 3 units per EDU or fraction thereof; or average of last 12 months water use, whichever is less
- Vacation rental allocation: 3 units per month.

Stage 5 & 6 - Penalty charges for violation of water use allocations. Water use that exceeds allocation by less than 25% will be subject to a five-hundred percent (500%) surcharge levied on all usage above the customer's allocation. Water use that exceeds allocation by more than 25% will be subject to a one-thousand percent (1000%) surcharge levied on all usage above the customer's allocation. Water use allocations are outlined below.

- Permanent resident: 2 units per month.
- Commercial water use allocation: 2 units per EDU or fraction thereof; or 75% of average of last 12 months water use, whichever is less
- Vacation rental allocation: 2 units per month.

The CCSD Board may further refine the above subject restrictions and prohibitions.

## 8.6 Supply Augmentation

Cambria currently relies on groundwater from two aquifers as their only permanent, long-term supply. In 2014 the WRF was constructed in response to exceptional drought conditions. The WRF extracts water from an existing well at the CCSD’s treated wastewater effluent percolation ponds, treats the extracted water using an advanced water treatment plant, and re-injects the treated water at the CCSD’s San Simeon Creek aquifer’s potable well field. The emergency water supply project was designed to meet the SWRCB’s requirements for indirect potable reuse of recycled water and can provide 21-250 AFY depending on its hours of operation. **Table 8-4** shows the yield associated with the WRF.

In addition to the WRF operation, CCSD expects to mitigate water shortages through extensive communication and outreach efforts, demand reduction actions, and operational changes.

**Table 8-4. DWR 8-3 Supply Augmentation & Other Actions**

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
Stage 5 and up	New recycled water	21-250 AFY	WRF

### 8.6.1 Operational Changes

The application submitted for the WRF’s regular Coastal Development Permit (CDP) estimated 21 AF of WRF production is estimated to occur during a normal year, which is based on a 9-hour daily runtime up to 4 working days per week for a minimum of eight weeks per year at a product water reinjection rate of 400 gpm. If more than 21 AF of supplemental supply is required, the WRF could operate continuously over a six-month dry season to produce approximately 250 AF. The WRF is currently only permitted to run under emergency conditions as described in **Table 8-2 on page 8-5**.

CCSD currently relies on the San Simeon and Santa Rosa aquifers and divides their pumping between the two using an approximate split of 80% San Simeon and 20% Santa Rosa. If minimum water level thresholds are met or if the production limits are reached in one aquifer, CCSD will reduce pumping from the stressed aquifer and rely on the second aquifer to meet their demands.

### 8.6.2 Emergency Response Plan

The CCSD service area has overhead power and communications lines, which co-exist with a heavily forested area of Monterey Pines. This has resulted in a history of power and communication outages during storm events, which often results from trees falling onto overhead lines. Therefore, the CCSD relies upon emergency generators to operate its water system during such major power outages. In recent years, the CCSD has expanded its use of solar and increased battery storage at all critical communication points. In addition, the CCSD completed a Supervisory Control and Data Acquisition (SCADA) upgrade, which allows for the use of radio communications as opposed to overhead phone lines.

Emergency response planning by the CCSD includes action plans for various emergency scenarios. The overall emergency response framework is based on the State of California’s Standardized Emergency Management System (SEMS). The CCSD completed the process of developing a Local Hazard Mitigation Plan (LHMP) in 2017. The LHMP includes goals and objectives that will further guide responding to catastrophic events. The CCSD also completed the WRF as well as improvements to Well SR-4 during 2014, which improves the reliability of the water supply system and its ability to serve customers during drought conditions. Currently, the CCSD is in the process of securing a regular

Coastal Development Permit for its WRF. (See **Section 6.2.2 on page 6-3** for additional discussion on the WRF).

### 8.6.3 Seismic Risk Assessment and Mitigation Plan

CWC Section 10632.5(a) requires a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities. Pursuant to CWC Section 10644, a copy of the most recent adopted LHMP or multi-hazard mitigation plan under the Federal Disaster Mitigation Act of 2000 may be used to comply with this section if the plan addresses seismic risk.

CCSD's LHMP addresses seismic risk assessment and identification of vulnerabilities to hazards, including critical infrastructure and specific populations at risk. Both direct and indirect consequences of a major earthquake will severely stress the resources of both the CCSD and San Luis Obispo County. Earthquakes often coincide with structural damage, pipeline failures, fires, as well as power and communications interruptions. An emergency response command and control center has been established at the CCSD fire station, which is structurally designed to withstand earthquake events, has an emergency power supply, and includes a SCADA control center for water system operations. CCSD's LHMP is included as **Appendix L**.

### 8.6.4 Shortage Response Action Effectiveness

CCSD has estimated the effectiveness of the shortage response actions based on the best available data. Estimates of the effectiveness for demand reduction shortage response actions is quantified in **Table 8-3**. It is expected that response actions effectiveness is also a result of successful communication and outreach efforts. Although not all shortage response actions for supply augmentations and operational changes are quantifiable, CCSD expects to mitigate water shortages through demand reduction measures and operational changes, as well as continued public education and outreach efforts.

## 8.7 Communication Protocols

CWC Section 10632 (a)(5) the supplier is required to identify communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding predicted shortages, triggered response actions and shortage emergencies.

Information on the current shortage level and required demand reduction actions will be provided during the Utility Department Manager Update at CCSD Board meetings and will also be posted in the CCSD website (<https://www.cambriacsd.org/>). CCSD Board meetings are held on the second and third Thursday of each month.

## 8.8 Compliance and Enforcement

The CCSD has adopted several ordinances that were established in their previous WSCP, which have since been incorporated into the District's Municipal Code.

**These include the following criteria:**

- Mandatory prohibitions against water waste at all times
- Water shortage stages with associated actions to be taken, consumption limitations, and overall conservation goals for each stage
- Penalties for excessive water use during declared water shortages

**In addition to these ordinances, CCSD plans to enforce their updated WSCP as described in Table 8-2 on page 8-5. The enforcement measures are also summarized below.**

- Under water stage 2 CCSD will write citations for violation of the demand reduction actions
- Under water stage 3 CCSD will continue to write citations and will begin to implement fines for repeat citations.
- Under stage 4 CCSD will assign water use allocations and switch to monthly meter reads to track compliance. CCSD staff will notify customers in danger of exceeding water use allocations and provide information on how to reduce. Water use allocations are outlined below.
  - Permanent resident: 3 units per month.
  - Commercial water use allocation: 3 units per EDU or fraction thereof; or average of last 12 months water use, whichever is less
  - Vacation rental allocation: 3 units per month.
- Under stages 5 & 6 CCSD will charge penalties for violation of water use allocations. Water use that exceeds allocation by less than 25% will be subject to a five-hundred percent (500%) surcharge levied on all usage above the customer's allocation. Water use that exceeds allocation by more than 25% will be subject to a one-thousand percent (1000%) surcharge levied on all usage above the customer's allocation. Water use allocations are outlined below.
  - Permanent resident: 2 units per month.
  - Commercial water use allocation: 2 units per EDU or fraction thereof; or 75% of average of last 12 months water use, whichever is less
  - Vacation rental allocation: 2 units per month.

The CCSD Board may further refine the above subject restrictions and prohibitions

## 8.9 Legal Authorities

Under California law, including CWC Chapters 3.3 and 3.5 of Division 1, Parts 2.55 and 2.6 of Division 6, Division 13, and Article X, Section 2 of the California Constitution, the CCSD Board is authorized to declare a Water Shortage Emergency and implement the water shortage actions outlined in this WSCP. In all water shortage cases, shortage response actions will be implemented at the discretion of the CCSD staff and members of the CCSD Board and will be based on an assessment of the supply shortage, customer response, and need for demand reductions.

It is noted that upon proclamation by the Governor of a state of emergency under the California Emergency Services Act (Chapter 7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code) based on drought conditions, the state will defer to implementation of locally adopted WSCPs to the extent practicable.

## 8.10 Financial Consequences of WSCP

Besides prohibitions and reduction goals, the CCSD has a steeply tiered water rate structure, which is further accelerated by drought surcharges. **Table 8-3** summarizes the CCSD drought surcharges. The CCSD also has enforcement capabilities (CCSD Municipal Code Sections 4.08.040 through 4.08.070, 4.12B.3.E, and 4.12C [F]), which include fines as well as shutting off a customer's water service.

Revenue reductions from water conservation pose a possible challenge to the CCSD. To a certain extent, lost revenues from the reduced sale of water can be offset by surcharges. To offset potential lost revenues from future droughts, the CCSD will continue with its efforts to establish a reserve water fund. Other adaptive measures could include delaying capital improvement expenditures as well as developing an internal loan from the CCSD General Fund.

## 8.11 Monitoring and Reporting

The water savings from implementation of the WSCP will be determined based on measurements of consumption from water meters and well production meters. At first, the cumulative consumption for the various sectors (e.g., residential, commercial, etc.) will be compared to water use during non-drought years to determine if they are achieving the required water consumption reductions. Then if needed, individual accounts will be monitored. Weather and other possible influences may be accounted for in the evaluation. If the goals are not being met, CCSD can implement additional shortage response actions, as necessary.

## 8.12 WSCP Refinement Procedures

The WSCP is best prepared and implemented as an adaptive management plan. CCSD will use results obtained from their monitoring and reporting program to evaluate any need for revisions. Potential changes to the WSCP that may require an update include, but are not limited to, any changes to water stage criteria, changes to the shortage stage structure, and/or the addition of significant new customer reduction actions.

Any prospective changes to the WSCP would need to be presented at a public hearing and adopted by the CCSD Board. Notices for the public hearing date would be published in the local newspaper in compliance with CWC requirements.



### 8.13 Special Water Feature Distinction

The CWC Section 10623 (b) now requires that suppliers analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code. Non-pool or non-spa water features may use or be able to use recycled water, whereas pools and spas must use potable water for health and safety considerations so limitations to pools and spas may require different considerations compared to non-pool or non-spa water features. This section is not applicable because CCSD currently does not manage artificial water features.

### 8.14 Plan Adoption, Submittal, and Availability

The WSCP must be adopted by the CCSD Board. The CCSD Board is responsible for final adoption of the WSCP and any proposed updates thereafter. The Final UWMP will be made available to the public on the CCSD website and at the CCSD Administration Office at 1316 Tamsen Street, Suite 201 Cambria, CA.

**The steps required for adoption of the WSCP are summarized below:**

- Proposed Draft developed under the guidance of CCSD staff.
- Public Draft is circulated with the 2020 UWMP Public Hearing Notice.

**Final WSCP is approval by the CCSD Board along with the Final 2020 UWMP.**



# Demand Management Measures

**As the primary water supplier for the community of Cambria, the CCSD continues to aggressively promote water conservation to make the most efficient use the existing local groundwater supplies. This section describes the CCSD’s retail Demand Management Measures (DMMs), their implementation over the past five years, and future planned conservation measures that will ensure the CCSD continues to meet or exceed water use reduction goals.**

The Demand Management Measures (DMM) section provides a comprehensive description of the water conservation programs that the CCSD has implemented for the past five years, is currently implementing, and plans to implement in order to meet the 2020 urban water use reduction targets. The section of the CWC addressing DMMs was significantly modified in 2014, based on recommendations from the Independent Technical Panel (ITP) to the legislature.

## IN THIS SECTION

- Demand Management Measures

The ITP was formed by DWR to provide information and recommendations to DWR and the Legislature on new DMMs, technologies and approaches to water use efficiency. The ITP recommended, and the legislature enacted, streamlining the requirements from the 14 specific measures reported on in the 2010 UWMP to six more general requirements plus an “other” category for measures agencies implemented in addition to the required elements.

## 9.1 Existing Demand Management Measures for Retail

Consistent with the requirements of the CWC, this section describes the demand measurement measures that have been implemented in the past five years and will continued to be implemented into the future in order to meet the CCSD's 2020 water use targets pursuant to Section 10608.20 of the CWC.

### 9.1.1 Water Waste Prevention Ordinances

The CCSD prohibits water waste through enforcement of Chapter 4.08 of its Municipal Code, which is further described within **Section 7.1.4**. The prohibition of water waste is an ongoing requirement, which applies during drought and non-drought conditions. Enforcement is achieved through coordinated efforts of the CCSD's water and billing departments.

### 9.1.2 Metering

All potable water customers served by the CCSD are metered. The CCSD currently uses AMR meters, which include an electronic flagging feature when leaks are suspected on the downstream, customer-side of the meter. The CCSD billing department coordinates with the water department in notifying customers of suspected leaks. Depending upon specific circumstances, such noticing may be followed up with an on-site inspection to assist customers in determining the cause of their leak to facilitate repair. The CCSD is moving to an advanced metering infrastructure (AMI) system which is proposed for the 2021-2022 fiscal year.

### 9.1.3 Conservation Pricing

The CCSD has a tiered water rate structure, which encourages water conservation (unit rates increase with increased use). In addition, there are surcharges that apply during Stage 5 or Stage 6 levels of water conservation when use exceeds established limits (See **Section 8** for further details).

### 9.1.4 Public Education and Outreach

The CCSD routinely provides public information on water conservation via its website, billing inserts, billing notices, public announcements, coordination with the local media, as well as by its website at cambriacsd.org. Tent cards on water conservation are also provided to restaurants and motels. The CCSD is also a member agency of the California Water Use Efficiency Partnership (CalWEP) and the Alliance for Water Efficiency, (AWE) which provides water use efficiency resources and programming, including the annual Peer2Peer training and networking event. The CCSD website contains 'how to' information on reading meters and checking for leaks, as well as other water conservation tips and resources. CCSD water bills include information about customer's past use to allow for a quick assessment of water consumption trends. The CCSD has placed an added emphasis on testing pressure-regulating valves on residential homes based on experience from residential surveys. To facilitate testing, pressure gages are loaned to customers free of charge for testing pressures downstream from their pressure-regulating valve. The District's website also contains information explaining pressure-regulating valve testing.

### 9.1.5 Programs to Assess and Manage Distribution System Real Loss

The CCSD routinely monitors its water production and consumption and investigates unaccounted water to determine water loss. Staff have also attended training offered by the California-Nevada

Section of the AWWA on water loss auditing, which is in response to SB 555 that was passed by the State during 2015. **Appendix F** provides a copy of the CCSD's 2020 Water Loss Audit. Per the results of previous audits, the CCSD will continuously improve metering and documentation for authorized non-metered water use (E.g., assigning construction hydrants to fire trucks for use in non-emergency tasks such as hydrant testing) as well as estimating and documenting losses from leak repairs. The CCSD field staff routinely check and respond to water leaks and are on-call 24/7 to immediately respond and take corrective action. In 2020, Water Department staff began tracking leak repairs and associated losses using the CCSD's geographic information system, Diamond Maps. Additionally, starting in 2020, a leak detection service has been retained to perform annual vulnerability assessments throughout the system.

### 9.1.6 Water Conservation Program Coordination and Staffing Support

The Utilities Department administers the CCSD's water conservation program, which includes rebates, giveaways, outreach, water loss auditing, and administration of the retrofit program and demand offset program. Future training of staff sharing these duties will be sought out from CalWEP and other sources. The Utilities Department Program Manager is required to obtain a Grade I Water Use Efficiency Practitioner certification through the AWWA.

### 9.1.7 Other Demand Management Measures

The CCSD is currently in the planning stages for requiring non-potable irrigation systems, such as rainwater catchment and/or graywater, for all homes future residential development.

## 9.2 Reporting Implementation

### 9.2.1 Implementation Over the Past Five Years

Water conservation implementation over the past five years has included the CCSD's continuing efforts on its retrofit on resale program, overhauling the demand offset program, rebates for smart water systems such as the Flume Smart Water Monitor, as well as free water efficient devices such as low-flow showerheads and automatic shut-off hose nozzles. The CCSD has historically maintained a points bank to track conservation measures used to offset demands from any future water connections within its serviced area. Essentially, this program determines the number of retrofit-in-lieu points required based on the proposed development, which are then purchased and withdrawn from the points bank. As conservation measures occur, points are added back into the bank. Previous efforts included the CCSD commissioning Maddaus Water Management to complete a Water Use Efficiency Program (WUEP) in 2013. This effort resulted in an update to the number of points required based on the review demands by various sized residential homes and using the 90th percentile of those findings as a basis. The WUEP effort resulted in the CCSD Board adopting Program B in February 2013. The process used to develop the WUEP included analyzing conservation measures and programs using a Water Demand Management Decision Support System Model (DSS Model).

## 9.3 Water Use Objectives (Future Requirements)

As part of this UWMP 2020, the CCSD has updated the DSS Model, which is further described within **Appendix G**. Future updates to the WUEP are scheduled for 2021 and will result in a plan addendum for Board consideration.

# 10

## URBAN WATER MANAGEMENT PLAN

# Plan Adoption, Submittal, and Implementation

The following chapter describes the steps taken to adopt and submit the UWMP and to make it publicly available. This chapter will also include a discussion of the agency's plan to implement the UWMP.

CCSD has included all requisite 2020 data in the development of this UWMP and the 2020 WSCP. The following sections detail the notification of the surrounding cities, counties, and water suppliers, notification the public, the public hearing, adoption, and submission of CCSD's 2020 UWMP and WSCP, and the process by which CCSD will amend the UWMP or WSCP should it need to in the future.

### IN THIS SECTION

- Public Hearing Notices
- Plan Adoption
- Plan Submittal
- Plan Availability
- Amending the UWMP or WSCP

## 10.1 Notice of Public Hearing

### 10.1.1 Notice to Cities and Counties

On April 16, 2021, CCSD notified all cities and counties within the service area of their intent to update the UWMP and WSCP by July 1, 2021. This notification served as the 60-day noticing required by the CWC. A copy of this letter is included in **Appendix B**. Per Government Code 6066, the public hearing was noticed in the local newspaper on June 3, 2021 and noticed again on June 10, 2021. The hearing notices are attached as **Appendix C**. The public hearing was held on June 17, 2021 at the Board of Directors meeting prior to the UWMP and WSCP adoption. **Table 10-1** shows the notification provided to the surrounding cities and counties.

**Table 10-1. DWR 10-1R Notification to Cities and Counties**

COUNTY	60 DAY NOTICE	NOTICE OF PUBLIC HEARING	OTHER
County of San Luis Obispo	Yes	Yes	
OTHER	60 DAY NOTICE	NOTICE OF PUBLIC HEARING	OTHER
California Department of Water Resources (DWR)	Yes	Yes	
California State Library	Yes	Yes	
San Simeon Community Services District	Yes	Yes	

### 10.1.2 Notice to the Public

A public hearing to consider adoption of the final UWMP was held by the Board of Directors at the regularly scheduled meeting on June 17, 2021. Per Government Code 6066, publication of notice to the public pursuant to this chapter shall be once a week for two successive weeks. The public hearing was first noticed in the local paper on June 3, 2021 and noticed again on June 10, 2021. The hearing notices are attached as **Appendix C**.

## 10.2 Public Hearing and Adoption

The 2020 Draft UWMP and WSCP were agendaized, noticed, and reviewed in a Public Hearing at the regularly scheduled Board meeting on June 17, 2021. This hearing provided the cities and counties and other members of the public a chance to review the staff report and attend the hearing to provide comment. The public hearing took place before the adoption allowing opportunity for the report to be modified in response to public input before adoption. Following the public hearing, the 2020 UWMP was adopted by the Board of Directors on June 17, 2021.

A copy of the Resolution of Plan Adoption signed by the Board of Directors and attached cover letter addressed to DWR is included as **Appendix D** of the UWMP. The UWMP includes all applicable information necessary to meet the requirements of CWC Division 6, Part 2.6 (Urban Water Management Planning). The 2020 UWMP and WSCP were submitted to the California Department of Water Resources (DWR) by July 1, 2021 (within 30 days of adoption).

### 10.3 Plan Submittal

CCSD's Final 2020 UWMP and WSCP were formally adopted by CCSD on June 17, 2021. A copy of the Adoption Resolution is included in **Appendix D**. A hard copy of the Final 2020 UWMP and WSCP were sent to the California State Library, DWR (electronically using the WUEdata reporting tool), and all surrounding cities and counties within 30 days of adoption.

### 10.4 Public Availability

To fulfill the requirements of Water Code Section 10642 of the UWMP Act, CCSD made the Final 2020 UWMP available online ([www.cambriacsd.org](http://www.cambriacsd.org)) and at CCSD's public office, between the hours of 9:00 am and 4:00 pm, for public review on July 17, 2021, within 30 days of adoption.

### 10.5 Amending an Adopted UWMP or Water Shortage Contingency Plan

**Amendments to CCSD's 2020 UWMP and WSCP will be made on an as needed basis.**

Should CCSD need to amend the adopted 2020 UWMP or WSCP in the future, CCSD will hold a public hearing for review of the proposed amendments to the document. CCSD will 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 **Chapter 2** of this UWMP. Once the amended document is adopted, a copy finalized version will sent to the California State Library, DWR (electronically using the WUEdata reporting tool), and all cities and counties within their service area within 30 days of adoption. The finalized version will also be made available to the public both online on CCSD's website and in person at CCSD's public office during normal business hours.



# 11

## URBAN WATER MANAGEMENT PLAN

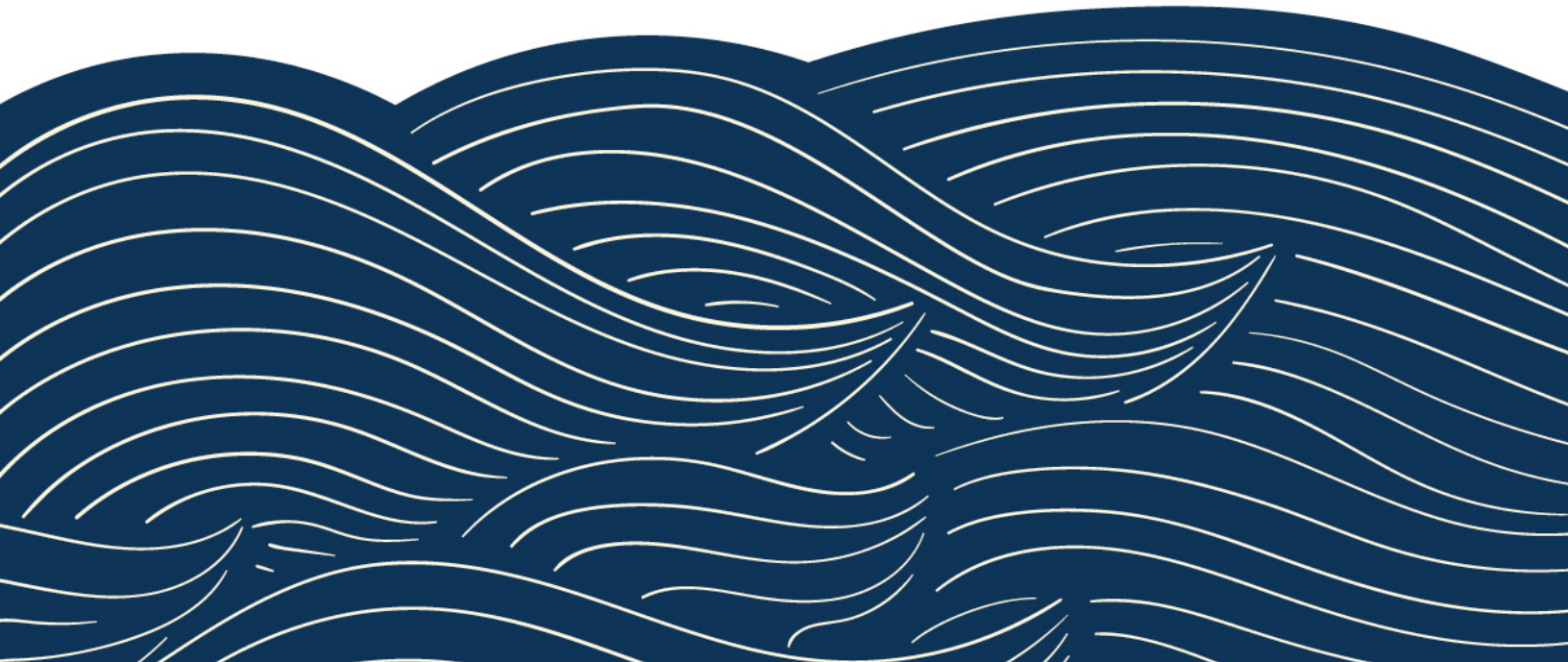
# References

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# A

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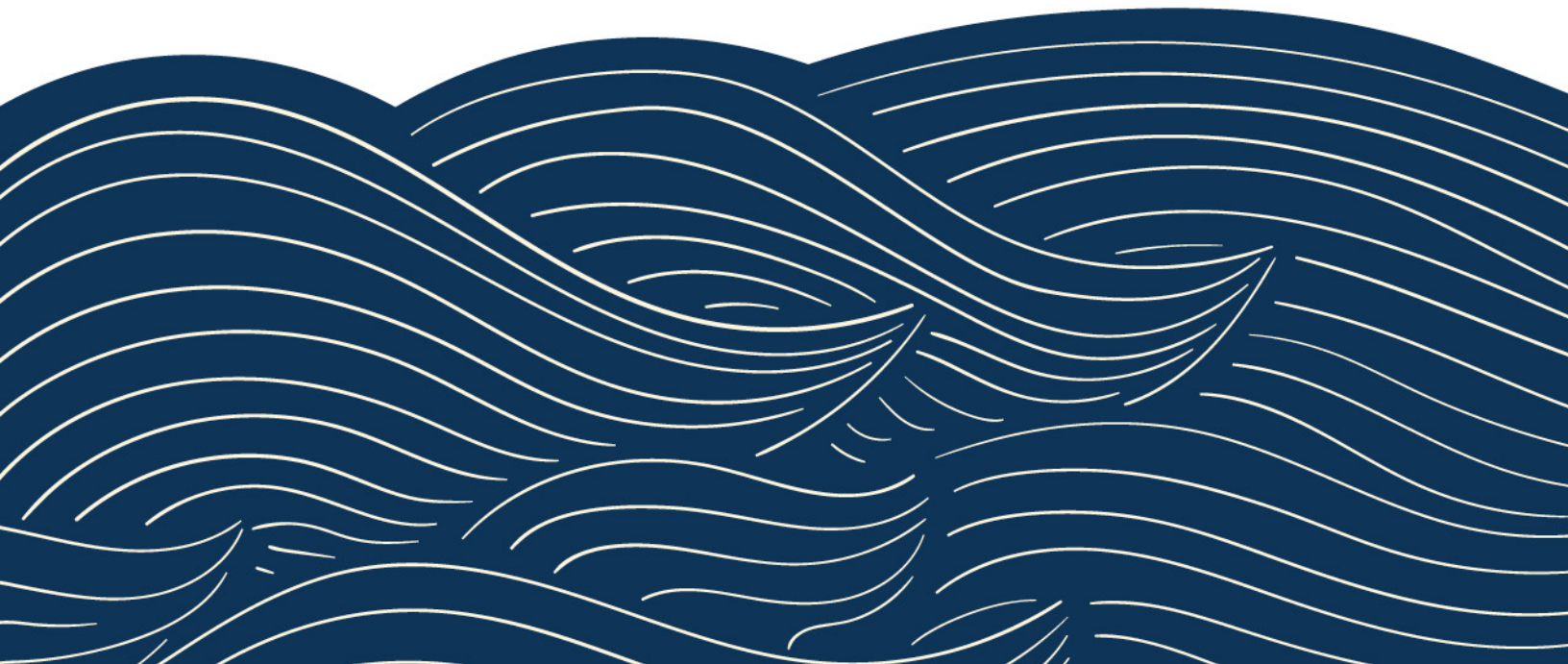
## Appendix A - DWR checklist



# B

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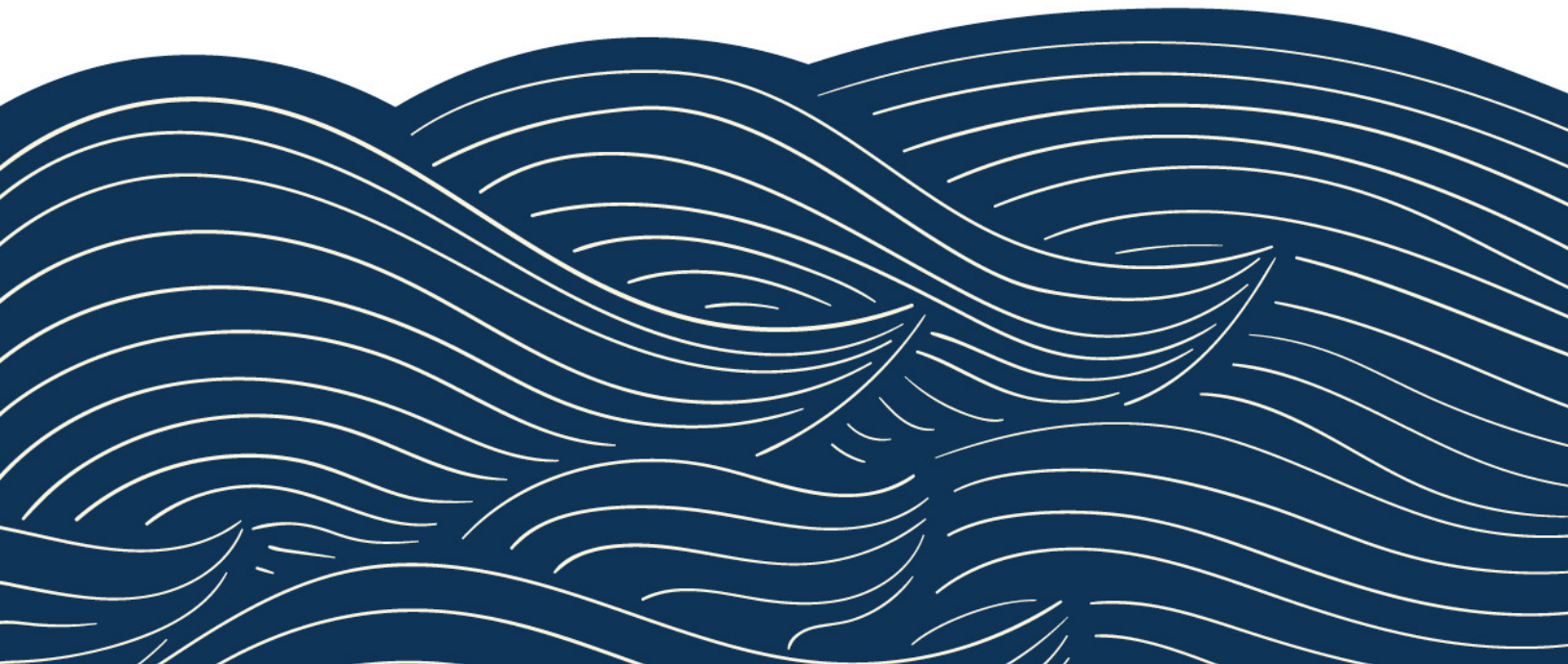
## Appendix B – 60 Day Notice Letter



# C

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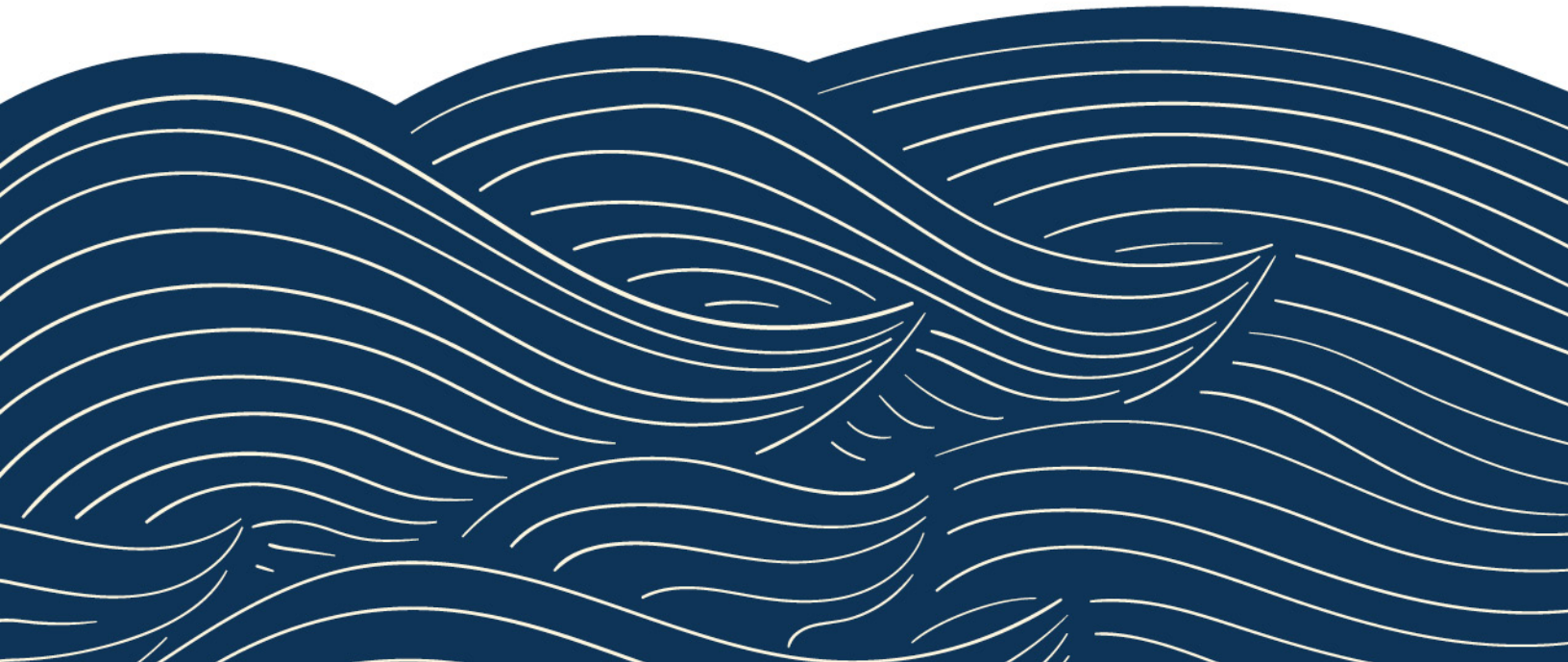
## Appendix C – Public Hearing Letter



# D

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## Appendix D – Adopted Resolution

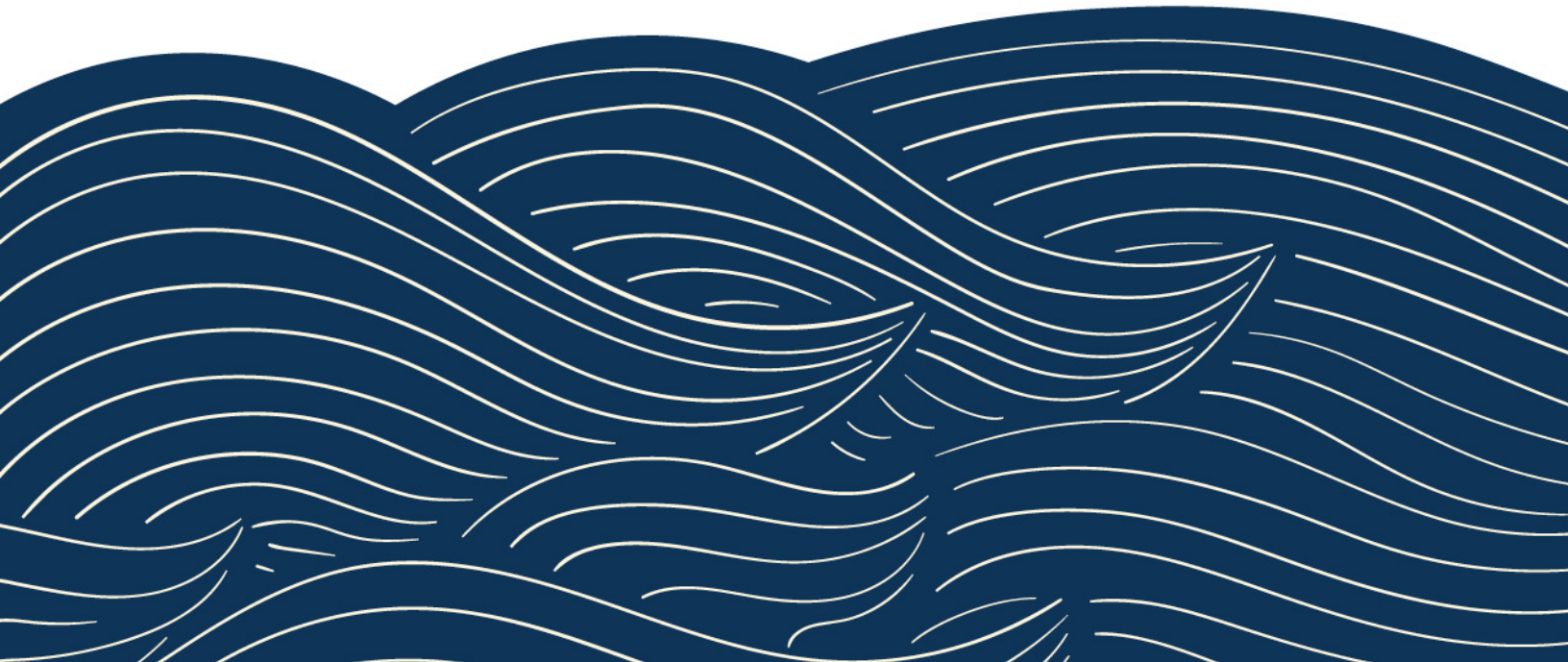




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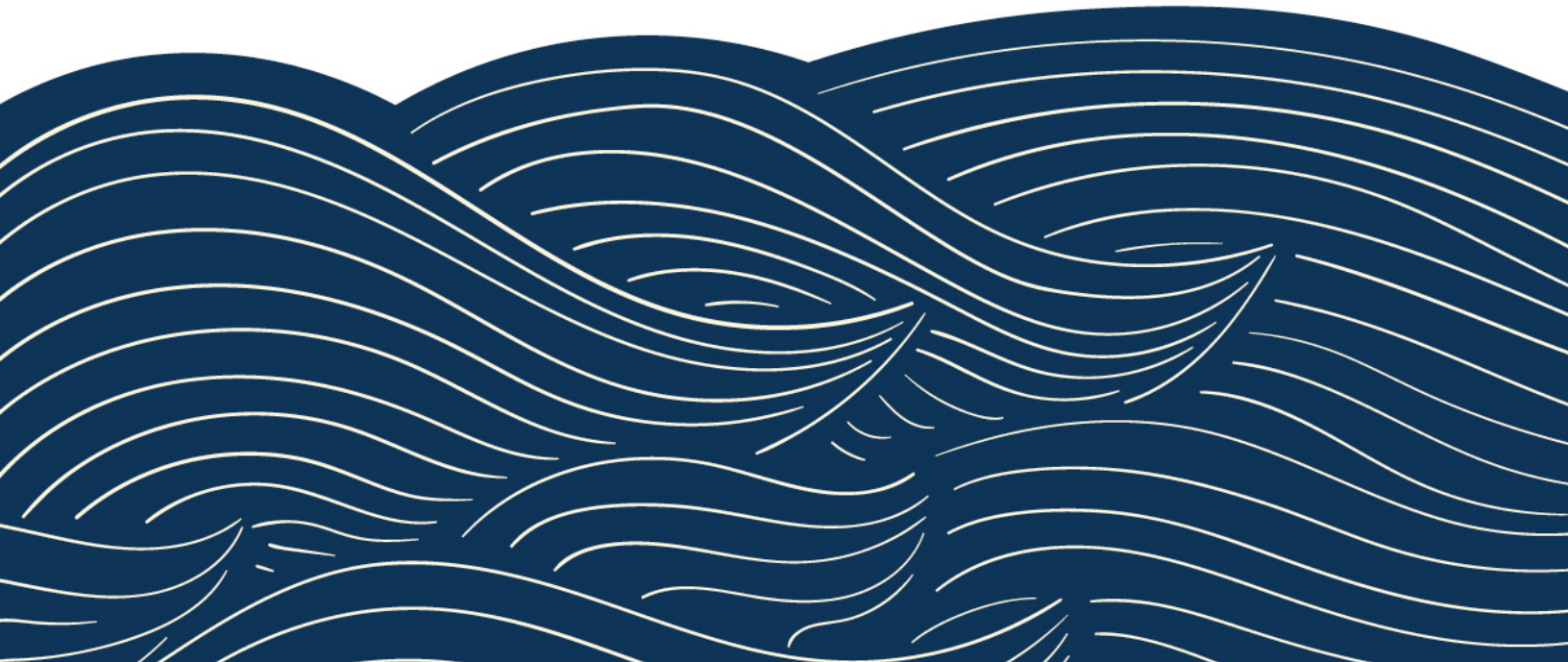
## Appendix E – Bulletin 118 Description



# F

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## Appendix F – CY 2019 Water Audit

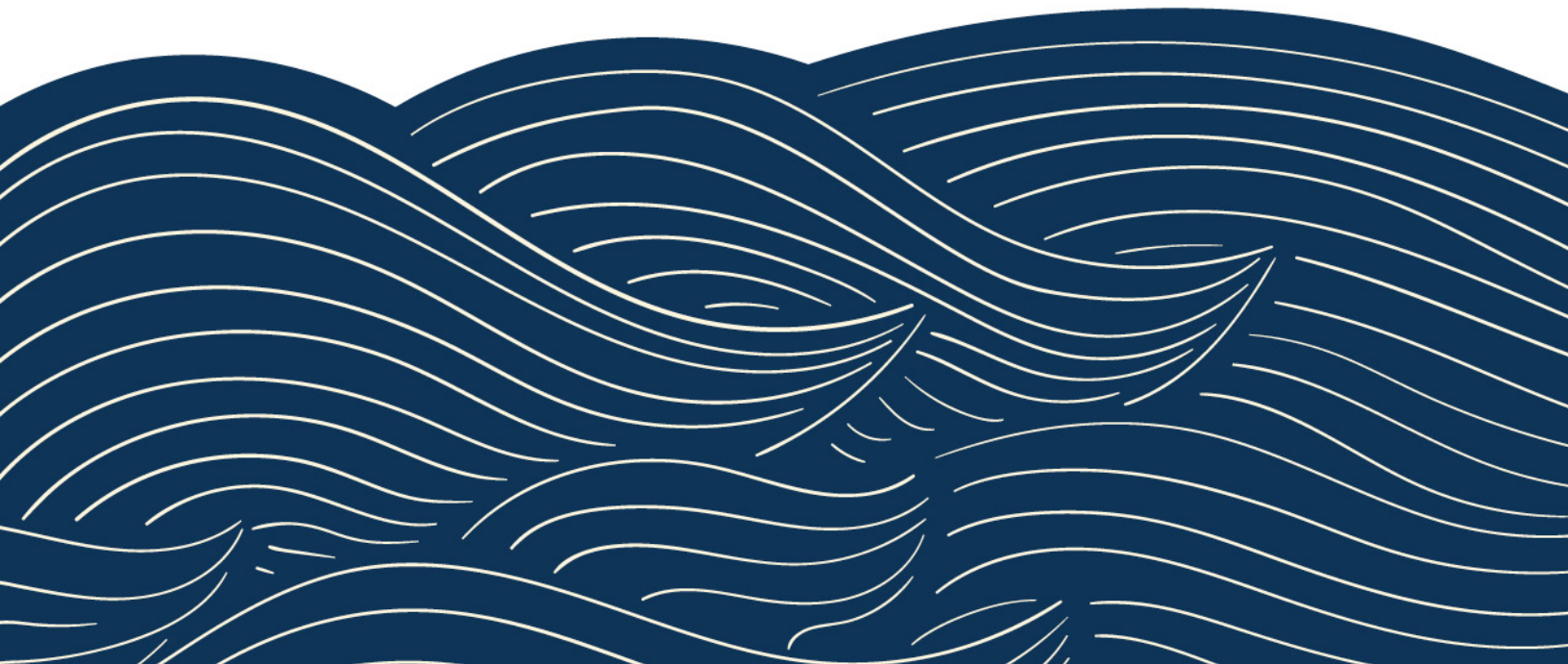




# G

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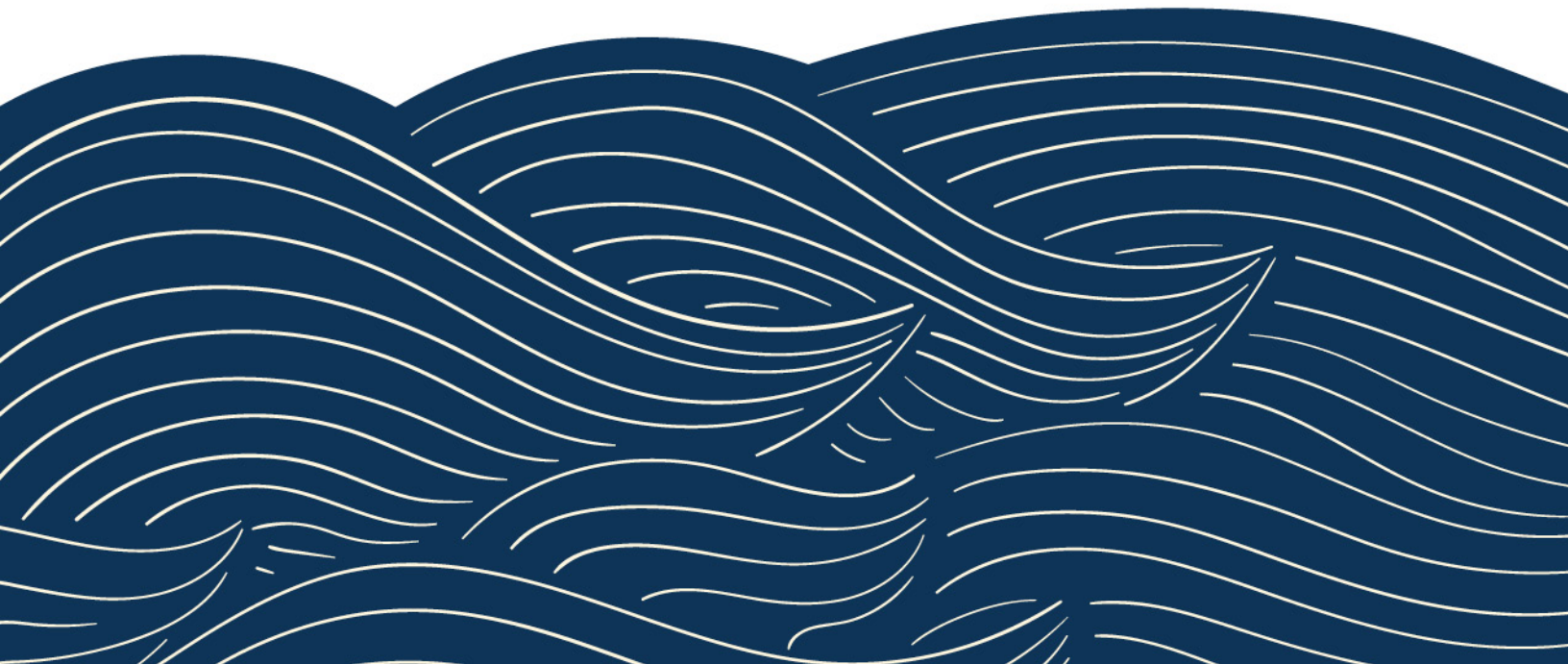
## Appendix G – DSS Model Update and Demand Analysis



# H

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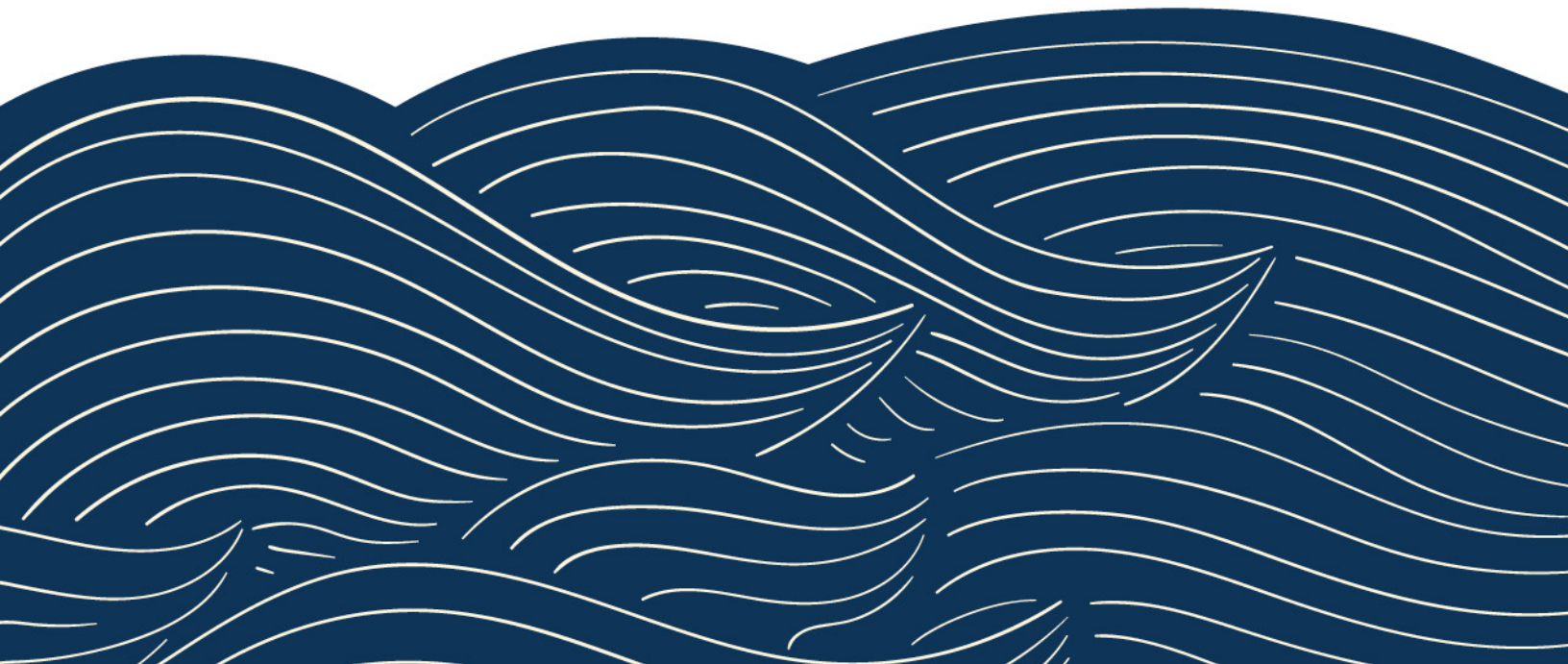
## Appendix H – SBX7-7 Verification Forms





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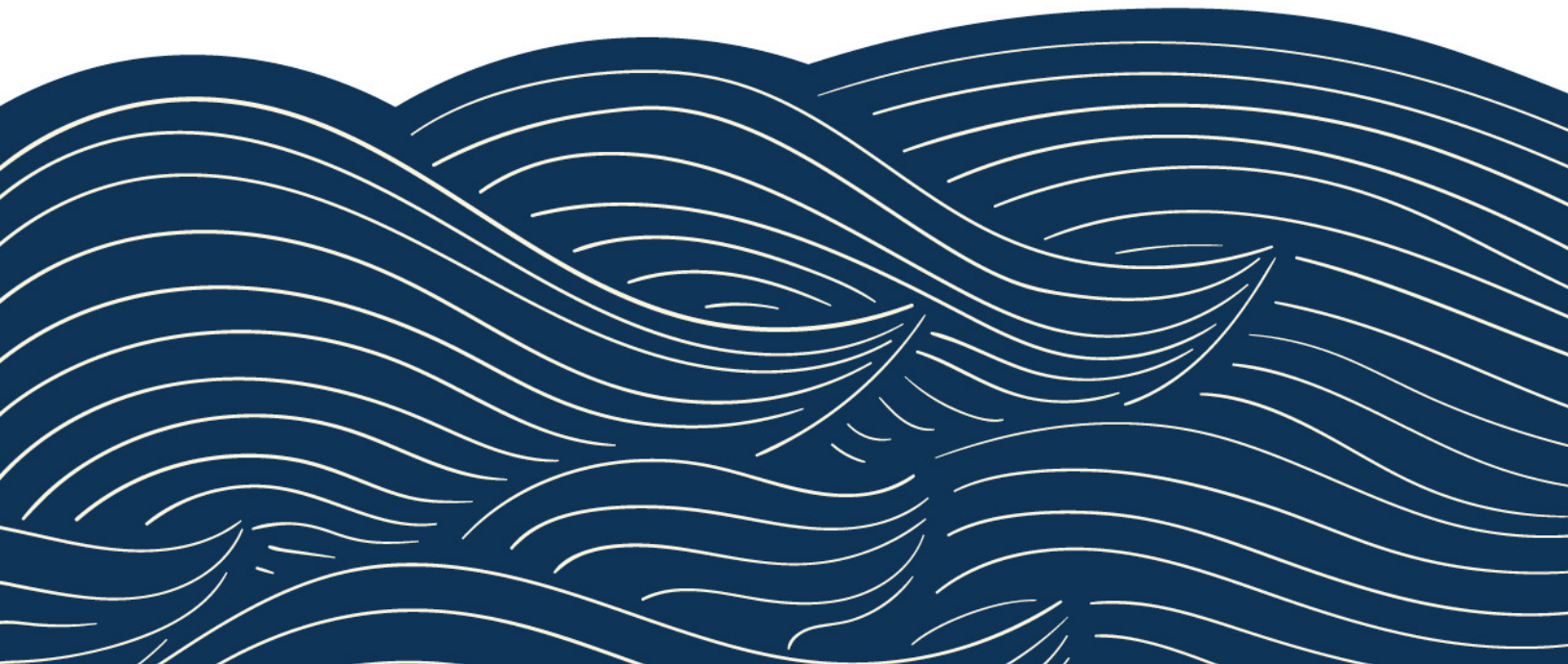
# Appendix I – Groundwater Management Plan



# J

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## Appendix J – USGS Report 98-4061

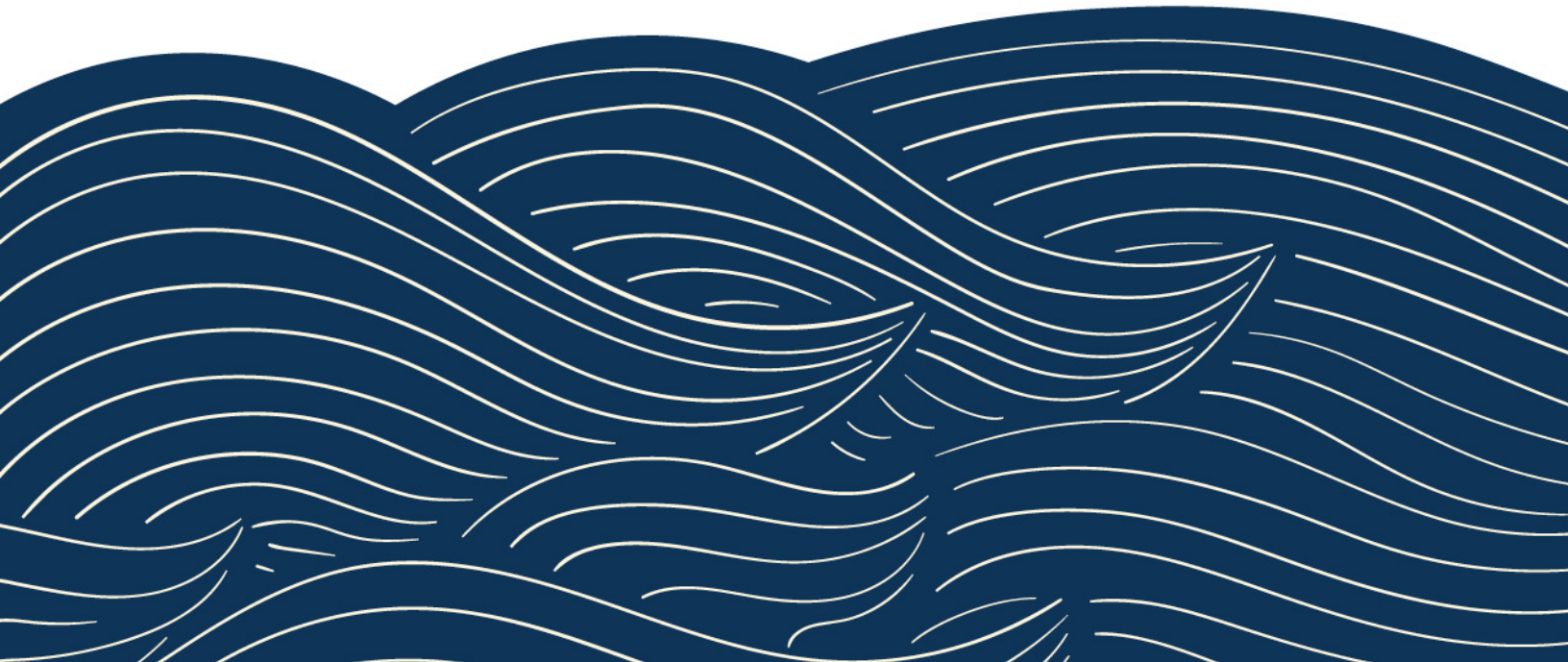




# K

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## Appendix K – Water Rights Licenses



# L

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## Appendix L – Local Hazard Mitigation Plan

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