Water Shortage Contingency Plan
2020 Update

Menlo Park Municipal Water

June 2021

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ATTACHMENTS

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 contingency 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.

Menlo Park Municipal Water's (MPMW's) Water Shortage Contingency Plan (WSCP) is 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 2015 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 MPMW 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. Text from the UWMP Act has been included in grey text boxes with italicized font at beginning of relevant sections of this WSCP. 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.

MPMW has authority within Section 7.35 of City of Menlo Park's (City's) Municipal Code to require water rationing and conservation and to enforce penalties. Municipal Code Section 7.35 is included as Attachment 1 of this WSCP.

MPMW developed this WSCP based on the following guiding principle:

> *Eliminate water waste, prioritize the reduction of non-essential water uses, and preserve water uses that are essential to the health, safety, welfare, and economic vitality of MPMW's customers during periods of water shortage.*

Practically, this principle guides MPMW to ask for a shared contribution from all of its customers towards meeting water reduction goals during periods of water shortage. It further directs MPMW to focus its water conservation efforts on reducing discretionary water uses such as outdoor irrigation, while attempting to minimize economic and other impacts to its residential and commercial customers.

MPMW also adopted a Water Service Priority Policy by Resolution No. 6187, in compliance with requirements of Government Code Section 65589.7. The Water Service Priority Policy prioritizes water service to proposed developments that include units for lower income households.

2. WATER SUPPLY RELIABILITY ANALYSIS

☑ ***CWC § 10632 (a) (1)*** *The analysis of water supply reliability conducted pursuant to Section 10635.*

This section provides a summary of MPMW's water supply reliability analysis in Chapter 7 of MPMW's 2020 UWMP, recognizing that the WSCP is intended to be a standalone document that can be adopted and amended independently.

MPMW relies on the San Francisco Public Utilities Commission Regional Water System (SFPUC RWS) for all of its potable water supply. In accordance with the SFPUC's perpetual obligation to MPMW's Supply Assurance, MPMW has an Individual Supply Guarantee (ISG) of 4.456 million gallons per day (MGD), or 1,630 million gallons (MG) per year. MPMW also uses recycled water for non-potable uses. Recycled water is currently supply 2% of MPMW's total demand and is anticipated to supply 8% of MPMW's total demand by 2040. The recycled water supply is expected to be 100% reliable in all year types.

MPMW's supply reliability relies largely on the reliability of the SFPUC RWS. 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 2018 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 years or multiple dry years.

Based on the current allocation methodology[1] and SFPUC dry year cutbacks, MPMW is anticipated to experience up to 422 MG (28%) supply shortfall in single dry years by 2040 and up to 652 MG (44%) supply shortfall in multiple dry years by 2040.

However, numerous uncertainties remain in the implementation of the Bay-Delta Plan Amendment and the allocation of the available supply between the wholesale customers. The resultant actual supply reliability and the frequency of supply shortfalls for MPMW cannot be known currently. MPMW has placed high priority on working with SFPUC and the Bay Area Water Supply and Conservation Agency (BAWSCA) to better refine the estimates of RWS supply reliability and may revise its UWMP accordingly. The SFPUC and BAWSCA have also been taking various actions to improve the reliability of the RWS supply,

[1] The SFPUC and the wholesale customers have negotiated and adopted a plan to allocate the RWS supply during system-wide shortages of 20% or less. To address the instances where the supply shortfalls are projected to be greater than 20%, BAWSCA has developed a revised methodology to allocate the RWS supply. This allocation method is intended to serve as the preliminary basis for the 2020 UWMP supply reliability analysis and does not in any way imply an agreement by BAWSCA member agencies as to the exact allocation methodology. Details on the SFPUC RWS supply reliability are provided by the SFPUC and the BAWSCA and are documented in Sections 7.1 through 7.3 as well as Appendix H of the 2020 UWMP.

including implementing a number of dry year water supply projects, exploring alternative water supplies, and implementing Long-Term Reliable Water Supply Strategy recommendations.

As part of the supply reliability analysis, MPMW has conducted a Drought Risk Assessment (DRA), 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). Prior to the assumed implementation of the Bay-Delta Plan Amendment in 2023, MPMW's supply is expected to be sufficient to meet demands during the first two consecutive dry years (i.e., 2021 and 2022). However, based on the current allocation methodology and SFPUC dry year cutbacks, MPMW is expected to experience significant shortfalls in subsequent years of the assumed drought through 2025. The largest shortfall is estimated to be 587 MG in 2025.

MPMW 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 MPMW will implement to reduce demands and further ensure supply reliability at various levels of water shortage.

3. PRIOR DROUGHT ACTIONS

MPMW has historically developed different strategies for reducing water demand during water shortages. MPMW's actions in response to the recent severe drought that occurred in California between 2014 and 2017 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 requires commercial, industrial, and institutional (CII) users to implement water efficiency measures, prohibits irrigation with potable water of ornamental turf in public street medians, and prohibits 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 mandates minimum actions by water suppliers and their customers to conserve water supplies into 2016 and assigns a mandatory water conservation savings goal to each water supplier based on their residential gallons per capita per day (R-GPCD) water use. 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 adjusts the water conservation savings goal and replaces the February 2016 emergency regulation. The SWRCB is expected to 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 the SWRCB's Regulatory Framework Tier 4 residential per capita use of 88.6 GPCD , MPMW was required to reduce water use by 16% relative to its 2013 water use.

Prior to the 2015 SWRCB Resolution, the City Council had already declared Stage 2 of the 2014 WSCP to respond to 2014 SWRCB actions. Stage 2 of the 2014 WSCP called for an up to 20% water reduction and included prohibitions that targeted water waste and discretionary outdoor uses. This stage of action remained in place to meet the 2015 SRWCB mandated reduction target.

During the June 2015 through February 2016 compliance period, the City surpassed its water use reduction target of 16% with a cumulative saving of 38% relative to its 2013 use. The reductions were largely due to high savings (up to a 50% reduction in total demand) during the summer and fall months, likely corresponding to large cutbacks in irrigation water use.

The 2014 WSCP was updated as part of the 2015 UWMP. In June 2016, the City adopted its 2015 UWMP and associated WSCP update. In April 2017, the Governor Brown ended the drought State of Emergency. On 2 May 2017, Resolution 6383 revoked the City's drought declaration and enacted Stage 1 of its 2015

WSCP, which is a no-drought stage that maintains prohibitions to prevent water waste per State regulations.

4. 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.

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

(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.

☑ ***CWC § 10632.1***

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.

☑ ***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.

On an annual basis, MPMW will conduct an Annual Supply-Demand Assessment (Annual Assessment) to identify whether there is likely to be a water shortage condition in the following year. Because MPMW's sole source of potable water supply is from the SFPUC RWS, the evaluation of MPMW supplies for a particular year will be based on information provided by the SFPUC or BAWSCA. MPMW will conduct the Annual Assessment as part of a coordinated effort lead by BAWSCA. The procedure used by BAWSCA in conducting an Annual Assessment is outlined in Attachment 2 of this WSCP.

5. 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.

Consistent with the requirements of CWC § 10632(a)(3), this WSCP is based on the six water shortage levels (also referred to as "stages") shown in Table 5-1. These shortage stages are intended to address shortages caused by any condition, including catastrophic interruption of water supplies. Table 5-1 summarizes the water supply reductions and supply conditions associated with each stage of action.

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

Shortage Level	Percent Shortage Range	Shortage Response Actions
No-Drought	N/A	• Includes water waste prohibitions effective at all times.
1	Up to 10%	• Declaration by the City Council upon the determination that the SFPUC or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use of up to 10% due to water supply shortages or an emergency. • 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%	• Declaration by the City Council upon the determination that the SFPUC or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use from 10% to 20% due to water supply shortages or emergency. • Includes implementation of mandatory restrictions on end uses (see Table 6-1) as well as agency actions (see Table 6-2).

Shortage Level	Percent Shortage Range	Shortage Response Actions
3	Up to 30%	• Declaration by the City Council upon the determination that the SFPUC or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use from 20% to 30% due to water supply shortages or emergency. • 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%	• Declaration by the City Council upon the determination that the SFPUC or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use from 30% to 40% due to water supply shortages or emergency. • 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%	• Declaration by the City Council upon the determination that the SFPUC or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use from 40% to 50% due to water supply shortages or emergency. • Includes implementation of mandatory restrictions on end uses and water use budgets for customers (see Table 6-1), as well as agency actions and groundwater supply augmentation (see Table 6-2).
6	>50%	• Declaration by the City Council upon the determination that the SFPUC or another governing authority (e.g., the SWRCB) has required a voluntary or mandatory reduction in water use greater than 50% due to water supply shortages or emergency. • Includes implementation of mandatory restrictions on end uses and water use budgets for customers (see Table 6-1), as well as agency actions and groundwater supply augmentation (see Table 6-2).

6. 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 (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.

This section describes the response actions MPMW will take to deal with the shortages associated with each of the six stages enumerated in Section 5.

6.1 Demand Reduction Methods

As discussed above and shown in Table 6-1, the WSCP lists the demand reduction methods that MPMW will implement during each stage of action to reduce MPMW's water consumption and encourage reduction in water use by its customers. The monthly and cumulative annual water savings impacts associated with each restriction, prohibition and consumption reduction method were quantitatively estimated using the Drought Response Tool (DRT) for each stage of action, see Attachment 3.

A main focus of MPMW's planned demand reduction measures is to increase public outreach and keep customers informed of the water shortage emergency and actions they can take to reduce consumption. The public outreach efforts that MPMW will implement to respond to a water shortage are described in Section 8.

6.2 Supply Augmentation

As shown in Table 6-2, the City will utilize its emergency supply well(s) as supply augmentation during Stages 5 and 6. MPMW has constructed one emergency groundwater well (the Corporation Yard Well) which can produce up to 1,500 gallons per minute (gpm) of supply to the Lower Zone. An additional one or two emergency wells are being considered to achieve another 1,500 gpm of supply capacity (for a total of 3,000 gpm). Water supply from the emergency supply well(s) is currently not considered in MPMW's

planning for normal or dry year supply. The well(s) will provide augmented supply for MPMW in the event of significant water shortage due to severe drought conditions, an earthquake, or other emergency.

According to the Corporation Yard Well's Initial Study/Mitigation Negative Declaration (IS/MND) document (Infrastructure Engineering Corporation, 2016), operating the well at 900 gpm over a 30-day failure on the SFPUC RWS will supply 119 acre-feet (AF) of water. The IS/NMD has estimated that the well could provide 1,900 AF over the course of a year without a significant impact to the groundwater basin.

Table 6-2 also includes other actions that the City will take, including coordination with other agencies, implementing drought surcharge, increasing water waste patrols, etc.

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	Penalty, Charge, or Other Enforcement?
No Drought	Other	--	1. Hoses must be equipped with a shut-off valve for washing vehicles, sidewalks, walkways, or buildings. 2. Ornamental fountains shall use only re-circulated or recycled water. 3. Potable water shall not be applied in any manner to any driveway, sidewalk, or other hard surface except when necessary to address immediate health or safety concerns. 4. Potable water shall not be used to water outdoor landscapes in a manner that causes more than incidental runoff onto non-irrigated areas, walkways, roadways, parking lots, or other hard surfaces. 5. Potable water cannot be applied to outdoor landscapes during and up to 48 hours after measurable rainfall. 6. Potable water shall not be used to irrigate ornamental turf on public street medians. 7. Hotels and motels shall provide guests an option whether to launder towels and linens daily. Hotels and motels shall prominently display notice of this option in each bathroom using clear and easily understood language. 8. Restaurants and other food service operations shall serve water to customers only upon request during a period for which the Governor has issued a proclamation of a state of emergency. 9. Broken or defective plumbing and irrigation systems must be repaired or replaced within a reasonable period. 10. Recreational water features shall be covered when not in use. 11. Single-pass cooling systems on new construction shall not be allowed. 12. Other measures as may be approved by the State Water Resources Control Board or City Council Resolution.	Yes

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	Penalty, Charge, or Other Enforcement?
1	Other	5%	1. Continue with "no drought" restrictions and prohibitions except where superseded by more stringent requirements. 2. Newly constructed homes and buildings must irrigate with drip or microspray only. 3. Other measures as may be approved by City Council Resolution.	Yes
2	Other	15%	1. Continue with Stage 1 restrictions and prohibitions except where superseded by more stringent requirements. 2. Irrigating outdoor ornamental landscapes or turf with potable water is limited to no more than two (2) days per week on a schedule established by the Director and posted on the City's website, except for hand watering. Water customers may be granted an exception upon review and approval of a Drought Response Plan by the Public Works Director pursuant to such policies and procedures as may be established by the Public Works Director provided that such plan results in an equivalent or greater reduction in water use. 3. Hand watering must be with a continuously monitored hose fitted with an automatic shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use or monitored. 4. Other measures as may be approved by City Council Resolution.	Yes
3	Other	25%	1. Continue with Stage 2 restrictions and prohibitions except where superseded by more stringent requirements. 2. Permits for construction of new pools shall include a requirement that MPMW water shall not be used to fill new pools. 3. Vehicles may only be washed at vehicle washing facilities using recycled or recirculating water. 4. Other measures as may be approved by City Council Resolution.	Yes

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	Penalty, Charge, or Other Enforcement?
4	Other	35%	1. Continue with Stage 3 restrictions and prohibitions except where superseded by more stringent requirements. 2. Irrigating outdoor ornamental landscapes or turf with potable water is limited to no more than one (1) day per week on a schedule established by the Director and posted on the City's website, except for hand watering. Water customers may be granted an exception upon review and approval of a Drought Response Plan by the Public Works Director pursuant to such policies and procedures as may be established by the Public Works Director provided that such plan results in an equivalent or greater reduction in water use. 3. Potable water shall not be used for construction or dust control. 4. Potable water shall not be used for commercial vehicles that provide street washing, sweeping, or cleaning. 5. Other measures as may be approved by City Council Resolution.	Yes
5	Other	45%	1. Continue with Stage 4 restrictions and prohibitions except where superseded by more stringent requirements. 2. Water use shall not exceed water budgets established for each customer. 3. Hand watering outdoor ornamental landscapes is only allowed between designated hours, as determined by the Public Works Director. 4. Turf irrigation is prohibited at all times, including artificial turf. 5. Existing irrigation systems shall not be expanded. 6. Other measures as may be approved by City Council Resolution.	Yes
6	Other	55%	1. Continue with Stage 5 restrictions and prohibitions except where superseded by more stringent requirements. 2. Hand watering outdoor ornamental landscapes is prohibited at all times. 3. Other measures as may be approved by City Council Resolution.	Yes

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	Penalty, Charge, or Other Enforcement?
NOTES: (a) The percentages listed in this table are the cumulative savings for each shortage level with implementation of corresponding supply augmentation and other agency actions in Table 6-2. Detailed saving estimates based on end use, response action, and implementation rates can be found in Attachment 3.				

Table 6-2 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? (a)	Additional Explanation or Reference
1	Other	5%	1. Initiate public outreach to inform customers that there is a water shortage emergency. 2. Implement Stage 1 drought surcharge.
2	Other	15%	1. Continue with actions and measures from Stage 1. 2. Increase public outreach for added restrictions and prohibitions, and to provide information regarding fines or penalties for non-compliance. 3. Coordinate with BAWSCA, SFPUC, and other Menlo Park water agencies (California Water Service, O'Connor Cooperative Water Tract, East Palo Alto, Palo Alto Park Mutual Water Company). 4. Evaluate if participation in BAWSCA's subscription water conservation programs can be increased. 5. Train City staff and billing contractor customer service representatives how to respond to customer calls, reports and complaints. 6. Evaluate options to capture water during routine flushing of water mains. 7. Implement Stage 2 drought surcharge.
3	Other	25%	1. Continue with actions and measures from Stage 2. 2. Increase public outreach for added restrictions and prohibitions, and to provide information how to report water waste to the City. 3. Increase public outreach to the top 10% water users in each customer category. 4. Coordinate with Police code enforcement to investigate water waste reports. 5. Request cooperation from Menlo Park Fire District to reduce fire training water use. 6. Implement Stage 3 drought surcharge.

Table 6-2 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? (a)	Additional Explanation or Reference
4	Other	35%	1. Continue with actions and measures from Stage 3. 2. Increase public outreach for added restrictions and prohibitions. 3. Increase public outreach to the top 20% water users in each customer category. 4. Evaluate staff resources. May include hiring temporary staff or training additional City staff to assist with customer service and enforcement. 5. Reevaluate routine flushing of water mains except when necessary to address immediate health or safety concerns. 6. Consider increasing fines for multiple violations. 7. Implement Stage 4 drought surcharge.
5	Other	45%	1. Continue with actions and measures from Stage 4. 2. Increase public outreach for added restrictions and prohibitions. 3. Increase public outreach to the top 30% water users in each customer category. 4. Implement water waste patrols and increase enforcement. 5. Halt installations of new potable water meters (temporary or permanent) or meter upgrades except if a valid, unexpired building permit has been issued for the project; or the project is necessary to protect the public's health, safety, and welfare. 6. Halt issuing statements of immediate ability to serve or provide potable water service. 7. Consider increasing fines for multiple violations. 8. Develop water budgets for all accounts. 9. Use emergency groundwater well(s). 10. Implement Stage 5 drought surcharge.

Table 6-2 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? (a)	Additional Explanation or Reference
6	Other	55%	1. Continue with actions and measures from Stage 5. 2. Increase public outreach for added restrictions and prohibitions. 3. Increase public outreach to the top 40% water users in each customer category. 4. Halt installations of new potable water meters (temporary or permanent) even if a valid, unexpired building permit has been issued for the project. 5. Consider increasing fines for multiple violations. 6. Increase water budget reduction requirements. 7. Implement other short-term emergency actions from the Emergency Response Plan. 8. Implement Stage 6 drought surcharge.
NOTES: (a) The percentages listed in this table are the cumulative savings for each shortage level with implementation of corresponding demand reduction actions in Table 6-1. Detailed saving estimates based on end use, response action, and implementation rates can be found in Attachment 3.			

6.3 Operational Changes

The WSCP lists the operational changes that MPMW will implement during each stage of action including measures to: (1) reduce system losses through a reduction in line flushing and fire training exercises, (2) increase enforcement and patrols, (3) develop water budgets, and in certain conditions, (4) implement a moratorium on new services.

6.4 Prohibitions on End Uses

MPMW has the authority to restrict or prohibit specific water use practices during water shortages (Municipal Code Section 7.35). Restrictions and prohibitions associated with each stage of action are presented in Table 6-1. As discussed above, these responses focus on the reduction of non-essential water uses such as ornamental landscape irrigation, and preserve water uses that are essential to the health, safety, welfare, and economic vitality of MPMW's customers.

In addition, several mandatory prohibitions are enforced at all times as part of the Non-Drought Stage to eliminate water waste, which include each of the prohibitions on end uses that are anticipated to be mandated by the SWRCB in response to Executive Order B-37-16. Prohibitions in subsequent stages go beyond the SWRCB requirements and become increasingly restrictive.

6.5 Defining Water Features

☑ ***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.

As required by CWC § 10632, MPMW 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 Shortage Response Action Effectiveness

In order to evaluate and ensure that effective actions will be implemented with the proper level of intensity, MPMW employed the DRT, an Excel spreadsheet model developed by EKI Environment and Water, Inc. The DRT model calculates monthly savings anticipated by implementing each stage of action as detailed below.

6.6.1 Baseline Water Use Profile

Using the DRT, MPMW developed a baseline water use profile that reflected usage patterns within MPMW's service area by major water use sector during 2019 and was used to guide development of the WSCP. Key findings from this analysis are presented below.

Residential Per Capita Demand

As shown in Table 6-3 and associated chart, MPMW's baseline R-GPCD demand in 2019 was approximately 62 R-GPCD. This R-GPCD is close to the BAWSCA-wide average of 61 R-GPCD but is significantly less than the statewide average of 85 R-GPCD.

Estimated Proportion of Outdoor Water Use

As shown in Table 6-4 and the associated charts, outdoor water use, which can generally be considered as a "discretionary water use", was estimated to be approximately 46% of MPMW's total consumption during this baseline time period (2019). Notably, dedicated irrigation meters accounted for approximately 26% of the total estimated irrigation demand, indicating that approximately 74% of outdoor water use is not metered with a separate meter, and is therefore more difficult to track and directly target.

The DRT estimates indoor water use to be equivalent to the lowest monthly water use for each sector, accounting for the number of days in each month. Outdoor water use for each sector was estimated to be the difference between the total water use and the estimated indoor water use. If MPMW customers tend to irrigate more heavily during winter months, an underestimation of the proportion of outdoor water use would occur.

The proportion of outdoor water use within residential and commercial sectors is estimated to be 41%. This indicates that there is the potential to achieve significant water savings across these sectors (e.g., up to WSCP Stage 4), simply by focusing on outdoor uses. If the proportion of outdoor water use is being underestimated by the DRT method, then even more substantial savings may be achieved through targeting outdoor water use. As further shown in Table 6-4 and the associated charts, the seasonal variation in baseline water use reflects increased irrigation demands during the summer and fall months. Therefore, the greatest potential for reductions in non-essential water use is expected during these months.

Table 6-3 Baseline Residential Per Capita Water Demand

	Baseline Residential Per Capita Water Demand (R-GPCD)
MPMW (a)	62
BAWSCA Agencies (b)	61
Statewide Average (c)	85

NOTES:
(a) MPMW R-GPCD calculated using 2019 metering data.
(b) Average BAWSCA R-GPCD calculated from data provided in BAWSCA Annual Survey FY 2018-19 (BAWSCA, 2020).
(c) State-wide R-GPCD for 2019 obtained from data provided at California State Water Resources Control Board Water Conservation Portal - Conservation Reporting, http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.shtml, accessed March 2021.

Chart 6-3 Baseline Residential Per Capita Water Demand

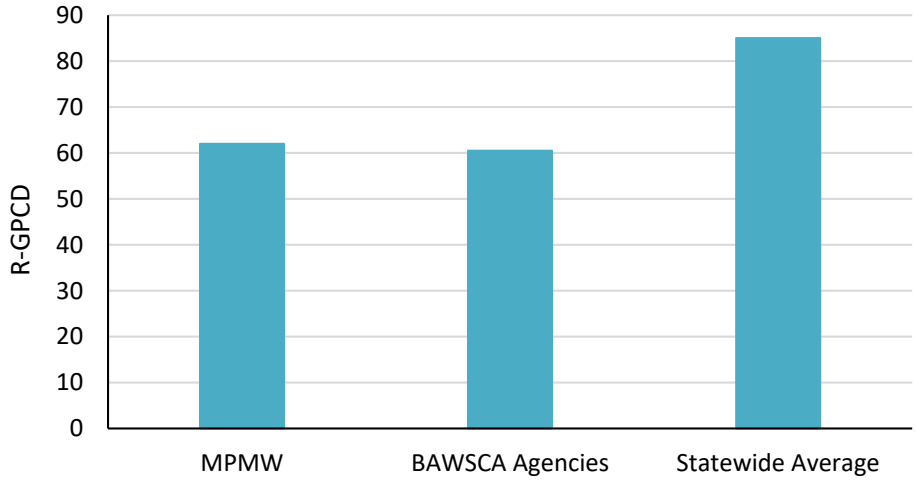


Table 6-4 Baseline Water Use Profile

Sector	End-Use	Baseline (2019) Water Use													Annual % of Total by Sector
		January	February	March	April	May	June	July	August	September	October	November	December	Annual	
Residential	Indoor	21	19	21	20	21	20	21	21	20	21	20	21	242	59%
	Outdoor	1	0	1	9	17	22	26	25	22	25	13	4	165	41%
	Subtotal Residential	*21*	*19*	*22*	*28*	*37*	*42*	*47*	*46*	*42*	*45*	*33*	*25*	*406*	-
CII	Indoor	23	21	23	22	23	22	23	23	22	23	22	23	268	59%
	Outdoor	0	0	5	15	17	22	31	30	26	27	11	2	186	41%
	Subtotal CII	*23*	*21*	*28*	*37*	*40*	*44*	*53*	*52*	*48*	*50*	*33*	*24*	*454*	-
Dedicated Irrigation	Outdoor	2	1	2	8	13	17	20	19	15	13	8	3	122	100%
Non-Revenue	Non-Revenue	6	6	3	-1	4	14	4	6	6	-3	6	0	50	100%
Total	Indoor	43	39	43	42	43	42	43	43	42	43	42	43	510	49%
	Outdoor	3	1	8	31	47	61	77	74	64	65	32	9	473	46%
	Non-Revenue	6	6	3	-1	4	14	4	6	6	-3	6	0	50	4.9%
	Total	**52**	**47**	**55**	**72**	**95**	**117**	**125**	**123**	**111**	**106**	**80**	**52**	**1,033**	-

NOTES:
(a) Volumes are in units of MG.
(b) Baseline water use from MPMW's monthly metering data for each sector.
(c) Indoor water use was estimated to be the lowest monthly water use for each sector, accounting for the number of days in each month. Outdoor water use for each sector was estimated to be the difference between the total water use and the estimated indoor water use.

Chart 6-4A Baseline Year Annual Water Use by Sector and End Use

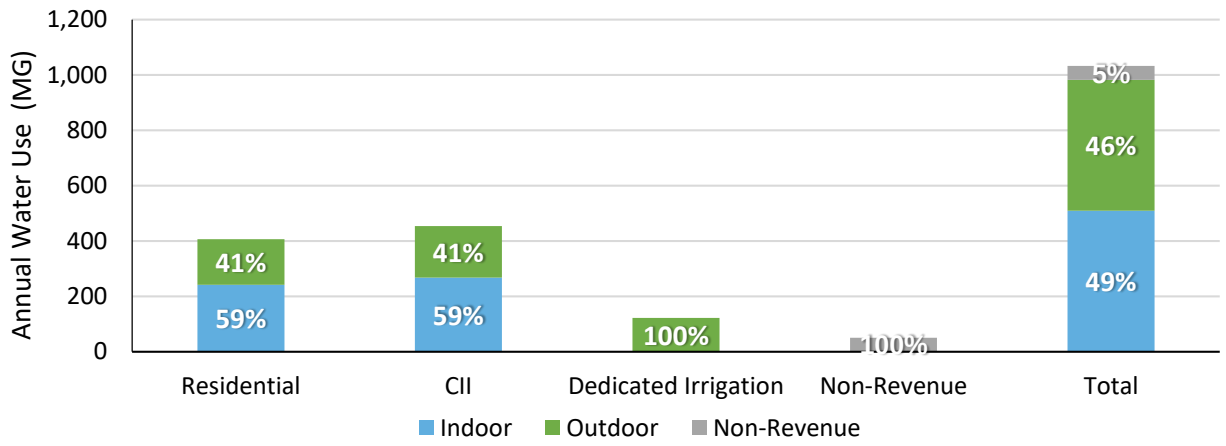
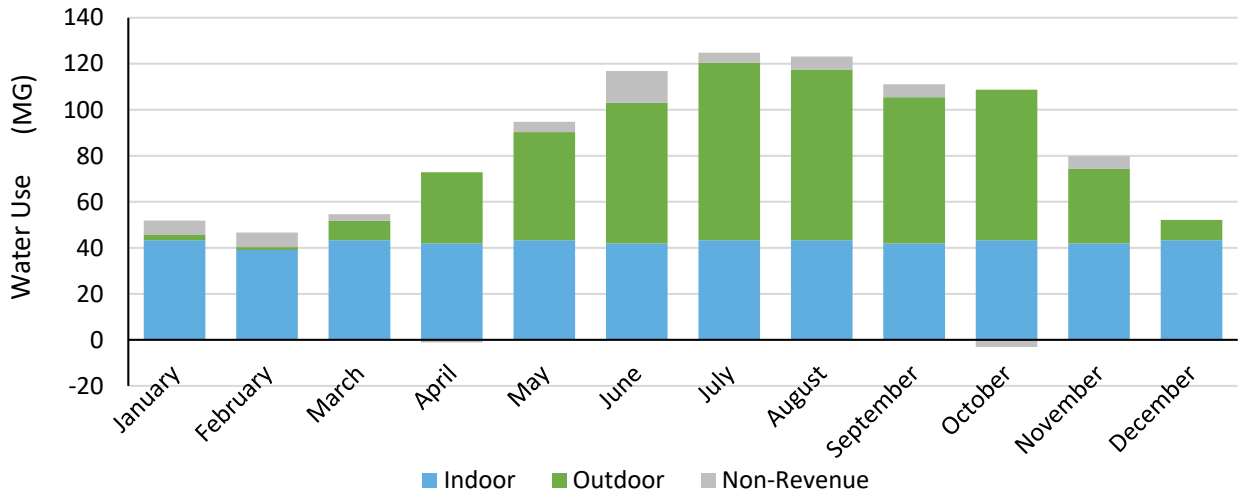


Chart 6-4B Baseline Year Monthly Indoor vs. Outdoor Water Use



6.6.2 Shortage Response Action Effectiveness

The DRT provides a quantitative framework that allows MPMW to systematically estimate the monthly and cumulative annual demand reductions expected to result from particular combinations of drought response actions and associated implementation rates. Data inputs to the DRT include total production, class-specific water use, population, and assumptions regarding the split between indoor and outdoor water use for each customer class.

For each drought response action, the user specifies:

- The customer class(es) and end use(s) that are affected;
- The percent savings for that end use for each account that implements the action. These are based on evaluations reported in the literature, or where such studies are not available, on best estimates based on MPMW's experience; and
- The percentage of accounts assumed to implement the action, which is presumed to be the result of the intensity level of MPMW's program implementation, including but not limited to, marketing and enforcement activities.

An additional critical DRT user input is a set of constraints on demand reductions to ensure that usage levels do not endanger health and safety or result in unacceptable economic impacts. The DRT will not permit estimated usage reductions to violate these constraints, regardless of the demand reduction actions selected. The constraints are:

- A minimum residential indoor per capita daily usage of 25 gallons,
- A maximum residential outdoor usage reduction of 100%,
- A maximum CII indoor usage reduction of 30%, and
- A maximum CII outdoor usage reduction of 100%.

Based on the foregoing data, the DRT model calculates the resulting monthly savings. MPMW adjusted the combination of actions and implementation levels to achieve the targeted savings levels at each of the six stages of action.

For each of the stages of action, the modeling targeted the mid-range of the required demand reduction range, ergo:

- 5% for Stage 1,
- 15% for Stage 2,
- 25% for Stage 3,
- 35% for Stage 4,
- 45% for Stage 5, and
- 55% for Stage 6.

MPMW's shortage response actions are summarized in Table 6-1 and Table 6-2. Key DRT inputs and outputs for each of the stages of action are reproduced in Attachment 3, including the water shortage reduction actions, savings assumptions, and implementation rates that are required for MPMW to achieve the required annual demand reductions for each of the six stages of action. At each stage, there are two types of demand-reduction actions identified:

- Restrictions on customer water usage; and
- Consumption reduction actions by MPMW to encourage decreased water usage.

Many actions are implemented across a number of stages, some at increasing implementation levels. Therefore the actions in Table 6-1 and Table 6-2 are listed as a row under the first stage at which they are implemented. The percentages shown in the tables represent savings of the end uses.

6.7 Catastrophic Supply Interruption

Catastrophic supply interruptions may be caused by a regional power outage, an earthquake, or other disaster. MPMW benefits from two levels of emergency planning: planning by SFPUC and its own emergency planning work. In the event of a catastrophic supply interruption, the response procedures that MPMW would follow are described in:

- SFPUC Emergency Operations Plan (EOP);
- San Mateo County's Operational Area EOP Potable Water Procurement and Distribution Annex;
- City of Menlo Park's EOP; and
- MPMW's Emergency Response Plan (ERP).

Actions described in the SFPUC EOP focus on maintaining flow within, and from, the SFPUC RWS pipelines. SFPUC's emergency preparedness procedures are described in detail in Attachment 4. City of Menlo Park's EOP was written in coordination with the County of San Mateo's Operational Area EOP Potable Water Procurement and Distribution Annex (County of San Mateo, 2004). Together, these EOPs provide the framework for responding to major emergencies or disasters associated with natural disasters, technological incidents, and national security/terrorism emergencies. Sections of these EOPs outline specific strategies to prepare for, mitigate, respond to, and recover from an emergency or disaster that affects the water utilities that serve the population within San Mateo County and the City, in particular.

MPMW's emergency planning efforts particular to its water distribution system are summarized below.

6.7.1 MPMW Emergency Response Plan

In accordance with the Emergency Services Act, MPMW has developed an ERP. This ERP guides response to unpredicted catastrophic events that might impact water delivery including regional power outages, earthquakes or other disasters. The ERP outlines standard operating procedures for all levels of emergency, from minor accidents to major disasters. Table 6-5 summarizes actions included in the ERP for specific catastrophic effects. MPMW's most recent ERP is dated 2016 and is being updated as required per Section 2013 of America's Water Infrastructure Act of 2018.

A water supply interruption may result in a partial or full interruption potable supply for MPMW and adjacent water suppliers. Therefore, the City plans for four levels of action triggers that depends on the severity and duration of a supply interruption. Table 6-6 summarizes MPMW's actions under each water supply action trigger.

In the seismic evaluation for MPMW, there was a recommendation to install saltwater standpipes at regular intervals, along its San Francisco Bay Frontage, to allow for additional firefighting capacity. MPMW

has not pursued the recommendation at this time, because the Menlo Park Fire District has not identified this area as in need of additional fire protection. MPMW will re-evaluate this recommendation if substantial land use changes are proposed for this area.

Additionally, as discussed in Sections 6.2 and 6.7 of the 2020 UWMP, MPMW has constructed one emergency groundwater well (the Corporation Yard Well) which can produce up to 1,500 gpm of emergency/backup supply to the Lower Zone. Reservoir storage and an additional one or two emergency wells are being considered to achieve additional storage and another 1,500 gpm of supply capacity (for a total of 3,000 gpm). As the emergency storage and groundwater well(s) comes on-line, MPMW will add important redundancy and flexibility to its system and will have additional ability to manage catastrophic short-term interruptions in service.

Table 6-5 Preparation Actions for Catastrophes[2]

Possible Catastrophe	Summary of Actions
Earthquake	• Shut-off isolation valves and use of spare piping for ruptured mains • Storage supplies for service interruption • Portable and emergency generators available for facilities • Procedures for assessing water quality, notifying public, and disinfecting system
Flooding	• Portable and emergency generators available for facilities • Storage supplies for service interruption • Procedures for assessing water quality, notifying public, and disinfecting system
Toxic Spills (interrupts Agency Supply)	• Use of local groundwater • Procedures for assessing water quality, notifying public and disinfecting system
Fire	• Storage supplies for fire flows • Mutual aid plans and responders identified • Portable and emergency generators available for facilities
Power outage or grid failure	• Portable and emergency generators available for facilities
Severe Winter Storms	• Portable and emergency generators available for facilities
Hot Weather	• Portable and emergency generators available for facilities

[2] With completion of MPMW's Corporation Yard Well, MPMW may use groundwater supplies from the Corporation Yard Well depending on the impact to water supplies.

Table 6-6 Activation Action in Response to Supply Interruptions

Response Category	Sample Activation Triggers	Potential Activation Actions[⊙]
Level 0	• Changes in SFPUC wholesale water blends due to seasonal changes or plant maintenance • No loss in water supply	• None
Level 1	• Possible partial or full shutdown of SFPUC water supply source • Potential turnout threat	• Fill reservoirs and standby • Activate security monitoring of critical facilities (see ***Appendix 1***) • Mandatory rationing • Contact bottled water companies • Open water distribution points on reservoirs • Request assistance through WARN agreement
Level 2	• Complete loss of SFPUC supply (lasting < 24 hours*)	• Notify customers • Operate reservoirs • Close turnout(s) • Turn on pump stations • Open 4 key isolation valves • Mandatory rationing • Contact bottled water companies • Open water distribution points on reservoirs • Request assistance through WARN agreement
Level 3 (possible EOC activation)	• Complete loss of SFPUC supply (lasting > 24 hours*)	• Notify customers • Turn on wells • Open interties • Open remaining isolation valves • Mandatory rationing • Contact bottled water companies • Open water distribution points on reservoirs • Request assistance through WARN agreement

* The 24-hour period is an estimate only. The actual time period shall be the length of time that the City can supply reservoir water.

7. SEISMIC RISK ASSESSMENT

☑ ***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.

Ballantyne Consulting completed a Seismic Vulnerability Assessment for MPMW's water distribution system in July 2017. The report was incorporated into the MPMW 2018 Water Master Plan.[3]

In addition, as part of MPMW's Sand Hill Reservoir #2 Roof Replacement Project, Beyaz & Patel, Inc. (2019) performed a structural and seismic evaluation of Reservoir #2 and developed structural and seismic design criteria for the project. Construction of the Reservoir #2 Roof Replacement project is anticipated to start in fall 2021 and be completed by fall 2022.

[3] MPMW's 2018 Water Master Plan can be accessed at https://www.menlopark.org/watersystemmasterplan.

8. COMMUNICATION PROTOCOLS

☑ ***CWC § 10632 (a) (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.

Each stage of the WSCP is implemented with a formal declaration by the City Council upon the determination that the SFPUC 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 8.1.

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, MPMW's customers would need to be provided notice of water shortage rules and regulations via a variety of media and communications methods.

Coordination between MPMW and with other public agencies can 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, MPMW would use the public outreach resources and materials provided by BAWSCA and/or the SFPUC. In addition to these materials, MPMW may develop its own materials to communicate with customers, such as a dedicated customer service hotline, and expand its normal public outreach to support its water conservation efforts (see Chapter 9 of the 2020 UWMP). Communication and public outreach actions to be taken by MPMW under each shortage level are detailed in Table 6-2.

As discussed in Chapter 9 of the 2020 UWMP, the City has several staff members that jointly share the responsibility for water conservation. 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.

8.1 Water Shortage Declaration and Termination Procedures

The provisions of each water shortage stage of action are triggered upon the City Council's determination that a Governing Authority has required MPMW to achieve a voluntary or mandatory reduction in water use because of water shortage conditions.

The stage of action will become effective after the City Council declares a particular stage of action and MPMW has notified its customers of this determination. Once effective, the provisions of a water shortage stage of action will stay in effect until: (1) the City Council declares a different stage of

action; or (2) the City Council determines that the water shortfall condition no longer exists and MPMW has notified its customers of this determination.

After the termination of the water shortage conditions, MPMW will oversee any remaining termination and WSCP review activities. These activities could include:

- Publicize gratitude for the community's cooperation.
- Restore water utility operations, organization, and services to pre-event levels.
- Document the event and response and compile applicable records for future reference.
- Collect cost accounting information, assess revenue losses and financial impact, and review deferred projects or programs.
- Debrief staff to review effectiveness of actions, to identify the lessons learned, and to enhance response and recovery efforts in the future.
- Update the WSCP, as needed.

9. 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.*

Enforcement of MPMW's water use restrictions and prohibitions focuses on soliciting cooperation from water customers who are unaware of the restrictions or have failed to comply with the provisions of the City's Water Conservation Ordinance (City Municipal Code Title 7, Chapter 7.35) and this WSCP. If discussions with the customer are unsuccessful in obtaining compliance, MPMW is authorized to issue penalties to customers that violate the restrictions and prohibitions. The City's current compliance and enforcement procedures are adopted in City Resolution No. 6383.

Table 9-1 describes the penalties, charges, and other enforcement actions that MPMW is authorized to take after each violation of the WSCP. The City takes progressively increasing actions associated with more egregious levels of violations. Actions range from a warning after the first violation, up to a $500 fine and discontinuance of water service after the sixth violation. As shown in Table 9-2, customers will incur additional charges for installation and removal of flow restricting devices and disconnection and reconnection of service if MPMW deems these actions necessary. Customers may contest a fine by submitting a written appeal to the Public Works Director within thirty (30) days of the fine.

Additionally, as shown in Table 6-2, MPMW will facilitate compliance with the WSCP by employing increasing levels of customer service, public outreach, and water-waste patrols with increasing shortage levels.

The City employees and members of the public may report water waste complaints through the City's website at www.menlopark.org/waterwaste. Staff is available to provide information and respond to complaints. Staff may also seek assistance from other City Departments in responding to complaints and enforcing water use restrictions.

Table 9-1 Enforcement of Water Use Restrictions and Prohibitions

Violation	Enforcement Action or Penalty
1st	Warning Only. Educate customer on proper water conservation practices
2nd	$50 fine
3rd	$100 fine
4th	$200 fine and review by the Public Works Director (or his or her designee) to determine if a flow restricting device should be installed
5th	$500 fine, and review by the Public Works Director (or his or her designee) to determine if water service should be discontinued
6th	$500 fine and water service shall be discontinued

References:

(1) City of Menlo Park, Resolution No. 6383, Resolution of the City Council of the City of Menlo Park Adopting a Water Conservation Plan, 2 May 2017.

Table 9-2 Charges for Installation or Removal of Flow Restricting Devices and Disconnection or Reconnection of Service

Meter Size	Installation Cost	Removal Cost
Charges for Installation or Removal of Flow Restricting Devices		
5/8" to 2"	$155.00	$155.00
3" or larger	Actual Cost	Actual Cost
Charges for Disconnecting and Reconnecting Service		
All sizes	$155.00	$155.00

References:

(1) City of Menlo Park, Resolution No. 6383, Resolution of the City Council of the City of Menlo Park Adopting a Water Conservation Plan, 2 May 2017.

10. 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.

☑ ***CWC § 10632.3***

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

As discussed above, MPMW has authority within Section 7.35 of the City's Municipal Code to require water rationing and conservation and to enforce penalties. Municipal Code Section 7.35 is included as Attachment 1 of this WSCP. The City's current WSCP stage and water waste prohibitions in effect were adopted in 2017 in Resolution 6383. An adopted water shortage contingency resolution corresponding to this 2021 WSCP update is included as Attachment 5.

MPMW shall declare a water shortage emergency in accordance with Water Code Chapter 3 (commencing with Section 350) of Division 1. MPMW shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency. A list of contacts for other water suppliers within the City of Menlo Park, and the County of San Mateo is provided below:

California Water Service, Bear Gulch District	(650) 561-9709
O'Connor Tract Co-operative Water	(650) 321-2723
Palo Alto Park Mutual Water Company	(650) 322-6903
San Mateo County Environmental Health	(650) 372-6200

MPMW is a member of BAWSCA and anticipates coordinating with other Member Agencies via BAWSCA during a water shortage or emergency on the SFPUC RWS.

11. FINANCIAL CONSEQUENCES OF 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.

In the event of a drought, if MPMW anticipates significant loss in revenue due to decreased consumption, MPMW may increase its water rates so that customers are charged for the actual cost of providing water during a shortage. These rates will be specified in MPMW's water rate schedule, as approved by the City Council and in accordance with Proposition 218 requirements.

Black & Veatch Management Consulting prepared a Water Rate Study for MPMW in March 2021 (Black & Veatch Management Consulting, 2021). The study includes an analysis of projected revenue and expenditure impacts resulting from implementation of the 2020 WSCP during periods of water shortage. To promote financial stability during water supply shortages, the 2021 Water Rate Study includes drought surcharge rates designed to compensate for lost revenue due to decreased volumetric water sales and additional expenses related to implementation of the WSCP. The City approved the five-year water rates including the drought surcharge rates on May 11, 2021. The drought surcharge rates are levied on all usage temporarily until MPMW determines that water supply conditions have returned to normal and drought-related expenditures and lost revenue have been recovered[4].

As shown in Table 6-2, the City will enforce a drought surcharge rate in each water shortage level. The City's drought surcharge rate prohibits excessive water use pursuant to CWC §365 et seq. The cost of compliance with CWC §365 et seq. has been considered in the development of the drought rate schedule in the 2021 Water Rate Study.

In addition, MPMW manages an emergency reserve fund to address the potential financial impacts of a severe drought. The City may also defer expense on capital improvement projects during a severe drought.

[4] Current City of Menlo Park five-year water rate structure including drought surcharge rate located online at https://www.menlopark.org/waterrates.

12. 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.*

MPMW monitors water use through analysis of wholesale water purchases and customer meter readings. MPMW reads meters installed on each of its supply turnouts to monitor wholesale water purchases, and SFPUC's AMI Eye On Water portal provides real-time turnout meter reads. In addition, each customer account is metered. Some non-residential and multi-family customers also have separate irrigation meters to monitor water use for landscape irrigation separately from indoor uses. The City's Water Efficient Landscaping Ordinance (February 2016) requires non-residential projects to install a separate irrigation meter if landscaped areas meet specific size thresholds.

MPMW contracts to have all meters read on a monthly basis. During a supply shortage, MPMW will continue to monitor water use on this schedule to determine the effectiveness of the customer response to the implementation of this WSCP. Monthly water meter readings also allow MPMW to document atypically high water use and notify individual customers to resolve the cause of the high water use.

In addition, MPMW is planning to install advanced metering infrastructure (AMI) over the next two fiscal years. Implementation of AMI will allow MPMW to automate meter reading and provide real-time water use data to MPMW staff and customers that can be used to aggressively target leaks and atypically high water use during normal years and periods of water shortage.

Pursuant to California Code of Regulations (CCR) Title 23 §991, MPMW reports monthly water use and production to the SWRCB[5]. 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 greater than 10%, each supplier is required to submit an expanded report that contains the supplier's actions and statistics in achieving planning reductions.

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

13. 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 implemented as an adaptive management plan. MPMW will evaluate the need to revise its WSCP every year after performing its Annual Assessment. The evaluation will consider effectiveness of WSCP actions and any anticipated water supply shortages assessed by the Annual Assessment. If the WSCP is revised, the City Council will adopt a new resolution adopting the revised WSCP, and if necessary, declare a water shortage level to implement.

14. PLAN ADOPTION, SUBMITTAL, AND AVAILABILITY

☑ ***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.*

MPMW 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 Section 6066 of the Government Code.

A copy of the adopted 2020 WSCP including any amendments will be provided to the Department of Water Resources (DWR), the California State Library, San Mateo County, and SFPUC within 30 days of the adoption. An electronic copy of the adopted 2020 WSCP will be submitted to the DWR using the DWR online submittal tool.

A copy of the adopted 2020 WSCP will be available for public review in the City Hall during normal business hours and on MPMW website within 30 days after filing the plan with DWR.

REFERENCES

BAWSCA, 2020. *Bay Area Water Supply and Conservation Agency Annual Survey FY 2018-19*, March 2020.

Beyaz & Patel, Inc., 2019. *Preliminary Design Report for Sand Hill Reservoir #2 Roof Replacement Project*, April 2019.

Black & Veatch Management Consulting, 2021. *City of Menlo Park Water Rate Study 2021*, March 2021.

County of San Mateo, 2004. *San Mateo County/Operational Area Emergency Operations Plan, Potable Water Procurement and Distribution Annex*, *3rd Edition*, July 2004.

Infrastructure Engineering Corporation, 2016. *Corporation Yard Emergency Back-Up Water Supply Well No. 1 Initial Study/Mitigated Negative Declaration*, April 2016.