



**MID-PENINSULA
WATER DISTRICT**

2025 Water Shortage Contingency Plan

Public Draft

Mid-Peninsula Water District

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2025 Water Shortage Contingency Plan

Mid-Peninsula Water District

TABLE OF CONTENTS

1.	Introduction.....	5
2.	Water Supply Reliability Analysis	6
3.	Annual Water Supply and Demand Assessment Procedures	8
4.	Six Standard Water Shortage Levels	9
5.	Shortage Response Actions	12
5.1	Demand Reduction	12
5.2	Supply Augmentation	18
5.3	Operational Changes	19
5.4	Emergency Response Plan	19
5.5	Seismic Risk Assessment and Mitigation Plan	20
5.6	Shortage Response Action Effectiveness.....	20
6.	Communication Protocols	24
7.	Compliance and Enforcement	25
8.	Legal Authorities.....	26
9.	Financial Consequences of a WSCP.....	28
10.	Monitoring and Reporting.....	30
11.	WSCP Refinement Procedures.....	31
12.	Special Water Feature Distinction	32
13.	Plan Adoption, Submittal, Availability, and Amendment Procedures	33
14.	References.....	34

LIST OF TABLES

Table 4-1: Water Shortage Levels	10
Table 5-1: Demand Reduction Actions	14
Table 5-2 (DWR Table 8-2): Supply Augmentation and other Actions	18
Table 5-3: Water Demand Reductions Compared to Savings Targets	21

LIST OF ATTACHMENTS

Attachment A SFPUC Annual Water Supply and Demand Assessment Procedures

LIST OF ABBREVIATIONS

AMI	Advanced Metering Infrastructure
AWIA	America's Water Infrastructure Act
AWSDA	Annual Water Supply and Demand Assessment
BAWSCA	Bay Area Water Supply and Conservation Agency
CalWARN	California Water/Wastewater Agency Response Network
CGC	California Government Code
CII	Commercial, Industrial, and Institutional
CWC	California Water Code
DWR	Department of Water Resources
EOC	Emergency Operations Center
ERP	Emergency Response Plan
FY	Fiscal Year
HRL	Healthy Rivers and Landscapes (Program)
LHMP	Local Hazard Mitigation Plan
MPWD	Mid-Peninsula Water District
NIMS	National Incident Management System
OA	Operational Area
RWS	Regional Water System
SEMS	Standardized Emergency Management System
SFPUC	San Francisco Public Utilities Commission
SWRCB	State Water Resource Control Board
UWMP	Urban Water Management Plan
WELO	Water Efficient Landscape Ordinance
WSCP	Water Shortage Contingency Plan
WSIP	Water System Improvement Program

1. INTRODUCTION

☑ CWC § 10640

(a) Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

(b) Every urban water supplier required to prepare a water shortage plan shall prepare a water shortage contingency plan pursuant to Section 10632. The supplier shall likewise periodically review the water shortage contingency plan as required by paragraph (10) of subdivision (a) of Section 10632 and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

The Mid-Peninsula Water District's 2025 Water Shortage Contingency Plan (WSCP) provides the steps and water shortage response actions to be taken in times of water shortage conditions. As part of its 2025 Urban Water Management Plan (UWMP), Water Code Section 10640 (b) requires that MPWD prepares and adopts a WSCP that consists of the following elements.

- An analysis of water supply reliability.
- The water shortage response actions for each of the six standard water shortage levels that correspond to water shortage percentages ranging from up to 10 percent to greater than 50 percent.
- An estimate of potential to close the supply gap for each measure.
- Process to communicate identified actions for current or predicted water shortage conditions.
- Procedures for an Annual Water Supply and Demand Assessment (AWSDA).
- Monitoring and reporting requirements to determine customer compliance, and the re-evaluation and improvement procedures for evaluating the WSCP.

This 2025 WSCP supersedes the 2020 WSCP. Planning for water shortages necessitates that water suppliers consider the regional and local water supply reliability and understand the key factors that could contribute to water supply constraints (see Chapter 7, MPWD, 2025 UWMP).

The MPWD WSCP serves as a 'stand-alone' preparedness and response plan for the MPWD, not only during water shortage conditions, but before and after as well. It includes specific actions for management of the MPWD's water supply and demand, addresses the impacts associated with water shortages, and facilitates the timely implementation of effective contingency responses. The WSCP can be updated in-between UWMP cycles.

2. WATER SUPPLY RELIABILITY ANALYSIS

CWC § 10632 (a)(1)

The analysis of water supply reliability conducted pursuant to Section 10635.

CWC § 10632.5 (a)

In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.

This section assesses the reliability of MPWD's water supplies, with a specific focus on potential constraints, including purchased water supply availability, water quality, and climate change. The intent of this section is to identify any potential constraints that could affect the reliability of MPWD's supply during normal, single dry-year, and multiple dry-year hydrologic conditions. This section is summarized from Chapter 7 of MPWD's 2025 UWMP.

MPWD purchases all of its potable water supply from the San Francisco Public Utilities Commission (SFPUC) Regional Water System (RWS). The reliability of the SFPUC RWS may vary greatly in different year types, particularly depending on how and when the 2018 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) is implemented. MPWD has relied on the supply reliability estimates provided by the SFPUC for the RWS and the drought allocation structure provided by SFPUC and the Bay Area Water Supply and Conservation Agency (BAWSCA) to estimate available RWS supplies in dry year types through 2050. MPWD has reviewed these inputs for consistency with its historical supply experience and contractual entitlements and applies them here as planning-level assumptions for this MPWD-specific reliability analysis. In addition to the long-term reliability assessment, this section also presents a Drought Risk Assessment to evaluate MPWD's supply risks under a severe drought period lasting for the next five consecutive years (i.e., through 2030; Section 7.3 of the UWMP).

MPWD's supply reliability assessment relies on the reliability projections of the SFPUC RWS and BAWSCA planning assumptions. The SFPUC has committed to, among other things, meeting the retail and wholesale customers' average annual water demand during non-drought years and meeting dry-year delivery needs while limiting rationing to a maximum 20% system-wide reduction in water service during extended droughts. However, several potential constraints have been identified on the future supply availability of the SFPUC RWS. One of the key factors is the adoption of the Bay-Delta Plan Amendment. If the Bay-Delta Plan Amendment is implemented, the SFPUC is anticipated to have sufficient supplies to meet the projected water demands in normal years, but would experience significant supply shortages in single dry and multiple dry years (Section 7.2.3 of the UWMP). Without implementation of the Bay-Delta Plan Amendment, the SFPUC is anticipated to have sufficient supplies to meet MPWD's demands in normal, single dry, and multiple dry year supply types. Actual supply availability may vary depending on hydrologic conditions, regulatory actions and allocation methodologies.

Based on the allocation methodology and SFPUC dry year cutbacks described above, with implementation of the Bay-Delta Plan Amendment, MPWD is anticipated to experience up to 38% supply shortfalls in single dry years and 48% supply shortfalls under multiple dry years by 2050. Without implementation of the Bay-Delta Plan Amendment, MPWD is not anticipated to experience supply shortfalls under any supply scenario.

Numerous uncertainties remain in the implementation of the Bay-Delta Plan Amendment and the allocation of the available supply between the wholesale customers. SFPUC, in partnership with other key stakeholders, has proposed a voluntary substitute agreement to the Bay-Delta Plan Amendment, known as the Healthy Rivers and Landscapes (HRL) Program, that provides a collaborative approach to protect the environment and plan for a reliable and high-quality future potable water supply. This is a dynamic situation, and the projected drought cutback allocations may need to be revised before the next UWMP in 2031 depending on the outcome of ongoing negotiations. Additionally, benefits from SFPUC's Alternative Water Supply Plan are not accounted for in SFPUC's reliability analysis, which are anticipated to reduce the projected RWS supply shortfalls. Due to these factors, resultant actual supply reliability and the frequency of supply shortfalls for MPWD cannot be known currently.

MPWD has developed this WSCP to address water shortage conditions resulting from any cause (e.g., droughts, impacted distribution system infrastructure, regulatory-imposed shortage restrictions, etc.). The WSCP identifies a variety of actions that MPWD will implement to reduce demands and further ensure supply reliability at various levels of water shortage.

3. ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

CWC § 10632 (a) (2)

The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:

(A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.

The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:

- (i) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.*
- (ii) Current year available supply, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.*
- (iii) Existing infrastructure capabilities and plausible constraints.*
- (iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.*
- (v) A description and quantification of each source of water supply.*

§ 10632 (a) (2)

An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later.

On an annual basis, as required by the California State Water Resource Control Board (SWRCB), MPWD conducts 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 MPWD's sole source of potable water supply is from the SFPUC RWS, the evaluation of MPWD supplies for a particular year is conducted as part of a coordinated effort led by BAWSCA and SFPUC. The procedure used by BAWSCA and SFPUC in conducting an AWSDA is outlined in Attachment 1 of this WSCP. AWSDAs were first required in 2022, and MPWD has been submitting them annually since.

As part of the AWSDA process, MPWD provides unconstrained demand information to BAWSCA and SFPUC incorporating anticipated water demand from development projects that are anticipated be completed in the coming year.

4. SIX STANDARD WATER SHORTAGE LEVELS

☑ **CWC § 10632 (a)(3)**

- (A) *Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other potential emergency events.*
- (B) *An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.*

This section explains MPWD's WSCP's six standard water shortage Levels corresponding to progressive ranges of up to 10, 20, 30, 40, 50, and more than 50 percent shortages. These shortage levels are intended to address various shortage scenarios caused by a range of shortage conditions, including regional environmental hazards such as earthquakes, fires, or floods, regional power outages, infrastructure issues such as large main breaks or storage disruptions, regulatory restrictions, and droughts. The severity of the actions included in the shortage levels range from voluntary reductions in customer water use to more extreme measures to address catastrophic disruptions in water supply. Shortage stages may be triggered by external factors such as SFPUC and/or the SWRCB, or by internal factors such as District-specific supply and demand conditions. Table 4-1 below summarizes the shortage Levels and the actions associated with each level.

Table 4-1: Water Shortage Levels

Shortage Level	Percent Shortage Reduction	Shortage Response Actions (Narrative Description)
Level 0	0%	<p>Water Stewardship: This level represents baseline operational conditions where the District focuses on long-term efficiency, permanent waste prohibitions, and compliance with state conservation mandates. This represents normal water supply conditions in which MPWD does not foresee likely water supply shortages or reductions. Customers are encouraged to use water efficiently and support a culture of long-term water stewardship to help maintain a reliable and sustainable water supply.</p>
Level 1	up to 10%	<p>Water Shortage Watch: This stage serves as a precautionary phase triggered by supply uncertainty, prioritizing voluntary conservation and expanded public information efforts to achieve up to a 10 percent demand reduction. This condition exists when drought, supply uncertainty, or other factors indicate the potential for future water supply constraints. Customers are asked to voluntarily reduce water use through increased water-use efficiency and conservation practices. MPWD will increase public outreach and provide water-saving information through its website, billing communications, and other customer engagement efforts.</p>
Level 2	up to 20%	<p>Water Shortage Alert: This stage acknowledges supply constraints, formalizing a 20 percent demand reduction target through increased monitoring and the implementation of mandatory efficiency requirements. Mandatory water-use restrictions will be implemented to improve water-use efficiency and respond to existing water supply conditions. MPWD will increase conservation messaging, monitor water-use trends, and implement appropriate shortage response measures.</p>
Level 3	up to 30%	<p>Water Shortage Emergency: This stage is triggered by significant supply deficits, includes a formal water shortage emergency declaration to mandate a 30 percent demand reduction. This condition exists when available water supplies require a mandatory reduction in customer water use of up to 30 percent to ensure adequate supplies for human safety, consumption, sanitation, and fire protection. MPWD will declare a Water Supply Shortage Emergency pursuant to California Water Code section 350 and implement mandatory conservation measures necessary to achieve the required reduction.</p>

Shortage Level	Percent Shortage Reduction	Shortage Response Actions (Narrative Description)
Level 4	up to 40%	<p>Severe Water Shortage Emergency: This stage expands the emergency declaration to address acute supply gaps, requiring a 40 percent demand reduction through intensified compliance monitoring and enforcement actions. This condition exists when available water supplies require mandatory customer demand reductions of up to 40 percent to protect essential public health and safety needs, including human consumption, sanitation, and fire protection. Additional restrictions, compliance monitoring, and enforcement actions may be necessary to achieve sustained reductions. MPWD will maintain a Water Supply Shortage Emergency pursuant to California Water Code section 350.</p>
Level 5	up to 50%	<p>Critical Water Shortage Emergency: This stage mandates a 50 percent reduction in demand, necessitating strict enforcement of non-essential use prohibitions and the transition to alternative water sources, where feasible. This condition exists when available water supplies require mandatory customer demand reductions of up to 50 percent. Sustained reductions of this magnitude would require significant restrictions on non-essential water use. Strict enforcement measures, including penalties for non-compliance, may be necessary. Customers will be encouraged to utilize alternative water sources, including graywater and available recycled water, for appropriate non-potable uses. MPWD will maintain a Water Supply Shortage Emergency pursuant to California Water Code section 350.</p>
Level 6	over 50%	<p>Extreme Water Shortage Emergency: This stage dictates a reduction of greater than 50 percent, focusing all remaining resources on essential health and safety needs through the application of extraordinary conservation measures and maximum utilization of alternative supplies. This condition exists when available water supplies require customer demand reductions greater than 50 percent to preserve water for essential public health and safety needs, including human consumption, sanitation, and fire protection. Extraordinary restrictions on water use may be necessary, and all conservation measures will be implemented. Customers will be encouraged to maximize the use of alternative water supplies, including graywater and available recycled water, for appropriate non-potable uses. MPWD will maintain a Water Supply Shortage Emergency pursuant to California Water Code section 350.</p>

5. SHORTAGE RESPONSE ACTIONS

CWC § 10632 (a)(4)

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

(A) Locally appropriate supply augmentation actions.

(B) Locally appropriate demand reduction actions to adequately respond to shortages.

(C) Locally appropriate operational changes.

(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

CWC § 10632.2

An urban water supplier shall follow, where feasible and appropriate, the prescribed procedures and implement determined shortage response actions in its water shortage contingency plan, as identified in subdivision (a) of Section 10632, or reasonable alternative actions, provided that descriptions of the alternative actions are submitted with the annual water shortage assessment report pursuant to Section 10632.1. Nothing in this section prohibits an urban water supplier from taking actions not specified in its water shortage contingency plan, if needed, without having to formally amend its urban water management plan or water shortage contingency plan.

5.1 Demand Reduction

The demand reduction actions that MPWD could implement to address shortage levels are listed in Table 5-1. This table indicates the levels, actions per level, if enforcement will be applied, and estimated range of demand reduction per action. This list provides an extensive “menu” of demand reduction options for MPWD to implement and choose from based on reduction needs and customer response.

MPWD’s specific response actions will depend on the severity of the shortage condition, local conditions, and be based on assessment of the effectiveness of the actions already implemented as a shortage progresses. The shortage response actions presented in Table 5-1 will be applied to include locally appropriate elements as required by CWC § 10632 (a)(4).

Lower levels rely primarily on voluntary reductions such as limiting irrigation, requesting businesses to evaluate their non-essential water use (including pressure washing building exteriors, ceasing operation of non-essential ice machines, or washing company vehicles, among others), expanding and enhancing rebate programs offered by the District, and increasing customer outreach and messaging. Higher shortage levels include mandatory restrictions such as stricter irrigation schedules, ceasing non-essential commercial, industrial, and institutional (CII) water use, and emptying of pools. The most severe levels will likely require substantial limitations of non-essential water use and strict enforcement.

MPWD’s Advanced Metering Infrastructure (AMI) technology enables the District access high frequency water consumption data that can be used for managing water demand and close monitoring of its water use sectors, including enhancing outreach, leak detection, and pressure zone management.

The ability of MPWD to achieve the water use reductions associated with each shortage level will rely in large part on targeting outdoor irrigation use. If MPWD enacts any shortage level above level 0, the District will estimate the proportion of indoor and outdoor water uses from its customers and use that information to gain a better understanding of the potential for outdoor water savings and enhanced targeted outreach.

Table 5-1: Demand Reduction Actions

Agency Actions	Customer Water Use Restrictions
Level 0 – Water Stewardship	
<ol style="list-style-type: none"> 1. Maintain a water waste reporting system, which may include reporting via phone, email, and/or the District’s website. 2. Conduct public outreach and education about responsible uses of water at public events and through regular outreach efforts. 3. Continue coordination with BAWSCA and SFPUC. 4. Continue timely responses to water main leaks and breaks. 	<ol style="list-style-type: none"> 1. Any new landscaping must be installed in accordance with MPWD's WELO, as applicable. Drought tolerant plants are always encouraged. 2. Fix leaks or faulty sprinklers promptly/within 10 day(s). 3. No single pass cooling systems may be installed in new or remodeled buildings. 4. Food preparation establishments must use water efficient kitchen spray valves. 5. Watering or irrigation of vegetated areas is prohibited between 10am and 6 pm except by use of a handheld device, hose equipped with an automatic shutoff device, or for adjusting or repairing an irrigation system for short periods of time. 6. Use of shutoff nozzles on hoses is required. 7. Unauthorized use of hydrants is prohibited. Authorization for use must be obtained from water supplier.
Level 1 – Water Shortage Watch – Up to 10% Reduction Needed	
<ol style="list-style-type: none"> 1. District will evaluate financial impacts and consider implementing shortage level 1 water shortage rate factors. 2. Expand community outreach and messaging campaigns 3. Consider implementing customer leak reports via a customer water use portal. 4. Consider enhancing or expanding water conservation rebate programs. 5. Enhance real water loss reduction and monitoring, including pressure management and more aggressive leak detection. 6. Consider providing new conservation rebates for plumbing fixtures and devices, such as toilets or clothes washers. 	<ol style="list-style-type: none"> 1. Continue with actions and measures from shortage level 0 except where superseded by more stringent requirements. 2. Customers are encouraged to wash only full loads when washing dishes or clothes. 3. Customers are encouraged to use pool covers to minimize evaporation. 4. Restaurants may only serve water upon request. 5. Logging establishments must offer opt out linen service. 6. New and existing residential automated irrigation systems must be equipped with rain sensors that shut off the system when it rains, or smart controllers or evapotranspiration sensors that use weather-based data to set efficient watering schedules. 7. Outdoor irrigation cannot occur during and/or within 24 hours of measurable rainfall.

Agency Actions	Customer Water Use Restrictions
	<ol style="list-style-type: none"> 8. All commercial, industrial, and institutional (CII) customers are encouraged to evaluate their outdoor irrigation water uses and limit watering where possible. 9. All CII customers should evaluate their non-essential water use, which includes, but is not limited to, pressure washing and cleaning building exteriors with potable water, washing company vehicles on site, operating non-essential ice machines, or maintaining recreational swimming pools and spas.
Level 2 – Water Shortage Alert – Up to 20% Reduction Needed	
<ol style="list-style-type: none"> 1. District will evaluate financial impacts and consider implementing shortage level 2 water shortage rate factors. 2. Improve customer billing reports to include more details on water use. 3. Increase coordination with the fire department to evaluate the need and frequency of using potable water for training purposes. 4. Decrease water main flushing without impacting water quality. 5. Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 2. 6. Use AMI data to expand customer messaging by engaging in targeted messaging to the highest water using customers within each sector. 7. District may implement other prohibited water uses as determined by MPWD, after notice to customers. 8. Implement water waste patrols. 	<ol style="list-style-type: none"> 1. Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements. 2. Require leaks or faulty sprinklers to be fixed within 5 day(s). 3. Irrigation shall be limited to 3 days per week turf watering when using potable water. Plant containers, trees, shrubs and vegetable gardens may be watered additional days using only drip irrigation or hand watering. 4. Filling or refilling ornamental lakes and ponds is prohibited. Ornamental lakes and ponds that sustain aquatic life of significant value and were actively managed prior to the storage declaration are exempt. 5. Require covers for pools and spas. 6. All CII customers should cease their non-essential water use, which includes, but is not limited to, pressure washing and cleaning building exteriors with potable water, washing company vehicles on site, operating non-essential ice machines, or maintaining recreational swimming pools and spas. 7. Allow filling of swimming pools and spas only when an appropriate cover is in place.
Level 3 – Water Shortage Emergency – Up to 30% Reduction Needed	
<ol style="list-style-type: none"> 1. District will evaluate financial impacts and consider implementing shortage level 3 water shortage rate factors. 	<ol style="list-style-type: none"> 1. Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements. 2. Require leaks or faulty sprinklers to be fixed within 3 day(s).

Agency Actions	Customer Water Use Restrictions
<ol style="list-style-type: none"> 2. Explore the implementation of a water budget-based rate structure. 3. Expansion/Enhancement of the Turf Rebate Program, including increasing \$/sq ft rebate amount and increasing program budget. 4. Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 3. 5. MPWD may implement other prohibited water uses as determined by MPWD, after notice to customers. 	<ol style="list-style-type: none"> 3. Decorative water features that use potable water must be drained and kept dry. 4. Car washing is only permitted using a commercial carwash that recirculates water or by high pressure/low volume wash systems. 5. Except for landscapes watered with non-potable water, limit the installation of new landscaping to drought tolerant trees, shrubs and groundcover. Prohibit installation of new turf or hydroseed. Customers may apply for a waiver to irrigate during an establishment period for the installation of new turf or hydroseed. 6. Irrigation shall be limited to 2 days per week turf watering when using potable water. Plant containers, trees, shrubs, and vegetable gardens may be watered additional days using only drip irrigation or hand watering. 7. Plant containers, trees, shrubs, and vegetable gardens shall be watered only by drip irrigation or hand watering.
Level 4 – Severe Water Shortage Emergency – Up to 40% Reduction Needed	
<ol style="list-style-type: none"> 1. District will evaluate financial impacts and consider implementing shortage level 4 water shortage rate factors. 2. Coordinate with the City of Belmont to cease issuance of new swimming pool and spa permits. 3. No new landscape installations or renovations will be permitted. 4. Previous waivers for watering during an establishment period will be revoked. 5. Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 4. 6. MPWD may implement other prohibited water uses as determined by MPWD, after notice to customers. 	<ol style="list-style-type: none"> 1. Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements. 2. Require leaks or faulty sprinklers to be fixed within 2 day(s). 3. Existing pools shall not be emptied and refilled using potable water unless required for public health and safety purposes. 4. Irrigation shall be limited to 1 day per week turf watering when using potable water. Plant containers, trees, shrubs and vegetable gardens may be watered additional days using only drip irrigation or hand watering.
Level 5 – Critical Water Shortage Emergency – Up to 50% Reduction Needed	
<ol style="list-style-type: none"> 1. District will evaluate financial impacts and consider implementing shortage level 5 water shortage rate factors. 	<ol style="list-style-type: none"> 1. Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements. 2. Require leaks or faulty sprinklers to be fixed within 1 day.

Agency Actions	Customer Water Use Restrictions
<ol style="list-style-type: none"> 2. Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 5. 3. Evaluate implementation of a net zero demand increase on new connections. 	<ol style="list-style-type: none"> 3. Potable water for agricultural or commercial nursery purposes, is prohibited. 4. All irrigation is prohibited. 5. Watering of parks, school grounds, and recreation fields is prohibited, except for rare plant or animal species. 6. Limit water use for public health and safety purposes only.
Level 6 – Extreme Water Shortage Emergency – Over 50% Reduction Needed	
<ol style="list-style-type: none"> 1. District will evaluate financial impacts and consider implementing shortage level 6 water shortage rate factors. 2. MPWD may shut off all non-essential water services. 3. MPWD may discontinue service to consumers who willfully violate any water conservation provisions. 4. Use AMI data to expand customer messaging by engaging in targeted messaging to customers that are not adhering to the watering schedule implemented by Level 6. 5. Expand MPWD’s public information campaign which may include increased frequency and intensity of messages about water shortage conditions. For example, frequency may increase to several days a week and messaging may include direct messages from community leaders. 6. Consider moratorium on new connections. 	<ol style="list-style-type: none"> 1. Continue with actions and measures from previous Shortage Stages except where superseded by more stringent requirements. 2. Water for new cooling towers is prohibited, except for health and safety. 3. Require all decorative turf to be removed permanently and replaced with drought-tolerant planting upon sale of property. 4. Prohibit decorative turf on all new construction. 5. All irrigation is prohibited. 6. Water use for public health and safety purposes only. Customer rationing may be implemented.

5.2 Supply Augmentation

Supply augmentation actions potentially available to MPWD are presented in Table 5-2, and include potential graywater and recycled water programs. Funding would be necessary to implement these augmentation measures safely, reliably, and on a large scale throughout MPWD’s service area to supplement the SFPUC supply during water shortages. Each option has its own regulatory and permitting issues, as well as logistical challenges that would need to be evaluated at the time of program implementation.

Table 5-2 (DWR Table 8-2): Supply Augmentation and other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap?	Additional Explanation or Reference
1-5	Other Actions- Graywater reuse	0 – 1 %	Implementation will likely require resources for coordination with San Mateo Co. Health Dept. and the Cities of Belmont and San Carlos. Large-scale water savings will be difficult to achieve and verify. Monitoring water savings and other impacts will require new funding and resources.
5	Other Actions - Use existing recycled water fill station (s)	0 – 1%	Large-scale water savings will be difficult to achieve and verify. Monitoring water savings and other impacts will require new funding and resources.
5	New Recycled Water - Install new recycled water fill stations	1 – 5%	Multi-year project, costly project, likely implementation in many phases, will require new funding and resources

NOTES: The feasibility and cost-effectiveness of the above-listed augmentation measures will need to be evaluated in detail for local and regional implementation. Funding and resources will be necessary to develop feasibility studies, design and install the alternate supplies, develop Best Practices and compliance criteria, and monitor and maintain the infrastructure.

Additionally, BAWSCA has the authority to plan for and acquire supplemental water supplies and continues to evaluate the feasibility of water transfers as part of its implementation of its Long-Term Reliable Water Supply Strategy (see Section 7.1.1 of the 2025 UWMP).

For the long term, SFPUC is investing resources for the long-term reliability of its water supply portfolio. As presented in Chapter 7 of MPWD’s 2025 UWMP, SFPUC is working on potential water augmentation projects and additional storage to supplement its anticipated supply gaps due to hydrologic, climate, and regulatory changes that it projects will improve its future supply reliability and reduce the likelihood of shortages.

5.3 Operational Changes

During shortage conditions, MPWD operations may be affected by reduced demand. The MPWD reviewed its operational procedures to identify changes that could be implemented to address water shortage on a short-term basis, including:

- Reduce or temporarily stop system flushing operations.
- MPWD may suspend temporary water service meters.
- Delay planned projects.
- Defer water storage tank projects that require emptying tanks.
- Defer planned system outages.
- Temporarily reduce pressure in zones during periods of low demand, when safe.
- Implement other short-term operational adjustments to increase water savings while maintaining safe conditions in system water quality and supply.

Multi-year extended and severe water shortages will necessitate an increase in system water quality and demand monitoring and analysis. Management of the additional data collected and its analysis will also likely necessitate additional resources.

5.4 Emergency Response Plan

The MPWD Emergency Response Plan (ERP) is aligned with the National Response Framework, the National Incident Management System (NIMS), and California's Standardized Emergency Management System (SEMS). It complies with all state, federal, and local statutes, and in instances where conflicts arise, applicable laws take precedence over the policies and procedures outlined in this plan. MPWD's ERP was last updated in 2021, and is currently in the process of updating it for certification by December 30, 2026, in compliance with Section 2013 of America's Water Infrastructure Act (AWIA) of 2018.

MPWD's ERP will be activated if a credible or confirmed threat has been established, which could include a catastrophic loss of supply. Once the decision to activate the ERP has been made, subsequent notification to the San Mateo County Office of Emergency Services would be made. Based on the severity of the incident, the General Manager or designee may also recommend that the County Operational Area / Emergency Operations Center (OA / EOC) be activated.

MPWD may also initiate a mutual aid request if additional support is needed. MPWD has an informal agreement with the City of Belmont on mutual assistance during an emergency, as well as a formal agreement through the California Water/Wastewater Agency Response Network (CalWARN).

The MPWD is also participating in the update of the Countywide San Mateo Local Hazard Mitigation Plan (LHMP). The LHMP is expected to be complete in July 2026, and was last updated in 2021. The LHMP identifies risks from flooding, sea level rise, earthquakes, and other natural hazards. The District aligns its capital improvement projects, emergency preparedness efforts, and strategic priorities with the LHMP to reduce hazard impacts.

MPWD staff attend monthly Water Management Representative meetings hosted by BAWSCA, which discuss a variety of water supply related topics, including emergency planning. The District also participates in emergency drills and emergency training and tabletop exercises with partner agencies, whenever possible.

5.5 Seismic Risk Assessment and Mitigation Plan

☑ CWC § 10632.5

(a) In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.

(b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.

(c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.

Since the MPWD purchases 100% of its water from the SFPUC, it is highly dependent on the SFPUC RWS infrastructure reliability. The SFPUC conveyance system crosses five major faults and the majority (about 85 percent) travels 167 miles through pipelines and tunnels from the Hetch Hetchy watershed in the Sierra Nevada Mountains. SFPUC also has four major storage facilities and distribution lines in the San Francisco Bay Area. Both the regional and San Francisco Bay Area portions of the SFPUC system are vulnerable to seismic events. However, the SFPUC's nearly completed Water System Improvement Program (WSIP) provides improvements in reliability for water delivery and supply through the SFPUC RWS. The SFPUC's Fiscal Year (FY) 2026-27 to FY 2035-36 10-Year Capital Plan includes various projects to enhance reliability of the SFPUC RWS.¹

MPWD's seismic risk assessment is part of the San Mateo County 2026 Multijurisdictional LHMP that is required under the federal Disaster Mitigation Act of 2000 (Public Law 106-390). The 2026 LHMP identifies earthquakes as a high-risk hazard for nearly all jurisdictions within San Mateo County, driven by the region's proximity to major fault systems including the San Andreas, San Gregorio, Butano, and Monte Vista faults. The risk assessment utilizes modeling to evaluate the vulnerability of critical facilities and infrastructure to potential ground shaking, liquefaction, and seismic-induced failures. To mitigate these risks, the plan emphasizes the importance of retrofitting structures, enforcing stringent building codes, and improving regional emergency response coordination to enhance community resilience and protect lifelines from significant seismic events. As mentioned in Section 5.5, the LHMP is currently being updated and is expected to be finalized by July 2026 and can be viewed or downloaded on the County of San Mateo's Department of Emergency Management's webpage: <https://www.smcgov.org/dem/multijurisdictional-local-hazard-mitigation-plan>.

5.6 Shortage Response Action Effectiveness

Estimating water savings for specific demand reduction actions is challenging for numerous reasons. First, since multiple demand reduction actions are employed at the same time, the effect of each specific action on customer water use cannot be readily isolated. Second, multiple local and regional variables impact customer water use (e.g., economy, media influence, weather, etc.), and isolating these customer water use behaviors from those resulting from drought response is even further challenging.

¹ <https://www.sfpuc.gov/about-us/reports/operating-and-capital-budgets>

For these reasons, MPWD elected to represent the expected reductions in water use shown in Table 5-1 as ranges of reductions corresponding to the Shortage Level in which the demand reduction action is being implemented.

To understand the effectiveness of MPWD’s shortage response actions, the District analyzed water use patterns under two recent droughts: the 2014-2017 drought and the 2021-2023 drought. A baseline period was chosen against which to compare water use during each drought. 2013 was the representative baseline period for the 2014-2017 drought and 2020 was the baseline period for the 2021-2023 drought. Monthly water use for each baseline period was compared to the respective drought year water use to obtain a monthly reduction or increase in water use. During the 2014-2017 drought, monthly water savings ranged from a 22% increase to a 37% decrease in water use, and achieved an average 20% reduction over that time period. For the 2021-2023 drought, monthly water savings ranged from an 11% increase to a 26% decrease relative to baseline (2020) demand, and averaged at an 11% reduction.

It is useful to compare these savings to the savings targets called for by MPWD and the state during each drought. From January 2014 through April 2015, a reduction target of 20% was in place, during which MPWD achieved a 13% reduction in water use. During the later stage of the 2014-2017 drought, from April 2015 through April 2017, a reduction target of 25% was set, during which MPWD achieved a 27% reduction, surpassing the water reduction target.

For the 2021-2023 drought, a 10% voluntary reduction target was in place from November 2021 through June 2022, during which MPWD customers reduced water use by 9%. The target was increased to 20% during the later portion of the drought, from June 2022 through May 2023, during which MPWD customers reduced water use by 18%.

Table 5-3 and the associated charts below show the drought-period water savings compared to the baseline demand and water reduction targets.

Table 5-3: Water Demand Reductions Compared to Savings Targets

Time Period	Savings Target	Achieved Savings
2014-2017 Drought		
January 2014 - April 2015	20%	13%
April 2015 - April 2017	25%	27%
2021-2023 Drought		
November 2021 - June 2022	10%	9%
June 2022 - May 2023	20%	18%

Chart 5-3A: 2014-2017 Drought Period Water Savings

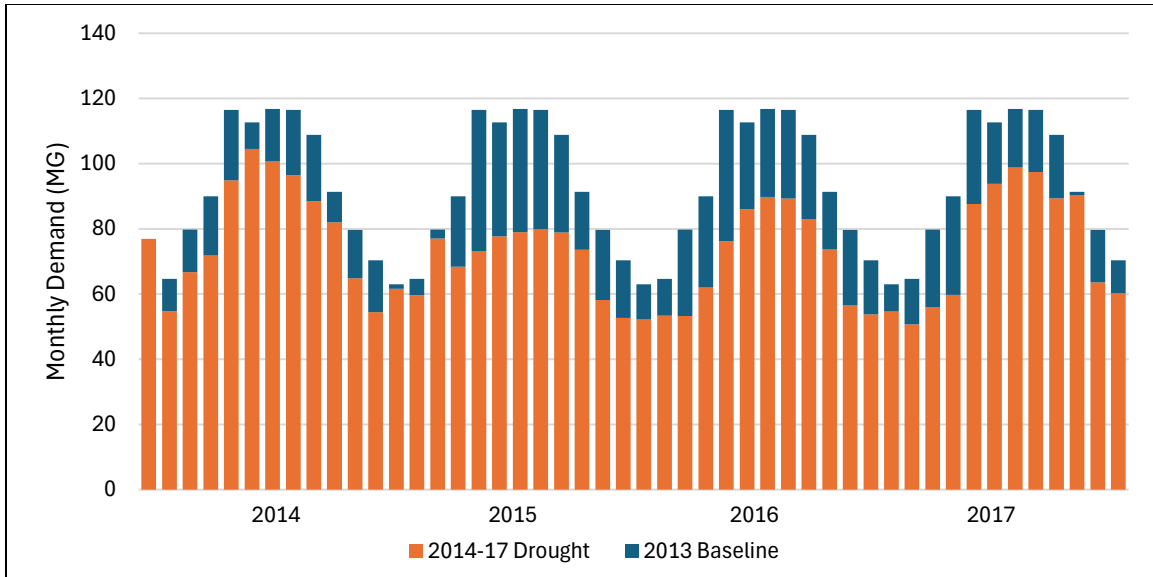


Chart 5-3B: 2021-2023 Drought Period Water Savings

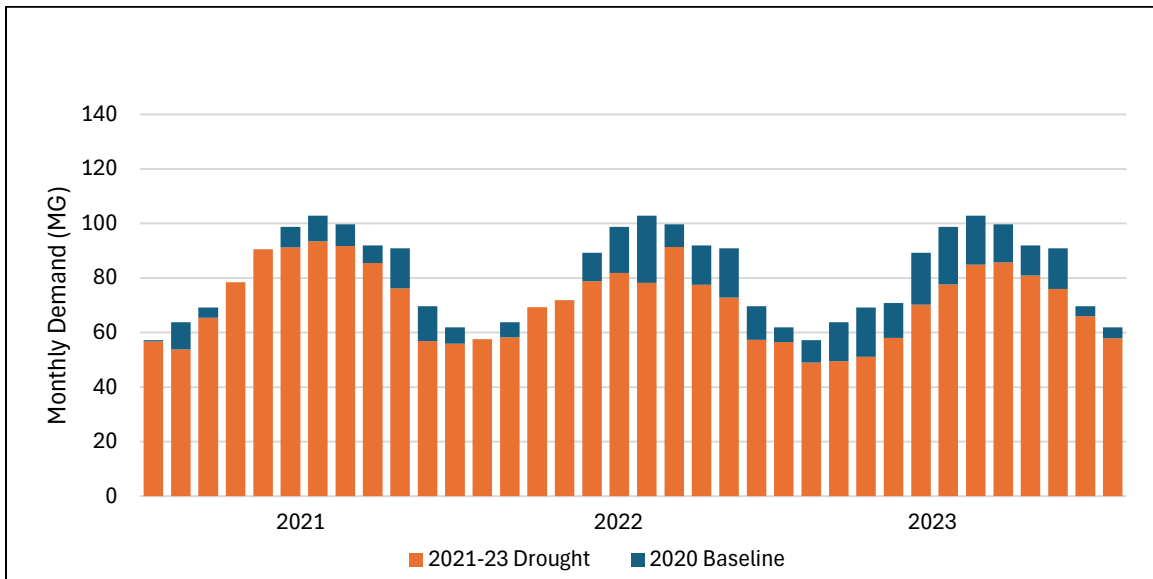
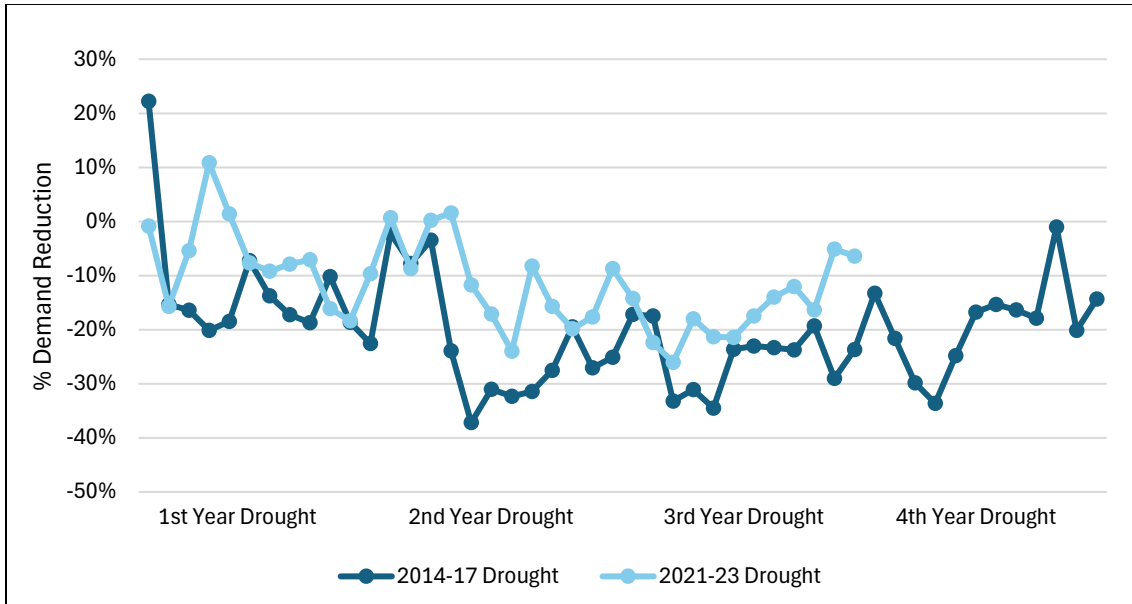


Chart 5-3C: Drought Period Demand Reduction from Baseline



6. COMMUNICATION PROTOCOLS

CWC § 10632 (a)

Every urban water supplier shall prepare and adopt a water shortage contingency plan as part of its urban water management plan consists of each of the following elements:

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

(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1.

(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.

(C) Any other relevant communications.

This section addresses communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments regarding any current or expected shortages, implementation of corresponding shortage response actions, and related information.

Timely and effective communication is a key element of MPWD's WSCP implementation. Per CWC §10632 (a)(5), the MPWD has established communication protocols and procedures to inform customers and local, regional, and state governments regarding any current or predicted shortages (CWC §10632.1). Also, MPWD's procedures include communication about shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to CWC §10632.1.

Prior to a water shortage level declaration, unless it is a sudden catastrophic event requiring immediate action, MPWD informs its customers about the water shortage levels, level definitions, and targeted water savings for each Level. MPWD also provides guidelines for customers to follow during each Level and directs customers to its web site for current information on its supply and demand response conditions. The type and degree of communication varies with each shortage level, thus MPWD has established predefined and actionable communication protocols.

7. COMPLIANCE AND ENFORCEMENT

CWC § 10632 (a)(6)

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

MPWD has defined customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions of the MPWD Ordinances. MPWD has instituted various Ordinances and Resolutions to manage water demand and consumption. They are presented in Chapter 4 of MPWD's 2025 UWMP and in Section 7 below.

When needed, MPWD will coordinate with BAWSCA, the City of Belmont, the City of San Carlos, and San Mateo County for the possible proclamation of a local emergency. Once the MPWD Board of Directors declares a water shortage emergency, MPWD will communicate with its customers that a specific WSCP level is invoked and requires compliance. Customers will also be notified about MPWD's enforcement measures for non-compliance.

For the first and subsequent water waste violations, penalties will be issued according to MPWD's Ordinance 103, Article 4.2, and MPWD Ordinance 111, Section 4. While maintaining adequate minimum fire flows for those homes with fire sprinklers, the MPWD may install a flow restrictor on the service line if customer's average daily usage is not reduced to within the allocation threshold after 10 days from the date of the written notice.

A flow restrictor may be installed for a minimum of 10 days. The flow restrictor may remain in place during the irrigation season until December 1st or the MPWD may suspend service temporarily until the violation is corrected. The flow restrictor may be removed based on the General Manager's approval and payment of all outstanding penalty and water service charges have been paid. A minimum of a reconnection fee will be charged per MPWD Water Service Ordinance 103. A customer may appeal the termination of water service or installation of a flow restrictor in writing to the General Manager per MPWD Ordinance 111, Section 5.

MPWD works collaboratively with its customers and provides timely information about water conservation measures on its website.

8. LEGAL AUTHORITIES

CWC § 10632 (a)(7)

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

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

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

The MPWD WSCP is adopted by Resolution No. **2026-XX, a resolution of the Board of Directors adopting a Water Shortage Contingency Plan.** The District is a County Water District enabled under CWC §30000, and as such has the authority to implement and enforce its shortage response actions. If necessary, the MPWD shall declare a water shortage emergency in accordance with CWC Chapter 3 (commencing with Section 350) of Division 1 as stated below:

The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

If a water shortage emergency is declared, MPWD has broad powers to implement and enforce regulations and restrictions for managing a water shortage. For example, CWC § 375(a) provides:

Notwithstanding any other provision of the law, any public entity which supplies water at retail or Wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity may, by ordinance or resolution adopted by a majority of the members of the governing body after holding a public hearing upon notice and making appropriate findings of necessity for the adoption of a water conservation program, adopt and enforce a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity.

Upon declaring a water shortage emergency [CWC §10632 (a)(7) (B)], to coordinate implementation of its WSCP Levels and in the event of a local emergency declaration under the California Emergency Services Act (Article 2, Section 8558), MPWD's General Manager will contact the City of Belmont, the City of San Carlos, and San Mateo County to coordinate implementation of its WSCP Levels [CWC §10632 (a)(7)(C)].

When necessary, the District shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in California Government Code (CGC) §8558. A list of contacts that the cities and counties served by MPWD is provided below:

City of Belmont

City Manager
1 Twin Pines Lane
Belmont, CA 94002
(650) 595-7408

City of San Carlos

City Manager
600 Elm St.
San Carlos, CA 94070
(650) 802-4228

San Mateo County

County Manager
400 County Center, 1st Floor
Redwood City, CA 94063
(650) 363-4123

The District is a member of BAWSCA and would coordinate with other member agencies via BAWSCA during a water shortage emergency.

9. FINANCIAL CONSEQUENCES OF A WSCP

CWC § 10632 (a)(8)

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

(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1.

The reduced water demand during a water shortage will result in a commensurate reduction in the revenue collected by the volumetric portion of MPWD's water rates. However, during a water shortage, many of MPWD's expenditures do not decline in proportion to the reduced water sales, as they are necessary for on-going maintenance, operations, and capital investment. In fact, expenditures related to shortage response actions would be expected to go up, including increased outreach efforts, new or increased conservation incentive programs, potentially increased staff, and more, depending on the severity of the shortage. To minimize the potential financial impacts of water supply shortages that necessitate significant water sales reductions, MPWD customer water rates include water shortage rate factors, and a pass-through provision that allow for rate adjustments commensurate with any increases to SFPUC Wholesale water rates. These adjustments would need to be implemented by the Board, and would be considered based on the specific financial needs of the District at the time of the shortage. Measures available to the District to reduce financial impacts due to supply shortages are listed below:

- **Implement water shortage rate factors** – these factors were updated and adopted through a Proposition 218 process in 2024. These correspond to each shortage level and could be enacted to offset the corresponding loss in revenue. This would require an action by the Board and a 30-day notice provided to customers before implementation.
- **Apply SFPUC pass-through rate adjustment** – the District has adopted a pass-through adjustment for changes in wholesale rates from SFPUC, per California Government Code §53756. If SFPUC adjusts wholesale rates during a shortage, the incremental increase in rates could be passed through to MPWD's customer rates and would offset the increased expense for purchased water. This would require an action by the Board and a 30-day notice provided to customers before implementation.
- **Use of financial reserves** – the District's Financial Management Policy² includes reserves for working capital. The purpose of the Working Capital (Operating) Reserve is to ensure that the District will always have sufficient funding available to meet operating costs, and is set equal to 50% of the District's annual operating budget. This would be used to offset impacts if there is a timing delay between reduced

² MPWD's Financial Management Policy can be found on MPWD's website at <https://www.midpeninsulawater.org/documents>.

revenues or increased wholesale water costs and enactment of the above mitigation methods.

- **Postponement of capital improvements** – The District could potentially delay work on capital improvements, if revenue impacts were expected to be substantial and over a longer-term.

The District prohibits excessive water use pursuant to CWC §365 et seq through its Ordinance 103. This ordinance has already been adopted and therefore no additional cost is anticipated.

10. MONITORING AND REPORTING

CWC § 10632 (a)(9)

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

Monitoring and reporting key water use metrics are fundamental to water supply management and planning. Monitoring is also essential in times of water shortage to ensure that the response actions are achieving their intended water use reductions, or if improvements and new actions should be considered (see Section 11). Monitoring for customer compliance tracking is also useful in enforcement actions.

MPWD uses its AMI metering system to monitor and track water consumption for its six water-use sectors (see Chapter 3, MPWD 2025 UWMP). Under normal conditions, MPWD routinely monitors its potable water consumption as well as production from SFPUC's meters, and provides monthly reports to the SWRCB per California Code of Regulations Title 23 §991.³ Routinely, MPWD also participates in monthly BAWSCA water resources and management group meetings that review regional supply and consumption data and monitoring.

The monthly consumption and production data are queried from MPWD's billing system, which allows for a variety of reports, including analysis by sector and individual customer basis. During or when a potential shortage is anticipated, the District is able to query and use these data to monitor consumption trends more frequently (e.g., weekly or even daily), in order to evaluate the effectiveness of demand reduction actions and to further refine and adapt the District's response. For example, the data may be used to tailor and target messaging and education and potentially enforcement to key customers.

³ Monthly SWRCB reports can be found here:

https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html

11. WSCP REFINEMENT PROCEDURES

CWC § 10632 (a)(10)

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

The WSCP is best implemented as an adaptive management plan. Per CWC §10632 (a)(10), MPWD will provide reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of its WSCP to ensure its water shortage mitigation strategies are appropriate to implement during all six levels of water shortages. As described above, MPWD will continue to monitor water supply and demand and evaluate trends in consumption, and adapt its shortage responses as needed, by improving or considering additional conservation measures. During regional water shortages, MPWD will also work with BAWSCA and member agencies to develop and implement regional conservation actions.

MPWD's WSCP is typically revised and updated during the five-year UWMP update cycle. However, if revisions are warranted before the next UWMP is updated, the WSCP will be updated outside of the UWMP update cycle. While preparing the Annual Assessment each year, MPWD staff will routinely review the WSCP and, if needed, prepare recommendations for MPWD's Board to consider.

12. SPECIAL WATER FEATURE DISTINCTION

CWC § 10632 (b)

For purposes of developing the water shortage contingency plan pursuant to subdivision (a), an urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

Per CWC §10632 (b), MPWD defines “water features” as features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains. Water features are not swimming pools or spas. Swimming pools and spas are defined separately in subdivision (a) of Section 115921 of the Health and Safety Code.

Non-pool or non-spa water features may use or be able to use recycled water, whereas swimming pools and spas must use potable water for health and safety considerations. Limitations to pools and spas may require different considerations compared to non-pool or non-spa water features.

MPWD’s WSCP specifies that when a limitation or restriction is applied to water features (i.e., ponds, lakes, waterfalls, and fountains), it is not applicable to swimming pools and spas. If MPWD applies limitations on pools or spas, MPWD will list those separately from limitations on water features. See Table 5-1 for specific demand reduction actions related to limitations on pools and spas.

13. PLAN ADOPTION, SUBMITTAL, AVAILABILITY, AND AMENDMENT PROCEDURES

CWC § 10632 (c)

The urban water supplier shall make available the water shortage contingency plan prepared pursuant to this article to its customers and any city or county within which it provides water supplies no later than 30 days after adoption of the water shortage contingency plan.

CWC § 10642

...Prior to adopting either [UWMP and WSCP], the urban water supplier shall make both the plan [UWMP] and water shortage contingency plan available for public inspection and shall hold a public hearing or hearings thereon...After the hearing or hearings, the plan [UWMP] or water shortage contingency plan shall be adopted as prepared or as modified after the hearing or hearings.

CWC § 10640 (b)

...The supplier shall likewise periodically review the water shortage contingency plan as required by paragraph (10) of subdivision (a) of Section 10632 and any amendments or changes required as a result of that review shall be adopted pursuant to this article [Article 3 Sections 10640 -10645]

CWC § 10644(a)(2)(b)

If an urban water supplier revises its water shortage contingency plan the supplier shall submit to the department a copy of its water shortage contingency plan prepared pursuant to subdivision (a) of Section 10632 [required elements of a WSCP] no later than 30 days after adoption, in accordance with protocols for submission and using electronic reporting tools developed by the department.

As described in Section 10 of the 2025 UWMP, MPWD informed the public and the appropriate agencies of: (1) its intent to prepare a WSCP, (2) where the WSCP was available for public review, and (3) when the public hearing regarding the WSCP would be held. All notifications were completed in compliance with the stipulations of CGC §6066.

A copy of the adopted WSCP including any amendments will be provided to DWR, the California State Library, San Mateo County, and SFPUC within 30 days of the adoption. An electronic copy of the adopted WSCP will be submitted to the DWR using the DWR online submittal tool.

A copy of the adopted WSCP will be available for public review at the MPWD administrative office during normal business hours and on MPWD's website within 30 days after filing the plan with DWR.

14. REFERENCES

County of San Mateo, 2021. 2021 Multijurisdictional Local Hazard Mitigation Plan, prepared by TetraTech for the County of San Mateo, dated October 2021.

MPWD, 2021. Emergency Response Plan, Mid-Peninsula Water District, dated December 31, 2021.

Attachment A

SFPUC Annual Water Supply and Demand Assessment
Procedures

SECTION 2 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

The SFPUC has a robust process for assessing its annual water supply and demand. This process involves considering a range of input factors unique to the SFPUC's water supplies and system configuration and provides the SFPUC with flexibility to consider new factors. The SFPUC reports on an assessment of its system's water supply and demand to the State through the following methods:

- On or before July 1 of each year, the SFPUC prepares a Water Supply and Demand Assessment (WSDA), consistent with California Water Code Section 10632.1 requirements, by evaluating the total amount of water it expects to be in storage within the RWS that year and comparing that amount to expected Retail and Wholesale Customer demands. The following subsections outline the SFPUC's procedures for preparing the annual WSDA.
- Every month, the SFPUC completes the SWRCB's Drought and Conservation Reporting on the SAFER Clearinghouse online portal.

2.1 DEMAND ASSESSMENT

To calculate unconstrained customer demand on the RWS for the purpose of its annual WSDA, the SFPUC collects information on the demands of both the Retail and Wholesale Customers. The SFPUC estimates retail customer demand based on the best available information to date, typically including the previous year's demands as well as consideration of current demand use patterns or other conditions impacting demands, such as weather and growth. For estimated wholesale demands, each February, the SFPUC receives from BAWSCA a report of estimated Wholesale Customer demands on the RWS for the upcoming year. BAWSCA compiles this report based on demand estimates it receives from each of its 26 member agencies. The SFPUC estimates the relatively small demands of Cordilleras Mutual Water Company and Groveland CSD, its other two wholesale customers for the purposes of its UWMP, that are not parties to the WSA and are not BAWSCA member agencies as it does the demands of its retail customers: based on the best available information to date, typically including the previous year's demands as well as consideration of current demand use patterns or other conditions impacting demands, such as weather and growth.

2.2 SUPPLY ASSESSMENT

The RWS collects water from the Upper Tuolumne River watershed in the Sierra Nevada and from the local Alameda and Peninsula watersheds. The RWS draws an average of 85% of its supply from the Tuolumne River watershed. This water feeds into an aqueduct system delivering water 167 miles by gravity to Bay Area reservoirs and customers. The remaining 15% of the RWS supply is drawn from local surface waters in the Alameda and Peninsula watersheds. The percentage split between the Upper Tuolumne River and Bay Area watersheds varies from year to year depending on the water year hydrology and operational circumstances.

To evaluate water supply conditions each year, the SFPUC uses measurements of precipitation and snowpack in the watersheds above Hetch Hetchy, Cherry, and Eleanor Reservoirs. The Cooperative Snow Survey (conducted

by the SFPUC in partnership with state and federal agencies) evaluates snowpack conditions every year beginning in late January. The SFPUC also estimates snowpack conditions using information from the Airborne Snow Observatory, which is a developing technology that uses aerial surveys to quantify snowpack, along with other sources. The SFPUC maintains a hydrologic model of the upcountry watersheds that uses this information to project runoff for the coming year. This process also includes a statistical analysis of additional expected precipitation. In addition to projected runoff, the determination of projected available water supply also considers stored water throughout the RWS, water acquired by the SFPUC from non-SFPUC sources, reservoir losses, and allowances for carryover storage.

Additionally, the SFPUC accounts for groundwater provided by the San Francisco Groundwater Supply Project for the in-City retail system and recycled water provided for irrigation at Harding Park, Fleming, and Sharp Park Golf Courses.

The RWS relies on precipitation and snowmelt captured and stored in its reservoirs. During droughts, water supply deliveries can exceed inflows, requiring the use of water stored in previous years to meet demands. Because of the importance of carry-over storage, the SFPUC constantly monitors and evaluates water supply conditions in the RWS, updating look-ahead forecasts as a year's hydrology and operations change. Generally, in early winter of any year, SFPUC staff can begin providing a forecast of water supply conditions for the upcoming year based on known and anticipated winter and spring precipitation and snowpack. The predictive power of this forecast improves greatly through the spring. The annual precipitation, snowmelt, and carry-over storage together constitute the SFPUC's reservoir storage conditions. Using data for each of these factors, the SFPUC can determine whether the reservoir system will be capable of serving full deliveries to its customers. Section 2.4 describes the system modeling SFPUC conducts.

The SFPUC sells water to 26 wholesale customers (collectively referred to as the Wholesale Customers) under the terms of a 25-year contract known as the Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County, and Santa Clara County (WSA) and associated individual water sales contracts with each Wholesale Customer. Collectively, the Wholesale Customers on average receive over two-thirds of the RWS's annual deliveries, with the remaining approximately one-third provided to the SFPUC's retail customers.

The WSA carries forward many components of its predecessor agreement, including the SFPUC's "Supply Assurance" of 184 million gallons per day (MGD) to the Wholesale Customers. The SFPUC has agreed to deliver water to the Wholesale Customers up to the amount of the Supply Assurance, and this agreement is perpetual and survives the expiration of the WSA. The Supply Assurance is, however, subject to reduction due to water shortage, drought, scheduled RWS maintenance activities, and emergencies. As part of the Phased Water System Improvement Plan (WSIP) in 2008, the SFPUC established a temporary 265 MGD annual average limitation on water deliveries from RWS watersheds, the "Interim Supply Limitation" (ISL). The SFPUC has allocated the ISL between the Retail Customers and Wholesale Customers as follows:

- Retail supply allocation: 81 MGD
- Wholesale supply allocation: 184 MGD

Table 2-1 shows the availability of RWS supplies for the SFPUC’s Retail Customers and Wholesale Customers in normal years. Table 2-2 shows the current and projected RWS supply needs to meet Retail and Wholesale Customer demands based on information and projections presented in the SFPUC’s 2025 UWMP.

Table 2-1. Regional Water System Supply Availability in Normal Years (MGD)

RWS Supply	2030	2035	2040	2045	2050
Retail Customers ^{a, b}	81	81	81	81	81
Wholesale Customers ^{c, d}	184	184	184	184	184
Total RWS Supplies	265	265	265	265	265

- a Groundwater and recycled water are assumed to be used before RWS supplies to meet retail demand. However, if these alternative supplies are not available, up to 81 MGD of RWS supply could be used in normal years.
- b The SFPUC reports Groveland CSD as a wholesale customer in its UWMP, but the SFPUC otherwise considers Groveland CSD a retail customer and includes Groveland CSD’s demands (approximately 0.3 MGD) within the retail supply allocation of 81 MGD.
- c Projected Wholesale Customer deliveries are limited to 184 MGD, including the demands of the cities of San Jose and Santa Clara, which are supplied on a temporary and interruptible basis.
- d Cordilleras Mutual Water Company is a wholesale customer of the SFPUC, but is not a party to the WSA or a BAWSCA member agency, and it is not included in the Wholesale Customer supply allocation of 184 MGD. The demands of Cordilleras Mutual Water Company are minor (projected to be less than 0.01 MGD).

Table 2-2. Regional Water System Supply Utilized in Normal Years (MGD)

RWS Supply	2030	2035	2040	2045	2050
Retail Customers ^{a, b}	62.7	61.2	61.9	64.0	66.7
Wholesale Customers ^{c, d}	133.9	136.3	140.6	144.1	148.4
Total RWS Supplies	196.6	197.5	202.5	208.1	215.1

- a Groundwater and recycled water are assumed to be used before RWS supplies to meet retail demand. However, if these alternative supplies are not available, up to 81 MGD of RWS supply could be used in normal years.
- b The SFPUC reports Groveland CSD as a wholesale customer in its UWMP, but the SFPUC otherwise considers Groveland CSD a retail customer and includes Groveland CSD’s demands (approximately 0.3 MGD) within the retail supply allocation of 81 MGD.
- c Projected Wholesale Customer deliveries are limited to 184 MGD, including the demands of the cities of San Jose and Santa Clara, which are supplied on a temporary and interruptible basis.
- d Cordilleras Mutual Water Company is a wholesale customer of the SFPUC, but is not a party to the WSA or a BAWSCA member agency, and it is not included in the Wholesale Customer supply allocation of 184 MGD. The demands of Cordilleras Mutual Water Company are minor (projected to be less than 0.01 MGD).

2.3 INFRASTRUCTURE CONSIDERATIONS

On an ongoing basis, three groups within the SFPUC’s Water Enterprise – Hetch Hetchy Water and Power, Water Supply and Treatment Division, and Hydrology and Water Systems – conduct analyses of the RWS that incorporate planned facility outages and multiple levels of projected system demands to evaluate operational capabilities and plan for potential water delivery constraints. These three groups meet quarterly to share plans and coordinate how facility outages, changes in service area demand, wet or dry weather, and other variables shape the operating plans each year. Facility outages due to maintenance or upgrades are coordinated in an adaptive manner to respond to changes as they occur. For new water supplies or new capital projects related to supply distribution, impacts on the

RWS are evaluated extensively prior to initiation of any changes. Results from these modeling efforts are considered in the annual WSDA.

2.4 SYSTEM MODELING

To proactively plan for conditions that would result in a shortage of water supplies, the SFPUC models conditions using a hypothetical drought that is more severe than what the RWS has historically experienced. This drought sequence is referred to as the “design drought” and serves as the basis for planning and modeling of future scenarios. The design drought consists of an 8.5-year sequence of dry conditions.

In applying its water supply planning methodology, the SFPUC performs an initial model simulation of the system for the design drought sequence and then reviews the ability of the system to deliver water to the service area through the entire design drought sequence. If the projected water supply runs out before the end of the design drought sequence in the initial model run, system-wide water use is reduced by applying water supply reductions and the scenario is re-run. This process continues iteratively until a model simulation of the system is achieved in which the water supply in storage at the end of the design drought sequence is brought to the system “dead pool,” where no additional storage is available for delivery (currently simulated as 96,775 acre-feet). Drawing system storage down to the dead pool without going below it indicates that water supply delivery, including the adjusted amount of water use, is maintained through the design drought sequence.

Estimated levels of water supply reduction and corresponding storage threshold values that initiate each level of supply reduction can then be used to simulate the operation of the system through the historical record of hydrology, or to evaluate system water supply conditions during an ongoing drought. While the design drought sequence does not occur in the historical hydrology, the reduced water use and storage threshold values that are adjusted to allow a system configuration to maintain water delivery through the design drought sequence can be used to evaluate system performance in the historical record, or as a basis for comparing with real-time system conditions. Through use of this planning method, the SFPUC can simulate a response to declining water supply in storage that is appropriate for the system conditions being evaluated.

The SFPUC plans its water deliveries using indicators for demand reduction that are developed through analysis with the design drought sequence. As a result, the SFPUC system operations are designed to provide sufficient carry-over water in SFPUC reservoirs to continue delivering water, although at reduced levels, during multiple-year droughts.

2.5 DECISION-MAKING PROCESS

Regardless of the expectation of shortage conditions, as part of the normal course of business, the SFPUC provides a water supply condition update to its executive team every two weeks throughout the year. Pursuant to the Water Shortage Allocation Plan (WSAP), also known as the Tier 1 Shortage Plan, that is incorporated in the WSA and described further in Section 3 below, the SFPUC also provides an initial estimate of available water supply for the upcoming Supply Year (defined as the period between July 1 through June 30) to its Wholesale Customers on February 1 every year. A Wholesale Customer Annual Meeting is held in February at which the SFPUC makes a

presentation on current water supply conditions and forecasts. The SFPUC issues a revised estimate of available water supply for the upcoming Supply Year on March 1 and uses the snow survey that occurs in the first week of April and an associated runoff forecast to refine an estimated total system storage expected on July 1. By the middle of April, the SFPUC issues a final estimate of available water supply and determines whether there will be a system-wide shortage for the coming Supply Year.

If the SFPUC determines that a water shortage exists, the SFPUC may call for voluntary demand reductions among its customers or issue a declaration of water shortage emergency pursuant to California Water Code section 350 et seq. In support of a declaration of water shortage emergency, SFPUC staff will deliver a presentation to the Commission with information that explains the basis for the shortage conditions, such as conditions of precipitation to date, snowpack, and storage levels, with more information as necessary depending on the particulars of the supply forecast. Depending on the level of shortage, the SFPUC may determine that voluntary actions by its Retail and Wholesale Customers will be sufficient to accomplish the necessary reduction in water use throughout its service area or that mandatory actions will be required.

Prior to initiating any water delivery reductions to its retail customers, whether it be initial implementation of delivery reductions or implementing a different water shortage level, the SFPUC will outline a water shortage response plan to address the following: the water supply situation; proposed demand reduction objectives; alternatives to demand reductions; methods to calculate water use allocations and adjustments; compliance methodology and enforcement measures; and budget considerations. Details on the expected allocation program are described further in Section 4. SFPUC staff will present this water shortage response plan at a regularly scheduled Commission meeting and advertise it in accordance with the requirements of Section 6066 of the California Government Code. Water demand reductions that are applicable to Wholesale Customers will be formally communicated following the Commission's declaration of a water shortage emergency under Section 350 of the California Water Code.

An example of the general WSDA process for water shortages caused by a drought is presented in Figure 2-1 for illustrative purposes. Other non-drought water shortages may not trigger the WSAP and therefore would not follow the same process shown below. For more information about procedures in response to non-drought water shortages, such as those caused by a catastrophic supply interruption, see Section 10.

Figure 2-1: Water Supply and Demand Assessment Process

