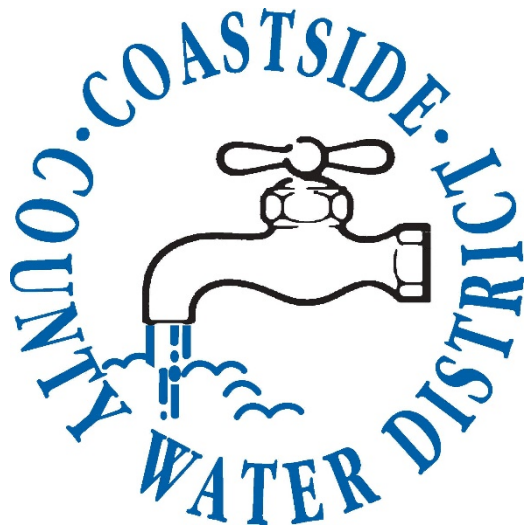


WATER SHORTAGE CONTINGENCY PLAN

Coastside County Water District

Water Shortage Contingency Plan



Coastside County Water District

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2020 Update



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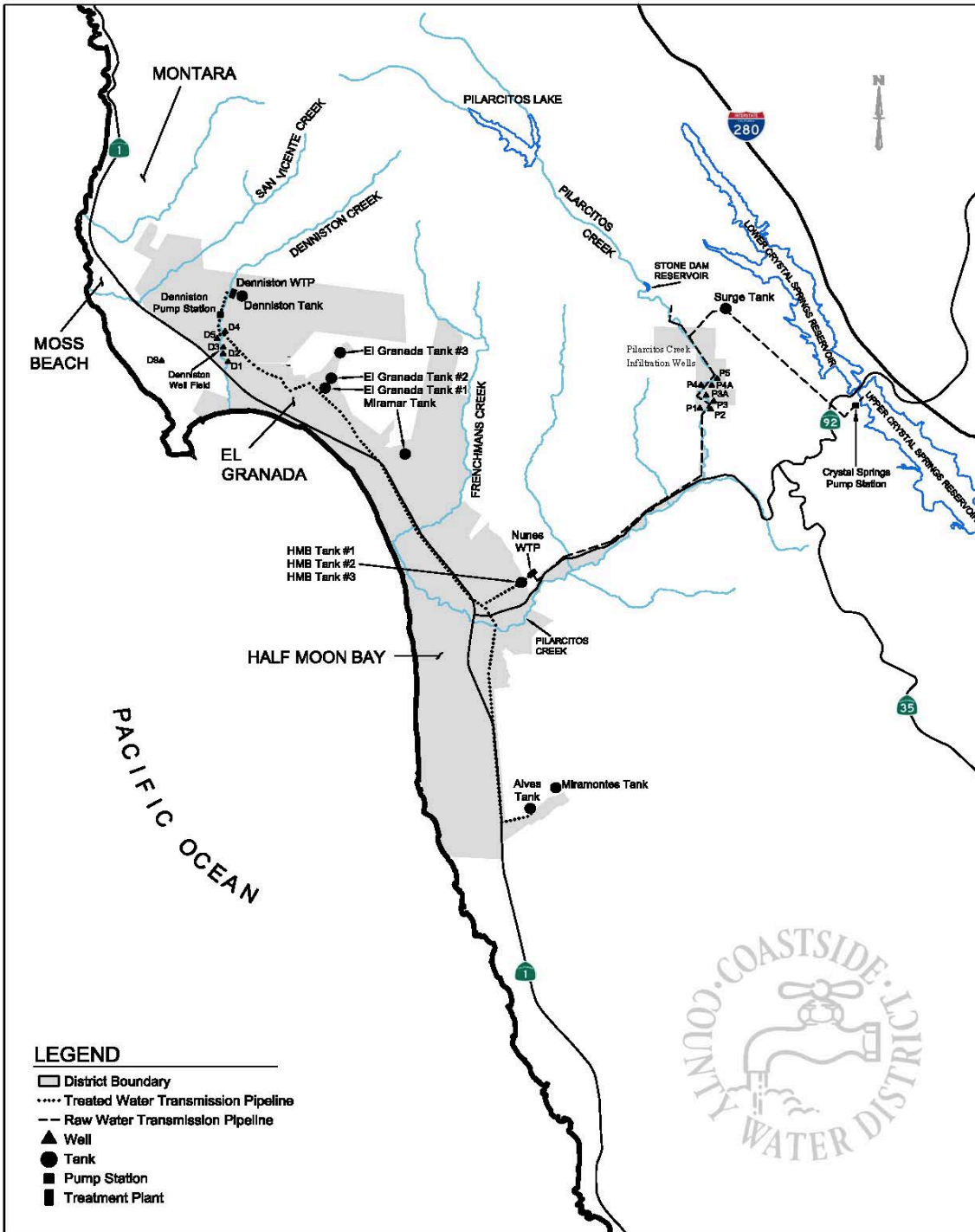
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Acronyms, Abbreviations and Definitions

Ac-ft	Acre feet
Ac-ft/year	Acre feet per year
AMI	Advanced Automated Metering Infrastructure
AWSD	Annual Water Supply and Demand Assessment
BAWSCA	Bay Area Water Supply and Conservation Agency
cf	Cubic foot
cfs	Cubic foot per second
CII	Commercial Industrial and Institutional
CWC	California Water Code
Decorative Water Feature	Above ground or below grade outdoor structure that contains water and is used for decoration or noise abatement.
District	Coastside County Water District
DRA	Drought Risk Assessment
DWR	California Department of Water Resources
Eto	Reference Evapotranspiration
HMP	Hazard Mitigation Plan
g/cycle	Gallons per cycle
GPCD	Gallons per capita per day
gpf	Gallons per flush
gpm	Gallons per minute
ISG	Individual Supply Guarantee
MFR	Multi-Family Residence
MG	Million gallons
MGD	Million gallons per day
MGY	Million gallons per year
MOU	Memorandum of understanding
MWSD	Montara Water and Sanitary District
NOAA	National Oceanic and Atmospheric Administration
NCDC	National Climatic Data Center
PGA	Peak Ground Acceleration
Plan	Water Shortage Contingency Plan
Pool	Any structure intended for swimming, exercise, or recreational bathing that contains water over 18 inches deep. Includes in ground and above grade structures and includes but it not limited to hot tubs, spas, and nonportable wading pools.
Recreational Water Feature	Pool
RWS	San Francisco Regional Water System
SFPUC	San Francisco Public Utilities Commission
SFR	Single Family Residence
TAF	Thousand Acre-Feet
UWMP	Urban Water Management Plan
WF	Water factor (the number of gallons needed for each cubic foot of laundry)
WSCP	Water Shortage Contingency Plan

Figure 1 – Service Area



Section 1 | Introduction

This plan provides guidelines for Coastside County Water District to manage water supply and demand in the event of a water supply disruption. This plan addresses both progressive conditions and immediate situations including facility emergencies and natural disasters.

Requirement

The Urban Water Management Planning Act (CWC Section 10632) requires water agencies to provide water shortage contingency planning and analysis and to include that analysis in their Urban Water Management Plan. The Water Shortage Contingency Plan is a stand-alone document but must be directly coordinated with the Urban Water Management Plan. The two plans must be compatible.

Objective

The objective of the Plan is to establish actions and procedures for managing water supply and demand during water shortages. The overall intent of this plan is to develop strategies to minimize non-essential uses of water and to conserve remaining supplies for the greatest public benefit, with regards to domestic use, sanitation, and fire protection. Implementation of the Plan will help the District maintain essential public health and minimize adverse impacts on economic activity and environmental resources during periods of water shortage.

Service Area

Coastside County Water District is a coastal community in San Mateo County. The District has over seven thousand water service connections that provide potable water to roughly nineteen thousand people in the City of Half Moon Bay and the unincorporated communities of El Granada, Miramar, and Princeton by the Sea. The local area supports approximately five thousand jobs. Figure 1 is a map of the service area and critical infrastructure.

Climate

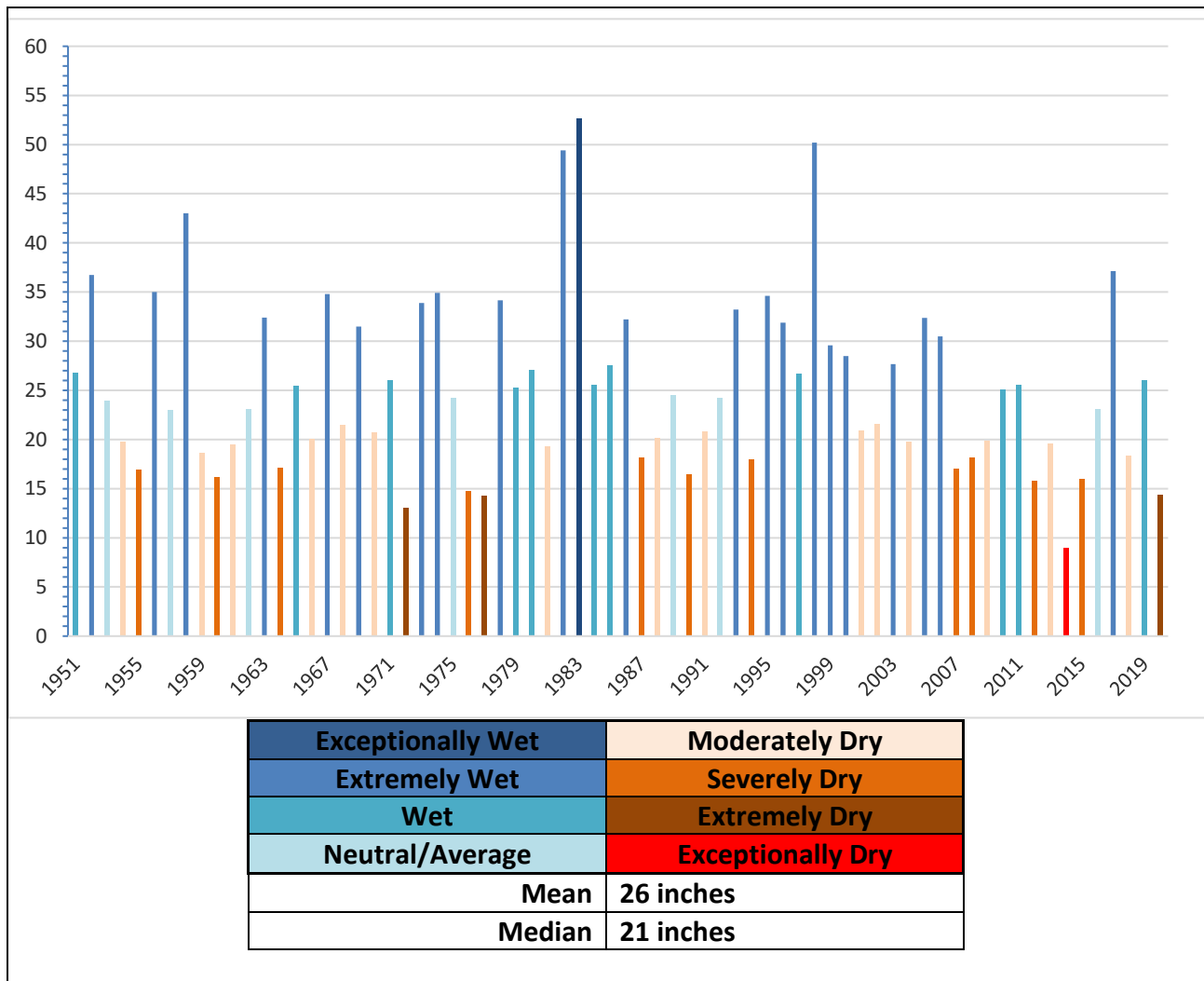
The service area of the District has a mild climate typical of coastal central and northern California. The rainy season is October through April with an annual average water year precipitation of 26 inches. The Pacific Ocean influences the climate along the coast with wind typical during the day and fog typical in the morning and evenings. The average temperature is 55 degrees Fahrenheit and the average minimum temperature is 47 degrees Fahrenheit. The annual average reference evapotranspiration (ET_o) for the area is almost 33 inches.

The upper Pilarcitos Creek watershed, which supplies water for the SFPUC's Pilarcitos Reservoir and the District's Pilarcitos Creek infiltration wells, has an average water year precipitation of 39 inches. The upper Denniston Creek watershed has a similar precipitation to the upper Pilarcitos Creek watershed at its origins in the Santa Cruz Mountain Range. The District relies on imported water from the Hetch-Hetchy watershed in the Sierra Nevada Mountain Range. The Hetch-Hetchy watershed has an average water year precipitation of approximately 35 inches. Two minor watersheds that supply runoff, to what the SFPUC considers to be San Francisco Bay Area reservoirs, are the Crystal Springs Reservoir with an average water year precipitation of approximately 27 inches and the Calaveras Reservoir with an average water year precipitation of approximately 21 inches.

Climate change is predicted to result in high variability year to year. The predicted increase in temperatures will result in longer and more severe droughts, which could impact local water and imported water supplies.

The chart below displays precipitation by water year. The precipitation records are from the NOAA NCDC Station 43714 in Half Moon Bay. The chart displays the variability from one water year to the next and displays periods of multiple drought water years. With a high of 52.6 inches (Exceptionally Wet) of precipitation in 1983 to a low of 8.9 inches (Exceptionally Dry) in 2014. The mean is 26 inches and the median is 21 inches.

Figure 2- Precipitation (inches) for Half Moon Bay - Water Years 1951 to 2020



Water Shortage [CWC Section 10632(a)(7)(B) and CWC Section 10632(a)(7)(C)]

The District will declare a water shortage emergency when there is not adequate water to meet the normal demand of its service area. A declaration of a drought emergency by the state, city, or county would also trigger the District to declare a water shortage emergency. The District will coordinate with the city and county during water shortage emergencies.

A water shortage occurs when a geographic area experiences water demand that cannot be met by current water supply. This can be caused by drought, natural disaster, sabotage, or water system failure.

A drought is a meteorological occurrence, which describes less precipitation than average for a specific geographic area. It is possible for a geographic area to be in a drought but not have a water shortage. If a geographic area has extensive water storage compared to their demand, they may have enough water storage to make up for the deficit in precipitation for a defined period. It is also possible for a geographic area to have normal precipitation but find itself in a water shortage because demand is greater than the normal amount of precipitation and storage can meet.

Catastrophic water system failures from a natural disaster, sabotage, or infrastructure failure may result in the inability for the water system to meet demand. Water system failures may also result in the inability of the water system to meet demand with water that meets regulatory water quality standards.

Historic Water Shortage Records

The District has experienced water shortages in the past due to drought conditions. District customers have been very responsive to water rationing programs that have been implemented during critically dry periods in the past. Mandatory water rationing was in effect for all of 1977, 1978, 1988, 1990, 1991, and 1992 as well as four months in 1989 and 1993. Mandatory water restrictions were adopted in August of 2014 and were repealed in February of 2017.

The residential sector has been particularly responsive to drought measures imposed by the District. In 1977, residential consumption dropped by 33 percent, the first year in which water rationing was instituted. Subsequent dry years, in which rationing was instituted, also saw significant reductions in residential water use: 1989, 24 percent; 1990, 40 percent; 1991, 32 percent; and 22 percent in 1993. In 2015, District customers reduced their consumption by 19 percent when compared to sales in 2013.

There were three consecutive dry water years (2007-2008-2009) with 2007 being critically dry. Voluntary 10 percent rationing was implemented and the District experienced a 17 percent reduction in total sales between 2007 and 2009. A significant difference between the water shortages in the 1970's and 1990's, compared to the most recent water shortages, is that the District did not have Upper Crystal Springs Reservoir as a source of water during the 1970's and 1990's water shortages. Upper Crystal Springs Reservoir became available to the District in 1994. During recent water shortages, the District relied upon the available water storage in Upper Crystal Springs Reservoir.

There were five consecutive drought years between 2012 and 2017. The State Water Resources Control Board adopted mandatory water conservation goals in 2015 along with specific end user requirements and outdoor restrictions. Coastside County Water District's goal was an 8 percent reduction in water production from June 2015 through October of 2016 compared to the same months of 2013. The District exceeded the 8 percent conservation goal by achieving a 19 percent decrease in water sales from the base year of 2013.

After multiple consecutive dry years, it may be necessary to maintain voluntary or mandatory rationing within the District's service area for an additional year once precipitation has returned to normal or above normal. It may take a couple of consecutive normal water years to allow surface water storage and ground water storage to recover.

During past water shortage emergency periods, residential accounts were allocated an average number of billing units per cycle per person. According to the District's Ordinance No. 26 (1990), permanent residents were allocated 7 units per billing cycle (approximately 87 gallons per day per person). In Ordinance No. 28 (1991), the District allocated 8 units per billing cycle per person (100 gallons per day per person). The most recent drought that started in 2012 focused on outdoor water use restrictions and prohibitions to meet water savings goals.

The SFPUC provided the District with historic rationing tables by fiscal year going back to fiscal year ending in 1921. It compares past rationing episodes with and without the Bay-Delta Plan requirement of 40 percent unimpaired flows. San Francisco used a model (Hetch Hetchy/Local Simulation Model) to predict and compare water shortage conditions under the Bay-Delta Plan. The model predicts that under the Bay-Delta Plan the water shortages that wholesale customers will experience will be more severe earlier on in a multi-year drought. Included in appendix I are rationing conditions at 198.6 MGD with 2020 Infrastructure and included in appendix J are rationing conditions at 213.2 MGD with 2025 infrastructure.

Table 1 lists the historic water shortage episodes or periods in the District's recent past and the resulting rationing status.

Table 1- Water Shortage Episodes in Half Moon Bay

Table 1 - Water Shortage Episodes				
Water Year	Calendar Year Gross Production (MGY)	Rationing Status	Inches of Local Precipitation Water Year	Percent of Mean Precipitation
1976	475	Voluntary	14.72	55
1977	356	Mandatory	14.61	55
1978	450	Mandatory	34.15	128
1987	733	No Rationing	18.16	68
1988	632	Voluntary	20.17	76
1989	637	Mandatory	24.51	92
1990	593	Voluntary	16.45	62
1991	479	Mandatory	20.76	78
1992	548	Mandatory	24.19	91
1993	644	Mandatory	33.22	125
2007	932	Voluntary	18.78	71
2008	848	Voluntary	20.41	77
2009	761	Voluntary	20.48	77
2012	698	No Rationing	15.82	61
2013	759	Voluntary	19.56	74
2014	690	Mandatory	8.99	36
2015	618	Mandatory	16.00	61
2016	622	Mandatory	23.08	88

Rainfall Data NOAA NCDC Station 43714 - Half Moon Bay

Section 2 | Water Shortage Impacts

Public Health

The District must balance the basic needs for health and safety for the residential population against the needs of the commercial, institutional, and agricultural customers. Water is required for non-residential customers to sustain employment, the economic stability of the community, and the services used by the residential community.

Risks to public health from a water shortage include impacts on water supply and raw water quality. As reservoir levels drop, water temperatures rise, and the concentration of contaminants increase. The result is an increased risk of algal blooms, along with a negative impact on odor and taste. Impacts on food production can range from a collapse in fisheries to a decline in irrigated agriculture and grazing land.

Recreation

Most of the recreation in the District's service area is focused on the coastline. Day use of beaches and parks could be impacted if there is not enough water for restrooms. Hiking in the local hillsides may be restricted if fire danger becomes a threat from human activity. If local golf courses are not able to irrigate their greens, it could result in a diminished golfing experience and fewer visitors coming to the area to play golf.

Wildfire

Wildlands in California can be strongly affected by drought. Moisture content decreases and plant materials become fuels that increase fire risk and can intensify wildfire behavior. A significant portion of the District's raw water transmission infrastructure is surrounded by open space wildlands that are vulnerable to fire during an extended drought. The northern section of the District's service area is heavily wooded with eucalyptus trees, which are known for their fuel potential. The local climate is influenced by cool temperatures and fog most of the year, so the risk of a wildfire is low during normal water years, but during an extended drought or multiple drought cycles, the risk of wildfires is a recognized threat.

During a catastrophic wildfire, in a normal or drought period, the District's infrastructure would not be able to provide enough water to suppress a wildfire in the rural or open space areas. At best, during a catastrophic wildfire, the District's infrastructure may be able to prevent structures from being destroyed and provide protection for some of the urban boundaries. Wildfire or the threat of a wildfire may also result in the loss of power in the service area.

Infrastructure [CWC Section 10632(a)(2)(A)]

If local sources were impacted by a drought or a natural disaster, the District would rely more on Upper Crystal Springs Reservoir, as a source of water. Raw water from Upper Crystal Springs Reservoir must be pumped over the Cahill Ridge to the Nunes Water Treatment Plant, which requires electricity.

During a power outage or facility failure at the Crystal Springs Pump Station, the District would rely on the Denniston Project, Pilarcitos Reservoir and Pilarcitos Creek infiltration wells (Pilarcitos Creek infiltration wells can only be operated November through March). If the water level in Pilarcitos Reservoir is below the outlet, with permission from the SFPUC,

the District could set up a temporary pumping system to draw water out of Pilarcitos Reservoir to supply the District. The Nunes Water Treatment Plant and Denniston Water Treatment plant both have generators that can operate the plant during a power failure and the District has a portable generator on a trailer that can be deployed where it is needed.

During episodes of water shortages, annual flushing of the distribution system will need to cease. This could impact water quality in the long term, with complaints of colored water during planned and unplanned distribution system work.

The District office and corporation yard have sufficient water and emergency rations to support a full crew for three days. An emergency generator is always maintained in operable condition at the District office and corporation yard.

Livestock

The City of Half Moon Bay and surrounding unincorporated areas have an agricultural base with many property owners who maintain livestock. In addition, there are recreational and commercial based operations that have stables. The District must consider the needs of livestock when implementing any mandatory rationing.

Water Features [CWC Section 10632(b)]

Water features that use potable water either as part of or as their entire water source shall be regulated during a water shortage emergency. A decorative water feature is defined as any aboveground or below-grade outdoor structure that contains water and is used for decoration or noise abatement. A recreational water feature is defined as any above ground or below-grade structure that contains water and is used for recreation or exercise (i.e., pool or spa).

Surrounding Rural Areas

The most recent drought has shown that multiple years of drought have an impact on local surface and groundwater sources in the rural areas contingent to the District's service area. Since the District is not able to provide water to these rural areas, the District will refer these property owners to the Office of Emergency Services of San Mateo County.

Section 3 | Water Supply Reliability Analysis [CWC Section 10632(a)(1) and CWC Section 10632(a)(4)(C)]

Description of Water Sources and Availability

The District currently has three water supply sources, which consist of imported water, local surface water and local groundwater. Production from a specific water supply source can vary year to year, due to a variety of reasons. But during drought conditions, the District will rely more on imported water from the SFPUC sources.

A summary of each water supply source is provided below in Table 2.

Table 2- Water Sources and Percent of Total Supply

Water Sources				
Local Sources		Imported-Purchased Sources		
Denniston Creek Project		Pilarcitos Creek	SFPUC	
Surface Water Denniston Creek	Groundwater Wells	Surface Water Infiltration Wells	Pilarcitos Reservoir	Upper Crystal Springs Reservoir
19%	2%	6%	36%	37%
Updated 2020 (26 year average)				

San Francisco Public Utilities Commission (SFPUC)

The District purchases approximately 73 percent of its total water supply from the SFPUC. On average, 36 percent of the District’s annual water supply comes from Pilarcitos Reservoir and 37 percent comes from Upper Crystal Springs Reservoir. Purchases from the SFPUC are limited to the District’s ISG of 2.175 MGD, based on current agreements with the SFPUC.

Pilarcitos Reservoir is a local reservoir owned and operated by the SFPUC. It is in the coastal foothills (Santa Cruz Mountain Range) north of the City of Half Moon Bay. It is dependent upon local precipitation and runoff. Releases from the reservoir flow into Pilarcitos Creek. The District’s turn-out from Pilarcitos Reservoir is downstream of the reservoir.

Upper Crystal Springs Reservoir is a local reservoir owned and operated by the SFPUC. It is in the coastal foothills (Santa Cruz Mountain Range) east of the City of Half Moon Bay. This reservoir is dependent upon imported water from the RWS and is supplemented by local runoff and precipitation.

Pilarcitos Creek Infiltration Wells

The District produces 6 percent of its water supply from an infiltration well field located in Pilarcitos Creek Canyon. The District can pump from November 1st through March 31st of each year, as described in the license for diversion from the State Water Resources Control Board. The license also limits diversions to 1.5 cfs or 360 ac-ft/year. During drought conditions, supply from this source is extremely low since the wells are dependent upon Pilarcitos Creek (sub-surface) flow. Pilarcitos Creek flows are influenced by local runoff and by the SFPUC’s operation of Pilarcitos Reservoir.

Denniston Creek Project

The Denniston Project refers to two water supply sources; groundwater and Denniston Creek. Groundwater comes from the Airport Subbasin of the Half Moon Bay Terrace Basin. On average, the District obtains 19 percent of its total water supply from Denniston surface water and 2 percent of its supply from groundwater. During drought years the production from Denniston Creek is extremely low because of the small watershed area and because the water is shared with an agricultural user with senior water rights. Groundwater is only used to supplement surface water diversions.

Facilities Description

The District has two conventional surface water treatment plants with a combined treatment capacity of 5.5 MGD. The Nunes Water Treatment Plant, located within unincorporated San Mateo County just east of the City of Half Moon Bay, treats raw water from Upper Crystal Springs Reservoir, Pilarcitos Reservoir and Pilarcitos Creek. The Denniston Water Treatment Plant, located in unincorporated San Mateo County in Moss Beach, treats raw water from Denniston Creek and groundwater. The District has ten treated water storage tanks for a total of 8 MG of treated water storage.

Section 4 | Annual Water Supply and Demand Assessment [CWC Section 10632(a)(2) and CWC Section(a)(2)(B)]

The AWSD Assessment is first required by July 1, 2022 and every year thereafter. It requires an assessment of current conditions with the assumption that the next year is dry.

Decision Making Process

The SFPUC will notify the District and other wholesale customers by April 15th of the water supply conditions for the Regional Water System. If there is a water shortage, the magnitude of the water shortage will be determined by June 1st and the District’s allocation from the SFPUC will become effective July 1st. Since the District is dependent on imported water, the SFPUC’s determination on the water supply status will be critical to completing the annual water supply and demand assessment.

The District monitors local precipitation and groundwater elevations to assist in determining the adequacy of local surface and groundwater sources. During periods of less than normal precipitation, the District will determine how productive local sources will be for the upcoming fiscal year.

The District will take the SFPUC reduction and the District’s projected reduction in local sources to determine the total reduction in production and the corresponding needed reduction in demand to be implemented on July 1st of every year.

A determination of a water shortage or drought emergency can be made by the governor and action can be taken by the State Water Resources Control Board to mandate water conservation. The District would implement the stage of action that met the conservation requirements mandated by the state.

Description of Water Demand

On average, 58 percent of the District’s water sales are to the residential sector. The second major water use sector is commercial and Institutional, with an average of 16 percent of annual water sales. Agriculture is the third major water use sector with an average of 12 percent of annual water sales.

Table 3 describes current demand in 2020 in MGY and percentage of total.

Table 3- Demand by Sales Class Type

	Current Year 2020 (MGY)	
	Demand	Percentage
Single Family	331	53
Multi-Family	32	5
Agriculture	72	12
Raw Water	57	9
Irrigation	36	6
Commercial and Institutional	97	16
Total	626	100

Section 5 | Impacts on Revenues and Expenditures [CWC Section 10632(a)(8), CWC Section 10632(a)(8)(B), and CWC Section 106329(a)(8)(C)]

Successful water rationing programs result in reduced water sales and reduced revenues. This is the cost of compliance. However, the District's expenditures do not decline in proportion to reduced sales because a large part of the District's expenditures are related to fixed capital costs, maintenance, and operations. In addition, it is likely that the District will pay more for imported water because the SFPUC will raise their wholesale rates to cover their reduced water sales and their increased administrative costs.

A reduction in water purchases from wholesale customers of the SFPUC - both voluntary and mandatory - would require the SFPUC to raise rates or use existing fund balance reserves to cover its expenses. The rate setting process for wholesale customers is governed by the terms of the Water Service Agreement, which provides that, in the event of a water shortage emergency, the Commission may adjust wholesale rates in an expedited way. Beyond drought rate setting and emergency rate setting, rates are set annually in coordination with the SFPUC annual budget process and are based on the forecasted wholesale share of regional water system expenditures and total purchases. If wholesale customer usage is expected to decrease, this would be incorporated into the wholesale rate forecast and rates may increase.

During periods of rationing, the District's administrative costs and staffing costs will increase due to enforcement of new rules and complex billing structures. Consequently, retail water rates will increase during years of water shortages when rationing programs are implemented. The District has an emergency reserve that it can use to cover increased costs until it can implement and realize the benefit of adjusted water rationing rates, surcharges, and penalties.

The District will need to follow Proposition 218 requirements for the drought rates, which will cause a slight delay in the actual implementation of the drought rates. Also causing a delay in drought rates will be waiting for decisions from the SFPUC on their rates and actions during water shortages.

Section 6 | Agreements

San Francisco Regional Water System (RWS)

The District purchases water from the SFPUC along with 26 other public and private water retailers. There are drought implementation plan agreements between the SFPUC and the SFPUC’s wholesale customers, known as Tier One, and among the wholesale customers, known as Tier Two. Tier One is part of the 2009 Water Supply Agreement (WSA). These agreements allocate available water from the RWS during regional water system wide shortages of 20 percent or less.

Tier One Drought Allocations

In July 2009, San Francisco and its Wholesale Customers in Alameda County, Santa Clara County, and San Mateo County (Wholesale Customers) adopted the Water Supply Agreement (WSA), which includes a Water Shortage Allocation Plan (WSAP) that describes the method for allocating water from the Regional Water System (RWS) between Retail and Wholesale Customers during system-wide shortages of 20 percent or less. The WSAP, also known as the Tier One Plan, was amended in the 2018 Amended and Restated WSA.

The SFPUC allocates water under the Tier One Plan when it determines that the projected available water supply is up to 20 percent less than projected system-wide water purchases. The following table shows the SFPUC (i.e., Retail Customers) share and the Wholesale Customers’ share of the annual water supply available during shortages depending on the level of system-wide reduction in water use that is required. The Wholesale Customers’ share will be apportioned among the individual Wholesale Customers based on a separate methodology adopted by the Wholesale Customers, known as the Tier Two Plan, discussed further below.

The table below breaks down the Tier One Plan allocation between SFPUC wholesale customers and SFPUC Retail Customers

Table 4- Share of Available Water

Level of System-Wide Reduction in Water Use Required	Share of Available Water (Allocations)	
	SFPUC Share	Wholesale Customers Share
5% or less	35.5%	64.5%
6% through 10%	36.0%	64.0%
11% through 15%	37.0%	63.0%
16% through 20%	37.5%	62.5%

The Tier One Plan allows for voluntary transfers of shortage allocations between the SFPUC and any Wholesale Customer as well as between Wholesale Customers themselves. In addition, water “banked” by a Wholesale Customer, through reductions in usage greater than required, may also be transferred.

As amended in 2018, the Tier One Plan requires Retail Customers to conserve a minimum of 5 percent during droughts. If Retail Customer demands are lower than the Retail Customer allocation, then the excess percentage would be re-allocated to the Wholesale Customers’ share. The additional water conserved by Retail Customers up to the minimum 5 percent level is deemed to remain in storage for allocation in future successive dry years.

The Tier One Plan will expire at the end of the term of the WSA in 2034, unless mutually extended by San Francisco and the Wholesale Customers.

The Tier One Plan applies only when the SFPUC determines that a system-wide water shortage exists and issues a declaration of a water shortage emergency under California Water Code Section 350. Separate from a declaration of a water shortage emergency, the SFPUC may opt to request voluntary cutbacks from its Retail and Wholesale Customers to achieve necessary water use reductions during drought periods.

Tier Two Drought Allocations

The Wholesale Customers have negotiated and adopted the Tier Two Plan, referenced above, which allocates the collective Wholesale Customer share from the Tier One Plan among each of the 26 Wholesale Customers. These Tier Two allocations are based on a formula that accounts for multiple factors for each Wholesale Customer including:

- Individual Supply Guarantee;
- Seasonal use of all available water supplies; and
- Residential per capita use.

The water made available to the Wholesale Customers collectively will be allocated among them in proportion to each Wholesale Customer’s Allocation Basis, expressed in millions of gallons per day (MGD), which in turn is the weighted average of two components. The first component is the Wholesale Customer’s Individual Supply Guarantee, as stated in the WSA, and is fixed. The second component, the Base/Seasonal Component, is variable and is calculated using the monthly water use for three consecutive years prior to the onset of the drought for each of the Wholesale Customers for all available water supplies. The second component is accorded twice the weight of the first, fixed component in calculating the Allocation Basis. Minor adjustments to the Allocation Basis are then made to ensure a minimum cutback level, a maximum cutback level, and a sufficient supply for certain Wholesale Customers.

The Allocation Basis is used in a fraction, as numerator, over the sum of all Wholesale Customers’ Allocation Bases to determine each wholesale customer’s Allocation Factor. The final shortage allocation for each Wholesale Customer is determined by multiplying the

amount of water available to the Wholesale Customers' collectively under the Tier One Plan, by the Wholesale Customer's Allocation Factor.

The Tier Two Plan requires that the Allocation Factors be calculated by BAWSCA each year in preparation for a potential water shortage emergency. As the Wholesale Customers change their water use characteristics (e.g., increases or decreases in SFPUC purchases and use of other water sources, changes in monthly water use patterns, or changes in residential per capita water use), the Allocation Factor for each Wholesale Customer will also change. However, for long-term planning purposes, each Wholesale Customer shall use as its Allocation Factor, the value identified in the Tier Two Plan when adopted.

The Tier Two Plan, which initially expired in 2018, has been extended by the BAWSCA Board of Directors every year since for one additional calendar year. In November 2020, the BAWSCA Board voted to extend the Tier Two Plan through the end of 2021.

Montara Water and Sanitary District

The District and MWSD entered into an agreement, as of October 18, 2010, for the mutual benefit of both districts, to provide a temporary, interruptible supply of water for use during a water shortage emergency.

For the purposes of this agreement, emergency water supply is defined as a temporary and interruptible supply of water to help alleviate a water shortage emergency. The water shortage emergency is when ordinary demands and requirements of the District's water users cannot be satisfied without depleting its water supply to the extent that there would be insufficient water for human consumption, sanitation, and fire protection. The water shortage emergency must be due to a lack of water supply caused by circumstances outside the District's reasonable control or damage to the water system facilities, as a result of a "Force Majeure". For the purposes of this agreement, Force Majeure means; fire, flood, earthquake, natural calamity or acts of God, and governmental action or inaction.

The implementation of this agreement is still under review by both agencies, but the District would likely only receive an emergency water supply from the MWSD during a critical water shortage emergency, as defined in this Plan.

Section 7 | Approach to Demand Reduction [CWC Section 10632(a)(3)(A)]

This plan provides six stages of response based on increasing severity. This type of response would be appropriate to a drought or other water shortages.

Shortage Response Actions and Communication Protocol [CWC Section 10632(a)(4)(B), CWC Section 10632 (a)(4)(D), CWC Section 10632(a)(5)(A), CWC Section (a)(5)(B), and CWC Section (a)(5)(C)]

The six stages are listed in Table 5 (DWR Submittal Table 8-1 Water Shortage Contingency Plan Levels) and include up to 10 percent shortage through over 50 percent shortage.

Table 5- Water Shortage Contingency Plan Levels (Stages)

DWR Submittal Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	Percent Shortage Range	Shortage Response Actions
1	Up to 10%	Water Shortage Advisory
2	Up to 20%	Water Shortage Emergency Warning
3	Up to 30%	Water Shortage Emergency
4	Up to 40%	Water Shortage Severe Emergency
5	Up to 50%	Water Shortage Extreme Emergency
6	>50%	Water Shortage Catastrophic (Extraordinary) Emergency
NOTES:		

The District has monthly billing for all customers. Monthly billing gives the customer faster feedback on meeting reduction goals and gives the District time to notify and work with customers having difficulty meeting reduction goals.

These stages would be declared by the Board of Directors, as recommended by staff. Each water shortage episode is unique and will require individual water use restrictions to fit those unique circumstances. The following is a brief written description of a general escalation of actions that would be considered for possible adoption by the District at the different stages of water shortage.

Table 6 (DWR Submittal Table 8-2 Demand Reduction Actions) summarizes very briefly a description of demand reduction actions at each level (stage) of water shortage.

Table 6 - Demand Reduction Actions [CWC Section(a)(4)]

DWR Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	Demand Reduction Actions <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool. Select those that apply.</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>For Retail Suppliers Only Drop Down List</i>
<i>Add additional rows as needed</i>				
1	Expand Public Information Campaign	Up to 10 percent	Voluntary	No
2	Landscape - Restrict or prohibit runoff from landscape irrigation	Up to 20 percent	Mandatory	Yes
3	Moratorium or Net Zero Demand Increase on New Connections	Up to 30 percent	Mandatory	Yes
4	Implement or Modify Drought Rate Structure or Surcharge	Up to 40 percent	Mandatory	Yes
5	Increase Water Waste Patrols	Up to 50 percent	Mandatory	Yes
6	Reduce System Water Loss	Greater than 50 percent	Mandatory	Yes
NOTES: Please refer to the Water Shortage Contingency Plan for a complete description of the demand reduction actions at each level of shortage.				

Stage 1: Water Shortage Advisory

The public is informed as early as meaningful data are available that a possible shortage may occur. The District’s water waste ordinance would be enforced to the maximum extent possible. The District would request **voluntary** water conservation to encourage behavior changes and a reduction in irrigation. District staff would assess local sources and begin to prepare for implementation of mandatory rationing. This stage relies heavily on voluntary cooperation and support of customers to meet consumption reduction goals.

The District originally adopted an ordinance (No. 1997-01) in 1997 that establishes rules and regulations prohibiting wasteful water use during normal water supply conditions and providing enforcement. This ordinance was updated in 2008 (2008-01) to conform to the California Urban Water Conservation Council’s memorandum of understanding (MOU) for best management practices. This ordinance can be used during stage 1 and can be found in appendix M.

During times of mandatory rationing, this ordinance will not apply. The District will need to implement, with the Board of Directors approval, additional and specific regulations to prevent water waste during periods of mandatory rationing. Examples of past drought ordinances and resolutions can be found in appendix B, C, D, E, F, and G.

At Stage 1, the District should consider the following actions:

- Implementation of a public information campaign
- Coordination with the Bay Area Water Supply and Conservation Agency
- Coordination with the San Francisco Public Utilities Commission
- Coordination and communication with all District staff and Board of Directors
- Implementation of a production and consumption monitoring and reporting plan
- Planning for the continuation and escalation of water shortage conditions
- Encouraging leak detection and repair for retail customers
- Educating the public on water waste prohibitions

Communication Protocol Stage 1 - Water Shortage Advisory
“Due to less than normal precipitation this water year (and previous year), we are asking customers to voluntarily conserve water with a goal of achieving a 10 percent reduction in water consumption. Conserving water now will help keep water storage in Pilarcitos Reservoir and Upper Crystal Springs Reservoir at adequate levels, if dry conditions should continue.”

Stage 2: Water Shortage Emergency Warning

If water supply conditions worsen, this stage would begin to implement **mandatory** restrictions on water use. This stage would be a transitional stage to prepare customers and the District for a Water Shortage Emergency.

At Stage 2, the District should consider the following actions:

- Continuing with actions from Stage 1
- Escalating the public information campaign
- Implementing restrictions on decorative water features
- Encouraging the use of WaterSmart by customers to track water usage
- Performing outreach to major customers, regarding water supply status
- Designating days, times, and duration that irrigation is allowed when voluntary measures are not meeting goals
- Raw water customer is at zero allocation (there is no surplus water)

- Studying the impacts to revenue and developing a budget strategy for mitigating decreases in revenue
- Informing the City of Half Moon Bay and the County of San Mateo of water supply status
- Informing the Coastside Fire Protection District of water supply status and request cooperation in reducing training exercises that use water
- Prohibiting the cleaning of certain exterior surfaces with potable water
- Prohibiting the cleaning of driveways and sidewalks with potable water
- Suspend or significantly reduce routine flushing of water mains
- Emphasizing leak detection and repair for the District's transmission and distribution system
- Establishing and advertising a hotline to respond to questions and reports of water waste, if needed
- Prohibit water runoff from landscape irrigation
- Prohibiting the installation of new plants, trees, and turf
- Prohibiting the installation of new water features
- Prohibiting the installation of new swimming pools

Communication Protocol Stage 2 – Water Shortage Emergency Warning
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“Water supply conditions have worsened and it is now necessary to impose mandatory restrictions on water use. The District encourages customers to conserve water and to help the District achieve a 20 percent reduction in water consumption. Conserving water now will help maintain an adequate water supply to meet the public health and safety needs of the community.”
--

Stage 3: Water Shortage Emergency

This stage would escalate mandatory restrictions and prohibitions. The District would strongly consider transitioning into water allocations (water budgets) or modifying existing water allocations. Restrictions would emphasize prohibiting landscape irrigation for non-residential and residential customers. Implementation of penalties and surcharges would be considered for non-compliance with mandatory restrictions. The District would continue to study the impacts to revenue and expenditures and consider adopting a budget strategy.

At Stage 3, the District should consider the following actions:

- Continuing with actions taken in stages 1 and 2
- Implementing or modify residential and non-residential water allocations (water budgets)
- Raw water customer is at zero allocation (there is no surplus water)
- Temporary moratorium on all new connections
- Implementing drought rates, surcharges, and penalties
- Providing information on legal gray water use
- Contacting the Coastside Fire Protection District and consider eliminating fire training exercises that use water

- Evaluating water waste prohibitions and expanding them
- Consider enhancing the District's leak repair program and possibly contracting out some leak repair activities

Communication Protocol Stage 3 – Water Shortage Emergency
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“There is a serious water shortage emergency and it is necessary to conserve the available water supply for public health and safety, while trying to minimize negative impacts to the local economy. The District needs the cooperation from all its customers to achieve a 30 percent reduction in water consumption. “

Stage 4: Severe Water Shortage Emergency

This stage would include mandatory restrictions and water allocations. At this stage all decorative landscape irrigation would be prohibited and residential allocations would be severely reduced from the previous stage.

At Stage 4, the District should consider the following actions:

- Continuing with actions taken in stages 1, 2 and 3
- Adjusting residential and commercial allocations for a more severe water shortage
- Modify or implement drought rate structure, surcharges and penalties
- Prohibiting all new decorative landscape installations
- Prohibiting irrigation except for the survival of approved trees and edible gardens
- Scheduling staff for enforcement and customer service on the weekends
- Prohibiting on-site fleet, dealership and residential vehicle washing
- Prohibiting the use of portable meters, except for public agencies and District contractors
- Deferring certain capital improvement projects that don't result in a potential water savings
- Turning off and locking dedicated irrigation accounts

Communication Protocol Stage 4 – Severe Water Shortage Emergency

“There is a severe water shortage emergency and it is necessary to conserve water to the maximum extent possible. The District needs the cooperation from all its customers to achieve a 40 percent reduction in water consumption.”
--

Stage 5: Extreme Water Shortage Emergency

The need for demand reduction could include a combination of mandatory measures, penalties, and rate surcharges. Allocations would be implemented to meet the minimum health and safety standards. Only enough water for public health and safety needs.

At Stage 5, the District should consider the following actions:

- Continuing with actions from stages 1, 2, 3 and 4

- Adjusting allocations for a critical water shortage emergency
- Providing special notification to major users and visitor serving customers
- Closing public pools and public showers, including showers at private and public recreation facilities
- Increase water waste patrols and enforcement action

Communication Protocol Stage 5 - Extreme Water Shortage Emergency
--

“There is an extreme water shortage emergency and there is only enough water to meet the most basic needs of the community. The hardship to residential and commercial customers is extreme and the District appreciates the cooperation of its customers to meet a 50 percent reduction in water consumption.”

Stage 6: Extraordinary or Catastrophic Water Shortage Emergency

This stage is the most extreme and can apply to the entire service area or to just a portion of the service area. The need for demand reduction could include a combination of mandatory measures, penalties, and rate surcharges. This could be used as the last stage of a progressive situation, such as a drought of increasing severity, or to address an immediate crisis, such as a facility failure, natural disaster, or power failure. It could also be the result of sabotage or contamination of one or more of our major water supply sources.

At Stage 6, the District should consider the following actions:

- Continuing actions from stages 1,2,3,4, and 5
- Purchasing bottled water to provide to customers for nominal charge or free of charge
- Requesting emergency water supplies from neighboring water agencies, including SFPUC
- Continue to evaluate and reduce distribution and transmission system water real losses

Communication Protocol Stage 6 - Catastrophic Water Shortage Emergency

“An extraordinary water shortage emergency exists and there is insufficient water to meet the most basic needs of the community. The hardship to residential and commercial customers is catastrophic. Only water for essential use is allowed. The District appreciates the cooperation of its customers to meet a greater than 50 percent reduction in water consumption.”
--

The District does not have a supply augmentation method in place to activate during a water shortage when local and imported water supplies are impacted. Augmentation methods include rain seeding, transfers, other purchases, new recycled water, exchanges, and stored emergency supply. It also lists improved customer billing, modified drought rate structure and expanded public information campaign.

The District lists public information campaigns and drought rates as demand reduction tools, so it is not appropriate to list them also as supply augmentation. The District has already taken steps to improve customer billing, so it is not an available option.

Table 7 is a required DWR table that is included but has no information to report.

Table 7 - Supply Augmentation and Other Actions [CWC Section(a)(4)(A)]

DWR Submittal Table 8-3: Supply Augmentation and Other Actions			
Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	How much is this going to reduce the shortage gap? <i>Include units used (volume type or percentage)</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>			
NOTES: The District does not have any supply augmentation methods.			

Reduction by Sales Category

In developing the allocations among the different sales categories and stages, the need for public health and a sustainable economy were considered. During a water shortage, the priority for public health, sanitation and safety are given priority over other water uses.

A population of 18,738 (2020 Population Estimate) for the service area was assumed in the calculations for the residential component.

Table 8 represents the residential allocation at the different stages as gallons per capita per day.

Table 8 - Residential GPCD at Each Stage of Shortage

Residential GPCD		
Stage	Percent of Average	GPCD
0	100	55
1	90	47
2	80	46
3	70	43
4	60	37
5	50	32
6	40	25

The most severe water shortage stage allocates approximately 25 gallons per day per person. This table shows the progression of reducing residential demand during the different water shortage stages and confirms that enough water has been allocated to meet the basic domestic sanitation needs of the residential population.

With high efficiency fixtures and significant hardship 25 gallons per day per person should provide enough water to meet the health and safety standards for residential customers. There will be some individuals with special medical needs that will need additional water allocated and any rationing scenarios implemented will need to account for customers with special needs.

Table 9 illustrates how a dwelling with high efficiency fixtures could meet the most severe water shortage allocation of 25 gallons per day per person.

Table 9 - Health and Safety Residential GPCD Example

Health and Safety for Residential (GPCD)			
Fixture	Multiplier	Efficiency	Gallons
Toilet	4 Flushes	1.28 gpf	5
Shower	5 minutes	1.8 gpm	9
Clothes Washer	2 loads per week	4.5 WF	3
Kitchen Sink	3 minutes	1.8 gpm	5
Dishwasher	1 load per week	6.5 g/cycle	1
Bathroom Sink	1 minute	1.2 gpm	1
Total			25

For non-residential customers, a percent reduction from a chosen base year would be the method for reducing water demand. This method is commonly used as a method for non-residential customers because it is considered easy to understand and to administer. The negatives of this method are that it can be perceived as penalizing customers that are water efficient because they will be asked to reduce consumption from a base consumption that is already water efficient. The hardship for non-residential customers will be significant in stages 3, 4, 5 and 6.

To some extent, financial rationing will be in place for all customers because rates will be higher and special penalties and charges will be in place for customers that use more water than they are allocated. Financial rationing gives an added incentive to reduce water consumption.

Another rationing method that will be used for all customers are specific use restrictions which prohibit certain uses of water, such as surface washing, vehicle washing, new connections and irrigation restrictions. This method is used in instances where other rationing methods might not be effective or there is the need for an immediate reduction in water use. This method is time and staff intensive because it requires patrolling the service area to look for violations, tracking violations and following up on compliance.

California Water Code requires retail water suppliers to prioritize water use during a water shortage emergency. Current best practices shared by the Department of Water Resources and the American Water Works Association list the following examples:

1. Health – sanitation for indoor residential
2. Safety – fire suppression
3. Non-Residential – maintain economic base and protect local jobs.
4. Permanent Crops – takes five to ten years to replace – Orchards.
5. Annual Crops
6. Decorative and Recreational Landscaping – water for trees and shrubs; and
7. New Demand – two years of approved construction projects.

Table 10 is an example of a water supply allocation by sales class at the different stages of water shortage. The baseline (zero deficiency) is based on fiscal year 2020 demand by sales class. This table represents the analysis that must be done during every water shortage episode and at every water shortage stage because each water shortage episode has unique considerations based on the severity and cause of the water shortage. Each sales class or sector is listed with the percent of normal allocation and the allocation in million gallons. Based on the severity of the water deficiency and the resulting allocations, a plan can be developed to meet the necessary reductions. The actions and measures described for each stage are intended to meet the required reduction.

Coastside County Water District

Table 10 - Example of Water Supply Allocations by Sales Class [CWC Section 10632(a)(4)(E)]

	Baseline		Stage 1		Stage 2		Stage 3		Stage 4		Stage 5		Stage 6	
	0% Deficiency		≤-10%		-20%		-30%		-40%		-50%		>-50%	
	Demand Allocation		Demand Allocation		Demand Allocation		Demand Allocation		Demand Allocation		Demand Allocation		Demand Allocation	
	% of Baseline	MG	% of Baseline	MG	% of Baseline	MG	% of Baseline	MG	% of Baseline	MG	% of Baseline	MG	% of Baseline	MG
Residential - SFR	100	331	87	288	86	285	82	270	70	232	60	199	48	159
Commercial	100	35	100	35	100	35	84	29	74	26	57	20	44	15
Restaurant	100	15	100	15	100	15	84	13	74	11	57	9	44	7
Hotels/Motels	100	23	100	23	100	23	84	20	74	17	57	13	44	10
Schools	100	6	100	6	100	6	84	5	74	4	57	3	44	3
Multiple Dwellings	100	32	88	28	87	28	82	26	70	22	60	19	48	15
Beaches and Parks	100	5	100	5	100	5	84	4	74	4	57	3	44	2
Agriculture	100	72	100	72	100	72	84	61	70	51	57	41	43	31
Recreation	100	3	100	3	100	3	84	2	74	2	57	1	44	1
Marine Related	100	6	100	6	100	6	84	5	74	5	57	4	44	3
Residential Irrigation	100	14	47	7	25	4	0	0	0	0	0	0	0	0
Dedicated Fire Services	100	0.1	100	0.1	100	0.1	100	0.1	100	0.1	100	0.1	100	0.1
Non-Residential Irrigation	100	22	49	11	40	9	0	0	0	0	0	0	0	0
Raw Water Customer	100	57	100	57	0	0	0	0	0	0	0	0	0	0
Hydrant Meter/Portable	100	2	100	2	50	1	50	1	25	1	0	0	0	0
Construction	100	2	100	2	50	1	0	0	0	0	0	0	0	0
Total Sales	100	626	89%	560	79%	492	70%	436	60%	374	50%	312	39%	246
Emergency Reserve (fire)		0		1		1		1		1		1		1
Non-Revenue Simplified		40		40		40		30		25		20		20
Annual Available Supply/Production (MGY)	100%	667	90%	600	80%	533	70%	467	60%	400	50%	333	40%	267
Annual Available Supply/Production (MGD)		1.83		1.64		1.46		1.28		1.10		0.91		0.73
Actual Demand Reduction	0%	0	11%	67	21%	134	30%	190	40%	252	50%	314	61%	380
R-GPCD		55		47		46		43		37		32		25

Section 8 | Customer Compliance and Enforcement [CWC Section 10632(a)(6)]

Enforcement Tools

As a water district, Coastside County Water District has limited authority to penalize customers for water waste and non-compliance with regulations. In 2019, a new authority allows for local agencies to impose civil liability for violations of certain new water conservation requirements. Since this is a relatively new enforcement tool, the District is still researching and developing a policy to implement it. Appendix A lists legal authorities related to water shortage contingency planning and implementation.

The District does not recommend the use of flow restrictors on the services of customers in violation of water conservation ordinances. Flow restrictors can interfere with the operations and accuracy of the water meter.

During prior severe water shortage periods, the District implemented excess use fees to residential customers who consumed more water than their allocation. These fees were determined based on an allocation formula that considered, among other things, the number of residents per residential housing unit.

The most used enforcement tool during normal water years and water shortage years is to turn off domestic and irrigation water services for a specified period until compliance is achieved by the customer in violation of water waste rules. This is a lengthy process and is difficult to do when the customer includes children, seniors, or individuals with special needs. During the last water shortage, when the District put in place a water conservation ordinance, the District used turn-offs as its enforcement tool in its water conservation ordinance.

If the District believes that water has been or is being used in violation of the District's water conservation restrictions, the District will send a written notice to the customer specifying the nature of the violation and the date and time of occurrence and request that the customer cease the violation and take corrective action. The District will provide the customer with a copy of the ordinance and inform the customer that failure to comply may result in termination of water service.

Appeal Process

The typical appeal process used in the District's water conservation ordinances includes providing a written appeal to the General Manager. The Ordinance shall include the steps necessary to submit an appeal. The decision of the General Manager shall be final. The General Manager will evaluate each written appeal based on the following criteria; public health, public safety, and regulatory requirements of a state or federal agency.

Section 9 | Seismic Risk Assessment [CWC Section 10632.5(a)]

The District references the San Mateo County Hazard Mitigation Plan published in July of 2016 for its seismic risk assessment. The plan can be found online at the County of San Mateo, County Manager's Office website (<https://cmo.smcgov.org/multijurisdictional-local-hazard-mitigation-plan-resources>).

The 2016 HMP primarily considered the risk of the San Mateo County region to earthquakes along the San Andreas, Hayward, and San Gregorio faults. While the San Andreas and Hayward faults are much more volatile, the San Gregorio fault runs directly underneath Pillar Point in the City of Half Moon Bay and would likely cause more damage to the District's service area and its facilities.

The 100-year and 500-year probabilistic peak ground accelerations (PGAs) were examined for San Mateo County, which could occur from an earthquake of varying magnitude depending on which fault produced an earthquake. These events are expected to cause moderate to heavy damage to structures (VII to IX on the modified Mercalli intensity scale) in the District's service area for 100-year and 500-year PGAs, respectively.

It should be noted that the 2016 HMP specified that the damage to water infrastructure is difficult to analyze due to the methodology used, but that considerable damage, breakage, and failure should be assumed for individual system components. In 2021, San Mateo County launched an update of their Local Hazard Mitigation Plan.

Appendix K and L have descriptions of SFPUC's emergency preparedness planning and procedures.

Section 10 | Monitoring and Reporting Protocol [CWC Section 10632(a)(9)]

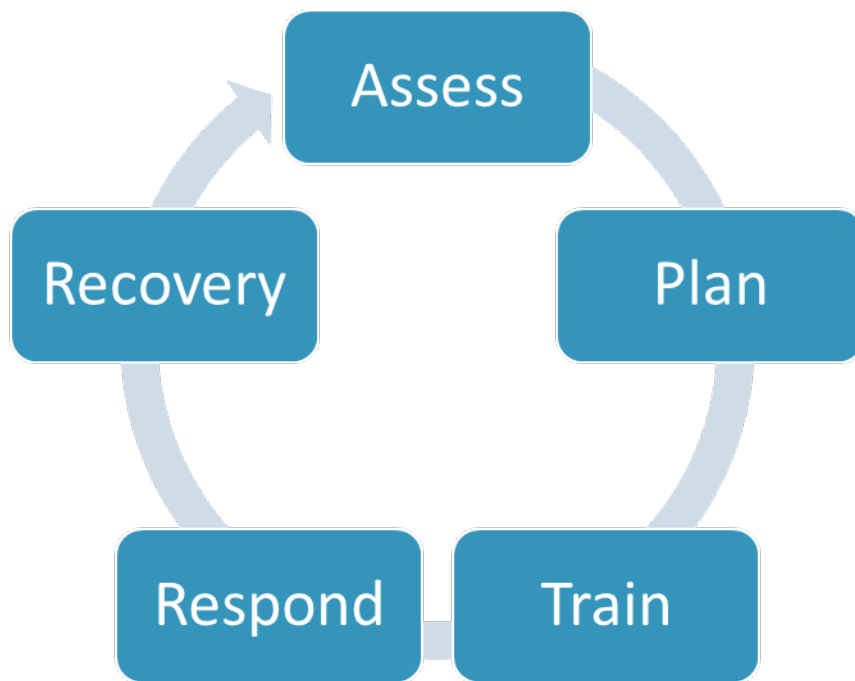
The District has a utility billing system, customer data analytics software, and hourly AMI data that is used to track and analyze customer consumption monthly. This data is available for reporting purposes.

Section 11 | WSCP Refinement Procedures [CWC Section 10632(a)(10)]

Every water shortage episode provides challenges and successes that are documented and retained for future reference. During the last water shortage, the District determined that monthly billing would help customers and the District to track water consumption. The District took that information and implemented monthly billing, AMI, and a customer portal with data analytical software. This will be a significant improvement for both customers and the District in monitoring and tracking water consumption during the next water shortage. The WSCP is written to provide District staff the flexibility to adapt to different types of water shortages, so the response can be as efficient and effective as possible.

Section 12 | Adoption of the WSCP [CWC Section 10632(c) and CWC Section 10635(c)]

The District prepared this 2020 WSCP and presented it to the Board of Directors for adoption on June 8, 2021, after conducting a public hearing. The plan was posted on the District's website within 30 days of adoption.



Appendices

Appendix A

Legal Authority [CWC Section 10632(a)(7)]

Section	Description
<p>California Water Code Division 1 General State Powers over Water (100-540) Chapter 3 Water Shortage emergencies (350-359) CHAPTER 3.3. Excessive Residential Water Use During Drought [365 - 367]</p>	
350	The governing body (Board of Directors) of the water supply distributor (Coastside County Water District) has authority to declare water shortage emergency condition(s). This section defines water shortage emergency condition as when there would be “insufficient water for human consumption, sanitation, and fire protection.”
351	Excepting in the event of a wildfire or a breakage or failure of a dam, pump, pipeline, or conduit causing an immediate emergency, the declaration shall be made only after a public hearing at which consumers of the water supply shall have an opportunity to be heard to protest against the declaration and to present their respective needs to said governing board.
352	Notice of the time and place of hearing shall be published pursuant to Section 6061 of the Government Code at least seven days prior to the date of hearing in a newspaper printed, published, and circulated within the area in which the water supply is distributed, or if there is no such newspaper, in any newspaper printed, published, and circulated in the county in which the area is located.
353	When the governing body has so determined and declared the existence of an emergency condition of water shortage within its service area, it shall thereupon adopt such regulations and restrictions on the delivery of water and the consumption within said area of water supplied for public use as will in the sound discretion of such governing body conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection.
354	After allocating and setting aside the amount of water which in the opinion of the governing body will be necessary to supply water needed for domestic use, sanitation, and fire protection, the regulations may establish priorities in the use of water for other purposes and provide for the allocation, distribution, and delivery of water for such other purposes, without discrimination between consumers using water for the same purpose or purposes.
355	The regulations and restrictions shall thereafter be and remain in full force and effect during the period of the emergency and until the supply of water available for distribution within such area has been replenished or augmented.
356	The regulations and restrictions may include the right to deny applications for new or additional service connections, and provision for their enforcement by discontinuing service to consumers willfully violating the regulations and restrictions.
357	If the regulations and restrictions on delivery and consumption of water adopted pursuant to this chapter conflict with any law establishing the rights of individual consumers to receive either specific or proportionate amounts of the water supply available for distribution within such service area, the regulations and restrictions adopted pursuant to this chapter shall prevail over the provisions of such laws relating to water rights for the duration of the period of emergency; provided, however, that any distributor of water which is subject to regulation by the State Public Utilities Commission shall before making such regulations and restrictions effective secure the approval thereof by the Public Utilities Commission.
358	Nothing in this chapter shall be construed to prohibit or prevent review by any court of competent jurisdiction of any finding or determination by a governing board of the existence of an emergency or of regulations or restrictions adopted by such board, pursuant to this chapter, on the ground that any such action is fraudulent, arbitrary, or capricious.

359	<p>(a) Notwithstanding any other provision of law that requires an election for the purpose of authorizing a contract with the United States, or for incurring the obligation to repay loans from the United States, and except as otherwise limited or prohibited by the California Constitution, a public water agency, as an alternative procedure to submitting the proposal to an election, upon affirmative vote of four-fifths of the members of the governing body thereof, may apply for, accept, provide for the repayment together with interest thereon, and use funds made available by the federal government pursuant to Public Law 95-18, pursuant to any other federal act subsequently enacted during 1977 that specifically provides emergency drought relief financing, or pursuant to existing federal relief programs receiving budget augmentations in 1977 for drought assistance, and may enter into contracts that are required to obtain those federal funds pursuant to the provisions of those federal acts if the following conditions exist:</p> <p>(1) The project is undertaken by a state, regional, or local governmental agency.</p> <p>(2) As a result of the severe drought now existing in many parts of the state, the agency has insufficient water supply needed to meet necessary agricultural, domestic, industrial, recreational, and fish and wildlife needs within the service area or area of jurisdiction of the agency.</p> <p>(3) The project will develop or conserve water before October 31, 1978 and will assist in mitigating the impacts of the drought.</p> <p>(4) The agency affirms that it will comply, if applicable, with Sections 1602, 1603, and 1605 of the Fish and Game Code.</p> <p>(5) The project will be completed on or before the completion date, if any, required under the federal act providing the funding, but not later than March 1, 1978.</p> <p>(b) Any obligation to repay loans shall be expressly limited to revenues of the system improved by the proceeds of the contract.</p> <p>(c) No application for federal funds pursuant to this section shall be made on or after March 1, 1978.</p> <p>(d) Notwithstanding the provisions of this section, a public agency shall not be exempt from any provision of law that requires the submission of a proposal to an election if a petition requesting such an election signed by 10 percent of the registered voters within the public agency is presented to the governing board within 30 days following the submission of an application for federal funds.</p> <p>(e) Notwithstanding the provisions of this section, a public water agency that applied for federal funds for a project before January 1, 1978, may make application to the Director of the Drought Emergency Task Force for extension of the required completion date specified in paragraph (5) of subdivision (b). Following receipt of an application for extension, the Director of the Drought Emergency Task Force may extend the required completion date specified in paragraph (5) of subdivision (b) to a date not later than September 30, 1978, if the director finds that the project has been delayed by factors not controllable by the public water agency. If the Drought Emergency Task Force is dissolved, the Director of Water Resources shall exercise the authority vested in the Director of the Drought Emergency Task Force pursuant to this section.</p> <p>(f) For the purposes of this section, "public water agency" means a city, district, agency, authority, or any other political subdivision of the state, except the state, that distributes water to the inhabitants thereof, is otherwise authorized by law to enter into contracts or agreements with the federal government for a water supply or for financing facilities for a water supply, and is otherwise required by law to submit those agreements or contracts or any other project involving long-term debt to an election within that public water agency.</p>
365	<p>(a) The Legislature finds and declares that this chapter furthers important state policies of encouraging water conservation and protecting water resources in the interest of the people and for the public welfare.</p> <p>(b) For the purposes of this chapter, "urban retail water supplier" has the same meaning as provided in Section 10608.12.</p>
366	<p>(a) During periods described in subdivision (a) of Section 367, excessive water use is prohibited by a residential customer in a single-family residence or by a customer in a multiunit housing complex in which each unit is individually metered or submetered by the urban retail water supplier.</p> <p>(b) Each urban retail water supplier shall establish a method to identify and discourage excessive water use, through one of the following options:</p>

	<p>(1) Establishing a rate structure, subject to applicable constitutional and statutory limitations, that includes block tiers, water budgets, or rate surcharges over and above base rates for excessive water use by a residential water customer.</p> <p>(2) (A) Establishing an excessive water use ordinance, rule, or tariff condition, or amending an existing ordinance, rule, or tariff condition, that includes a definition of or a procedure to identify and address excessive water use by metered single-family residential customers and customers in multiunit housing complexes in which each unit is individually metered or submetered and may include a process to issue written warnings to a customer and perform a site audit of customer water usage prior to deeming the customer in violation.</p> <p>(B) For the purposes of subparagraph (A), excessive water use shall be measured in terms of either gallons or hundreds of cubic feet of water used during the urban retail water supplier’s regular billing cycle. In establishing the definition of excessive use, the urban retail water supplier may consider factors that include, but are not limited to, all of the following:</p> <ul style="list-style-type: none"> (i) Average daily use. (ii) Full-time occupancy of households. (iii) Amount of landscaped land on a property. (iv) Rate of evapotranspiration. (v) Seasonal weather changes. <p>(C) (i) A violation of an excessive use ordinance, rule, or tariff condition established pursuant to subparagraph (A) shall result in an infraction or administrative civil penalty. The penalty for a violation may be based on conditions identified by the urban retail water supplier and may include, but is not limited to, a fine of up to five hundred dollars (\$500) for each hundred cubic feet of water, or 748 gallons, used above the excessive water use threshold established by the urban retail water supplier in a billing cycle.</p> <p>(ii) Any fine imposed pursuant to this subparagraph shall be added to the customer’s water bill and is due and payable with that water bill.</p> <p>(iii) Each urban retail water supplier shall have a process for nonpayment of the fine, which shall be consistent with due process and reasonably similar to the water supplier’s existing process for nonpayment of a water bill.</p> <p>(D) (i) Consistent with due process, an urban retail water supplier shall establish a process and conditions for the appeal of a fine imposed pursuant to subparagraph (C) whereby the customer may contest the imposition of the fine for excessive water use.</p> <p>(ii) As part of the appeal process, the customer shall be provided with an opportunity to provide evidence that there was no excessive water use or of a bona fide reason for the excessive water use, including evidence of a water leak, a medical reason, or any other reasonable justification for the water use, as determined by the urban retail water supplier.</p> <p>(iii) As part of the appeal process, the urban retail water supplier shall provide documentation demonstrating the excessive water use.</p> <p>(c) (1) The provisions of subdivision (b) do not apply to an urban retail water supplier that is not fully metered in accordance with Section 527. An urban retail water supplier shall comply with the provisions of subdivision (b) when all of the water supplier’s residential water service connections are being billed based on metered water usage.</p> <p>(2) An urban retail water supplier that is not fully metered shall prohibit water use practices by an ordinance, resolution, rule, or tariff condition that imposes penalties for prohibited uses of water supplied by the water supplier. The urban retail water supplier may include a process to issue written warnings prior to imposing penalties as well as increased penalty amounts for successive violations.</p>
367	<p>(a) This chapter applies only as follows:</p> <p>(1) During a period for which the Governor has issued a proclamation 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 statewide drought conditions to an urban retail water supplier that has moved to a stage of action in response to a local water supply shortage condition under the water supplier’s contingency plan pursuant to paragraph (1) of subdivision (a) of Section 10632 that requires mandatory water use reductions.</p>

	<p>(2) To an urban retail water supplier during a period in which the water supplier has moved to a stage of action in response to a local water supply shortage condition under the water supplier's contingency plan pursuant to paragraph (1) of subdivision (a) of Section 10632 that requires mandatory water use reductions.</p> <p>(3) To an urban retail water supplier affected during a period for which the Governor has issued a proclamation 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 local drought conditions.</p> <p>(b) The provisions of this chapter are in addition to, and do not supersede or limit, any other measures or remedies implemented by an urban retail water supplier.</p>
377	Local agencies are authorized to impose civil liability for violations of certain new water conservation requirements
<p>California Water Code Division 12 County Water Districts 30000-33901 Part 5 Powers and Purposes (31000-31182)</p>	
31020	A district may do any act necessary to furnish sufficient water in the district for any present or future beneficial use.
31021	A district may store water for the benefit of the district, conserve water for future use, and appropriate, acquire, and conserve water and water rights for any useful purpose.
31026	A district shall have the power to restrict the use of district water during any emergency caused by drought, or other threatened or existing water shortage, and to prohibit the wastage of district water or the use of district water during such periods, for any purpose other than household uses or such other restricted uses as may be determined to be necessary by the district and may prohibit use of such water during such periods for specific uses which the district may from time to time find to be nonessential.
31027	<p>(a) A district may prescribe and define by ordinance the restrictions, prohibitions, and exclusions. Every such ordinance shall be in full force and effect immediately upon adoption, but shall be published once in full in a newspaper of general circulation, printed, published and circulated in the district within 10 days after adoption, or if there be no such newspaper it shall be posted within 10 days after adoption in three public places within the district.</p> <p>(b) The publication of ordinances, as required by subdivision (a), may be satisfied by either of the following actions:</p> <p>(1) The district may publish a summary of a proposed ordinance or proposed amendment to an existing ordinance. The summary shall be prepared by an official designated by the board. A summary shall be published and a certified copy of the full text of the proposed ordinance or proposed amendment shall be posted in the office of the board at least five days prior to the board meeting at which the proposed ordinance or amendment or alteration thereto is to be adopted. Within 15 days after adoption of the ordinance or amendment, the board shall publish a summary of the ordinance or amendment with the names of those directors voting for and against the ordinance or amendment and the official shall post in the office of the board a certified copy of the full text of the adopted ordinance or amendment along with the names of those directors voting for and against the ordinance or amendment.</p> <p>(2) If the official designated by the board determines that it is not feasible to prepare a fair and adequate summary of the proposed or adopted ordinance or amendment, and if the board so orders, a display advertisement of at least one-quarter of a page in a newspaper of general circulation in the county shall be published at least five days prior to the board meeting at which the proposed ordinance or amendment or alteration thereto is to be adopted. Within 15 days after adoption of the ordinance or amendment, a display advertisement of at least one-quarter of a page shall be published. The advertisement shall indicate the general nature of, and provide information about, the proposed or adopted ordinance or amendment, including information sufficient to enable the public to obtain copies of the complete text of the ordinance or amendment, and the names of those directors voting for and against the ordinance or amendment.</p>

31028	A district shall have power to make findings upon each and all of the matters referred to in Section 31026. A finding by the board of directors upon the existence, threat or duration of an emergency or shortage or upon the matter of necessity or any other matter or condition shall be made by resolution or ordinance and shall be prima facie evidence of the fact or matter so found, and such fact or matter shall be presumed to continue unchanged unless and until a contrary finding shall have been made by the board by resolution or ordinance. Such finding shall be received in evidence in any civil or criminal proceeding in which it may be offered, and shall be proof and evidence of the fact or matter found until rebutted or overcome by other sufficient evidence received in such proceeding. Copy of any resolution or ordinance setting forth any finding shall, when certified by the secretary of the district, be evidence that the finding was made by the district as shown by the resolution or ordinance and certification.
31029	After the publication or posting of any ordinance as provided in Section 31027, it is a misdemeanor for any person to use or apply water received from the district contrary to or in violation of the restriction or prohibition, until the ordinance has been repealed or the emergency or threatened emergency has ceased, and, upon conviction thereof, that person shall be punished by imprisonment in the county jail for not more than 30 days or by fine of not more than six hundred dollars (\$600), or by both the fine and imprisonment.
31035	A district may undertake a water conservation program to reduce water use and may require as a condition of new service that reasonable water-saving devices and water reclamation devices be installed to reduce water use.

California Water Code
DIVISION 6. CONSERVATION, DEVELOPMENT, AND UTILIZATION OF STATE WATER RESOURCES [10000 - 12999]
PART 2.6. URBAN WATER MANAGEMENT PLANNING [10610 - 10657]
CHAPTER 3. Urban Water Management Plans [10620 - 10645]
ARTICLE 2. Contents of Plans [10630 - 10634]

10632	<p>(a) Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan that consists of each of the following elements:</p> <p>(1) The analysis of water supply reliability conducted pursuant to Section 10635.</p> <p>(2) The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:</p> <p>(A) The written decision making process that an urban water supplier will use each year to determine its water supply reliability.</p> <p>(B) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:</p> <p>(i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.</p> <p>(ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.</p> <p>(iii) Existing infrastructure capabilities and plausible constraints.</p> <p>(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.</p> <p>(v) A description and quantification of each source of water supply.</p> <p>(3) (A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.</p>
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(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.

(4) Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

- (A) Locally appropriate supply augmentation actions.
- (B) Locally appropriate demand reduction actions to adequately respond to shortages.
- (C) Locally appropriate operational changes.
- (D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.
- (E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

(5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:

- (A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.
- (B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.
- (C) Any other relevant communications.

(6) For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.

(7) (A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.

(B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1.

(C) A statement that an urban water supplier shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

(8) A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:

- (A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).
- (B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).
- (C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.

(9) For an urban retail water supplier, monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

(10) Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.

- (b) For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall 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.
- (c) The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.

California Water Code
Division 6. Conservation development and Utilization
Part 2.6. Urban Water Management Planning
Chapter 3. Urban Water Management Plans (10620 – 10645)

ARTICLE 2. Contents of Plans [10630 - 10634]	
10632 (7) (A)	A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.
GOVERNMENT CODE - GOV	
TITLE 2. GOVERNMENT OF THE STATE OF CALIFORNIA [8000 - 22980]	
DIVISION 1. GENERAL [8000 - 8899.72]	
CHAPTER 7. California Emergency Services Act [8550 - 8669.7]	
ARTICLE 2. General Definitions [8555 - 8562]	
8558	<p>Three conditions or degrees of emergency are established by this chapter:</p> <p>(a) "State of war emergency" means the condition that exists immediately, with or without a proclamation thereof by the Governor, whenever this state or nation is attacked by an enemy of the United States, or upon receipt by the state of a warning from the federal government indicating that such an enemy attack is probable or imminent.</p> <p>(b) "State of emergency" means the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions such as air pollution, fire, flood, storm, epidemic, riot, drought, cyberterrorism, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake, or other conditions, other than conditions resulting from a labor controversy or conditions causing a "state of war emergency," which, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single county, city and county, or city and require the combined forces of a mutual aid region or regions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission.</p> <p>(c) "Local emergency" means the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the territorial limits of a county, city and county, or city, caused by conditions such as air pollution, fire, flood, storm, epidemic, riot, drought, cyberterrorism, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake, or other conditions, other than conditions resulting from a labor controversy, which are or are likely to be beyond the control of the services, personnel, equipment, and facilities of that political subdivision and require the combined forces of other political subdivisions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission.</p>

Appendix B

Sample Staff Report: Implementation of Advisory

To: Board of Directors

From:

Agenda:

Subject: Water Shortage Advisory

Recommendation:

That the Board of Directors authorize the implementation of Stage 1 - Water Shortage Advisory - of District's Water Shortage Contingency Plan.

The end of water year 2013 marks the second consecutive dry water year. Locally, water year 2012 was critically dry at 61 percent of normal precipitation and water year 2013 was dry at 74 percent of normal precipitation. Consecutive dry years will impact the availability of local surface water and the potential for mandatory curtailment of imported water sources. The California Department of Water Resources issued a press release in September emphasizing that water agencies must be prepared for the possibility of a third dry year.

To properly prepare for the possibility of a third consecutive dry year, staff is recommending that the Board authorize the implementation of Stage 1 of the Water Shortage Contingency Plan (Plan). Stage 1 is described as a water shortage advisory where the public is informed as early as meaningful data are available that a water shortage may occur. The District would encourage water use efficiency and increase public outreach. District staff would begin to prepare for implementation of mandatory rationing. Staff is not recommending setting a goal for a reduction in demand.

Staff recognizes that the Plan needs updating. Water Resources staff budgeted \$50,000 (Acct. No. 5318), in the budget for fiscal year 2014, in anticipation of a second consecutive dry year. Staff would like to use these funds toward updating the Plan and towards developing drought rates. Drought rates must go through the Proposition 218 notification, public hearing and approval process, so they need to be developed in advance.

Included in the District's update of the Plan is a review of its water allocation scheme during different stages of curtailment among the sales classes. It will also look at yields from local sources, impacts on revenues and expenditures, utility billing, and coordination with other agencies.

Appendix C

Sample Resolution: Implementation of Stage 2 – Water Shortage Emergency Warning

RESOLUTION NO. XXX-xx
A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE COASTSIDE COUNTY WATER DISTRICT

IMPLEMENTING STAGE 2 – WATER SHORTAGE EMERGENCY WARNING

WHEREAS, California is experiencing one of the most severe droughts on record; and

WHEREAS, the Coastside County Water District (District) implemented Stage 1 – Water Shortage Advisory of their Water Shortage Contingency Plan on October 8, 2013 informing the public of a possible water shortage and requesting voluntary water conservation; and

WHEREAS, Governor Brown declared a drought state of emergency on January 17, 2014, and called on all Californians to do their part to reduce their water use; and

WHEREAS, the wholesale provider for a significant portion of the District’s water supply, the San Francisco Public Utilities Commission requested 10 percent voluntary water use reduction system-wide on January 31, 2014; and

WHEREAS, the District requested 10 percent voluntary water use reduction from all customers on February 11, 2014; and

WHEREAS, Governor Brown issued a proclamation of a continued state of emergency on April 25, 2014 to mitigate the effects of drought conditions upon the people and property of California, and called on residents to refrain from wasting water; and

WHEREAS, the District adopted Resolution 2014-02 on May 13, 2014 urging heightened water use efficiency by customers in response to drought conditions, and

WHEREAS, the State Water Resources Control Board (SWRCB) adopted emergency regulations on July 15, 2014 (Resolution No. 2014-0038) that impose mandatory actions by urban water suppliers that became effective July 28, 2014; and

WHEREAS, the District is required to comply with SWRCB drought emergency regulations as an urban water supplier, and one of the mandatory actions requires the District to implement all requirements and actions of the stage of its Water Shortage Contingency Plan that imposes mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water; and

WHEREAS, the District is an urban water supplier that has an adopted Water Shortage Contingency Plan that is considered sufficient by the California Department of Water Resources by review of the District’s 2010 Urban Water Management Plan; and

WHEREAS, Stage 2 – Water Shortage Emergency Warning of the District’s Water Shortage Contingency Plan describes a menu of options, including mandatory restrictions on outdoor water use and prohibiting cleaning of exterior surfaces with potable water; and

WHEREAS, as required by the SWRCB emergency regulations, the District will implement Stage 2 - Water Shortage Emergency Warning.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Coastside County Water District declares that circumstances exist due to the adoption of the SWRCB emergency

regulations to implement Stage 2 - Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan.

BE IT FURTHER RESOLVED that the Board of Directors of the Coastside County Water District directs staff to implement all requirements and actions of Stage 2 - Water Shortage Emergency Warning in the District's Water Shortage Contingency Plan.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Coastside County Water District held on this 12th day of August 2014 by the following vote:

AYES:

NOES:

ABSENT:

President
Board of Directors

ATTEST:

General Manager
Secretary of the District

Appendix D

Sample Ordinance: Mandatory Restrictions on Outdoor Water Use

**ORDINANCE NO. XXXX-XX
AN AMENDED AND RESTATED ORDINANCE OF
THE COASTSIDE COUNTY WATER DISTRICT**

An ordinance establishing and expanding mandatory water use restrictions and prohibitions under Stage 2- Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan

Be it ordained by the Board of Directors of the Coastside County Water District (District) as follows:

Section 1: Findings and Determinations

This ordinance is adopted in light of the following facts and circumstances, which are hereby found and declared by the Board of Directors.

WHEREAS, California is experiencing one of the most severe droughts on record; and

WHEREAS, the District implemented Stage 1 – Water Shortage Advisory of its Water Shortage Contingency Plan on October 8, 2013 informing the public of a possible water shortage and requesting voluntary water conservation; and

WHEREAS, Governor Brown declared a drought state of emergency on January 17, 2014, and called on all Californians to do their part to reduce their water use; and

WHEREAS, the wholesale water provider for a significant portion of the District's water supply, the San Francisco Public Utilities Commission (SFPUC), requested 10 percent voluntary water use reduction system-wide on January 31, 2014; and

WHEREAS, the District requested 10 percent voluntary water use reduction from all customers on February 11, 2014; and

WHEREAS, Governor Brown issued a proclamation of a continued state of emergency on April 25, 2014 to mitigate the effects of drought conditions upon the people and property of California, and called on residents to refrain from wasting water; and

WHEREAS, the District adopted Resolution 2014-02 on May 13, 2014 urging heightened water use efficiency by customers in response to drought conditions, and

WHEREAS, the State Water Resources Control Board (SWRCB) adopted drought emergency regulations on July 15, 2014 (Resolution No. 2014-0038) that imposed mandatory actions by urban water suppliers that became effective July 28, 2014; and

WHEREAS, the District was required to comply with the 2014 SWRCB drought emergency regulations as an urban water supplier, and one of the mandatory actions requires the District to implement all requirements and actions of the stage of its Water Shortage Contingency Plan that impose mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water; and

WHEREAS, the District is an urban water supplier that has an adopted Water Shortage Contingency Plan that is considered sufficient by the California Department of Water Resources by review of the District's 2010 Urban Water Management Plan; and

WHEREAS, Stage 2 – Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan describes a menu of options including mandatory restrictions on outdoor water use, irrigation and prohibiting cleaning of exterior surfaces with potable water; and

WHEREAS, by Resolution No. 2014-06, adopted on August 12, 2014, the District implemented Stage 2 – Water Shortage Emergency Warning of its Water Shortage Contingency Plan; and

WHEREAS, by Ordinance No. 2014-02, adopted on August 12, 2014, the District established mandatory water use prohibitions and restrictions under Stage 2-Water Shortage Emergency Warning of its Water Shortage Contingency Plan; and

WHEREAS, the SWRCB extended and expanded the drought emergency regulations on March 17, 2015 (Resolution No. 2015-0013) that imposes mandatory actions by urban water suppliers that became effective March 27, 2015; and

WHEREAS, Governor Brown issued Executive Order B-29-15 on April 1, 2015, that, in part, directed the SWRCB to impose restrictions to achieve a statewide 25 percent reduction in potable urban water usage, to increase enforcement against water waste, and to implement additional restrictions on the outdoor use of potable water; and

WHEREAS, the SWRCB expanded and modified its drought emergency regulations on May 5, 2015 (Resolution 2015-0032) to achieve a statewide 25 percent reduction in potable urban water usage and the emergency regulations went into effect on May 18, 2015; and

WHEREAS, the SWRCB determined that the District had an average July-September 2014 R-GPCD of less than 65, and that the District shall reduce its total potable water production by 8 percent for each month as compared to the amount used in the same month in 2013; and

WHEREAS, the SFPUC's request for all customers to reduce water consumption by 10 percent system-wide, remains in place; and

WHEREAS, the actions taken hereinafter are exempt from the provisions of Section 21000 et seq. of the Public Resources Code as a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Code of Regulations Section 15269 and as a project undertaken to assure the maintenance, restoration or enhancement of a natural resource pursuant to Title 14, California Code of Regulations Section 15307.

Section 2: Definitions

Agricultural use: Use that meets the definition of Government Code section 51201, subdivision (b).

Customer: Any person, whether within or without the geographical boundaries of the District, who uses water supplied by the District.

District: Coastside County Water District.

General Manager: The General Manager of Coastside County Water District or the General Manager's designee.

Graywater: Untreated household wastewater which has not come in contact with toilet waste, as regulated by the 2013 California Plumbing Code Chapter 16 Section 1602.

Irrigation station: A group of sprinklers controlled by the same valve to correspond to a hydrozone, also referred to as a circuit.

Low volume irrigation systems: Any irrigation system that applies irrigation water at low pressure through a system of tubing or lateral lines and low volume emitters such as drip, driplines, microspray, and bubblers with a very low flow rate (≤ 2 gallons per hour [gph]) measured in gallons per hour, and that is designed to apply small volumes of water very slowly at or near the root zone of plants. This includes but is not limited to properly functioning drip irrigation systems and soaker hoses.

Measurable rainfall: Climatological conditions that result in ≥ 0.1 (greater than or equal to one tenth) of an inch of precipitation in any continuous 4 (four) hour period.

Ornamental landscape: Any landscaping where the primary function is of maintaining aesthetic value. An ornamental landscape may serve other purposes, but the primary purpose is visual.

Person: Any customer, tenant, property owner, governmental entity, firm, association, organization, company or business using water.

Recycled water: Treated reclaimed wastewater from a publicly owned treatment plant.

Turf: Grasses grown for ornamental or recreational use which are mowed regularly. It is also referred to as lawn.

Water: Any water delivered by or originating from Coastside County Water District's transmission and distribution system.

Section 3: Prohibited and Restricted Activities in Promotion of Water Conservation

- A. To promote water conservation, each of the following actions is prohibited, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:

1. The application of water to outdoor landscapes and turf in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, storm-water drainage infrastructure, or structures;
 2. The use of a hose that dispenses water to wash motorized vehicles, boats and trailers, except where the hose is fitted with a positive shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;
 3. The application of water to driveways and sidewalks;
 4. The use of water in a fountain or other decorative water feature, except where the water is part of a recirculating system;
 5. The application of water to outdoor landscapes during and within 48 hours after measurable rainfall; and
 6. The application of water to ornamental turf on public street medians.
- B. To prevent the waste and unreasonable use of water and to further promote water conservation, each of the following actions is prohibited:
1. The use of water that causes flooding or pooling due to super-saturation of the ground or soil;
 2. The use of water when the customer has been given written notice by the District to repair broken or defective plumbing, equipment, appliances, sprinklers, watering or irrigation systems, and has failed to complete such repairs for 24 hours after delivery of the notice;
 3. The indiscriminate running of water or washing with water that causes runoff;
 4. The use of water for single pass through cooling systems. The use of potable water ice making machines and other mechanical equipment that utilizes a single-pass cooling system to remove and discharge heat to the sewer. Water used for all cooling purposes shall be recycled or re-circulated; and
 5. The use of water from any fire hydrant, unless specifically authorized by the District, except by regularly constituted fire protection agencies for fire suppression purposes or for other specifically authorized uses, including water distribution flushing, fire flow testing, and filling of District approved vehicles for sewer system flushing, and street sweeping purposes.
- C. Specific Non-Residential End-User Requirements and Prohibitions in Promotion of Water Conservation:
1. The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased; and
 2. Operators of hotels, motels, inns, and bed and breakfast establishments shall provide guests with the option of choosing not to have towels and linens laundered daily. The operator shall prominently display notice of this option in each guestroom using clear and easily understood language; and
 3. All commercial, industrial, institutional and irrigation customers that use a water supply any portion of which is from a source other than Coastside County Water District shall:
 - (a) Notify the District by Insert Date, if there is an alternate water supply associated with their property; and
 - (b) Limit outdoor irrigation of ornamental landscapes or turf with potable water to no more than two days per week; or

- (c) Reduce potable water usage by 25 percent for the months of Insert Date through Insert Date as compared to the amount used for the same months in Insert Year.

Section 4: Mandatory Restrictions on Outdoor Irrigation of Ornamental Landscapes or Turf

- A. Time of day restriction. No person shall use or cause to be used any water for ornamental landscape or turf irrigation between the hours of 8:00 a.m. and 5:00 p.m.
- B. Length of time restriction. No person shall use or cause to be used any water for ornamental landscape or turf irrigation that exceeds 15 minutes per irrigation station during the designated days and times allowed for irrigation.
- C. Days of the week restrictions. No person shall use or cause to be used any water for ornamental landscape or turf irrigation on Sunday and Saturday. Irrigation of ornamental landscape or turf is allowed only on the following days:
 - 1. Odd Address: Monday and Thursday
 - 2. Even Address: Tuesday and Friday
 - 3. No Address: Monday and Thursday
 - 4. The address used to determine Irrigation days is as it appears under service address in the utility billing database under account information.
- D. The limitations specified in Section 4. A, B, and C shall not apply to Agricultural use, Floricultural use and Plant Nursery use.
- E. Section 4. A, B, and C does not apply to the following categories of water use for the irrigation of ornamental landscapes or turf:
 - 1. the use of a hand-held bucket or similar container;
 - 2. the use of a hand-held hose with a positive shut-off valve or similar device;
 - 3. the use of a properly functioning low volume irrigation system;
 - 4. the use for very short periods of time for the express purpose of adjusting or repairing an irrigation system;
 - 5. the use of a graywater system; and
 - 6. the use of recycled water.

Section 5: Enforcement

- A. Written Notice

If the District believes that water has been or is being used in violation of the above restrictions, the District will send a written notice to the customer specifying the nature of the violation and the date and time of occurrence and request that the customer cease the violation and take remedial action. The District will provide the customer with a copy of the ordinance and inform the customer that failure to comply may result in termination of water service.

- B. On-Site Notification

In the event that a further violation(s) is observed by District, after the original written notice, the District will make reasonable efforts to notify the customer of the violation and post a notice on the front door or other point of entry onto the property requiring the customer to cease the violation and take remedial action within 48 hours of the on-site notification. Failure to comply after the on-site notification may result in the temporary termination of water service.

C. Termination of Water Service

1. In the event that a further violation(s) is observed by District personnel 48 or more hours after the on-site notification, it will be deemed a willful violation of the mandatory restrictions on water use and the District may temporarily discontinue water service.
2. The customer shall be responsible for paying the District's costs incurred in enforcing this ordinance, including providing the on-site notification and temporarily terminating and restoring water service, on a time and material basis in accordance with the District's rate and fee schedule.
3. The customer shall pay all fees and charges above, and the customer's account must be in good standing, in order for the District to proceed with the reconnection of water service after it has been temporarily terminated.

Section 6: Appeal

Any customer, who disputes a staff determination of a violation of the above restrictions, may appeal in writing to the General Manager. The decision of the General Manager shall be final.

A. Written Appeal

The written appeal must be addressed to the General Manager and include: (1) the customer's name; (2) the mailing address and site address, if different; (3) the water account number; (4) a description of the violation(s); (5) the enforcement action taken; and (6) a detailed explanation of the basis of the appeal.

Coastside County Water District
Attn: General Manager
766 Main Street
Half Moon Bay, CA 94019

B. Criteria for Appeal

The General Manager will evaluate each written appeal based on the following criteria: (1) public health; (2) public safety; and (3) regulatory requirements of a state or federal agency.

Section 7: Effective Date

All provisions of this amended and restated ordinance shall become effective after the publication of this ordinance and remain in effect until the District cancels implementation of Stage 2 – Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan.

Section 8: Severability

If any provision of this ordinance is held to be invalid, or unenforceable in particular circumstances, such invalidity shall not affect the remainder of the ordinance which shall continue to be in full force and effect and the Board declares this ordinance to be severable for that purpose.

Section 9: Publication

The secretary is hereby directed to arrange for this ordinance to be published in a newspaper of general circulation in the District and to be posted on the District's website.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Coastside County Water District held on this Insert Day day of Insert Year by the following vote:

Appendix E

Sample Ordinance: Mandatory Water Use Restrictions for a Ten Percent Reduction in Consumption

ORDINANCE NO. xxxx-xx
AN ORDINANCE OF THE COASTSIDE COUNTY WATER DISTRICT

An ordinance establishing mandatory water use restrictions under Stage 2- Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan

Be it ordained by the Board of Directors of the Coastside County Water District (District) as follows:

Section 1: Findings and Determinations

This ordinance is adopted in light of the following facts and circumstances, which are hereby found and declared by the Board of Directors.

WHEREAS, California is experiencing one of the most severe droughts on record; and

WHEREAS, the District implemented Stage 1 – Water Shortage Advisory of its Water Shortage Contingency Plan on October 8, 2013 informing the public of a possible water shortage and requesting voluntary water conservation; and

WHEREAS, Governor Brown declared a drought state of emergency on January 17, 2014, and called on all Californians to do their part to reduce their water use; and

WHEREAS, the wholesale water provider for a significant portion of the District's water supply, the San Francisco Public Utilities Commission, requested 10 percent voluntary water use reduction system-wide on January 31, 2014; and

WHEREAS, the District requested 10 percent voluntary water use reduction from all customers on February 11, 2014; and

WHEREAS, Governor Brown issued a proclamation of a continued state of emergency on April 25, 2014 to mitigate the effects of drought conditions upon the people and property of California, and called on residents to refrain from wasting water; and

WHEREAS, the District adopted Resolution 2014-02 on May 13, 2014 urging heightened water use efficiency by customers in response to drought conditions, and

WHEREAS, the State Water Resources Control Board (SWRCB) adopted drought emergency regulations on July 15, 2014 (Resolution No. 2014-0038) that imposes mandatory actions by urban water suppliers that became effective July 28, 2014; and

WHEREAS, the District is required to comply with the SWRCB drought emergency regulations as an urban water supplier, and one of the mandatory actions requires the District to implement all requirements and actions of the stage of its Water Shortage Contingency Plan that impose mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water; and

WHEREAS, the District is an urban water supplier that has an adopted Water Shortage Contingency Plan that is considered sufficient by the California Department of Water Resources by review of the District's 2010 Urban Water Management Plan; and

WHEREAS, Stage 2 – Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan describes a menu of options including mandatory restrictions on outdoor water use and prohibiting cleaning of exterior surfaces with potable water; and

WHEREAS, by Resolution No. 2014-06, the District implemented Stage 2 – Water Shortage Emergency Warning of its Water Shortage Contingency Plan on August 12, 2014; and

WHEREAS, as of June 2014, the District is on track in achieving the request from the San Francisco Public Utilities Commission to achieve a 10 percent reduction in water purchases in calendar year 2014 from the fiscal year 2014 purchase request; and

WHEREAS, the actions taken hereinafter are exempt from the provisions of Section 21000 et seq. of the Public Resources Code as a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Code of Regulations Section 15269 and as a project undertaken to assure the maintenance, restoration or enhancement of a natural resource pursuant to Title 14, California Code of Regulations Section 15307.

Section 2: Definitions

Customer: Any person, whether within or without the geographical boundaries of the District, who uses water supplied by the District.

District: Coastside County Water District.

General Manager: The General Manager of Coastside County Water District or his representative.

Graywater: Untreated household wastewater which has not come in contact with toilet waste, as regulated by the 2013 California Plumbing Code Chapter 16 Section 1602.

Low volume irrigation systems: Any irrigation system that applies irrigation water at low pressure through a system of tubing or lateral lines and low volume emitters such as drip, driplines and bubblers with a very low flow rate measured in gallons per hour, and that is designed to apply small volumes of water very slowly at or near the root zone of plants. This includes but is not limited to properly functioning drip irrigation systems and soaker hoses.

Person: Any customer, tenant, property owner, governmental entity, firm, association, organization, company or business using water.

Recycled water: Treated reclaimed wastewater from a publicly owned treatment plant.

Turf: Grasses grown for ornamental or recreational use which are mowed regularly. It is also referred to as lawn.

Water: Any water delivered by or originating from Coastside County Water District's transmission and distribution system.

Section 3: Prohibited Activities in Promotion of Water Conservation

- D. To promote water conservation, each of the following actions is prohibited except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:
7. The application of water to outdoor landscapes and turf in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, storm-water drainage infrastructure, or structures;
 8. The use of a hose that dispenses water to wash motorized vehicles, boats and trailers, except where the hose is fitted with a positive shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;
 9. The application of water to driveways and sidewalks; and
 10. The use of water in a fountain or other decorative water feature, except where the water is part of a recirculating system.
- E. To further promote water conservation, each of the following actions is prohibited:
6. The use of water that causes flooding or pooling due to super-saturation of the ground or soil.
 7. The use of water when the customer has been given written notice by the District to repair broken or defective plumbing, equipment, appliances, sprinklers, watering or irrigation systems, and has failed to complete such repairs for 24 hours after delivery of the notice.
 8. The indiscriminate running of water or washing with water that causes runoff.
 9. The use of water for single pass through cooling systems. The use of potable water ice making machines and other mechanical equipment that utilizes a single-pass cooling system to remove and discharge heat to the sewer. Water used for all cooling purposes shall be recycled or re-circulated.
 10. The use of water from any fire hydrant, unless specifically authorized by the District, except by regularly constituted fire protection agencies for fire suppression purposes or for other specifically authorized uses, including water distribution flushing, fire flow testing, and filling of District approved vehicles for sewer system flushing, and street sweeping purposes.

Section 4: Mandatory Restrictions on Outdoor Irrigation of Ornamental Landscapes or Turf

- F. Time of day restriction. No person shall use or cause to be used any water for ornamental landscape or turf irrigation between the hours of 8:00 a.m. and 5:00 p.m.
- G. The limitations specified in Section 4.A. shall not apply to Agriculture, Plant Nurseries, Cemeteries, K-12 School Sports Fields, Private League Sports Fields, Public Parks, and Golf Courses.
- H. Section 4. A. does not apply to the following categories of water use for the irrigation of ornamental landscapes or turf:
 - 7. the use of a hand-held bucket or similar container; and
 - 8. the use of a hand-held hose with a positive shut-off valve or similar device; and
 - 9. the use of a properly functioning low volume irrigation system; and
 - 10. the use for very short periods of time for the express purpose of adjusting or repairing an irrigation system; and
 - 11. the use of a graywater system; and
 - 12. the use of recycled water.

Section 5: Enforcement

D. Written Notice

If the District believes that water has been or is being used in violation of the above restrictions, the District will send a written notice to the customer specifying the nature of the violation and the date and time of occurrence and request that the customer cease the violation and take remedial action. The District will provide the customer with a copy of the ordinance and inform the customer that failure to comply may result in termination of water service.

E. On-Site Notification

In the event that a further violation(s) is observed by District, after the original written notice, the District will make reasonable efforts to notify the customer of the violation and post a notice on the front door or other point of entry onto the property requiring the customer to cease the violation and take remedial action within 48 hours of the on-site notification. Failure to comply after the on-site notification may result in the temporary termination of water service.

F. Termination of Water Service

- 4. In the event that a further violation(s) is observed by District personnel 48 or more hours after the on-site notification, it will be deemed a willful violation of the mandatory restrictions on water use and the District may temporarily discontinue water service.
- 5. The customer shall be responsible for paying the District's costs incurred in enforcing this ordinance, including providing the on-site notification and temporarily terminating and restoring water service, on a time and material basis.
 - a. Turn off during normal business hours \$20.00
 - b. Reconnection during normal business hours \$20.00
 - c. Reconnection other than normal business hours \$50.00
 - d. Labor rate of \$78.97 per hour during normal business hours

6. The customer shall pay all fees and charges above, and the customer's account must be in good standing, in order for the District to proceed with the reconnection of water service after it has been temporarily terminated.

Section 6: Appeal

Any customer, who disputes a staff determination of a violation of the above restrictions, may appeal in writing to the General Manager. The decision of the General Manager shall be final.

C. Written Appeal

The written appeal must be addressed to the General Manager and include: (1) the customer's name; (2) the mailing address and site address, if different; (3) the water account number; (4) a description of the violation(s); (5) the enforcement action taken; and (6) a detailed explanation of the basis of the appeal.

Coastside County Water District
Attn: General Manager
766 Main Street
Half Moon Bay, CA 94019

D. Criteria for Appeal

The General Manager will evaluate each written appeal based on the following criteria: (1) public health; (2) public safety; and (3) regulatory requirements of a state or federal agency.

Section 7: Effective Date

All provisions of this ordinance shall become effective after the publication of this ordinance and remain in effect until the District cancels implementation of Stage 2 – Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan.

Section 8: Severability

If any provision of this ordinance is held to be invalid, or unenforceable in particular circumstances, such invalidity shall not affect the remainder of the ordinance which shall continue to be in full force and effect and the Board declares this ordinance to be severable for that purpose.

Section 9: Publication

The secretary is hereby directed to arrange for this ordinance to be published in a newspaper of general circulation in the District and to be posted on the District's website.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Coastside County Water District held on this 12th day of August 2014 by the following vote:

AYES:
NOES:
ABSENT:

President
Board of Directors

ATTEST:

General Manager
Secretary of the District

Appendix F

Sample Ordinance: Mandatory Restrictions with Time of Day and Day of Week Irrigation

**ORDINANCE NO. xxxx-xx
AN AMENDED AND RESTATED ORDINANCE OF
THE COASTSIDE COUNTY WATER DISTRICT**

An ordinance establishing and expanding mandatory water use restrictions and prohibitions under Stage 2- Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan

Be it ordained by the Board of Directors of the Coastside County Water District (District) as follows:

Section 1: Findings and Determinations

This ordinance is adopted in light of the following facts and circumstances, which are hereby found and declared by the Board of Directors.

WHEREAS, California is experiencing one of the most severe droughts on record; and

WHEREAS, the District implemented Stage 1 – Water Shortage Advisory of its Water Shortage Contingency Plan on October 8, 2013 informing the public of a possible water shortage and requesting voluntary water conservation; and

WHEREAS, Governor Brown declared a drought state of emergency on January 17, 2014, and called on all Californians to do their part to reduce their water use; and

WHEREAS, the wholesale water provider for a significant portion of the District's water supply, the San Francisco Public Utilities Commission (SFPUC), requested 10 percent voluntary water use reduction system-wide on January 31, 2014; and

WHEREAS, the District requested 10 percent voluntary water use reduction from all customers on February 11, 2014; and

WHEREAS, Governor Brown issued a proclamation of a continued state of emergency on April 25, 2014 to mitigate the effects of drought conditions upon the people and property of California, and called on residents to refrain from wasting water; and

WHEREAS, the District adopted Resolution 2014-02 on May 13, 2014 urging heightened water use efficiency by customers in response to drought conditions, and

WHEREAS, the State Water Resources Control Board (SWRCB) adopted drought emergency regulations on July 15, 2014 (Resolution No. 2014-0038) that imposed mandatory actions by urban water suppliers that became effective July 28, 2014; and

WHEREAS, the District was required to comply with the 2014 SWRCB drought emergency regulations as an urban water supplier, and one of the mandatory actions requires the District to implement all requirements and actions of the stage of its Water Shortage Contingency Plan that impose mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water; and

WHEREAS, the District is an urban water supplier that has an adopted Water Shortage Contingency Plan that is considered sufficient by the California Department of Water Resources by review of the District's 2010 Urban Water Management Plan; and

WHEREAS, Stage 2 – Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan describes a menu of options including mandatory restrictions on outdoor water use, irrigation and prohibiting cleaning of exterior surfaces with potable water; and

WHEREAS, by Resolution No. 2014-06, adopted on August 12, 2014, the District implemented Stage 2 – Water Shortage Emergency Warning of its Water Shortage Contingency Plan; and

WHEREAS, by Ordinance No. 2014-02, adopted on August 12, 2014, the District established mandatory water use prohibitions and restrictions under Stage 2-Water Shortage Emergency Warning of its Water Shortage Contingency Plan; and

WHEREAS, the SWRCB extended and expanded the drought emergency regulations on March 17, 2015 (Resolution No. 2015-0013) that imposes mandatory actions by urban water suppliers that became effective March 27, 2015; and

WHEREAS, Governor Brown issued Executive Order B-29-15 on April 1, 2015, that, in part, directed the SWRCB to impose restrictions to achieve a statewide 25 percent reduction in potable urban water usage, to increase enforcement against water waste, and to implement additional restrictions on the outdoor use of potable water; and

WHEREAS, the SWRCB expanded and modified its drought emergency regulations on May 5, 2015 (Resolution 2015-0032) to achieve a statewide 25 percent reduction in potable urban water usage and the emergency regulations went into effect on May 18, 2015; and

WHEREAS, the SWRCB determined that the District had an average July-September 2014 R-GPCD of less than 65, and that the District shall reduce its total potable water production by 8 percent for each month as compared to the amount used in the same month in 2013; and

WHEREAS, the SFPUC's request for all customers to reduce water consumption by 10 percent system-wide, remains in place; and

WHEREAS, the actions taken hereinafter are exempt from the provisions of Section 21000 et seq. of the Public Resources Code as a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Code of Regulations Section 15269 and as a project undertaken to assure the maintenance, restoration or enhancement of a natural resource pursuant to Title 14, California Code of Regulations Section 15307.

Section 2: Definitions

Agricultural use: Use that meets the definition of Government Code section 51201, subdivision (b).

Customer: Any person, whether within or without the geographical boundaries of the District, who uses water supplied by the District.

District: Coastside County Water District.

General Manager: The General Manager of Coastside County Water District or the General Manager's designee.

Graywater: Untreated household wastewater which has not come in contact with toilet waste, as regulated by the 2013 California Plumbing Code Chapter 16 Section 1602.

Irrigation station: A group of sprinklers controlled by the same valve to correspond to a hydrozone, also referred to as a circuit.

Low volume irrigation systems: Any irrigation system that applies irrigation water at low pressure through a system of tubing or lateral lines and low volume emitters such as drip, driplines, microspray, and bubblers with a very low flow rate (≤ 2 gallons per hour [gph]) measured in gallons per hour, and that is designed to apply small volumes of water very slowly at or near the root zone of plants. This includes but is not limited to properly functioning drip irrigation systems and soaker hoses.

Measurable rainfall: Climatological conditions that result in ≥ 0.1 (greater than or equal to one tenth) of an inch of precipitation in any continuous 4 (four) hour period.

Ornamental landscape: Any landscaping where the primary function is of maintaining aesthetic value. An ornamental landscape may serve other purposes, but the primary purpose is visual.

Person: Any customer, tenant, property owner, governmental entity, firm, association, organization, company or business using water.

Recycled water: Treated reclaimed wastewater from a publicly owned treatment plant.

Turf: Grasses grown for ornamental or recreational use which are mowed regularly. It is also referred to as lawn.

Water: Any water delivered by or originating from Coastside County Water District's transmission and distribution system.

Section 3: Prohibited and Restricted Activities in Promotion of Water Conservation

F. To promote water conservation, each of the following actions is prohibited, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:

11. The application of water to outdoor landscapes and turf in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, storm-water drainage infrastructure, or structures;

12. The use of a hose that dispenses water to wash motorized vehicles, boats and trailers, except where the hose is fitted with a positive shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;
 13. The application of water to driveways and sidewalks;
 14. The use of water in a fountain or other decorative water feature, except where the water is part of a recirculating system;
 15. The application of water to outdoor landscapes during and within 48 hours after measurable rainfall; and
 16. The application of water to ornamental turf on public street medians.
- G. To prevent the waste and unreasonable use of water and to further promote water conservation, each of the following actions is prohibited:
11. The use of water that causes flooding or pooling due to super-saturation of the ground or soil;
 12. The use of water when the customer has been given written notice by the District to repair broken or defective plumbing, equipment, appliances, sprinklers, watering or irrigation systems, and has failed to complete such repairs for 24 hours after delivery of the notice;
 13. The indiscriminate running of water or washing with water that causes runoff;
 14. The use of water for single pass through cooling systems. The use of potable water ice making machines and other mechanical equipment that utilizes a single-pass cooling system to remove and discharge heat to the sewer. Water used for all cooling purposes shall be recycled or re-circulated; and
 15. The use of water from any fire hydrant, unless specifically authorized by the District, except by regularly constituted fire protection agencies for fire suppression purposes or for other specifically authorized uses, including water distribution flushing, fire flow testing, and filling of District approved vehicles for sewer system flushing, and street sweeping purposes.
- H. Specific Non-Residential End-User Requirements and Prohibitions in Promotion of Water Conservation:
4. The serving of drinking water other than upon request in eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drink are served and/or purchased; and
 5. Operators of hotels, motels, inns, and bed and breakfast establishments shall provide guests with the option of choosing not to have towels and linens laundered daily. The operator shall prominently display notice of this option in each guestroom using clear and easily understood language; and
 6. All commercial, industrial, institutional and irrigation customers that use a water supply any portion of which is from a source other than Coastside County Water District shall:
 - (d) Notify the District by July 1, 2015, if there is an alternate water supply associated with their property; and
 - (e) Limit outdoor irrigation of ornamental landscapes or turf with potable water to no more than two days per week; or
 - (f) Reduce potable water usage by 25 percent for the months of June 2015 through February 2016 as compared to the amount used for the same months in 2013.

Section 4: Mandatory Restrictions on Outdoor Irrigation of Ornamental Landscapes or Turf

- I. Time of day restriction. No person shall use or cause to be used any water for ornamental landscape or turf irrigation between the hours of 8:00 a.m. and 5:00 p.m.
- J. Length of time restriction. No person shall use or cause to be used any water for ornamental landscape or turf irrigation that exceeds 15 minutes per irrigation station during the designated days and times allowed for irrigation.
- K. Days of the week restrictions. No person shall use or cause to be used any water for ornamental landscape or turf irrigation on Sunday and Saturday. Irrigation of ornamental landscape or turf is allowed only on the following days:
 - 5. Odd Address: Monday and Thursday
 - 6. Even Address: Tuesday and Friday
 - 7. No Address: Monday and Thursday
 - 8. The address used to determine Irrigation days is as it appears under service address in the utility billing database under account information.
- L. The limitations specified in Section 4. A, B, and C shall not apply to Agricultural use, Floricultural use and Plant Nursery use.
- M. Section 4. A, B, and C does not apply to the following categories of water use for the irrigation of ornamental landscapes or turf:
 - 13. the use of a hand-held bucket or similar container;
 - 14. the use of a hand-held hose with a positive shut-off valve or similar device;
 - 15. the use of a properly functioning low volume irrigation system;
 - 16. the use for very short periods of time for the express purpose of adjusting or repairing an irrigation system;
 - 17. the use of a graywater system; and
 - 18. the use of recycled water.

Section 5: Enforcement

G. Written Notice

If the District believes that water has been or is being used in violation of the above restrictions, the District will send a written notice to the customer specifying the nature of the violation and the date and time of occurrence and request that the customer cease the violation and take remedial action. The District will provide the customer with a copy of the ordinance and inform the customer that failure to comply may result in termination of water service.

H. On-Site Notification

In the event that a further violation(s) is observed by District, after the original written notice, the District will make reasonable efforts to notify the customer of the violation and post a notice on the front door or other point of entry onto the property requiring the customer to cease the violation and take remedial action within 48 hours of the on-site notification. Failure to comply after the on-site notification may result in the temporary termination of water service.

I. Termination of Water Service

7. In the event that a further violation(s) is observed by District personnel 48 or more hours after the on-site notification, it will be deemed a willful violation of the mandatory restrictions on water use and the District may temporarily discontinue water service.
8. The customer shall be responsible for paying the District's costs incurred in enforcing this ordinance, including providing the on-site notification and temporarily terminating and restoring water service, on a time and material basis in accordance with the District's rate and fee schedule.
9. The customer shall pay all fees and charges above, and the customer's account must be in good standing, in order for the District to proceed with the reconnection of water service after it has been temporarily terminated.

Section 6: Appeal

Any customer, who disputes a staff determination of a violation of the above restrictions, may appeal in writing to the General Manager. The decision of the General Manager shall be final.

E. Written Appeal

The written appeal must be addressed to the General Manager and include: (1) the customer's name; (2) the mailing address and site address, if different; (3) the water account number; (4) a description of the violation(s); (5) the enforcement action taken; and (6) a detailed explanation of the basis of the appeal.

Coastside County Water District
Attn: General Manager
766 Main Street
Half Moon Bay, CA 94019

F. Criteria for Appeal

The General Manager will evaluate each written appeal based on the following criteria: (1) public health; (2) public safety; and (3) regulatory requirements of a state or federal agency.

Section 7: Effective Date

All provisions of this amended and restated ordinance shall become effective after the publication of this ordinance and remain in effect until the District cancels implementation of Stage 2 – Water Shortage Emergency Warning of the District's Water Shortage Contingency Plan.

Section 8: Severability

If any provision of this ordinance is held to be invalid, or unenforceable in particular circumstances, such invalidity shall not affect the remainder of the ordinance which shall continue to be in full force and effect and the Board declares this ordinance to be severable for that purpose.

Section 9: Publication

The secretary is hereby directed to arrange for this ordinance to be published in a newspaper of general circulation in the District and to be posted on the District's website.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the Coastside County Water District held on this 9th day of June 2015 by the following vote:

Appendix G

Sample Ordinance: Residential Allocations

ORDINANCE NO.

COASTSIDE COUNTY WATER DISTRICT

AN ORDINANCE ESTABLISHING RULES AND REGULATIONS FOR RATIONING WATER DURING A WATER SHORTAGE EMERGENCY AND ESTABLISHING PENALTIES FOR VIOLATIONS THEREOF

BE IT ORDAINED BY THE BOARD OF DIRECTORS OF THE COASTSIDE COUNTY WATER DISTRICT AS FOLLOWS:

Section 1: Findings and Determinations

This ordinance is adopted in light of the following facts and circumstances, which are hereby found and declared by the Board of Directors.

Whereas, the District obtains the majority of its water from the San Francisco Public Utilities Commission (SFPUC) and is substantially dependent on the SFPUC supply throughout the year and particularly in dry years.

Whereas, the SFPUC has, on (insert date), found that due to (add qualifier; extremely or severely) low water supplies within the reservoirs and anticipated low levels of inflow into such reservoirs, water consumption must be decreased and has declared a water shortage emergency.

Whereas, the SFPUC has adopted a water conservation program under which the amount of water allocated to the District will be reduced by approximately (insert percentage) during fiscal year (insert year).

Whereas, the District's local sources of water, which supplement the water supplies purchased from SFPUC, are also below normal as a result of (insert number of years or months) of below normal precipitation.

Whereas, the actions of the SFPUC, and the reduced amount of water available from local sources, a water shortage emergency exists within the area served by the District.

Whereas, the rules, regulations and restrictions set forth in this ordinance are intended to conserve the water supply of the District for the greatest public benefit with particular regard to domestic use, sanitation and fire protection.

Whereas, according to the District's Water Shortage and Drought Contingency Plan, conditions exist to implement Stage (insert stage number and description here), as developed under authority of California Water Code Section 10632.

Whereas, the specific uses prohibited or restricted by this ordinance are nonessential, and if allowed would constitute wastage of District water, and should be prohibited pursuant to the District's authority under California Water Code section 350 – 359 et seq., California Water Code Section 31026 et seq., and the common law.

Whereas, the actions taken hereinafter are exempt from the provisions of Section 21000 et seq. of the Public Resources Code as a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Code of Regulations Section 15269 and as a project undertaken to assure the maintenance, restoration or enhancement of a natural resource pursuant to Title 14, California Code of Regulations Section 15307.

Section 2: Definitions

- A. "District" means Coastside County Water District
- B. "General Manager" means the General Manager of the District.
- C. "Person" means any person, firm, partnership, association, corporation, company, organization or governmental entity.
- D. "Customer" means any person, whether within or without the geographic boundaries of the District, who uses water supplied by the District.
- E. "Billing Unit" means a quantity of water equal to 100 cubic feet (ccf) or 748 gallons.
- F. "Account" means a metered or unmetered water service.

Section 3: Prohibition of Nonessential Water Use

It shall be unlawful for any person to use water obtained from the water system of the District for nonessential uses as hereinafter defined in Sections 4 and 5.

Section 4: Allocations

A. Use of water in excess of the following allocation is hereby determined to be nonessential:

1. Residential Accounts

a. Basic Allocation: The allocation for each billing period (monthly or bi-monthly) shall be:

1. Minimum Allocation: Residential customers shall be granted an allocation based on the number of permanent, full-time residents. A customer shall submit evidence, satisfactory to the General Manager, of the number of permanent, full-time residents. The minimum allocation for a billing period is determined as follows:

Number of full-time permanent residents per living unit	Bi-Monthly Allocation (in billing units)	Monthly Allocation (in billing units)
One person	(insert ccf)	(insert ccf)
Second Person	(insert ccf)	(insert ccf)
Each Additional Person	(insert ccf)	(insert ccf)
For example, the minimum bi-monthly allocation for a living unit with three permanent, full-time residents would be (insert ccf) billing units.		

2. Maximum Allocation: No residential customer shall be entitled to an allocation of more than (insert ccf) billing units during a bi-monthly billing period.

3. Allocation for Livestock: Residential customers shall be entitled to an allocation for livestock: The allocation for a billing period is determined as follows:

Livestock	Gallons Per Day
Horse	12
Cow	20-45
Pig	5
Sheep/Goat	2
Poultry/Fowl	15/Q100
University of New Hampshire Cooperative Extension "water conservation on dairy and livestock farms"	

2. Non-Residential Customers

(fill in percent) of the base year (insert base year) during the corresponding billing period is allowed.

3. Dedicated Irrigation Customers

(fill in percent) of the base year (insert base year) during the corresponding billing period is allowed.

4. Raw Water Customers Under Contract

During a water emergency, customers under special contract shall not receive any water.

5. Allocation Where No Past History Exists

When water records are not available, individual allocations will be calculated on the basis of the current occupancy.

Section 5: General Prohibitions

The following uses of water are hereby determined to be nonessential:

- A. Use of water through any meter when the customer has been given 24 hours notice to repair broken or defective plumbing, sprinkler, watering or irrigation systems and has failed to complete such repairs.
- B. Use of water which results in flooding or runoff in gutters or streets.
- C. The use of non-recycled water for washing cars, buses, boats, trailers, motorcycles, vehicles, and other equipment, except for washing with a bucket and rinsing with a handheld hose equipped with a nozzle with a positive shutoff valve.
- D. Use of water through a hand-held hose for washing sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard surfaced areas.
- E. Use of water for initially filling or refilling any swimming pool, sauna or hot tub constructed after the date of this ordinance.
- F. Use of water for construction purposes, such as dust control and consolidation of backfill.
- G. Service of water by restaurants except upon the specific request of the customer.
- H. Use of water for residential and commercial decorative landscaped areas, unless the plants are edible and are intended to be used as a source of food for customers. Golf courses are exempt from this prohibition.

Section 6: Exceptions

Written applications for an exception to water use restrictions (Section 5) or for an adjustment to an allocation (Section 4) may be made to the General Manager on a form provided by the District.

The General Manager may grant an exception or adjust an allocation if he finds that (1) failure to do so would adversely affect the health, sanitation, fire protection or safety of the customer or the public, or (2) failure to do so would cause an unnecessary and undue hardship to the customer or the public, such as loss of jobs in the community. The General Manager may condition the exception or adjustment upon the customer’s adopting practical water conservation measures.

A customer may appeal a decision of the General Manager to the Board of Directors. To do so, he or she must submit a written statement of the reasons for the appeal, together with evidence for support.

Section 7: Excess Water Use Charge

A. An excess use charge shall be imposed on water used in excess of a customer’s allocation, during each billing period, as follows:

Amount in Excess of Allocation	Excess Use Charge
Up to 10% over allocation	(insert multiplier) times the applicable regular unit rate
10.01% -20% over allocation	(insert multiplier) times the applicable regular unit rate
20.01% - 25% over allocation	(insert multiplier) times the applicable regular unit rate
25.01% or more over allocation	(insert multiplier) times the applicable regular unit rate

- B. The excess use charges are in addition to the basic rate for water used.
- C. One billing unit will be subtracted from the consumption amount used to calculate excess use charges to account for the fact that meter reads are based on whole numbers, so the previous billing period’s usage could be carried over to the next billing period, if it was less than 1ccf.

Section 8: Rates

- A. The District shall recover the cost of increased rates imposed by the SFPUC.

Water Shortage Rates		
Sales Class	Consumption Range	\$/ccf
Non Residential	1+	\$ (insert dollar amount)
Residential	0-8	\$ (insert dollar amount)
	9-25	\$ (insert dollar amount)
	26-40	\$ (insert dollar amount)
	41+	\$ (insert dollar amount)

- B. The District shall institute a water shortage surcharge to recover the increased costs of operations, maintenance and additional staffing needed for enforcement of rules and regulations. This surcharge is in addition to meter base charges.

Water Shortage Surcharge		
Meter Size	Monthly	Bi-Monthly
5/8 "	\$ (insert dollar amount)	\$ (insert dollar amount)
5/8 " (serving 2 dwelling units)	\$ (insert dollar amount)	\$ (insert dollar amount)
3/4 "	\$ (insert dollar amount)	\$ (insert dollar amount)
3/4 " (serving 2 dwelling units)	\$ (insert dollar amount)	\$ (insert dollar amount)
1 "	\$ (insert dollar amount)	\$ (insert dollar amount)
1- 1/2 " (1.5 ")	\$ (insert dollar amount)	\$ (insert dollar amount)
2 "	\$ (insert dollar amount)	\$ (insert dollar amount)
3 "	\$ (insert dollar amount)	\$ (insert dollar amount)
4 "	\$ (insert dollar amount)	\$ (insert dollar amount)

Section 9: Enforcement

- A. Installation of Flow Restricting Devices

In lieu of, or in addition to, the penalties provided for in Section 356 and Section 31029 of the California Water Code, the District may, after one written warning, install a flow restricting device on the service line of any customer violating any of the provisions of this ordinance, including use of water in excess of the allocation set out on Section 4.

- B. Charges for Installation of Flow Restricting Devices and Restoration of Service

Meter Size	Installation Charge	Removal Charge
5/8" to 1"	(insert charge)	(insert charge)
1-1/2" to 2"	(insert charge)	(insert charge)
3" and larger	(insert charge)	(insert charge)

First installation to be a minimum of 3 days; succeeding installations shall be a minimum of 10 days.

- C. Discontinuance of Water Service

Continued water consumption in excess of the allocation may result in the discontinuance of water service by the District. A charge of (insert charge) shall be paid prior to reactivating the service.

Section 10: Effective Date

All provisions of this ordinance shall become effective immediately. Excess use charges shall become effective and shall be included in billing statements commencing with billing statements mailed on or after July 1, (insert year).

Section 11: Severability

If any provision of this ordinance is held to be invalid, or unenforceable in particular circumstances, such invalidity shall not affect the remainder of the ordinance which shall continue to be of full force and effect and the Board declares this ordinance to be severable for that purpose.

Section 12: Publication

The Secretary is hereby directed to arrange for this ordinance to be published in a newspaper of general circulation in the District.

Passed and Adopted this (insert date) day of (insert month), (insert year) by the following vote:

Ayes:

Noes:

Absent:

President, Board of Directors
Coastside County Water District

Attest:

Secretary

Appendix H

Reference Materials

AWWA M60, Drought Preparedness and Response Second Edition, 2011

California Legislative Information, <http://leginfo.legislature.ca.gov/>

California Water Efficiency Partnership (CalWEP), Jumpstart Water Shortage Toolkit 2021 Update, January 28, 2021

City and County of San Francisco, Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County, Tier 1 and Tier 2, July 2009

County of San Mateo, The San Mateo County Hazard Mitigation Plan, July 2016, <https://cmo.smcgov.org/multijurisdictional-local-hazard-mitigation-plan-resources>

State of California, Department of Water Resources and State Water Resources Control Board, Making Water Conservation a California Way of Life, November 2018

State of California, Department of Water Resources, Office of Water Use Efficiency and Transfers State of California Urban Drought Guidebook 2020

State of California, Department of Water Resources, Office of Water Use Efficiency, Urban Water Management Plan Guidebook, 2020, March 2021

State of California, California Natural Resources Agency and the Department of Water Resources, California Drought Contingency Plan, November 2010

Appendix I

SFPUC Wholesale Customer Water Annual Rationing Table (198.6 MGD with 2020 Infrastructure) with and without Bay-Delta Plan

Wholesale Customer Rationing							
SFPUC Fiscal Year (July-June)	SJI Water Year Type	2020 Infrastructure Conditions with 198.6 MGD Systemwide Demand			2020 Infrastructure Conditions and Bay-Delta Plan (40% UF) with 198.6 MGD Systemwide Demand		
		TAF/yr	MGD	Rationing (% of Total)	TAF/yr	MGD	Rationing (% of Total)
FY20-21	BN	148	132	0%	148	132	0%
FY21-22	AN	148	132	0%	148	132	0%
FY22-23	W	148	132	0%	148	132	0%
FY23-24	AN	148	132	0%	148	132	0%
FY24-25	C	148	132	0%	97	87	34%
FY25-26	BN	148	132	0%	148	132	0%
FY26-27	D	148	132	0%	148	132	0%
FY27-28	AN	148	132	0%	148	132	0%
FY28-29	BN	148	132	0%	148	132	0%
FY29-30	C	148	132	0%	97	87	34%
FY30-31	C	148	132	0%	97	87	34%
FY31-32	C	148	132	0%	83	74	44%
FY32-33	AN	148	132	0%	148	132	0%
FY33-34	D	148	132	0%	148	132	0%
FY34-35	C	148	132	0%	97	87	34%
FY35-36	AN	148	132	0%	148	132	0%
FY36-37	AN	148	132	0%	148	132	0%
FY37-38	W	148	132	0%	148	132	0%
FY38-39	W	148	132	0%	148	132	0%
FY39-40	D	148	132	0%	148	132	0%
FY40-41	AN	148	132	0%	148	132	0%
FY41-42	W	148	132	0%	148	132	0%
FY42-43	W	148	132	0%	148	132	0%
FY43-44	W	148	132	0%	148	132	0%
FY44-45	BN	148	132	0%	148	132	0%
FY45-46	AN	148	132	0%	148	132	0%
FY46-47	AN	148	132	0%	148	132	0%
FY47-48	D	148	132	0%	148	132	0%
FY48-49	BN	148	132	0%	148	132	0%
FY49-50	BN	148	132	0%	148	132	0%
FY50-51	BN	148	132	0%	148	132	0%
FY51-52	AN	148	132	0%	148	132	0%
FY52-53	W	148	132	0%	148	132	0%
FY53-54	BN	148	132	0%	148	132	0%
FY54-55	BN	148	132	0%	148	132	0%
FY55-56	D	148	132	0%	148	132	0%
FY56-57	W	148	132	0%	148	132	0%
FY57-58	BN	148	132	0%	148	132	0%
FY58-59	W	148	132	0%	148	132	0%
FY59-60	D	148	132	0%	148	132	0%

SFPUC Fiscal Year (July- June)	SJI Water Year Type	2020 Infrastructure Conditions with 198.6 MGD Systemwide Demand			2020 Infrastructure Conditions and Bay-Delta Plan (40% UF) with 198.6 MGD Systemwide Demand		
		TAF/yr	MGD	Rationing (% of Total)	TAF/yr	MGD	Rationing (% of Total)
		FY60-61	C	148	132	0%	97
FY61-62	C	148	132	0%	83	74	44%
FY62-63	BN	148	132	0%	148	132	0%
FY63-64	AN	148	132	0%	148	132	0%
FY64-65	D	148	132	0%	148	132	0%
FY65-66	W	148	132	0%	148	132	0%
FY66-67	BN	148	132	0%	148	132	0%
FY67-68	W	148	132	0%	148	132	0%
FY68-69	D	148	132	0%	148	132	0%
FY69-70	W	148	132	0%	148	132	0%
FY70-71	AN	148	132	0%	148	132	0%
FY71-72	BN	148	132	0%	148	132	0%
FY72-73	D	148	132	0%	97	87	34%
FY73-74	AN	148	132	0%	148	132	0%
FY74-75	W	148	132	0%	148	132	0%
FY75-76	W	148	132	0%	148	132	0%
FY76-77	C	148	132	0%	97	87	34%
FY77-78	C	148	132	0%	83	74	44%
FY78-79	W	148	132	0%	148	132	0%
FY79-80	AN	148	132	0%	148	132	0%
FY80-81	W	148	132	0%	148	132	0%
FY81-82	D	148	132	0%	148	132	0%
FY82-83	W	148	132	0%	148	132	0%
FY83-84	W	148	132	0%	148	132	0%
FY84-85	AN	148	132	0%	148	132	0%
FY85-86	D	148	132	0%	148	132	0%
FY86-87	W	148	132	0%	148	132	0%
FY87-88	C	148	132	0%	97	87	34%
FY88-89	C	148	132	0%	83	74	44%
FY89-90	C	148	132	0%	83	74	44%
FY90-91	C	148	132	0%	83	74	44%
FY91-92	C	148	132	0%	83	74	44%
FY92-93	C	148	132	0%	83	74	44%
FY93-94	W	148	132	0%	148	132	0%
FY94-95	C	148	132	0%	97	87	34%
FY95-96	W	148	132	0%	148	132	0%
FY96-97	W	148	132	0%	148	132	0%
FY97-98	W	148	132	0%	148	132	0%
FY98-99	W	148	132	0%	148	132	0%
FY99-00	AN	148	132	0%	148	132	0%
FY00-01	AN	148	132	0%	148	132	0%
FY01-02	D	148	132	0%	148	132	0%
FY02-03	D	148	132	0%	148	132	0%
FY03-04	BN	148	132	0%	148	132	0%
FY04-05	D	148	132	0%	148	132	0%
FY05-06	W	148	132	0%	148	132	0%
FY06-07	W	148	132	0%	148	132	0%
FY07-08	C	148	132	0%	148	132	0%
FY08-09	C	148	132	0%	148	132	0%

SFPUC Fiscal Year (July- June)	SJI Water Year Type	2020 Infrastructure Conditions with 198.6 MGD Systemwide Demand			2020 Infrastructure Conditions and Bay-Delta Plan (40% UF) with 198.6 MGD Systemwide Demand		
		TAF/yr	MGD	Rationing (% of Total)	TAF/yr	MGD	Rationing (% of Total)
		FY09-10	BN	148	132	0%	148
FY10-11	AN	148	132	0%	148	132	0%
FY11-12	W	148	132	0%	148	132	0%
FY12-13	D	148	132	0%	148	132	0%
FY13-14	C	148	132	0%	148	132	0%
FY14-15	C	148	132	0%	83	74	44%
FY15-16	C	148	132	0%	83	74	44%
FY16-17	D	148	132	0%	148	132	0%

These tables reflect simulations performed with Hetch Hetchy/Local Simulation Model (HHLSTM) for the SFPUC 2020 Urban Water Management Plan.

Red highlights indicate water supply rationing.

Notes about Tier 1 Allocation calculations:

* Retail allocation cannot be above 81 million gallons per day (MGD); anything above 81 MGD gets re-allocated to wholesale customers

* Retail is required per WSA to conserve 5% in any dry year; however this doesn't impact retail allocation, it would be a demand-side reduction

* 5% conservation requirement applies only to retail, not wholesale

Appendix J

SFPUC Wholesale Customer Water Annual Rationing Table (213.2 MGD with 2025 Infrastructure) with and without Bay-Delta Plan

Wholesale Customer Rationing							
SFPUC Fiscal Year (July-June)	SJI Water Year Type	2025 Infrastructure Conditions with 213.2 MGD Systemwide Demand			2025 Infrastructure Conditions and Bay-Delta Plan (40% UF) with 213.2 MGD Systemwide Demand		
		TAF/yr	MGD	Rationing (% of Total)	TAF/yr	MGD	Rationing (% of Total)
FY20-21	BN	164	146	0%	164	146	0%
FY21-22	AN	164	146	0%	164	146	0%
FY22-23	W	164	146	0%	164	146	0%
FY23-24	AN	164	146	0%	164	146	0%
FY24-25	C	164	146	0%	104	93	36%
FY25-26	BN	164	146	0%	164	146	0%
FY26-27	D	164	146	0%	164	146	0%
FY27-28	AN	164	146	0%	164	146	0%
FY28-29	BN	164	146	0%	164	146	0%
FY29-30	C	164	146	0%	104	93	36%
FY30-31	C	164	146	0%	104	93	36%
FY31-32	C	164	146	0%	90	80	45%
FY32-33	AN	164	146	0%	164	146	0%
FY33-34	D	164	146	0%	164	146	0%
FY34-35	C	164	146	0%	104	93	36%
FY35-36	AN	164	146	0%	164	146	0%
FY36-37	AN	164	146	0%	164	146	0%
FY37-38	W	164	146	0%	164	146	0%
FY38-39	W	164	146	0%	164	146	0%
FY39-40	D	164	146	0%	164	146	0%
FY40-41	AN	164	146	0%	164	146	0%
FY41-42	W	164	146	0%	164	146	0%
FY42-43	W	164	146	0%	164	146	0%
FY43-44	W	164	146	0%	164	146	0%
FY44-45	BN	164	146	0%	164	146	0%
FY45-46	AN	164	146	0%	164	146	0%
FY46-47	AN	164	146	0%	164	146	0%
FY47-48	D	164	146	0%	164	146	0%
FY48-49	BN	164	146	0%	164	146	0%
FY49-50	BN	164	146	0%	164	146	0%
FY50-51	BN	164	146	0%	164	146	0%
FY51-52	AN	164	146	0%	164	146	0%
FY52-53	W	164	146	0%	164	146	0%
FY53-54	BN	164	146	0%	164	146	0%

SFPUC Fiscal Year (July-June)	SJI Water Year Type	2025 Infrastructure Conditions with 213.2 MGD Systemwide Demand			2025 Infrastructure Conditions and Bay-Delta Plan (40% UF) with 213.2 MGD Systemwide Demand		
		TAF/yr	MGD	Rationing (% of Total)	TAF/yr	MGD	Rationing (% of Total)
FY54-55	BN	164	146	0%	164	146	0%
FY55-56	D	164	146	0%	164	146	0%
FY56-57	W	164	146	0%	164	146	0%
FY57-58	BN	164	146	0%	164	146	0%
FY58-59	W	164	146	0%	164	146	0%
FY59-60	D	164	146	0%	164	146	0%
FY60-61	C	164	146	0%	104	93	36%
FY61-62	C	164	146	0%	90	80	45%
FY62-63	BN	164	146	0%	164	146	0%
FY63-64	AN	164	146	0%	164	146	0%
FY64-65	D	164	146	0%	164	146	0%
FY65-66	W	164	146	0%	164	146	0%
FY66-67	BN	164	146	0%	164	146	0%
FY67-68	W	164	146	0%	164	146	0%
FY68-69	D	164	146	0%	164	146	0%
FY69-70	W	164	146	0%	164	146	0%
FY70-71	AN	164	146	0%	164	146	0%
FY71-72	BN	164	146	0%	164	146	0%
FY72-73	D	164	146	0%	104	93	36%
FY73-74	AN	164	146	0%	164	146	0%
FY74-75	W	164	146	0%	164	146	0%
FY75-76	W	164	146	0%	164	146	0%
FY76-77	C	164	146	0%	104	93	36%
FY77-78	C	164	146	0%	90	80	45%
FY78-79	W	164	146	0%	164	146	0%
FY79-80	AN	164	146	0%	164	146	0%
FY80-81	W	164	146	0%	164	146	0%
FY81-82	D	164	146	0%	164	146	0%
FY82-83	W	164	146	0%	164	146	0%
FY83-84	W	164	146	0%	164	146	0%
FY84-85	AN	164	146	0%	164	146	0%
FY85-86	D	164	146	0%	164	146	0%
FY86-87	W	164	146	0%	164	146	0%
FY87-88	C	164	146	0%	104	93	36%
FY88-89	C	164	146	0%	90	80	45%
FY89-90	C	164	146	0%	90	80	45%
FY90-91	C	164	146	0%	90	80	45%
FY91-92	C	164	146	0%	90	80	45%
FY92-93	C	164	146	0%	90	80	45%
FY93-94	W	164	146	0%	164	146	0%
FY94-95	C	164	146	0%	104	93	36%
FY95-96	W	164	146	0%	164	146	0%
FY96-97	W	164	146	0%	164	146	0%

SFPUC Fiscal Year (July-June)	SJI Water Year Type	2025 Infrastructure Conditions with 213.2 MGD Systemwide Demand			2025 Infrastructure Conditions and Bay-Delta Plan (40% UF) with 213.2 MGD Systemwide Demand		
		TAF/yr	MGD	Rationing (% of Total)	TAF/yr	MGD	Rationing (% of Total)
FY97-98	W	164	146	0%	164	146	0%
FY98-99	W	164	146	0%	164	146	0%
FY99-00	AN	164	146	0%	164	146	0%
FY00-01	AN	164	146	0%	164	146	0%
FY01-02	D	164	146	0%	164	146	0%
FY02-03	D	164	146	0%	164	146	0%
FY03-04	BN	164	146	0%	164	146	0%
FY04-05	D	164	146	0%	164	146	0%
FY05-06	W	164	146	0%	164	146	0%
FY06-07	W	164	146	0%	164	146	0%
FY07-08	C	164	146	0%	164	146	0%
FY08-09	C	164	146	0%	164	146	0%
FY09-10	BN	164	146	0%	164	146	0%
FY10-11	AN	164	146	0%	164	146	0%
FY11-12	W	164	146	0%	164	146	0%
FY12-13	D	164	146	0%	164	146	0%
FY13-14	C	164	146	0%	164	146	0%
FY14-15	C	164	146	0%	90	80	45%
FY15-16	C	164	146	0%	90	80	45%
FY16-17	D	164	146	0%	164	146	0%

These tables reflect simulations performed with Hetch Hetchy/Local Simulation Model (HHLSM) for the SFPUC 2020 Urban Water Management Plan.

Red highlights indicate water supply rationing.

Notes about Tier 1 Allocation calculations:

* Retail allocation cannot be above 81 million gallons per day (MGD); anything above 81 MGD gets re-allocated to wholesale customers

* Retail is required per WSA to conserve 5% in any dry year; however this doesn't impact retail allocation, it would be a demand-side reduction

* 5% conservation requirement applies only to retail, not wholesale

Appendix K

San Francisco Emergency Preparedness Procedures (March 24, 2021)

PREPARATION FOR CATASTROPHIC SUPPLY INTERRUPTION

The SFPUC maintains various planning documents which collectively address its emergency preparedness and planned response in the event of a catastrophic interruption of water supplies due to power outages, earthquakes, or other disasters. These plans are described in sections 1.1 (Emergency Preparedness Plans), 1.2 (Emergency Drinking Water Planning), and 1.3 (Power Outage Preparedness and Response) below. Section 1.4 addresses the seismic risk assessment and mitigation plan required by California Water Code Section 10632.5.(a). Should a catastrophic interruption occur, the SFPUC will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency (California Government Code, California Emergency Services Act Article 2, Section 8558).

EMERGENCY PREPAREDNESS PLANS

Following the 1989 Loma Prieta Earthquake, the SFPUC created a departmental Emergency Operations Plan (EOP). The SFPUC EOP was originally released in 1992 and has been updated as necessary ever since. Most recently, the SFPUC developed a Water System Emergency Response Plan (Water ERP) to comply with the America's Water Infrastructure Act (AWIA) passed in 2018. The Water ERP acts as a unifying document, integrating and referencing common components of SFPUC plans and programs that have been developed to date. The Water ERP is intended to address water transmission and distribution systems and identify the Enterprises, Divisions, and Bureaus with direct roles and responsibilities. The Water ERP integrates directly into, and functions as an annex to, the SFPUC Emergency Operations Plan (EOP). The SFPUC EOP addresses a broad range of potential emergency situations that may affect the SFPUC and supplements the City's Emergency Response Plan, which was prepared by the Department of Emergency Management and most recently updated in 2017. Specifically, the purpose of the SFPUC EOP is to describe its emergency management organization, roles and responsibilities, and emergency policies and procedures.

In addition, SFPUC divisions and bureaus each have their own Division Emergency Operations Plans (DEOP) (in alignment with the SFPUC EOP), which detail that entity's specific emergency management organization, roles and responsibilities, and emergency policies and procedures. The SFPUC tests its DEOPs on a regular basis by conducting emergency exercises. Through these exercises, the SFPUC learns how well the plans and procedures will or will not work in response to an emergency. DEOP improvements are based on the results of these exercises and real-world event response and evaluation. The SFPUC also has an emergency response training plan that is based on federal, State, and local standards and exercise and incident improvement plans. SFPUC employees have emergency training requirements that are based on their emergency response roles.

The SFPUC EOP functions as a front end for the SFPUC's DEOPs, covering emergency response at the Department level; while each DEOP covers Division-specific information on the Division's emergency organization and response procedures specific to Division responsibilities, assets, technical scope, and operations. The types of events affecting SFPUC that may require emergency plans include but are not limited to:

- Major earthquake
- Loss of power

- Loss of water supply
- Major fire
- Hazardous material release that threatens water supply or environment
- Major pipeline breaks
- Dam break
- Significant outage of SFPUC services
- Man-made or intentional acts of terrorism resulting in damage to the system or interruption in service

In addition to the documents described above, the SFPUC also maintains various plans and procedures that deal with the possibility of alternate supply schemes and options. These include:

- Emergency Disinfection and Recovery Plan (EDRP)
- Emergency Response Action Plan (ERAP)
- Emergency Drinking Water Equipment and Alternatives Report
- Disinfection of SFPUC Water Trailers Procedure
- City Distribution Division Hydrant Manifold Standard Operating Procedure
- Pilot plant trailer (Mobile Pilot Plan O&MPlan)

EMERGENCY DRINKING WATER PLANNING

In February 2005, the SFPUC published the City Emergency Drinking Water Alternatives report. The purpose of this report was to outline a plan for supplying emergency drinking water in the City after damage and/or contamination of the SFPUC raw and/or treated water systems resulting from a major disaster. Since the publication of this report, the SFPUC has implemented a number of projects to increase its capability to support the provision of emergency drinking water during an emergency. These projects include:

- Completion of many Water System Improvement Program (WSIP) projects and other capital upgrades to improve security, detection, and communication (see Section 1.4);
- Public Information and materials for home and business;
- Construction of a disinfection and fill station at the existing San Francisco Zoo well, and obtaining a permit to utilize this well as a standby emergency drinking water source;
- Constructed six wells as part of the San Francisco Groundwater Supply Project, two of which also serve as emergency drinking water supplies, including a distribution system to fill emergency water tankers;
- Purchase and engineering of emergency-related equipment, including water tanker trucks and water distribution manifolds, to help with distribution post-disaster; and
- Coordination of planning with other City departments, neighboring jurisdictions, and other public and private partners to maximize resources and supplies for emergency response.

The SFPUC has also prepared the RWS Water Quality Notifications and Communications Plan. This plan, which was first prepared in 1996 and was most recently updated in 2017, provides contact information, procedures, and

guidelines to be implemented by several SFPUC divisions, wholesale customers, and BAWSCA in the event of water quality impacts. The plan treats water quality issues as potential or actual supply problems, which fall under the emergency response structure of the SFPUC ERP.

POWER OUTAGE PREPAREDNESS AND RESPONSE

The SFPUC's water transmission system is primarily gravity fed from Hetch Hetchy Reservoir to the City. Within the in-City distribution system, key pump stations have generators on site and all others have connections in place that would allow portable generators to be used.

Although water conveyance throughout the RWS would not be greatly impacted by power outages because it is gravity fed, the SFPUC has prepared for potential regional power outages as follows:

- The Tesla Treatment Facility, the Sunol Valley Water Treatment Plant (SVWTP), and the San Antonio Pump Station have back-up power on site in the form of generators or diesel-powered pumps. Additionally, both the SVWTP and San Antonio Pump Station would not be impacted by a failure of the regional power grid because these facilities are powered by hydropower generated by the Hetch Hetchy Water and Power System.
- Both the Harry Tracy Water Treatment Plant (HTWTP) and the Baden Pump Station (part of the Peninsula System) have back-up generators in place.
- Administrative facilities that will act as emergency operation centers also have back-up power.
- The SFPUC has an emergency water supply connection with the Santa Clara Valley Water District (SCVWD), the SCVWD intertie, which also has back-up generators in place.
- Additionally, as described in the next section, the WSIP includes projects that expand the SFPUC's ability to remain in operation during power outages and other emergency situations.

SEISMIC RISK ASSESSMENT AND MITIGATION PLAN

As part of the Facilities Reliability Program and the Water System Improvement Program (WSIP), the SFPUC performed an extensive multi-year evaluation of seismic risks to its water system that resulted in major capital improvements to increase seismic reliability. The goals of WSIP include enhancing the ability of the SFPUC water system to meet identified service goals for water quality, seismic reliability, delivery reliability, and water supply. One of the original goals of WSIP was to limit rationing to no more than 20 percent on a system-wide basis; the WSIP was developed to reduce the likelihood of shortages, thereby reducing the likelihood of needing to implement the WSCP.

The WSIP projects include several projects located in San Francisco to improve the seismic reliability of the in-City distribution system, including more wells that can be used as emergency drinking water sources. The WSIP also incorporates many projects related to the RWS to address both seismic reliability and overall system reliability. As of August 2018, the WSIP is over 96 percent complete. Local San Francisco projects are 100 percent complete as of June 2020. The current forecasted date to complete the overall WSIP is December 2021.

WSIP seismic levels of service (LOS) informed development of capital projects and guided program implementation. The LOS established post-earthquake delivery and recovery objectives under the following seismic scenarios:

- Magnitude 7.9 event on the San Andreas fault
- Magnitude 7.3 event on the Hayward fault
- Magnitude 6.9 event on the Calaveras fault

An assessment of seismic risk and resilience is contained in the body of analysis performed to support the WSIP. The risks associated with the seismic scenarios considered are reflected in the delivery objectives established in the LOS, specifically:

- Delivery of winter month demand 24 hours after a major earthquake, and
- Delivery of average day demand 30 days after a major earthquake

In addition to the improvements that have or will come from the WSIP, the City has already constructed system interties for use during catastrophic emergencies, short-term facility maintenance and upgrade activities, and times of water shortages. These are listed below:

- A 35 mgd intertie with the EBMUD allowing EBMUD to serve the City of Hayward's demand and/or supply the SFPUC directly (and vice versa);
- A 40-mgd system intertie between the SFPUC and SCVWD; and,
- One permanent and one temporary intertie to the South Bay Aqueduct, which would enable the SFPUC to receive State Water Project water.

The WSIP also includes projects related to standby power facilities at various locations. These projects provide for standby electrical power at six critical facilities to keep them in operation during power outages and other emergency situations. Permanent engine generators are located at four locations (San Pedro Valve Lot, Millbrae Facility, Alameda West, and HTWTP), while hookups for portable engine generators are at two locations (San Antonio Reservoir and Calaveras Reservoir). The City of San Francisco also has a Hazard Mitigation Plan which was last updated in June 2014 and includes sections describing earthquakes hazards and mitigation for assets within the City's boundary, including state-regulated reservoirs (Sutro, Sunset North and South, and University Mound North and South).

Appendix L

San Francisco Risk and Resilience Assessment Approach

In compliance with the America’s Water Infrastructure Act of 2018 (AWIA), the San Francisco Public Utilities Commission (SFPUC) performed a Risk and Resilience Assessment of its water system. The focus of the assessment was on evaluating those hazards that affect facility locations and the potential impacts. The assessment considered the following hazards/threats:

1. Seismic
2. Flood
3. Wildfire
4. Power Outage
5. Physical Assault
6. Water Quality Contamination
7. Cyber Attack
8. Resource Interruption

The assessment was intended to evaluate risks to the SFPUC’s water system and inform the next phase of compliance by identifying those risks to be addressed through Emergency Response Plans and mitigation measures. Due to the extent of the SFPUC water system, the assessment utilized methods suitable for a regional evaluation of numerous facilities, used readily available and industry accepted hazard data (subject to their respective data limitations), and implemented conservative assumptions as appropriate. The table below describes the approach for evaluating the hazards.

The consequence component of the assessment used flow as an indicator of the impacts that may result from damage due to a natural hazard or successful malevolent act. Flow was selected for the following reasons:

- It directly reflects one of the most important impact considerations – loss of water delivery.
- Flow capacity of a facility is generally reflective of the other impact considerations of concern, such as human impacts, regional impacts, economic loss and environmental impact.
- Flow is an efficient, quantifiable and objective means of characterizing consequence for a large regional water system.

Hazard	Scenario Definition
1. Seismic	<p>As part of the Facilities Reliability Program and the Water System Improvement Program (WSIP), SFPUC performed an extensive multi-year evaluation of seismic risks to its water system that resulted in major capital improvements to increase seismic reliability.</p> <p>WSIP seismic levels of service (LOS) informed development of capital projects and guided program implementation. The LOS established post-earthquake delivery and recovery objectives under the following seismic scenarios:</p> <ul style="list-style-type: none"> • Magnitude 7.9 event on the San Andreas fault • Magnitude 7.3 event on the Hayward fault • Magnitude 6.9 event on the Calaveras fault <p>For the seismic risk and resilience component of AWIA compliance, SFPUC defers to the body of analysis performed to support the WSIP. The risks associated with the seismic scenarios considered are reflected in the delivery objectives established in the LOS, specifically:</p> <ul style="list-style-type: none"> • Delivery of winter month demand 24 hours after a major earthquake, and • Delivery of average day demand 30 days after a major earthquake <p>Notwithstanding the numerous seismic improvements to the water system, delivery will be contingent upon resources and infrastructure available for restoration, and finer assessment of delivery capability at a customer-specific level is not feasible.</p>
2. Flood	<p>The flood hazard evaluation is based on the 100-year flood scenario. The broadly accepted 100-year flood maps developed by FEMA are utilized for this analysis and the associated likelihood of occurrence is 1% annually.</p> <p>For the purposes of this assessment, the conservative assumption is that the operation of facilities located in areas within the delineation of the 100-year flood will be impacted. The consequence utilizes the flow methodology described above.</p>

3. Wildfire	<p>The wildfire hazard evaluation utilizes California Department of Forestry and Fire Protection (CalFire) Fire Hazard Severity Zone (FHSZ) Map data to evaluate fire hazard at facility locations. The hazard mapping considers factors such as fuel, terrain, weather, fire history, expected fire behavior and expected burn probabilities.</p> <p>While the State’s FHSZ data does not reflect a probability of occurrence for wildfires, over the last 30 years California has experienced an average of over 8,700 wildfires per year burning an average of over 570,000 acres (California State Hazard Mitigation Plan, September 2018). Therefore, a likelihood in the range of 0.1 up to 0.9 annual probability is assumed. The consequence utilizes the flow methodology described above.</p>
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<p>4. Power Outage</p>	<p>The assessment of power outage risk evaluates the direct impact to operations of facilities in the event of a primary power outage, as a result of public safety power shutoffs (PSPS) and other causes. Given the California Public Utilities Commission approval of PSPS guidelines as a preventative measure against imminent and significant fire risk, and the implementation of these procedures in 2019, it is reasonable to expect power outages to occur on a nearly annual basis. The consequence utilizes the flow methodology described above. A duration and system-wide fuel storage analysis is not planned as part of this risk assessment.</p>
<p>5. Physical Assault</p>	<p>The physical assault threat addresses scenarios of terrorist threat, sabotage, and/or vandalism on utility infrastructure or staff as well as malicious physical acts with the intention of impacting facility operations. Depending on location and desirability, assets may be considered rare to unlikely targets. The consequence utilizes the flow methodology described above.</p>
<p>6. Source Water Contamination</p>	<p>The water quality contamination hazard/threat considers non-intentional (e.g. accidental, natural hazards and other causes outside the control of the SFPUC) and intentional (e.g. malevolent act) contamination of raw and treated water. Water Quality events, such as high turbidity events, may occur due to severe weather, fire, earthquake, etc. Events may affect Hetch Hetchy supply, and source waters for SFPUC Water Treatment Plants. Water treatment plant failure may occur due to process failure, such as filtration problems, or contamination may occur at treated water storage facilities. The likelihood of occurrence is based on EPAs Baseline Information on Malevolent Acts for Community Water Systems (July 2019). The consequence utilizes the flow methodology described above.</p>
<p>7. Cyber Attack</p>	<p>This threat scenario addresses potential for cyber attack of business enterprise (e.g. financial or data management) and process control (e.g. SCADA) systems. Depending on asset dependencies such as telecommunications, the likelihood of occurrence range from possible to unlikely. The consequence utilizes the flow methodology described above.</p>

<p>8. Resource Interruption</p>	<p>Resource interruptions, such as major staff shortfalls and supply interruptions for critical consumables such as treatment chemicals can potentially impact the operation of the water system. These interruptions may result from events such as natural disasters, transportation incidents, civil disruption or pandemic outbreaks.</p> <p>Due to the broad range of potential causes and impacts, the hazard will be addressed in a wholistic manner. A range of probabilities of occurrence is assigned depending on asset dependencies, and to reflect a conservative approach given the level of uncertainty. The consequence utilizes the flow methodology described above.</p>
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Appendix M

Ordinance No. 2008-01 – Rules and Regulations Prohibiting Wasteful Water Use During Normal Water Supply Situations

ORDINANCE NO. 2008-1

COASTSIDE COUNTY WATER DISTRICT

AN ORDINANCE ESTABLISHING RULES AND REGULATIONS PROHIBITING WASTEFUL WATER USE DURING NORMAL WATER SUPPLY SITUATIONS AND PROVIDING FOR ENFORCEMENT THEREOF

WHEREAS, the Coastside County Water District ("District") is subject to the Urban Water Management Planning Act, codified at California Water Code Section 10610 et seq. ("Act"); and

WHEREAS, the Act requires all urban water suppliers to prepare and adopt an urban water management plan ("plan") which is to describe and evaluate reasonable and practical, efficient uses of water and water conservation activities; and

WHEREAS, the District is a signatory of the California Urban Water Conservation Council's Memorandum of Understanding, and must implement best management practices, one of which is Water Waste Prohibitions; and

WHEREAS, the District's Plan contemplates that the Board of Directors will, by ordinance, adopt prohibitions on the waste of water by customers; and

WHEREAS, the District has published notice of and provided an opportunity for public hearing on this Ordinance.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF DIRECTORS OF THE COASTSIDE COUNTY WATER DISTRICT AS FOLLOWS:

Section 1. Findings and Declarations

It is hereby declared by the Board of Directors that, in order to conserve the District's water supply for the greatest public benefit and to reduce the quantity of water unnecessarily used by the District's customers, wasteful use of water should be minimized and, if possible, eliminated.

The provisions of this ordinance shall apply to all persons using water supplied by the District, both in and outside of the District's service areas, and regardless of whether any person using water shall have a contract for water service with the District.

Section 2. Definitions

- A. "District" means Coastside County Water District.
- B. "General Manager" means the General Manager of the District or his authorized representative.
- C. "Person" means any person, firm, partnership, association, corporation, company, organization or governmental entity.

- D. "Customer" means any person, whether within or without the geographical boundaries of the District, who uses water supplied by the District.
- E. "Water" means water supplied by the District, other than reclaimed wastewater.

Section 3. Water Use Prohibitions

The following uses of water are declared to be unreasonable and are hereby prohibited:

- A. Use of water when the Customer has been given written notice by the District to repair broken or defective plumbing, equipment, appliances, sprinklers, watering or irrigation systems, and has failed to effect such repairs for 48 hours after delivery of the notice.
- B. Use of water which results in flooding or runoff in gutters, parking lots, sidewalks or streets.
- C. Use of water for washing cars, buses, boats, trailers or other vehicles through a hand-held hose, unless the hose is equipped with a nozzle with a positive shutoff valve or other similar device to control the flow of water.
- D. Use of water for construction purposes, such as dust control and consolidation of backfill, unless reclaimed wastewater is not reasonably available.
- E. Use of water in landscape irrigation which results in runoff into street or pooling due to super-saturation of the ground or soil.
- F. Use of water in non-recirculating decorative fountains.
- G. Use of water by a commercial carwash constructed and first placed into operation after the date of December 9, 1997, unless such water is recycled through an on-site filter system.
- H. Use of water for washing sidewalks, driveways, buildings, patios and other surfaces and structures through a hand-held hose, unless the hose is equipped with a nozzle with a positive shutoff valve or other similar device to control the flow of water.

- I. Use of water for single-pass through cooling systems. The use of water in new ice making machines and any other new mechanical equipment that utilizes a single-pass cooling system to remove and discharge heat to the sewer. Water used for all cooling purposes shall be recycled or recirculated.
- J. Use of water from any fire hydrant, unless specifically authorized by the District, except by regularly constituted fire protection agencies for fire suppression purposes or for other specifically authorized uses, including water distribution system flushing, fire flow testing, and filling of District approved vehicles for sewer (sanitary and storm) system flushing, and street sweeping purposes.
- K. Use of water by non-recirculating systems in commercial laundry systems placed in operation after the date of this ordinance.
- L. The indiscriminate running of water or washing with water not otherwise prohibited in this section which is wasteful, and without reasonable purpose.

Section 4. Enforcement

- A. If the District believes that the water has been or is being used in violation of the above restrictions, the General Manager shall send a written notice to the Customer specifying the nature of the waste and the time of occurrence, to the extent known by the District, and directing the Customer to cease such use and/or to take remedial action. If the Customer continues such use or fails to take the remedial action within the time specified, the District may install a flow-restricting device on the Customer's service line.
- B. In the event that a further violation is observed by District personnel, after installation of a flow-restricting device, the District may discontinue service.
- C. The Customer shall be responsible for paying the District's costs incurred in installing and removing a flow-restricting device and/or terminating and restoring service.

Section 5. Appeal

Any Customer, who disputes a staff determination of a violation(s) of the above restrictions, may appeal the disconnection or installation of a flow restrictor(s) to the General Manager. The written appeal should be addressed to the General Manager with a description of the

violations, and enforcement action taken and a detailed explanation of the basis of the appeal. The decision of the General Manager shall be final.

Section 6. Effective Date

This Ordinance shall take effect immediately upon its adoption.

Section 7. Repeal of Ordinance No. 1997-01.

Ordinance No. 1997-01 is hereby repealed.

Section 8. Severability

If any provision of this Ordinance is held to be invalid, or unenforceable in particular circumstances, such invalidity shall not affect the remainder of the Ordinance which shall continue to be of full force and effect and the Board declares this Ordinance to be severable for that purpose.

Section 9. Publication

The Secretary is hereby directed to arrange for this Ordinance to be published in a newspaper of general circulation in the District within ten (10) days of its adoption

Adopted this 14th day of October 2008 by the following vote of the Board:

AYES:

NOES: ABSENT: