



Water Shortage Contingency Plan

**2023 Update
Marin Municipal Water District**

February 2023

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1 INTRODUCTION

Marin Municipal Water District's (MMWD's or District's) Water Shortage Contingency Plan (WSCP) has been developed to serve as a flexible framework of planned response measures to mitigate future water supply shortages. This WSCP builds upon and supersedes the WSCP that was presented in the 2020 Urban Water Management Plan (UWMP). The WSCP includes the stages of response to a water shortage caused by drought or by supply interruptions caused by infrastructure failure, regulatory mandate, or catastrophic human-caused or natural events. The primary objective of the WSCP is to ensure that the District has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. The WSCP also includes procedures to conduct an annual assessment of water supply and demand in order to determine whether water shortage conditions are likely to exist in the forthcoming year, and to proactively begin the process of implementing WSCP stages of action, as appropriate.

This WSCP has been prepared in accordance with California Water Code (CWC) § 10640 and CWC § 10632 of the UWMP Act. The information presented in the respective WSCP sections and the associated text and tables are collectively intended to fulfill the requirements of that sub-section of the UWMP Act.

2 WATER SUPPLY RELIABILITY ANALYSIS

Assessment of water supply reliability is dependent upon a number of factors, such as: the sources of water, regulatory and legal constraints, hydrological and environmental conditions, projected climate change impacts, and expected growth, among others. Based on historical data, water supply modeling, projections of future water uses, imported water, and recycled water availability, an assessment was conducted for determining the reliability of future water supply. Based on the service reliability analysis completed as part of the 2020 UWMP, the District is expected to have adequate water supplies during normal years, single dry years, and multiple dry years to meet projected demands through 2045.

A Drought Risk Assessment was also conducted during the 2020 UWMP water supply reliability assessment, which evaluates the effects on available water supply sources of an assumed five-year drought commencing the year after the assessment is completed (i.e., from 2021 through 2025). Based on the Drought Risk Assessment, the District is expected to have sufficient water supply from 2021 to 2025 in this multi-year drought scenario, although, as described in this WSCP, there are a number of actions that the District will implement to reduce demands and further ensure supply reliability at various levels of water shortage.

However, contrary to the foregoing assessments of water supply, the District recently experienced two very dry years (2020 and 2021) that resulted in historically low reservoir storage levels to the point the where District was projected to runout of water in less than a year. Reservoir levels were replenished by a 100 year rain event in October 2021 and an atmospheric river in December 2021. Since that time the District has revised the analysis to include more severe drought conditions and concluded that additional water supply is needed to assure adequate water supply during extreme drought conditions.

3 PRIOR DROUGHT ACTIONS

The District has historically developed different strategies for reducing water demand during water shortages. The District's actions in response to the drought that occurred in California between 2014 and 2017 and the recent severe drought of 2021 are discussed below.

On 1 April 2015, Governor Brown issued the fourth in a series of Executive Orders regarding actions necessary to address California's severe drought conditions. Executive Order B-29-15 directed the State Water Resources Control Board (SWRCB) to impose the first ever mandatory restrictions on urban water suppliers to achieve a statewide 25% reduction in potable urban water usage through February 2016. The Executive Order also required commercial, industrial, and institutional (CII) users to implement water efficiency measures, prohibited irrigation with potable water of ornamental turf in public street medians, and prohibited irrigation with potable water outside newly constructed homes and buildings that is not delivered by drip or microspray systems, along with numerous other directives.

On 5 May 2015, the SWRCB adopted Resolution 2015-0032 that mandated minimum actions by water suppliers and their customers to conserve water supplies into 2016 and assigned a mandatory water conservation savings goal to each water supplier based on a measurement of their residential water use in gallons per capita per day (R-GPCD). The Office of Administrative Law approved the regulations and modified the CWC on 18 May 2015. On 2 February 2016, the SWRCB voted to extend the emergency regulations until October 2016 with some modifications. On 9 May 2016, the Governor issued Executive Order B-37-16, which directed the SWRCB to extend the emergency regulations through the end of January 2017 as well as make certain water use restrictions permanent. On 18 May 2016, the SWRCB adopted Resolution 2016-0029 that adjusted the water conservation savings goal and replaced the February 2016 emergency regulation. The SWRCB may take separate action to make some of the requirements of the regulations permanent in response to the Executive Order.

The mandatory conservation standards included in CWC § 865(c) ranged from 8% for suppliers with an R-GPCD below 65 R-GPCD, up to 36% for suppliers with an R-GPCD of greater than 215 GPCD. As with previous emergency drought regulations adopted by the SWRCB in 2014, the new water conservation regulation was primarily intended to reduce outdoor urban water use. Based on their R-GPCD, the District was required to reduce water use by 20% relative to its 2013 water use.

Through enactment of its WSCP, the District surpassed these reduction targets. During the June 2015 through May 2016 compliance period, the District surpassed its water use reduction target with a cumulative savings of 21% relative to its 2013 use. In June 2016, the District adopted its 2015 UWMP and associated WSCP update. In April 2017, Governor Brown ended the drought State of Emergency.

More recently in April of 2021, the District declared a water shortage emergency pursuant to California Water Code sections 350 and 71640, and the County of Marin declared a drought emergency in May 2021. Also in May 2021 Governor Newsom declared a drought emergency in certain areas of the state, and later that year extended the drought emergency to the entire state of California. The state is currently seeking 15% reductions in water use across the state.

4 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

Each year the District will conduct an Annual Water Supply and Demand Assessment (AWSDA) to identify whether there is likely to be a water shortage condition in the following year. Because a substantial portion of the District's potable water supply is from SCWA, the evaluation of SCWA supplies for a particular year will be based on information provided by SCWA.

For purposes of this assessment, a water shortage condition is defined as an anticipated shortfall of 20%, corresponding to Water Shortage Level 2. Each element of the AWSDA is described below, along with the key data inputs and methodologies for determining these elements, and expected timing of the decision process.

1. Evaluation Criteria

The evaluation criteria that will be used to identify whether the District is likely to experience a water shortage in the coming year include:

- **SCWA Available Supply** – SCWA will develop and present the draft annual assessment to the Technical Advisory Committee (TAC) at the April meeting. The final annual assessment will be presented in the June TAC meeting. The District is a member of the TAC and the Water Advisory Committee (WAC) that represents the major cities and water districts that receive water delivered by the Sonoma Water aqueduct system. The District will conduct the Annual Assessment regarding the SCWA available supply as part of a coordinated effort led by SCWA.

Further details about the evaluation criteria and procedure used by SCWA in conducting an Annual Assessment could be found in **Attachment 1** of this WSCP. As discussed in **Attachment 1**, evaluation criteria used by SCWA include:

- Unconstrained customer demand for each of SCWA's wholesale customers, considering weather, growth, and other influencing factors;
 - Russian River operations, including current reservoir releases from Lake Sonoma and Mendocino and anticipated releases to meet in-stream flow requirements and water demand;
 - Hydrology and watershed conditions, including Lake Sonoma and Lake Mendocino cumulative inflows and storage levels, soil moisture, and snowpack; and
 - Potter Valley Project inflows, including Lake Pillsbury storage levels and observed and projected project transfers.
- **Local Surface Water Available Supply** - The District keeps real time data on all local reservoir water levels with periodic evaluations of reservoir capacity through bathymetric studies. The last bathymetric study was completed in April 2016.

- **Rainfall Data** - Rainfall data is maintained by the District through calibrated rain gauges located on District's watershed lands. There are two principal rain gauge locations: one located at Lake Lagunitas for which the District has 142 years of rainfall data, and the other located at the Kent Lake stream release that is used for determination of dry or normal year conditions for stream releases to Lagunitas Creek. The gauges are manually read by District staff. Unofficially, the District currently has the ability to record these rain gauge information via an installed SCADA system. After a couple years of comparing the manual reads to the SCADA data, if the two results are close enough then the District will solely collect the rain data via SCADA.
- **Reservoir Storage** - The District's primary water supply is surface water, fed from local rainfall, into the seven local reservoirs: Lagunitas, Phoenix, Bon Tempe, Alpine, Kent, Nicasio and Soulajule. In 2022, the total reservoir storage operated by the District is 25.9 billion gallons (79,566 AF). From these reservoirs, the water is conveyed to either the Bon Tempe Treatment Plant (BTTP) near Ross or the San Geronimo Treatment Plant (SGTP) in Woodacre.
- **Local Regulatory Conditions** - The District and North Marin Water District entered into the 2022 Amended and Restated Interconnection Agreement in January 2022. The purpose of the agreement is to provide the basis for and mechanism whereby Marin Municipal and North Marin can each, as a first priority, continue to meet the needs of their respective customers, and simultaneously, to the extent feasible, utilize their respective water systems and surplus system capacity in a coordinated manner for the benefit of the customers of both Districts. Section 3 C of the agreement governs the release by Marin Municipal for the benefit of North Marin as follows: *"On North Marin's request, when flow in Lagunitas Creek is determined by North Marin to be low or when the dry year condition described in State Water Resources Control Board Order 95-17 occurs, Marin Municipal shall release to Nicasio Creek or Lagunitas Creek for North Marin's benefit up to 250 acre-feet per year. Said water shall be used by North Marin within its Inverness Point Reyes Annexation Territory."* Since the agreement was signed North Marin has not requested release volumes of any significance.
- **State Regulatory Conditions** - Evaluation of any state-mandated drought or water use restrictions known during preparation of the AWSDA. Water Rights Order 95-17 defines dry year conditions which impact the regulated volume of stream releases from Kent Lake.

These criteria will be assessed by District staff with detailed knowledge of District operations. The data used to support these assessments may include, but are not limited to, SCWA's Annual Water Supply and Demand Assessment, reservoir storage levels and system demand.

2. Water Supply

On the basis of the evaluation criteria above and available supporting information, the District will quantify the projected available supply over the forthcoming year. This quantification will likely be a range, and subject to revision as new data are available and as conditions evolve.

3. Unconstrained Customer Demand

Unconstrained customer demands (i.e., the expected water use in the absence of shortage-caused reductions in water use) will be evaluated and estimated for the forthcoming year based on:

- A comparison of monthly customer demands relative to prior years (e.g., last 3 years),
- Evaluation of current and anticipated weather conditions,
- New demands anticipated during the coming year (e.g., new accounts coming online), and
- Any other potentially pertinent factors identified by the District (e.g., pandemic-related stay-at-home orders).

4. Planned Water Use for Current Year Considering Dry Subsequent Year

The District will compare the estimated unconstrained demands to the anticipated supplies for the current year, assuming that the following year will be dry (i.e., a 20% supply shortfall), using the Evaluation Criteria identified above.

5. Infrastructure Considerations

The District will evaluate how infrastructure capabilities and constraints may affect its ability to deliver supplies to meet expected customer water demands in the coming year. The constraints and capabilities are expected to include, among other things:

- Anticipated capital projects and upgrades, and
- Anticipated maintenance and repairs.

6. Team Members

The District's Water Resources Director will lead a team to conduct the assessment, the Team will include:

- District's Water Resources Director,
- District's Operations Director,
- District's Conservation Manager,
- District's Engineering Planning Department,
- District's Public Outreach Department,

7. Timeline

Once per month, at a regularly scheduled Board meeting, the Water Resources Director provides the District Board of Directors a briefing on water supply. The Monthly Water Supply Update typically includes at a minimum rainfall, reservoir storage levels and a storage level forecast to the end of the water year. The District's water storage levels, demand and hydrologic conditions are continuously monitored throughout the year. The District will utilize the procedures outlined in Table 4-1 to complete the AWSDA. Consistent with California Water Code (CWC) § 10632.1, the District will perform and submit an AWSDA to DWR by July 1st of each year beginning in 2022.

Table 4-1 Annual Supply-Demand Assessment Procedures Decision-Making Timeline

Decision-Making Process	Responsible Parties	Start Date	End Date
Track reservoir storage levels to determine if a shortage is projected	Water Resources Department	1 Jan	1 April
Determine water supplies by source for the current year	Water Resources Department	1 April	30 April
Obtain Draft Assessment from SCWA	SCWA	April	April
Provide Comments on SCWA Draft Assessment	MMWD	April	April
Calculate the water supply reliability using spreadsheet, computer model, or other method	Water Resources Department	1 April	--
Determine shortages and response actions	Water Resources Department	30 April	--
Prepare and present preliminary report to District Board	Water Resources Department	30 April	--
Obtain Final Annual Assessment from SCWA	SCWA	May/June	May/June
Update water supply reliability and on SCWA Final Assessment	Water Resources Department	May/June	30 June
Send final annual water shortage assessment report to the State	Water Resources Department	1 June	No later than July 1 st of each year beginning in 2022

5 WATER SHORTAGE LEVELS

This WSCP includes six triggers, as required by the State that provide the District more flexibility in addressing dry periods earlier in the water year. The triggers allow the District to successfully manage supplies through severe drought and are designed to reduce the likelihood of a water shortage that will negatively affect customers. Table 5-1 shows the six stages of water shortage currently used by the District. Each stage of the WSCP will be enacted and retracted by resolution of the District Board of Directors based on identified triggers and staff recommendation, or upon the determination that SCWA or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use due to a water supply shortage or emergency. Each stage of action is described in further detail in Sections 6.1 through 6.8 below.

Table 5-1 Water Shortage Contingency Plan Levels (DWR Table 8-1)

Shortage Level	Percent Shortage Range	Shortage Response Actions
0	0%	<ul style="list-style-type: none"> Includes water waste prohibitions effective at all times.
1	Up to 10%	<ul style="list-style-type: none"> Total reservoir storage is at or is projected to be, or is, in the vicinity of 70,000 acre-feet on April 1st. Includes implementation of mandatory restrictions on end uses (see Table 6-1) as well as agency actions (see Table 6-2).
2	Up to 20%	<ul style="list-style-type: none"> Total reservoir storage is at or is projected to be, or is, in the vicinity of 65,000 acre-feet on April 1st. Includes implementation of mandatory restrictions on end uses (see Table 6-1) as well as agency actions (see Table 6-2).
3	Up to 30%	<ul style="list-style-type: none"> Total reservoir storage is at or is projected to be, or is, in the vicinity of 55,000 acre-feet on April 1st. Includes implementation of mandatory restrictions on end uses (see Table 6-1) as well as agency actions (see Table 6-2).
4	Up to 40%	<ul style="list-style-type: none"> Total reservoir storage is at or is projected to be, or is, in the vicinity of 45,000 acre-feet on April 1st. Includes implementation of mandatory restrictions on end uses (see Table 6-1) as well as agency actions (see Table 6-2).
5	Up to 50%	<ul style="list-style-type: none"> Total reservoir storage is at or is projected to be, or is, in the vicinity of 35,000 acre-feet on April 1st. Includes implementation of mandatory restrictions on end uses (see Table 6-1) as well as agency actions (see Table 6-2).
6	>50%	<ul style="list-style-type: none"> Total reservoir storage is at or is projected to be, or is, in the vicinity of 25,000 acre-feet on April 1st. Includes implementation of mandatory restrictions on end uses (see Table 6-1) as well as agency actions (see Table 6-2).

6 SHORTAGE RESPONSE ACTIONS

This section describes the response actions the District will take to deal with the shortages associated with each of the six stages enumerated in Section 5. The Prohibitions on End Users, District Actions and Supply Augmentation are collated in Attachment 3 for ease of implementation.

6.1 Prohibitions on End Users

The District has a number of restrictions and prohibitions that it implements during periods of rationing (i.e., water shortage stages). Additionally, the District implements on-going prohibitions to reduce baseline water waste (Attachment 4). **Table 6-1** below identifies these prohibitions, the water shortage stage(s) at which they are implemented, and whether a penalty, charge, or other enforcement mechanism is applied for violations of these prohibitions. The water shortage stages of action are discussed further in Section 5 and the penalties, charges, and enforcement are discussed in Section 6.4. These prohibitions and enforcement actions have been adopted and are codified in the District's Code.

Table 6-1 Demand Reduction Actions (DWR Table 8-2)

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap? (a)	Additional Explanation or Reference (optional)	Penalty, Charge, or Other Enforcement?
Landscape Irrigation				
0, 1, 2, 3, 4, 5, 6	Other landscape restriction or prohibition	5%	The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall is prohibited.	Y
0, 1, 2, 3, 4, 5, 6	Restrict or prohibit runoff from landscape irrigation	5%	Irrigation shall not be conducted in a manner or to an extent that allows water to run off or overspray the areas being watered. Every customer is required to have his or her water distribution lines and facilities under control at all times to avoid water waste.	Y
0, 1, 2, 3, 4, 5, 6	Limit landscape irrigation to specific times	5%	Any landscape irrigation between the hours of 9:00 a.m. and 7:00 p.m. is prohibited. Necessary testing and repair of irrigation systems for the purpose of eliminating water waste is permitted during the hours of 9:00 a.m. and 7:00 p.m. Customers shall maintain appropriate documentation of any necessary testing and repairs for these purposes. For example, this documentation	Y

			may include, but not be limited to, any applicable reports, invoices, photos, videos, and/or receipts for materials and labor related to the testing and repairs.	
0, 1, 2, 3, 4, 5, 6	Limit landscape irrigation to specific days	5%	Increase restrictions on irrigation. For example, operating outdoor irrigation systems using potable water for the purpose of irrigating with overhead spray more than two days, as assigned by the District, within any calendar week may be prohibited. For the purposes of this section, "calendar week" shall mean a period running from Monday-Sunday.	Y
0, 1, 2, 3, 4, 5, 6	Other landscape restriction or prohibition	5%	Irrigating ornamental turf on public street medians is prohibited.	Y
3	Prohibit certain types of landscape irrigation	30%	Golf course irrigation, with potable or raw water, shall be reduced by 30% compared to the average use of the last three normal years or shall be irrigated to the sites Maximum Applied Water Allowance per District Water Efficient Landscape Code Appendix A, whichever is less.	Y
4	Limit landscape irrigation to specific days	40%	Limit irrigation to 1 day per week, assigned by the District.	Y
4	Prohibit certain types of landscape irrigation	40%	Golf course irrigation, with potable or raw water, shall be reduced by 40% compared to the average use of the last three normal years or shall be irrigated to 90% of the sites Maximum Applied Water Allowance per District Water Efficient Landscape Code Appendix A, whichever is less.	
5	Other landscape restriction or prohibition	50%	Irrigation restricted to maintain tree health for all	Y

			potable and raw water customers, including golf courses.	
5	Other	50%	Establish, or implement, Water Use Limits and associated penalties.	Y
Restrictions on Consumer Products				
0, 1, 2, 3, 4, 5, 6	Other	5%	The installation of reverse osmosis water purifying systems not equipped with an automatic shutoff unit is prohibited.	Y
0, 1, 2, 3, 4, 5, 6	Pools and Spas - Require covers for pools and spas	30%	All recreational pools and spas shall have covers.	Y
Restrictions on New Connections and Landscaping				
0, 1, 2, 3, 4, 5, 6	Other	5%	Single pass cooling systems for air conditioning or other cooling system applications are prohibited, unless required for health or safety reasons.	Y
0, 1, 2, 3, 4, 5, 6	Other	5%	New non-recirculating systems for conveyer car wash applications is prohibited.	Y
4, 5, 6	Other	40%	No installation of new landscapes including no expansion of existing landscapes.	Y
5	Moratorium or Net Zero Demand Increase on New Connections	50%	The Board shall consider a moratorium on new water service connections, or no net water use requirements for new connections.	Y
6	Other	55%	New water service connections will not be granted.	Y
6	Other	55%	The use of potable water for any purpose other than human health and sanitation is prohibited.	Y
Restrictions on Commercial Operations				

0, 1, 2, 3, 4, 5, 6	Lodging establishment must offer opt out of linen service	5%	Lodging establishments must provide patrons the option of not having towels and linen laundered daily.	Y
0, 1, 2, 3, 4, 5, 6	Restaurants may only serve water upon request	5%	Drinking water served upon request only.	Y
Other				
0, 1, 2, 3, 4, 5, 6	Prohibit use of potable water for washing hard surfaces	5%	The washing of sidewalks, walkways, driveways, parking lots and all other hard surfaced areas by direct hosing, except as may be permitted by current regulations pertaining to urban water runoff pollution prevention as defined by the Marin County Stormwater Pollution Prevention Program and other controlling agencies.	Y
0, 1, 2, 3, 4, 5, 6	Customers must repair leaks, breaks, and malfunctions in a timely manner	5%	The escape of water through breaks or leaks within the consumer's plumbing or private distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of 48 hours after the consumer discovers such a leak or break, or receives notice from the district of such leak or break, whichever occurs first, is a reasonable time within which to correct such leak or break.	Y
0, 1, 2, 3, 4, 5, 6	Other	5%	Gutter flooding is prohibited.	Y
3, 4, 5, 6	Other	30%	Use of potable water for refilling or make-up water of any decorative water features, is prohibited.	Y

2, 3, 4, 5, 6	Other	20%	Implement drought rates consistent with District-wide targeted water savings.	N
5, 6	Other landscape restriction or prohibition	50%	Refilling a completely drained swimming pool and initial filling of any swimming pool for which application for a building permit was made after District specified date.	Y
0, 1, 2, 3, 4, 5, 6	Require automatic shut-off hoses	5%	Using a garden hose without a shut-off nozzle is prohibited.	N
0, 1, 2, 3, 4, 5, 6	Other	5%	Any excess water runoff flowing onto the public right-of-way at a rate of one gallon per minute or greater not caused by storm water or naturally occurring groundwater is prohibited.	Y
0, 1, 2, 3, 4, 5, 6	Other	5%	Use of private fire lines or private fire taps for any purposes other than fire suppression and necessary testing is prohibited.	Y
3, 4, 5, 6	Other	30%	Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.	Y
3, 4, 5, 6	Other	30%	Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.	Y
3, 4, 5, 6	Limit use of potable water for construction and dust control	30%	Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.	Y
0, 1, 2	Other	5%	Sewer cleaning/flushing should be done using recycled water when available without hauling by truck and whenever reasonably possible.	Y

3, 4, 5, 6	Other	30%	Limit sewer cleaning/flushing to only recycled water.	Y
4,5,6	Other	40%	Request that local fire departments limit training exercises that use potable water and cease hydrant testing.	Y
6	Other	50%	Request that local fire departments cease training exercises that use potable water and cease hydrant testing.	Y

Notes:

(a) The reductions shown are the combined reductions for all the actions associated with the particular shortage level.

6.2 Variances to Dry Period Regulations

The District does allow for certain variances to the water shortage stage prohibitions discussed in Section 6.1. All variance requests must be submitted in writing to the District and include the account name, service number, and service address. Per the District's Water Conservation Ordinance (Title 13) variances may be granted to District customers as follows:

The District may grant variances for use of water otherwise prohibited under mandatory water use prohibitions if it is found and determined that:

- (1) Failure to do so would cause an unnecessary and undue hardship on applicant or the public, including but not limited to, adverse economic impacts;
- (2) Failure to do so would cause an emergency condition affecting the health, sanitation, fire protection or safety of the applicant or the public; or
- (3) Customer is able and agrees to provide an alternative means of providing comparable water conservation.

Any request for a variance shall be submitted to the District in a writing providing sufficient detail regarding the request and the reasons therefore. After consideration of the variance request, a written decision shall be provided to the customer rejecting, partially approving or approving the variance request. If the customer disagrees with the initial determination, the customer may avail themselves of the appeal process set below.

(1) Customers may appeal a decision regarding a variance or an enforcement action by following the procedures set forth below:

- (A) Within thirty (30) calendar days of the variance denial or partial denial or a notice of violation, customer shall mail a written appeal containing all applicable evidence supporting their position to the Water Efficiency Department at 220

Nellen Avenue, Corte Madera, CA 94925. For purposes of this section an appeal shall be deemed received by the District on the day of post-mark by the U.S. Postal Service.

(B) The District shall respond to the appeal in writing either denying, granting or partially granting the appeal. If customer disputes the initial written determination of his/her appeal, then customer may request a further appeal by submitting a further writing to the District within fifteen (15) calendar days from the date of the initial written response to the appeal.

(C) Upon receipt of a timely further appeal, a hearing on the appeal will be scheduled and the District will mail notice of this date to the customer at least ten (10) calendar days before the hearing.

(D) The General Manager or designee shall conduct a hearing on the appeal considering all applicable facts and issue a written decision containing his or her decision on the appeal. The General Manager's or designee's decision shall be final.

(E) Any action not timely appealed shall be deemed final.

(F) Pending receipt of a written appeal or pending hearing pursuant to an appeal, the District may take appropriate steps to prevent unauthorized use of water as appropriate to prevent waste.

(G) This notice and hearing procedure shall not apply to those water waste situations charged as misdemeanors.

6.3 District Actions

In addition to implementing and enforcing the prohibitions on end users discussed in 6.1, the District has identified a suite of actions and operational changes it will enact at the various stages of water shortage. These actions are meant to reduce water demands on the distribution system itself, facilitate implementation of the identified prohibitions, provide educational resources to customers, and to continue to offer customers opportunities to reduce their water use. The District actions identified for each stage of action are listed below.

Dry Condition Stage: Shortage Level 1: 10% Voluntary

Operations

- Increase Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions

Advisory Stage: Shortage Level 2: 20% Voluntary

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions

- Minimize system flushing
- Initiate water waste patrols

Drought Rates

- Implement drought rates consistent with District-wide targeted water savings.

Alert Stage: Shortage Level 3: 30% Mandatory

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Water waste patrols
- Increase system leak repair rate
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

Severe Stage: Shortage Level 4: 40% Mandatory

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase Water waste patrols
- Consider Temporary Urgency Change Petition
- Consider Declaration of Water Shortage Emergency
- Consider limiting or excluding new service connections.

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

Critical Stage: Shortage Level 5: 50% Mandatory

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase water waste patrols
- Implement Temporary Urgency Change Petition
- Implement Water Use Limits and Penalties

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

Emergency Stage: Shortage Level 6: > 50% Mandatory

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase Water waste patrols
- Implement Temporary Urgency Change Petition
- Decrease Water Use Limits and implement issuance of Penalties to align with Health and Safety Water Allotments

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

6.4 Penalties, Charges, and Other Enforcement of Prohibitions

Table 6-1 in Section 6.1 identified the restrictions on water use by customers to be implemented during various stages of water shortage, as well as which of these items are enforceable by penalty. Any

customer violating the restrictions on water use identified in **Table 6-1** shall receive a penalty as described below per the District's Enforcement provisions::

(1) For violations of the provisions set forth in chapter, other than Section 13.02.020(1)(B), the following enforcement procedures shall apply:

(A) First Notice—Warning Letter. Any customer violating the regulations and restrictions on water use set forth in this chapter, other than Section 13.02.020(1)(B), shall receive a written warning informing them of the violation for the first such violation and warning that a second such violation will result in a penalty.

(B) Notice of Violation. If, after receiving a written warning of violation for the same category of violation within one year, the district shall issue a *notice* of violation imposing a \$25.00 fine on the customer's next water bill.

(2) Repeat Violations. For customers found by the district to incur a further violation within the same category for which customer has already received a fine within the past year, customer shall be charged a fine of \$250.00 for each successive violation.

(3) Additional Enforcement Procedures.

(A) Failure by the customer to correct the violation and pay the applicable fine, after following the procedures set forth above in this section, may cause the district to install a flow restrictor to be installed in the service. If a flow restrictor is placed, a charge of \$150.00 for cost of installation and an additional \$150.00 cost for removal shall be paid by the violator.

(B) Any willful violation occurring subsequent to the issuance of the third written *notice* of violation may constitute a misdemeanor and may be referred to the Marin County District Attorney's office for prosecution. An individual convicted shall be punished by imprisonment in the County Jail for not more than 30 days, or by a fine not exceeding \$1,000.00 or both.

(C) The district may also disconnect the water service pursuant to Section 11.28.020 of this code. If water service is disconnected, it shall be restored only upon payment of the turn-on charge fixed by the Board of Directors.

6.5 Defining Water Features

As required by CWC §10632, the District distinguishes between "decorative water features" such as ponds, lakes, and fountains that are artificially supplied with water and "recreational water features" such as swimming pools and spas. Prohibitions on water use for decorative water features are listed separately from those for recreational water features (see **Table 6-1**).

6.6 Supply Augmentation

Table 6-2 below includes a list of potential water supply augmentation actions that may be implemented in the event of a water shortage. While shortage levels are indicated in the table below, prior to enacting these actions, the District will evaluate on a case-by-case basis:

- (1) the sufficiency of demand reduction actions (**Table 6-1**) to supply shortage conditions,
- (2) the feasibility of implementing the action in light of regulatory, operational, and other constraints, and
- (3) the costs of implementing the action in context with the severity of the water shortage condition.

Table 6-3 Supply Augmentation and Other Actions (DWR Table 8-3)

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?	Additional Explanation or Reference (optional)
1	Increase supplemental water imports and closely monitor storage levels and weather conditions	Up to 5,000 AF	Range dependent on regional drought conditions and hydraulic capabilities
1	Enact dry year stream release flow reductions	Up to 100 AF	As defined under Water Right Order 95-17 and agreements with NMWD
2	Minimize system flushing	Unknown	Focus on water quality improvements
2	Water waste patrols	Unknown	
3	Restrict line flushing to include only regulatory compliance actions	Unknown	Flush for violations of water quality regulations or required disinfection for new construction and repairs.
3	Increase system leak repair to prioritize class 2 leaks	Unknown	
3	Access Stored Emergency Supply	Unknown	Rental of generator for SoulaJule Reservoir to transfer water to Nicasio Reservoir
3	Access Stored Emergency Supply	Unknown	Initiate adjustments to pipe configuration to transfer water from Phoenix Lake to Bon Tempe Lake
4	Consider a Temporary Urgency Change Petition	Up to 2,500 AF	Change to environmental releases – possible reduction of migration flow volumes.
4	Increase water waste patrols	Unknown	
4	Increase system leak repair to prioritize class 1-3 leaks	Unknown	
4	Consider Declaration of Water Shortage Emergency	Unknown	
4	Initiate development of Emergency Supplemental Supplies	Unknown	

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?	Additional Explanation or Reference (optional)
5	Consider a moratorium on new water service connections, or no net water use requirements for new connections	Unknown	
5	Implement Water Use Limits and Penalties	Unknown	Long term
6	Decrease Water Use Limits and implement issuance of Penalties to align with Health and Safety Water Allotments	Unknown	Conducting feasibility analysis
NOTES:			

6.7 Shortage Response Action Effectiveness

Table 6-1 summarizes the District's water shortage response actions with their estimated water reductions for each stage. For each action identified, the District has estimated the extent to which that action will reduce the gap between supplies and demands. The District has estimated the effectiveness of the shortage response actions based on water use reductions that have occurred historically and on expected reductions associated with implementing the Water Use Limits and Associated Penalties, and Drought Rates in more severe shortages.

7 CATASTROPHIC SUPPLY INTERRUPTION

Catastrophic supply interruptions may be caused by a regional power outage, an earthquake, or other disaster. In accordance with the Emergency Services Act, the District has developed an Emergency Operation Plan (EOP). This EOP guides response to unpredicted catastrophic events that might impact water delivery including regional power outages, earthquakes, or other disasters. The EOP outlines standard operating procedures for all levels of emergency, from minor accidents to major disasters. The District's EOP has been coordinated with the SCWA and neighboring water purveyors.

In addition to the EOP, the District has prepared Emergency Action Plans for each of their dams that have been filed with the Department of Safety of Dams and the Marin County Office of Emergency Services. These Emergency Action Plans include inundation maps as well as notification procedures and contacts with the California Office of Emergency Services to assist first responders in case of an emergency.

7.1 Seismic Risk Assessment

Impacts associated with earthquakes and liquefaction are discussed in the *2022 Marin Municipal Water District Hazard Mitigation Plan* (District LHMP)¹. The District LHMP assesses the District's vulnerabilities to various hazards, including seismic hazards, and presents mitigation strategies that are planned over the next five years.

The District LHMP includes a discussion of the probability of a seismic event affecting District assets, citing an ABAG projection of a 63% chance of an earthquake of magnitude 6.7 or greater on one of the faults affecting Marin County between now and 2032. The District LHMP notes that much of the District's assets are located within mapped liquefaction areas or areas of high risk soils. The District LHMP includes an assessment of the District's vulnerability in the event of a major seismic event, and estimates that an earthquake on the San Andreas Fault of magnitude 7.8 would result in a total building damage of approximately \$185 million.

Some measures to mitigate seismic risk identified in the District LHMP include:

- Harden infrastructure and provide redundancy for critical functions;
- Perform seismic retrofits for vulnerable critical assets;
- Keep reserves for reconstruction; and
- Develop and adopt a continuity of operations plan.

Further discussion of seismic risks specific to the SCWA water system is provided in the *Sonoma County Water Agency Local Hazard Mitigation Plan*, dated 16 October 2018 (SCWA LHMP; SCWA, 2018).² The SCWA LHMP specifically assesses SCWA's natural hazard risks and vulnerabilities facing the SCWA infrastructure and provides a plan of action to address these vulnerabilities. The SCWA LHMP identifies a series of mitigation measures to address seismic risk, including seismic retrofits of distribution system components to protect against damage due to liquefaction and lateral spread hazard and installation of automated throttling valves at aqueducts and interties to minimize uncontrolled releases out of SCWA facilities. For more detail regarding planned mitigation measures to address seismic risks, please refer to the SCWA LHMP.

The District also assessed the risks of an earthquake to the District's water supply system and infrastructure in the *Marin Municipal Water District Water Resources Plan 2040* (MMWD, 2017).³ Through use of the Marin WaterSim model, it was determined that, while several treatment plants could become un-operational for up to three months following an earthquake event, District water demands

¹District's LHMP can be found at the following website:

https://www.marinwater.org/sites/default/files/2022-04/2022-03-23_MMWD_Hazard_Mitigation_Plan_Final.pdf

² The SCWA LHMP could be found in the following website:

<https://evogov.s3.amazonaws.com/185/media/186587.pdf>

³ The Marin Municipal Water District Water Resources Plan 2040 could be found in the District website:

<https://www.marinwater.org/sites/default/files/2020-09/Water%20Resources%20Plan%202040.pdf>

could still be met by increasing production from unaffected treatment plants. More detail regarding the earthquake risk assessment and modelling can be found in District's Water Resources Plan 2040.

8 COMMUNICATION PROTOCOLS

Each stage of the WSCP will be enacted and retracted with a formal declaration by the District Board of Directors based on identified triggers and staff recommendation, or upon the determination that SCWA or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use due to a water supply shortage or emergency. Procedures for water shortage declaration and termination are detailed below in Section 10.

Even before formal declaration of a water shortage, a public information program will be activated to provide customers with as much advance notice as possible. Following declaration of a shortage, District customers would need to be provided notice of water shortage rules and regulations via a variety of media and communications methods. Some of these communication methods will include the following:

Dry Conditions Stage: Shortage Level 1: 10% Voluntary

- Initiate public outreach campaign to communicate about dry conditions
- Education focused on ongoing prohibitions and water waste reporting
- Provide list of simple actions that can be done to save water (e.g., use a broom instead of hosing down a sidewalk)
- Explain drought situation to the public and governmental bodies via "Drought Watch" to provide a snapshot of the water supply picture, restrictions, and water conservation tips
- Promote the Weekly Watering Schedule
- Explain other stages and forecast future actions

Advisory Stage: Shortage Level 2: 20% Voluntary

- Accelerate public information and increase outreach
- Develop internal speakers bureau to provide educational presentations to community groups
- Develop (or use existing) brief and simple educational videos that cover topics normally touched on during water efficiency phone consultations
- Provide outreach toolkit to cities in service area of drought conditions to ensure collaboration
- Encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Alert Stage: Shortage Level 3: 30% Mandatory

- Accelerate public information program, outreach campaign, and communication with news media to help amplify messaging

- Provide updated outreach toolkit to cities to ensure collaboration
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Sever Stage: Shortage Level 4: 40% Mandatory

- Provide information to customers about trees preservation during drought conditions
- Accelerate public information program, outreach campaign, and communication with news media to help amplify messaging
- Provide updated outreach toolkit to cities to ensure collaboration
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Critical Stage: Shortage Level 5: 50% Mandatory

- Accelerate public information program, outreach campaign, and additional communication with news media to help amplify messaging
- Provide updated outreach toolkit to cities to ensure collaboration
- Explain other stages and forecast future actions
- Communicate Water Use Limits and associated penalties
- Provide information to customers about trees preservation during drought conditions
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering

Emergency Stage: Shortage Level 6: > 50% Mandatory

- Accelerate public information program, outreach campaign, and additional communication with news media to help amplify messaging regarding Health and Safety Water Allotments
- Provide updated outreach toolkit to cities to ensure collaboration
- Provide information to customers about trees preservation during drought conditions
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering

Coordination between the District and other public agencies may begin prior to formal declaration of a water shortage and can be accomplished through regular meetings, e-mail group updates, and presentations. In a regional water shortage scenario, the District would use public outreach resources and materials provided by SCWA, ACWA, Marin County, and other strategic partners, as well as its own resources as described above.

9 COMPLIANCE AND ENFORCEMENT

As discussed in Section 6.4, any customer violating the regulations and restrictions on water use set forth above in **Table 6-1** shall receive a written warning for the first such violation, and then a notice of violation and a \$25 fine for a second violation, and additional penalties for repeat violations as noted in Section 6.4. Additional enforcement procedures may include the following:

- Failure to correct the violation and pay the applicable fine may cause the District to install a flow restrictor on the service.
- Any willful violation occurring subsequent to the issuance of the third written notice of violation may constitute a misdemeanor and may be referred to the Marin County district attorney's office for prosecution.
- The District may also disconnect the water service pursuant its code. If water service is disconnected, it shall be restored only upon payment of the turn-on charge fixed by the board of directors.

As discussed in Chapter 9 of the District's 2020 Urban Water Management Plan (UWMP), several District staff members jointly share the responsibility for implementation of the District's water conservation program. Staff time dedicated to water conservation and enforcement action will increase with the severity of a supply shortage. Additional duties may be assigned to current employees or hiring of temporary staff may be considered to meet staffing needs during extreme water shortages.

10 LEGAL AUTHORITIES

The District has the ability to declare and rescind a Water Shortage Emergency under the following authorities and conditions as described under the WSCP shortage levels:

- Article X, Section 2 of the California Constitution mandates that the water resources of the State be put to beneficial use to the fullest extent and that waste or unreasonable use or method of use of water be prevented.
- California Water Code Sections 350 and 71640 authorize the governing body of a municipal water district to find the existence or threat of a drought emergency or other threatened or existing water shortage, and that finding is 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 is made by the board by resolution or ordinance.
- Pursuant to California Water Code Sections 353 and 71641, the District may restrict the use of district water during the drought emergency or other water shortage condition and may prohibit the wastage of district water or the use of district water during such periods for any

purpose other than household uses or other restricted uses as the District determines to be necessary.

- Pursuant to California Water Code Sections 376 and 71641 and Government Code Section 6061, the District must publish in a newspaper of general circulation any ordinance setting forth the restrictions, prohibitions, and exclusions determined to be necessary under Water Code Sections 353 and 71640 within 10 days after its adoption. The District's Board may adopt mandatory restriction and prohibitions on the consumption and use of water within the service area so that the water supply can be conserved for the greater public benefit.
- Pursuant to Water Code sections 350 and 71640, and for per the annual water supply and demand assessment, the Board may find the existence or threat of a drought emergency or other water shortage condition.
- The District shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency.

11 FINANCIAL CONSEQUENCES OF WSCP

Since the District bills its customers, in part, per unit volume of water consumed, the District would experience a reduction in revenue upon implementation of water conservation measures pursuant to the WSCP. The District may also experience expense increases related to increased public outreach, water waste patrols, emergency water transfers, and generators and fuel to allow for the transfer of water from Soulajule to Nicasio reservoir. To compensate for the expected revenue reduction caused by water conservation, the District may utilize reserves to the extent possible and has the authority to implement temporary drought rates, increasing water rates. Additionally, the District's Board of Directors may establish a water rate structure, including excess water use surcharges that provides incentives to conserve water. Individual customers may seek a waiver of excess water use surcharges through the variance process as described in Section 6.2.

12 MONITORING AND REPORTING

The District's local surface water supply and SCWA supply turnouts are all equipped with water meters. In addition, each potable water customer is metered. Non-residential landscape irrigation is metered separately from indoor use at most non-residential sites. The District reads meters on a bi-monthly basis and is able to document both demand reductions and a typically high water use. The District contacts individual customers to resolve issues related to a typically high water use.

Pursuant to California Code of Regulations (CCR) Title 23 §991, the District reports monthly water use and production to the SWRCB.⁴ Effective October 1, 2020, during a governor declared drought emergency or when an urban water supplier invokes a water shortage level to respond to a drought

⁴ Water supplier monthly reports can be accessed at https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html

greater than 10%, each supplier is required to submit an expanded report that contains the supplier's actions and statistics in achieving planning reductions.

13 WSCP REFINEMENT PROCEDURES

The WSCP is implemented as an adaptive management plan. The District will evaluate the need to revise its WSCP every year after performing its Annual Water Supply and Demand Assessment. The evaluation will consider the effectiveness of WSCP actions and any anticipated water supply shortages. If the WSCP is revised, the District Board of Directors will adopt a new resolution adopting the revised WSCP.

14 PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

Prior to adopting the WSCP, the District held a formal public hearing to present information on the WSCP on 21 February 2023 in a virtual meeting. The WSCP was adopted by Resolution No. 8737 during the same meeting. A copy of the resolution is included in **Attachment 2**. A copy of the adopted 2023 WSCP including any amendments will be provided to the Department of Water Resources (DWR), the California State Library, and Marin County within 30 days of the adoption (**Attachment 2**). An electronic copy of the adopted 2023 WSCP will be submitted to the DWR using the DWR online submittal tool. A copy of the adopted 2023 WSCP will be available for public review on the District's website within 30 days after filing the plan with DWR.

ATTACHMENT 1: SONOMA COUNTY WATER AGENCY ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES (SCWA WSCP APPENDIX C)

This section presents the procedures that will be used by Sonoma Water to conduct an annual water supply and demand assessment (annual assessment). The annual assessment is required to be submitted annually to DWR beginning on July 1, 2022. The assessment forecasts near-term water supply conditions to ensure shortage response actions are triggered in a timely manner. The annual assessment will provide a description and quantification of each source of Sonoma Water's water supply compared to water demands for the current calendar year, with consideration of one subsequent dry year.

One of the most important functions provided by Sonoma Water is to monitor water supply conditions to gauge the likelihood of water shortages so that Sonoma Water's wholesale customers will be prepared to respond to the shortages. Sonoma Water constantly monitors the reservoir levels at Lake Pillsbury, Lake Mendocino, and Lake Sonoma, and estimates flows in and out of those reservoirs, weather forecasts, and natural flows into and diversions from the Russian River and Dry Creek. By using this data as well as historical data regarding water use in different climatic conditions, Sonoma Water can project when a water shortage may be imminent.

The following subsections describe the decision-making process and data and methodologies. Sonoma Water may modify these procedures based on its experience developing the annual assessment.

Decision Making Process

This section presents the decision-making process and timeline (see Table 1) that Sonoma Water will use each year to determine its water supply reliability. Sonoma Water may revise this decision-making process based on the experience gained from going through the process.

To develop the supply portion of the annual assessment, Sonoma Water staff will start monitoring water supply conditions in December prior to the January Decision 1610 trigger date for setting instream flow requirements per the water year classification specified in Decision 1610. Decision 1610 also requires an assessment of the water year classification and instream flow requirements at the beginning of each subsequent month until June 1, when it is set for the remainder of the year. Consequently, Sonoma Water staff will continue to monitor water supply conditions (reservoir levels, stream/river flows, soil moisture, precipitation, etc.) throughout this time period to ensure its assessment of water supply conditions are consistent with watershed hydrologic conditions and reservoir storage levels. The final annual assessment will include the actual supply conditions up to May. If a water shortage is forecast for the subsequent calendar year, the monitoring of water supply conditions would be conducted during the September to December period of the current calendar year.

To develop the demand portion of the annual assessment, the projections of water demand to be supplied by Sonoma Water for the calendar year and subsequent calendar year will be developed and provided by all of Sonoma Water's customers by February 1. Sonoma Water staff will use the most recent demand data to develop demand projections for those customers that do not provide projections. The annual assessment will consider all demands on Sonoma Water's system to establish the supply available for Sonoma Water's customers that must complete and submit their own annual assessments to DWR.

Sonoma Water will present and submit the annual assessment following the steps described below.

1. Present draft annual assessment to Sonoma Water's customers. The draft annual assessment will be presented to the TAC ad-hoc committee at the April meeting. The assessment will also be presented to the Sonoma Water's other customers. An initial evaluation will be made regarding the potential for a water shortage condition to occur. If a shortage is forecast for the current calendar year and particularly during the critical months of July to October, the initial implementation of WSCPs will be coordinated with all the customers.
2. Receive review comments. Sonoma water's customers will present their review comments including their updated demands and local supply projections at the May TAC meeting. Sonoma Water will communicate directly with Sonoma Water's other customers to obtain their review comments.
3. Present final annual assessment to the TAC. The final annual assessment report will be prepared and presented at the June TAC meeting. The annual assessment may be presented to the WAC. Sonoma Water will coordinate through the TAC to identify if any water supply gaps exist for each customer when considering both Sonoma Water supplies and local supplies. The assessment will be provided directly to Sonoma Water's other customers.
4. Optional presentation of the annual assessment to the Board of Directors. The annual assessment may be presented to Sonoma Water's Board of Directors during one of their regularly scheduled meetings, particularly if a shortage is anticipated or if an existing shortage condition is to be ended.
5. Submit annual assessment to DWR. Sonoma Water will submit the annual assessment report to DWR by July 1 of each year.

Table 1. Annual Assessment Timeline							
Task	Dec	Jan	Feb	Mar	Apr	May	Jun
Monitor and forecast water supply conditions							
Sonoma Water's customers develop and provide water demand forecast by February 1.							
1. Present draft annual assessment to Sonoma Water's customers							
2. Receive review comments							
3. Present final annual assessment to the TAC							
4. Present annual assessment to the Board of Directors							
5. Submit annual assessment to DWR (due July 1 st)							

Data and Methodologies

This section presents the key data inputs and assessment methodology that will be used to evaluate Sonoma Water's water supply. The evaluation criteria, water supply, unconstrained demand, water supply, planned water use, infrastructure considerations, and other factors are described.

Evaluation Criteria

The evaluation criteria that will be relied on for each annual assessment include the key data inputs and the constraints that are imposed on the water supplies.

The key data inputs that are used by Sonoma Water staff to forecast water supply for the remainder of the current year and a subsequent dry year include the items described below.

- **Unconstrained customer demand.** Current and subsequent calendar year unconstrained demand for each of Sonoma Water's wholesale customers considering weather, growth, and other influencing factors.
- **Russian River operations.** Current reservoir releases from Lake Sonoma and Lake Mendocino, including anticipated releases to meet in-stream flow requirements and water demands and based on reservoir curves and forecast informed reservoir operations (FIRO) decision support tools.
- **Hydrology and watershed conditions.** Lake Sonoma and Lake Mendocino inflows and storage levels, and soil moisture.
- **Potter Valley Project inflows.** Lake Pillsbury storage levels and observed and projected project transfers.
- **Weather forecasts and historical hydrological records.** Weather forecasts combined with historical records will be used to evaluate probabilities using statistical methods.

The water supply constraints are due to a variety of agreements and decisions, as follows.

- **Lake Sonoma storage level.** Sonoma Water's water rights permits include a provision that requires Sonoma Water to impose a 30 percent reduction in deliveries from the Russian River to its service area when Lake Sonoma storage levels drop below 100,000 acre-feet (ac-ft) before July 15 of any year. This provision is described in more detail in Section 5.1.6.1 in the 2020 Plan.
- **Lake Mendocino storage level.** Having a sufficient supply of water in Lake Mendocino in the fall is of critical importance to the salmonid species in the Russian River and to meet municipal and industrial demands and agricultural irrigation needs.
- **Minimum instream flow requirements.** The minimum instream flow schedule varies based on the hydrologic classifications of Normal, Dry, and Critical water supply conditions as defined in Decision 1610. These classifications will be revised using a new hydrologic index. Minimum instream flow requirements for the Russian River and Dry Creek are met by releases from Coyote Valley Dam and Warm Springs Dam.
- **Flood control operations criteria.** The United States Army Corps of Engineers (USACE) determines the schedule and amount of water released from Lake Mendocino and Lake Sonoma during flood control operations when storage levels exceed the water supply storage pool. Rules of the water control manuals of the reservoirs (USACE, 1984 & 2003) require the flood control pool to be empty except during periods of high flows downstream. During high flow events water is temporarily detained in the flood control pool (above the water supply pool), and later released at rates that avoid exceeding downstream flood stage.

- **Maximum flow releases from Warm Springs and Coyote Valley Dams.** The Lake Mendocino and Sonoma water control manuals define maximum release that are a function of reservoir water elevation or storage level. The maximum release schedules typically only apply during flood control operations. Releases from the reservoirs are further constrained by rules that define the maximum rate of change of release (ramping rates) to minimize rapid changes in stage downstream and avoid fish stranding. These ramping rates were defined in a 2016 letter to the USACE from the National Marine Fisheries Service (NMFS) (NMFS, 2016).
- **The Russian River Biological Opinion.** The Russian River Biological Opinion places certain terms and conditions on the Sonoma Water with respect to its water supply operations.

Water Supply

The Russian River provides most of Sonoma Water's water supply with groundwater supply from the Santa Rosa Plain as a secondary source. Sonoma Water diverts water from the Russian River near Forestville and conveys the water via its transmission system to its customers. Sonoma Water's 2020 Plan (Section 5) provides a more detailed description of the water supplies. The method used to forecast the quantify of water supply is described in Section 3.2.4 below.

Almost all of Sonoma Water's customers, surplus customers, and Russian River customers have other water supplies, in addition to those provided by Sonoma Water, which include local surface water, local groundwater, and recycled water. These local supplies will not be included in the assessment. Each customer will develop its own assessment of their available supplies.

Unconstrained Customer Demand

The assessment will present the current year unconstrained demands from Sonoma Water's customers, considering weather, growth, and other influencing factors. The unconstrained water demands will be provided by the customers or developed by Sonoma Water.

Planned Water Use for Current Year Considering Dry Subsequent Year

The assessment will present an evaluation of the amount of anticipated water supplies for the current calendar year as well as how the supplies will be used, while anticipating that the following calendar year will be dry.

The annual assessment will be based on evaluating the key data inputs to determine the water supply reliability. The methodology to develop the annual assessment will follow the general approach described below.

1. Quantify current calendar year water supply. The available water supply from all water supply sources will be estimated for the current calendar year based on the data inputs, evaluation criteria, and hydrological and regulatory conditions. The current calendar year consists of the latter portion of the current wet season and the earlier portion of the subsequent wet season. Sonoma Water staff will evaluate water supply conditions beginning at least mid-month prior from January to June to determine whether anticipated conditions warrant any actions by Sonoma Water. The wet season that starts in the Fall of the current year will be assumed to be dry as described in the next step. The projections of the water supply will be expressed as a range and based on the results of operations modeling of the Russian River system consisting of the statistical evaluation of multiple scenarios. The model is described later in this subsection. Figure 1 presents the key considerations for the assessment of Russian River supply conditions.

2. Quantify subsequent calendar year supply. The subsequent calendar year water supplies will be estimated by assuming that the next wet season that starts at the end of the current calendar year will be dry. Sonoma Water will select the climate type for the wet season that starts at the end of the subsequent calendar year. Sonoma Water will base the estimate of dry season water supplies on a statistical analysis of the historical precipitation record and the selection of an appropriate exceedance frequency. The details of the methodology will be defined in the development of the assessment.

3. Identify infrastructure constraints. The existing infrastructure capabilities and plausible constraints as they impact Sonoma Water's ability to deliver supplies to meet expected customer water use needs in the coming year will be considered.

4. Quantify unconstrained water demand. The unconstrained water demands for all the customers will be provided by the customers or developed by Sonoma Water staff.

5. Compare projected water supplies to demands. The water supplies identified in the annual assessment will represent the water demand that can be met while maintaining adequate storage in Lake Mendocino and Lake Sonoma.

6. Identify and quantify anticipated water supply shortages, if any. The forecast of water supplies in comparison to water demands will identify and quantify any anticipated water shortages for the current calendar year. The forecast will be coordinated with Sonoma Water's customers, surplus customers, and Russian River customers. Depending on the extent of the forecast shortage, the appropriate shortage stage will be selected. If the early winter season has been wet and the forecast is for a wet season, there would be no concerns. If the season was dry in the early wet season, there would be a potential concern and river flows and reservoir levels would be monitored more closely. Depending on the extent of precipitation in the latter portion of the wet season, the forecast could be changed to no concern or to an anticipated shortage.

7. Implications of forecasted water shortage. Depending on the extent of the forecasted water shortage for the current calendar year and particularly the summer months, Sonoma Water may implement voluntary reductions of its diversions and request its customers to conserve and utilize local supplies. The State Water Resources Control could also mandate reduction of diversions by Sonoma Water. For example, mandatory reductions would be required (as specified in Sonoma Water's water rights) if Lake Sonoma levels reached 100,000 ac-ft by July 15 of a given year. Such reductions would be implemented in accordance with the applicable provisions of the Restructured Agreement and consistent with the defined shortage stages. If a shortage is identified, the water shortage allocation methodology specified by the Restructured Agreement would be used to allocate the reduced supply to each customer. Each of Sonoma Water's customers would develop their own annual assessments that will include estimates of their projected quantity of local water supplies.

The forecast of the amount of available water supplies will be developed by Sonoma Water using the Russian River System Model (RR ResSim). The model is used as a planning tool to simulate the effects of various climatic conditions, levels of demand, and operational criteria on the water supply available for use by Sonoma Water and others.

Infrastructure Considerations

The annual assessment will include an evaluation of how infrastructure capabilities and constraints may affect Sonoma Water’s ability to deliver supplies to meet expected customer water use needs in the current year.

Other Factors

The annual assessment will describe any other locally applicable factors that could influence the amount of available water supplies.

Summary: D1610 contains trigger points at the first of the month (January – June) to establish the Hydrologic Index (HI) based on cumulative inflows into Lake Pillsbury (Eel River). Sonoma Water staff evaluate water supply conditions (as shown in Figure 1 below) beginning at least mid-month prior to each of the D1610 trigger dates to determine whether anticipated conditions at the trigger date warrant any actions by Sonoma Water. This assessment process may be revised to consider a changed HI based on the Fish Flow Project as described in Section 5.1.6.1 of the 2020 Plan. While D1610 is currently used, a proposal to change Sonoma Water’s water rights may require an updated methodology.

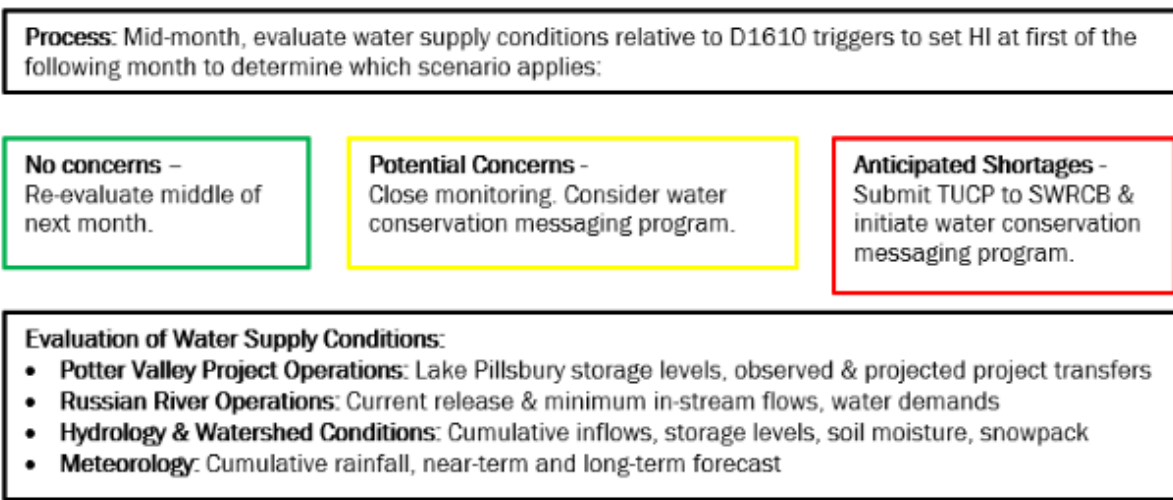


Figure 1. Assessment of Russian River Supply Conditions.



ATTACHMENT 2 WATER SHORTAGE CONTINGENCY PLAN RESOLUTION

MARIN MUNICIPAL WATER DISTRICT

RESOLUTION NO. 8737

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MARIN MUNICIPAL WATER DISTRICT ADOPTING THE 2023 WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the District prepared the draft 2020 Urban Water Management Plan in accordance with the requirements and procedures set forth in the Urban Water Management Planning Act (Act), which included a Water Shortage Contingency Plan setting forth water shortage trigger levels and response actions as required under the Act (WSCP); and

WHEREAS, the District Board of Directors held a public hearing on June 15, 2021 where the Board considered the draft 2020 Urban Water Management Plan and other testimony and public comments provided at the hearing and following the public hearing the Board adopted the Marin Municipal Water District 2020 UWMP and WSCP; and

WHEREAS, based upon experience gained during the District's Water Shortage Emergency of 2021, staff reviewed the 2020 WSCP with an eye to improve the plan to achieve greater clarity and effectiveness of the WSCP and brought forth discussion to the Board of proposed revisions and incorporated feedback from the Board into an updated 2023 WSCP; and

WHEREAS, a public hearing on the updated 2023 Water Shortage Contingency Plan and implementation ordinance was noticed for the 21st day of February, 2023, by teleconference Zoom meeting; and

WHEREAS, the District Board of Directors considered the updated 2023 WSCP and proposed implementation ordinance during the public hearing held on February 21, 2023, and other testimony and public comments provided at the hearing.

NOW THEREFORE, BE IT HEREBY RESOLVED, that the Board of Directors adopts the 2023 Water Shortage Contingency Plan; and


BE IT FURTHER RESOLVED, that the Board of Directors authorizes the General Manager to file the updated 2023 WSCP with the California Department of Water Resources within 30 days of adoption as set forth in Section 10644(b) of the California Water Code.

PASSED AND ADOPTED this 21st day of February, 2023, by the following vote of the Board of Directors.

AYES: Directors Jed Smith, Ranjiv Khush, Larry Russell, Matt Samson, Monty Schmitt

NOES: None

ABSENT: None

A handwritten signature in blue ink that reads "Monty Schmitt". The signature is written in a cursive style with a horizontal line underneath it.

Monty Schmitt
President, Board of Directors

ATTEST:

A handwritten signature in blue ink that reads "Terrie Gillen". The signature is written in a cursive style with a horizontal line underneath it.

Terrie Gillen
Board Secretary

ATTACHMENT 3: WATER SHORTAGE RESPONSE ACTIONS: PROHIBITIONS AND DISTRICT ACTIONS

DRY CONDITIONS STAGE

Shortage Level 1: 10% Voluntary (Trigger at Reservoir Storage < 70,000 acre-feet April 1)

Prohibitions on End Users

Water Waste Prohibitions outlined in District's Title 13.02

District Actions

Operations

- Increase supplemental water imports and closely monitor storage levels and weather conditions
- Enact dry year stream release flow restrictions

Outreach

- Initiate public outreach campaign to communicate about dry conditions
- Education focused on ongoing prohibitions and water waste reporting
- Provide list of simple actions that can be done to save water (e.g., use a broom instead of hosing down a sidewalk)
- Explain drought situation to the public and governmental bodies via "Drought Watch" to provide a snapshot of the water supply picture, restrictions, and water conservation tips
- Promote the Weekly Watering Schedule
- Explain other stages and forecast future actions

ADVISORY STAGE

Shortage Level 2: 20% Voluntary (Trigger at Reservoir Storage < 65,000 acre-feet April 1)

Prohibitions on End Users

Water Waste Prohibitions outlined in District's Title 13.02.020

District Actions

Operations

- Continue to maximize supplemental water imports and closely monitor storage levels and weather conditions
- Minimize system flushing
- Initiate water waste patrols

Outreach

- Accelerate public information and increase outreach
- Communicate up to 20% voluntary reduction goals
- Develop internal speakers bureau to provide education presentations to community groups



- Develop (or use existing) brief and simple educational videos that cover topics normally touched on during water efficiency phone consultations
- Provide outreach toolkit to cities in service area of drought conditions to ensure collaboration
- Encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Drought Rates

- Implement drought rates consistent with District-wide targeted water savings

ALERT STAGE

Shortage Level 3: 30% Mandatory (Trigger at Reservoir Storage < 55,000 acre-feet April 1)

Prohibitions on End Users

- Water Waste Prohibitions outlined in District's Title 13.02.020, with trigger for additional Stage 3 measures, as follows:
- Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.
- Use of potable water for refilling or make-up water of any decorative water features, is prohibited.
- Golf course irrigation, with potable or raw water, shall be reduced by 30% compared to the average use of the last three normal years or shall be irrigated to the sites Maximum Applied Water Allowance per 13.02.021 Appendix A, whichever is less.
- Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.
- Limit sewer cleaning/flushing to only recycled water.
- Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.

District Actions

Operations

- Continue to maximize supplemental water imports and closely monitor storage levels and weather conditions
- Continue water waste patrols to align with Prohibitions on End Users
- Increase system leak repair rate
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix

Outreach

- Accelerate public information program, outreach campaign, and communication with news media to help amplify messaging

- Provide updated outreach toolkit to cities to ensure collaboration
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

SEVERE STAGE

Shortage Level 4: 40% Mandatory (Trigger at Reservoir Storage < 45,000 acre-feet April 1)

Prohibitions on End Users

- Water Waste Prohibitions outlined in District's Title 13.02.020
- Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.
- Decorative water features, including the refilling or make-up of any decorative water features, is prohibited.
- Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.
- Limit sewer cleaning/flushing to only recycled water.
- Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.
- Golf course irrigation, with potable or raw water, shall be reduced by 40% compared to the average use of the last three normal years or shall be irrigated to 90% of the sites Maximum Applied Water Allowance per 13.02.021 Appendix A, whichever is less.
- Limit irrigation to 1 day per week, assigned by the District.
- No installation of new landscapes including no expansion of existing landscapes.
- Request that local fire departments limit training exercises that use potable water and cease hydrant testing.

District Actions

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix

- Increase system leak repair rate to prioritize class 1-3 leaks
- Increase water waste patrols to align with Prohibitions on End Users
- Consider Temporary Urgency Change Petition
- Consider Declaration of Water Shortage Emergency
- Consider limiting or excluding new service connections.

Outreach

- Provide information to customers about trees preservation during drought conditions
- Accelerate public information program, outreach campaign, and communication with news media to help amplify messaging
- Provide updated outreach toolkit to cities to ensure collaboration
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering
- Explain other stages and forecast future actions

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

CRITICAL STAGE

Shortage Level 5: 50% Mandatory (Trigger at Reservoir Storage < 35,000 acre-feet April 1)

Prohibitions on End Users

- Water Waste Prohibitions outlined in District's Title 13.02.020
- Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.
- Decorative water features, including the refilling or make-up of any decorative water features, is prohibited.
- Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.
- No installation of new landscapes including no expansion of existing landscapes.
- Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.
- Limit sewer cleaning/flushing to only recycled water
- Request that local fire departments limit training exercises that use potable water and cease hydrant testing.
- Irrigation restricted to maintain tree health for all potable and raw water customers, including golf courses.

- Refilling a completely drained swimming pool and initial filling of any swimming pool for which application for a building permit was made after District specified date.
- Establish Water Use Limits and associated penalties

District Actions

Operations

- Continue to maximize Sonoma Water supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase water waste patrols
- Implement Temporary Urgency Change Petition
- Implement Water Use Limits and Penalties
- The Board shall consider a moratorium on new water service connections, or no net water use requirements for new connections.

Outreach

- Accelerate public information program, outreach campaign, and additional communication with news media to help amplify messaging
- Provide updated outreach toolkit to cities to ensure collaboration
- Explain other stages and forecast future actions
- Communicate Water Use Limits and associated penalties
- Provide information to customers about trees preservation during drought conditions
- Reduce Weekly Watering Schedule to deficit irrigation
- Continue to encourage use of graywater and weather-based landscape watering

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

EMERGENCY STAGE

Shortage Level 6: > 50% Mandatory (Trigger at Reservoir Storage < 25,000 acre-feet April 1)

- Water Waste Prohibitions outlined in District's Title 13.02.020
- Washing vehicles with potable water except at commercial carwash facilities that use recycled water, is prohibited.



- Decorative water features, including the refilling or make-up of any decorative water features, is prohibited.
- Use of potable water for dust control, soil compaction, street cleaning, or any other use, as determined by the District, which can be met with disinfected tertiary recycled water.
- No installation of new landscapes including no expansion of existing landscapes.
- Power-washing any structure using potable water, unless required for health and safety as required by Marin County Health Department.
- Limit sewer cleaning/flushing to only recycled water
- Refilling a completely drained swimming pool and initial filling of any swimming pool for which application for a building permit was made after District specified date.
- Request that local fire departments cease training exercises that use potable water and cease hydrant testing.
- The use of potable water for any purpose other than human health and sanitation is prohibited.
- Implement Health and Safety Water Allotments.
- New water service connections will not be granted.

District Actions

Operations

- Continue to maximize supplemental water imports and closely monitor storage levels and weather conditions
- Restrict line flushing to include only regulatory compliance actions
- Access stored Emergency Supply - Soulajule and Phoenix
- Increase system leak repair rate
- Increase Water waste patrols
- Implement Temporary Urgency Change Petition
- Decrease Water Use Limits and implement issuance of penalties to align with Health and Safety Water Allotments

Outreach

- Accelerate public information program, outreach campaign, and additional communication with news media to help amplify messaging regarding Health and Safety Water Allotments
- Provide updated outreach toolkit to cities to ensure collaboration
- Explain other stages and forecast future actions
- Provide information to customers about trees preservation during drought conditions
- Reduce Weekly Watering Schedule to deficit irrigation

Water Shortage Contingency Plan

2023 Update

Marin Municipal Water District



- Continue to encourage use of graywater and weather-based landscape watering

Drought Rates

- Drought rates will continue to increase based on declaration of water shortage stage and water savings target.

ATTACHMENT 4: WATER WASTE PROHIBITIONS IN EFFECT AT ALL TIMES

13.02.020 Water waste prohibitions.

No customer of the district shall make, cause, use or permit the use of potable water from the district for residential, commercial, industrial, agricultural, governmental or any other purpose in a manner contrary to any provision of this section.

(1) Prohibited Nonessential Uses Applicable to Customers. It is unlawful for any person, firm, partnership, association, corporation, or political entity to use potable water from the district for the following nonessential uses:

- (A) The washing of sidewalks, walkways, driveways, parking lots and all other hard surfaced areas by direct hosing, except as may be permitted by current regulations pertaining to urban water runoff pollution prevention as defined by the Marin County Stormwater Pollution Prevention Program and other controlling agencies.
- (B) The escape of water through breaks or leaks within the consumer's plumbing or private distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of 48 hours after the consumer discovers such a leak or break, or receives notice from the district of such leak or break, whichever occurs first, is a reasonable time within which to correct such leak or break.
- (C) Non-recycling decorative water fountains.
- (D) Restrictions on Irrigation. Irrigation shall not be conducted in a manner or to an extent that allows water to run off or overspray the areas being watered. Every consumer is required to have his or her water distribution lines and facilities under control at all times to avoid water waste.
- (E) Any excess water runoff flowing onto the public right-of-way at a rate of one gallon per minute or greater not caused by storm water or naturally occurring groundwater, is prohibited.
- (F) Using a garden hose without a shut-off nozzle.
- (G) Landscape irrigation between the hours of 9:00 a.m. and 7:00 p.m.
- (H) Operating outdoor sprinkler irrigation systems delivering overhead spray more than two days within any calendar week and drip irrigation more than three days per week within any calendar week, but excluding hand-watering. For the purpose of this section, "calendar week" shall mean a period running from Monday-Sunday.
- (I) The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall.
- (J) Irrigating ornamental turf on public street medians.

(2) Restrictions on Reverse Osmosis Units. The installation of reverse osmosis water purifying systems not equipped with an automatic shutoff unit is prohibited.

(3) The following are prohibited for new connections:

- (A) Single pass cooling systems for air conditioning or other cooling system applications unless required for health or safety reasons;
- (B) Non-recirculating systems for conveyer carwash applications.

(4) Exemption From Daytime Water Prohibition. Notwithstanding anything contained in this Title 13, testing and repairing irrigation systems for the purpose of eliminating water waste is permitted during the hours of 9:00 a.m. and 7:00 p.m.

(5) Sewer cleaning/flushing should be done using recycled water when available without hauling by truck and whenever reasonably possible. (Ord. 461 §2, 2022)

13.02.021

3(C) Pool and Spa Covers. All recreational pools and spas shall have covers, subject to the variance provisions as set forth in Section 13.02.050.

(6) Drinking Water Served Upon Request Only. By January 1, 2011, eating or drinking establishments, including, but not limited to, a restaurant, hotel, café, cafeteria, bar, or other public place where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested.

(7) Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services. By January 1, 2011, hotels, motels and other commercial lodging establishments shall provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments shall prominently display notice of this option in each bathroom using clear and easily understood language.

11.32.090

No consumer shall cause or permit any water furnished to his property by the district to run to waste in any *gutter* or otherwise. The district may, after one warning, terminate the service of any consumer pursuant to Chapter 11.28 for failure to comply with the foregoing rule. Restoration of service may be conditioned upon installation of a flow restrictor on the consumer's service. Fees will be charged for the flow restrictor and installation or removal in addition to the turn-on charge provided for in Section 11.08.150. (Ord. 314 §2, 1990)

11.50.010 Private fire taps.

A "private fire tap" means a service to provide water for a private fire hydrant, fire sprinkler system or other fire protection installation. Private fire taps may be granted solely to provide water for fire protection and each private fire tap shall have an approved backflow assembly and bypass meter. A single detector check valve may be used when replacing a single detector check valve when a private fire tap upgrade is required as described in Section 11.56.015. The district's system shall extend approximately to the curb line or edge of the public right-of-way, and shall end with an insulating spool piece or kit, but shall not include the detector check valve, or above ground backflow device. All bypass piping, except the meter owned by the District, shall be the responsibility of the consumer. (Ord. 416 §3, 2010; Ord. 314 §2, 1990; Ord. 176 §1, 1978)