



Water Shortage Contingency Plan

Final

OCTOBER 2021

CITY OF MORRO BAY





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Prepared by Water Systems Consulting, Inc.



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1 Water Shortage Contingency Plan

This Water Shortage Contingency Plan (WSCP) is a detailed plan for how the City of Morro Bay (City) intends to predict and respond to foreseeable and unforeseeable water shortages. A water shortage occurs when the water supply is reduced to a level that cannot support typical demand at any given time or reduction in demand is otherwise needed.

This WSCP is used to provide guidance to the City, staff, and the public by identifying anticipated shortages and response actions to allow for efficient management of any water shortage with predictability and accountability. The WSCP is a detailed proposal for how the City intends to act in the case of an actual water shortage condition. This WSCP is not intended to provide absolute direction but rather to provide options to manage water shortages. Official water shortage declarations by the City may include any combination of components described in this WSCP.

Water shortages can be triggered by a hydrologic limitation in supply (i.e., a prolonged period of below normal precipitation), limitations or failure of supply and treatment infrastructure, compliance with State mandates for water use efficiency, or a combination of conditions. Hydrologic or drought limitations tend to develop and abate more slowly, whereas infrastructure failure tends to happen quickly and relatively unpredictably. Water supplies may be interrupted or reduced significantly in several ways, such as during a drought that limits supplies, an earthquake that damages water delivery or storage facilities, a regional power outage, or a toxic spill that affects water quality.

IN THIS SECTION

- Water Supply Reliability
- Annual Assessment Procedures
- Shortage Levels
- Shortage Response Actions
- Communication Protocols
- Compliance, Enforcement, and Legal Authority
- Financial Consequences
- Implementation

This WSCP describes the following:

Water Supply Reliability Analysis: Summarizes the City's water supply analysis and reliability and identifies the key issues that may trigger a shortage condition.

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

Six Standard Shortage Levels: Establishes water shortage levels to clearly identify and prepare for shortages.

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

Communication Protocols: Describes communication protocols under each level to ensure customers, the public, and local government agencies are informed of shortage conditions and requirements.

Compliance and Enforcement: Defines compliance and enforcement actions available to administer demand reductions.

Legal Authority: Lists the legal documents that grant the City the authority to declare a water shortage and implement and enforce response actions.

Financial Consequences of WSCP Implementation: Describes the anticipated financial impact of implementing water shortage levels and identifies mitigation strategies to offset financial burdens.

Monitoring and Reporting: Summarizes the monitoring and reporting techniques to evaluate the effectiveness of shortage response actions and overall WSCP implementation. Results are used to determine if shortage response actions should be adjusted.

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

Special Water Features Distinctions: Defines considerations and definitions for water use for decorative features versus pools and spas.

Plan Adoption, Submittal, and Availability: Describes the WSCP adoption process, submittal, and availability after each revision.

This WSCP was prepared in conjunction with the City's 2020 Urban Water Management Plan (UWMP) (Water Systems Consulting Inc., August 2021) and is a standalone document that can be modified as needed. This document is compliant with the California Water Code (CWC) Section 10632 and incorporated guidance from the State of California Department of Water Resources (DWR) UWMP Guidebook 2020 (Department of Water Resources, 2020) and the American Water Works Association (AWWA) Manual of Water Supply Practices (M60) Drought Preparedness and Response (American Water Works Association (AWWA), 2019).

1.1 Water Supply Reliability Analysis

This section is consistent with CWC Section 10632(a)(1) and describes the key findings of the water supply reliability analysis conducted pursuant to CWC Section 10635, which is presented in Chapter 7 of the City's 2020 UWMP. As part of the 2020 UWMP, water suppliers must perform long-term (2025-2045) water service reliability assessment to evaluate reliability under normal, single dry year, and five-year consecutive dry year periods and a short-term (2021-2025) Drought Risk Assessment (DRA) to evaluate reliability under a five-year consecutive dry year period. Water supply reliability reflects the City's ability to meet the water needs of its customers with water supplies under varying conditions. The analysis considers plausible hydrological and regulatory variability, infrastructure capacity, climate conditions, and other factors that affect the City's water supply and demand. The City expects to meet demands under all water year scenarios while continuing to promote conservation.

The DRA analyzes historical data to allow the City to view patterns and more reliably determine if there could be any water shortages within a given time frame. The DRA looks at historical consumption data by customer class, populated from billing records, and historical supply data by source from production reports. Next, future demand and supply estimates for the planning period are analyzed to determine if there are any gaps between supply and demand. As mentioned above, the City does not anticipate a supply shortage. The City is committed to promoting conservation and use of recycled water to increase its supply portfolio, resiliency, and subsequent reliability as described in Chapter 7 of the 2020 UWMP.

1.2 Annual Water Supply and Demand Assessment

As established by CWC Section 10632.1, urban water suppliers must conduct an Annual Water Supply and Demand Assessment (Annual Assessment) and submit an Annual Water Shortage Assessment Report to DWR beginning by July 1, 2022, and every year after. The Annual Assessment is an evaluation of the short-term outlook for supplies and demands to determine whether the potential for a supply shortage exists and whether there is a need to trigger a WSCP shortage level and response actions to maintain supply reliability. The annual report should report the anticipated shortage level, triggered shortage response actions, compliance and enforcement actions, and communication actions that will be implemented to mitigate the shortage identified in the Annual Assessment.

1.2.1 Key Data Inputs and Evaluation Criteria

Declarations of water supply conditions will occur annually, or more frequently if conditions warrant it, after evaluation by City staff and the approval by City Council at a public meeting. Such resolution will be based on the current shortage situation, the amount of imported water available from the State Water Project (SWP), and other inputs shown below. The respective water shortage condition dictates the degree at which shortage response actions are implemented at any time in the City. Some of the potential reasons to change stages are listed as follows:

- Advancement to subsequent stage
 - Emergency condition, such as failure of pumping equipment, etc., that requires a percentage of water consumption reduction greater than that of the current stage.
 - Regulatory action that requires a percentage reduction or compliance with a water consumption standard.

- Failure to maintain target water consumption reduction goal of a given stage.
- Withdrawal to previous stage
 - Emergency condition has been decreased in severity or resolved, so that the previous target goal may be utilized.
 - Regulatory action or standard has been resolved or modified.
 - Water consumption reductions have been above that necessary to meet target goals of the current stage.

The City is responsible for supplying water for the health and safety needs of the community. If it appears that the City may be unable to supply the demands and requirements of the water customers, the City Council may declare a water supply shortage condition.

Key data inputs and their sources for the Annual Assessments are summarized in **Table 8-1** and described in detail in **Section 1.2.2**. Evaluation criteria that can be used to determine and declare severity of supply shortages may include any, or combinations, of the following:

- Historic rainfall: reflects changes to supply due to reduced imported SWP availability or changes to water usage patterns influenced by weather
- Existing infrastructure capabilities and plausible constraints: reflects limited production and distribution capacity due to a variety of factors potentially including, but not limited to, man-made or natural catastrophic events
- Customer demands: reflects current year and one projected single dry year conditions for comparison to available supplies
- SWP Table A Allocation: reflects how much SWP water will be available to the City. Since SWP is currently the main supply source for the City, the City may consider implementing a shortage based on available SWP water. **Figure 8-1** shows some scenarios in which the City may want to consider implementing a shortage based on Table A Allocation percentages in addition to consideration of available stored SWP water.
- Stored SWP: Amount of stored SWP available to the City in the San Luis Reservoir reflects an additional supply that can be used to meet demands.
- State mandates: reflects State orders and mandatory compliance with water use efficiency standards
- Other locally applicable evaluation criteria as necessary

A shortage emergency may be declared when it is demonstrated that conditions threaten the ability to provide water for public health, safety, and welfare of the community. Furthermore, compliance with State mandates for water use efficiency can be declared during drought or in preparation for future droughts, such as in response to the Governor's drought declarations in the 2012-2016 drought with a subsequent Executive Order B-37-16 and related legislation for Making Conservation a California Way of Life.

Short-term and long-term supply shortages may be caused by constrained production capacity or natural or man-made catastrophic emergencies and include, but are not limited to, the following events: power outages, winter storms, wildfires, earthquakes, structural failures, contamination, and bomb threats. These types of emergencies may limit the City's immediate ability to provide adequate water

service to meet the requirements for human consumption, sanitation, and fire protection. Impacts of such emergencies vary in duration; thus, consumption reduction measures and prohibitions may differ for short-term and long-term shortages.

Table 1-1. Key Data Inputs for the Annual Assessment.

KEY DATA INPUT	SOURCE
Rainfall	Monthly rainfall data. Rainfall sources for the City include weather stations at the Fire Station and WWTP.
SWP Allocation	SWP allocation and storage data, input from the City's staff.
Stored SWP	SLOFCWCD, Stored SWP available to the City from the San Luis Reservoir.
Infrastructure capabilities and plausible constraints	Production data, input from the City's Water Division staff.
Customer demands	Customer billing data, Water equivalency table, 2020 UWMP projections, input from the City's Water Division staff.
State mandates	Executive Orders from the Governor, State Water Resources Control Board orders and policies, input from the City's Water Division staff.

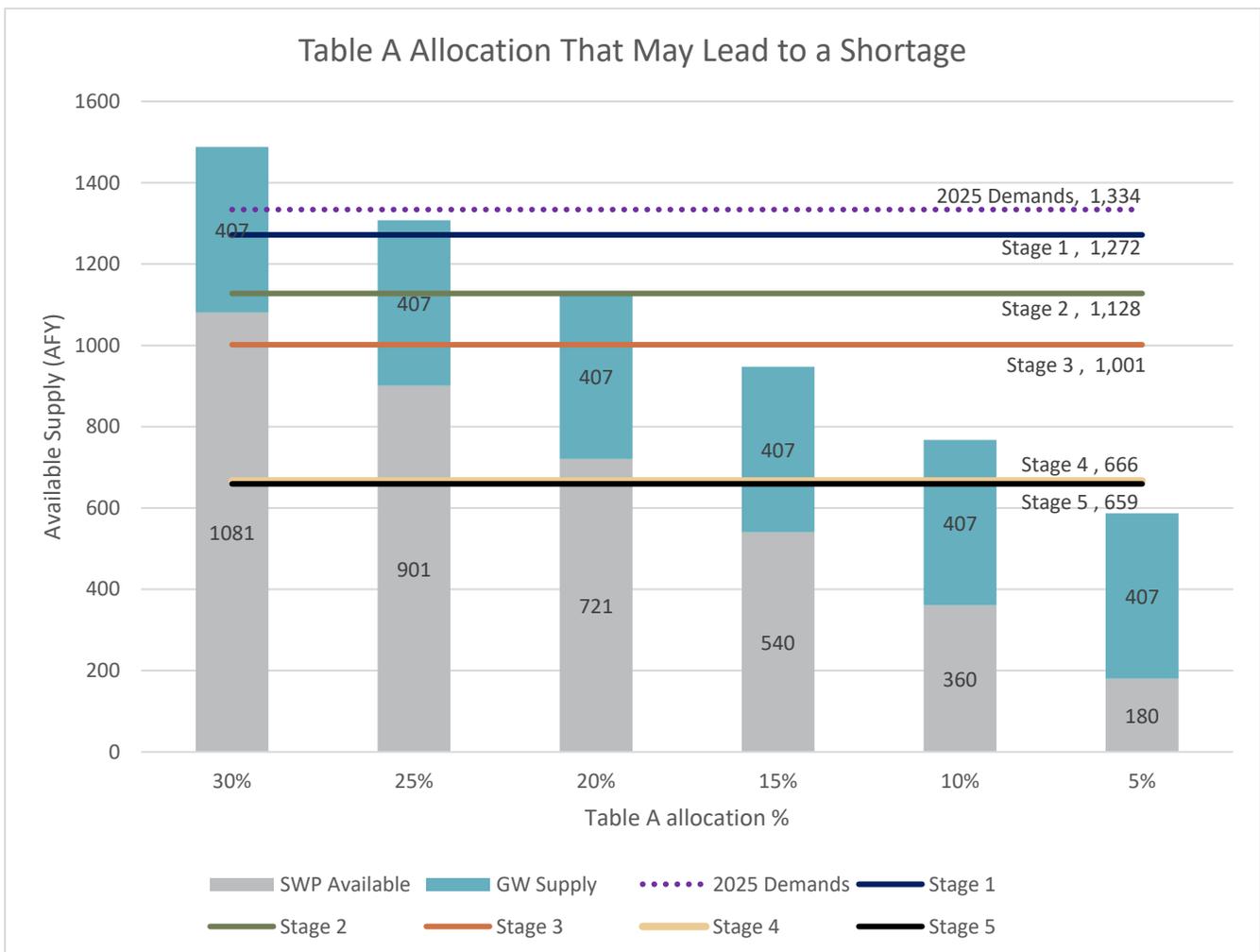


Figure 1-1: Table A Allocations that May Lead to a Shortage

1.2.2 Annual Assessment Procedures

City staff will perform the Annual Assessment between May-June, or on a more frequent basis if necessary. Steps to conduct the Annual Assessment are as follows:

1. Staff gather the key inputs, compile historical data, and analyze potential supply and demand gaps.
2. Staff provide insight on demand trends, water supply conditions, and production capacity.
3. The Public Works Director is charged with submitting an annual water report to the City Council, Public Works Advisory Board and Planning Commission; reviewing and approving the water equivalency units required by individual projects; monitoring the water equivalency program during each year; periodically updating the basis for a water equivalency unit and the water equivalency table and adjusting them based on significant changes of water consumption by land use type; and developing operating procedures for the administration of the water equivalency program and allocating water equivalency units to projects established for the year, in accordance with the water equivalency program.
4. The Public Works Director, based upon information from the annual water report will make recommendations to the City Manager about the advancement, withdrawal, or termination of water shortage levels and will provide reports on water supply and demand status as required. At a minimum, an “Annual Water Report” will be made available to the Director and City Council on an annual basis.
5. Based on water supply and water demand information, the City Council may order by resolution that the appropriate water shortage stage be implemented or terminated in accordance with the applicable provisions of this WSCP and the relevant provisions of the Morro Bay Municipal Code, the Government Code, and the CWC. Findings and recommendations are presented to the City Council.
6. The City Council will declare the level of shortage required at the implementation or termination of each level and the declaration shall remain in effect until the City Council declares otherwise.
7. When a resolution of the City Council has been issued to change the water stage, the public will be notified through publication of the resolution in the local newspaper, on the City’s website, and in the billing statement.
8. The City will develop and/or implement appropriate communication protocols and applicable response actions.

The Annual Assessment starts in 2022 with the first Annual Assessment Report due to DWR by July 1, 2022.

1.3 Six Standard Water Shortage Levels

This section is consistent with CWC Section 10632(a)(2) and describes the City’s water shortage levels. New to the CWC, water suppliers must now adopt water shortage levels that equivalently address six standard water shortage levels. Shortage levels indicate the gap between supply and demand compared to normal year conditions. DWR standardized six shortage levels to provide a consistent regional and statewide approach to measure water supply shortage conditions. The six shortage levels correspond to 10-, 20-, 30-, 40-, 50-percent, and greater than 50 percent shortage compared to the normal reliability conditions. However, a water supplier may use its own shortage levels if a crosswalk is included relating its existing shortage levels to the six standard levels. The crosswalk between the City’s five levels and the standard water shortage levels is shown in **Figure 1-2**.

Table 1-2 shows the City’s five stages and their representative shortages. As shown in **Table 1-2**, the water shortage stages include consideration of water shortages up to a Stage 5 Shortage, an Emergency Water Supply Shortage, which includes a greater than 50% shortage stage with a corresponding water demand reduction objective of greater than 50 percent. Each stage includes a water reduction objective, supply conditions and percent of normal water supply, which may vary based on the nature of water supply emergency. The implementation of the plan is dependent on the cause, severity, and anticipated duration of the water supply shortage. A combination of water conservation measures, known as shortage response actions, would be used to reduce water usage in the event of water shortages.

Table 1-2. DWR 8-1 Water Shortage Contingency Plan Levels

SHORTAGE LEVEL	PERCENT SHORTAGE RANGE¹	SHORTAGE RESPONSE ACTIONS
1	Up to 5%	Normal Water Supply Conditions
2	5 to 15%	Moderately Restricted Water Supply Conditions: Required savings may be met through a combination of quantifiable and unquantifiable actions. The City will only implement measures to the extent necessary to mitigate a water shortage, although estimates may indicate a greater savings is obtainable. It is anticipated that some of the required savings will be met through quantifiable shortage response actions and the remaining savings will be met through other actions, including communication and outreach efforts. For a list of all specific shortage response actions and their potential savings, please refer to Table 1-3.
3	15 to 25%	Severely Restricted Water Supply Conditions: Required savings may be met through a combination of quantifiable and unquantifiable actions. The City will only implement measures to the extent necessary to mitigate a water shortage, although estimates may indicate a greater savings is obtainable. It is anticipated that some of the required savings will be met through quantifiable shortage response actions and the remaining savings will be met through other actions, including communication and outreach efforts. For a list of all specific shortage response actions and their potential savings, please refer to Table 1-3.
4	25 to 50%	Critical Water Supply Conditions: Required savings may be met through a combination of quantifiable and unquantifiable actions. The City will only implement measures to the extent necessary to mitigate a water shortage, although estimates may indicate a greater savings is obtainable. It is anticipated that some of the required savings will be met through quantifiable shortage response actions and the remaining savings will be met through other actions, including communication and outreach efforts. For a list of all specific shortage response actions and their potential savings, please refer to Table 1-3.
5	50% or greater	Emergency Water Supply Conditions: Required savings may be met through a combination of quantifiable and unquantifiable actions. The City will only implement measures to the extent necessary to mitigate a water shortage, although estimates may indicate a greater savings is obtainable. It is anticipated that some of the required savings will be met through quantifiable shortage response actions and the remaining savings will be met through other actions, including communication and outreach efforts. For a list of all specific shortage response actions and their potential savings, please refer to Table 1-3.

¹ One stage in the Water Shortage Contingency Plan must address a water shortage of greater than 50%.

NOTE: Percent supply reduction is based upon Morro Bay’s 2015 UWMP

CITY OF MORRO BAY SHORTAGE LEVEL	SUPPLY CONDITION/SHORTAGE	STANDARD WSCP LEVEL	PERCENT SHORTAGE LEVEL
1	Normal Water Supply Conditions (<5%)	1	<10%
2	Moderately Restricted Water Supply Conditions (5-15%)	2	10-20%
3	Severely Restricted Water Supply Conditions (15-25%)	3	20-30%
4	Critical Water Supply Conditions (25-50%)	4	30-40%
5	Emergency Water Supply Conditions (>50%)	5	40-50%
		6	>50%

Figure 1-2: Water Shortage Levels Crosswalk

1.4 Shortage Response Actions

This section is in accordance with CWC Section 10632(a)(4) and 10632.5(a) and describes the response actions that may be implemented or considered for each level with emphasis to minimize social and economic impacts to the community. The City expects to mitigate supply shortages through a variety of response actions including demand reduction actions, supply augmentation, operational changes, and mandatory prohibitions.

This WSCP identifies various actions to be considered by the City during water shortage conditions. In the event of a water shortage, the City will evaluate the cause of the shortage to help inform which response actions should be implemented. Depending on the nature of the water shortage, the City can elect to implement a combination of response actions to mitigate the shortage and reduce gaps between supply and demand. It should be noted that all actions listed for Level 1 apply to Level 2, 3, 4, and 5. Likewise, Level 2 actions apply to Levels 3, 4, and 5, Level 3 actions apply to Level 4 and 5, and Level 4 actions apply to Level 5. If necessary, the City may enact additional actions that are not listed in this WSCP. The following section discusses the potential response actions for each of the City’s five water supply shortage levels.

1.4.1 Demand Reduction

In order to reduce water demands during water shortage periods, the City Council can declare an emergency by resolution and thereby authorize the implementation of the WSCP as outlined in the municipal code. The resolution declares which of the five stages is enacted. The actions to be undertaken during each stage include, but are not limited to, the following:

Stage 1 Normal Water Supply Conditions - The demand reduction actions for this stage include:

- Outdoor water use for washing vehicles, boats, paved surfaces, buildings or other similar uses shall be attended and have hand-controlled water devices, typically including spring-loaded shutoff nozzles.
- Outdoor irrigation resulting in excessive gutter runoff is prohibited.
- Marinas and waterfront installations: all hoses shall have spring-loaded shutoff nozzles or similar controlling devices.
- Restaurants shall serve drinking water only in response to a specific request by the customer.

- Newly planted landscaping or newly seeded lawns installed prior to the date these mandatory conservation requirements are imposed may be temporarily exempted from the provisions of subsection A2 of the City's 13.04.345 Mandatory Water Conservation Requirements; provided, the owner/tenant establishes documentation satisfactory to the city conclusively proving the planting date. Any temporary exemption shall expire when the planting is sufficiently established to survive without excessive gutter runoff. All other conservation measures remain applicable during the temporary exemption.

Stage 2 Moderately Restricted Water Supply Conditions - Stage 2 includes actions undertaken in Stage 1. The demand reduction actions for this stage include:

- No water shall be used for cleaning driveways, patios parking lots, sidewalks, streets, or other such uses except where necessary to protect the public health or safety.
- Outdoor Irrigation.
 - Outdoor irrigation is prohibited between the hours of ten a.m. and four p.m.
 - All consumers are directed to use no more water than necessary to maintain landscaping.
- Restaurants shall serve drinking water only in response to a specific request by a customer.
- Newly planted landscaping or newly seeded lawns installed prior to the date these mandatory conservation requirements are imposed may be temporarily exempted from the provisions of subsection B1 of the City's 13.04.345 Mandatory Water Conservation Requirements; provided, the owner/tenant establishes documentation satisfactory to the city conclusively proving the planting date. Any temporary exemption shall expire when the planting is sufficiently established to survive without excessive gutter runoff. All other conservation measures remain applicable during the temporary exemption.

Stage 3 Severely Restricted Water Supply Conditions - Stage 3 includes all steps taken in prior stages regarding allotments and mandatory conservation rules. The demand reduction actions for this stage include:

- Outdoor Water Use (Except Irrigation).
 - Washing cars by use of a hose is prohibited. Use of a bucket is permitted subject to non-wasteful applications.
- Outdoor Irrigation.
 - Irrigation of private and public landscaping, turf areas, and gardens is permitted at even-numbered addresses only on Wednesdays and Sundays, and at odd-numbered addresses only on Tuesdays and Saturdays. All consumers are directed to use no more water than necessary to maintain landscaping.
 - Newly planted landscaping or newly seeded lawns installed prior to the date these mandatory conservation requirements are imposed may be temporarily exempted from the provisions of subsection (C)(2)(b) of the City's 13.04.345 Mandatory Water Conservation Requirements; provided, the owner/tenant establishes documentation satisfactory to the city conclusively proving the planting date. Any temporary exemption shall expire when the planting is sufficiently established to survive with twice per week watering. All other conservation measures remain applicable during the temporary exemption.
- Marinas and Waterfront Installations.
 - Use of fresh water to wash down boats, docks, or other incidental activities is prohibited.

- Emptying and refilling of swimming pools and commercial spas is prohibited except to prevent structural damage and/or to comply with public health regulations.
- Use of potable water for compaction or dust control purposes in construction activities is prohibited.
- Any dysfunctional water fixtures in public or commercial facilities shall be repaired within three days of receipt of notification by the city.
- All visitor-serving facilities in the city shall prominently display these mandatory water conservation requirements for the benefit and education of visitors to the community. Such display shall be done in a permanent vandal-resistant manner. Visitor-serving facilities shall include, but not be limited to, all motels, restaurants, campgrounds, recreational vehicle parks, mobile home parks, service stations, public restrooms, etc. The owners or managers of such facilities shall distribute to all customers a printed handout or flyer describing these mandatory water conservation requirements. Such handouts or flyers shall be provided to the owners or managers of such facilities by the city free of charge.

Stage 4 Critical Water Supply Conditions - Stage 4 includes all steps taken in prior stages regarding allotments and mandatory conservation. The demand reduction actions for this stage include:

- Outdoor Water Use (Except Irrigation).
 - Washing cars by use of a hose is prohibited. Use of a bucket is permitted subject to non-wasteful applications.
- Outdoor Irrigation.
 - Irrigation of private and public landscaping, turf areas, and gardens is permitted at even-numbered addresses only on Wednesdays and Sundays, and at odd-numbered addresses only on Tuesdays and Saturdays. All consumers are directed to use no more water than necessary to maintain landscaping.
 - Newly planted landscaping or newly seeded lawns installed prior to the date these mandatory conservation requirements are imposed may be temporarily exempted from the provisions of subsection (C)(2)(b) of the City's 13.04.345 Mandatory Water Conservation Requirements; provided, the owner/tenant establishes documentation satisfactory to the city conclusively proving the planting date. Any temporary exemption shall expire when the planting is sufficiently established to survive with twice per week watering. All other conservation measures remain applicable during the temporary exemption.

Stage 5 Emergency Water Supply Conditions - Stage 5 includes all steps taken in prior stages regarding allotments and mandatory conservation. The demand reduction actions for this stage include:

- The City Council may impose water-rationing requirements as it deems appropriate with Sections 13.04.330 and 13.04.340.

In the event of a water supply shortage, the City may implement voluntary and mandatory compliance measures to induce water conservation. The City's Municipal Code 13.04.345 includes prohibitions on various wasteful water uses during a declared water supply shortage (**Appendix I**). Additionally, the City may choose to utilize measures that are listed in **Table 1-4** at various shortage levels.

Although it is difficult to estimate the volume of savings for each action, the City expects to meet required reductions through a combination of response actions in conjunction with outreach and communication efforts to the extent necessary to mitigate any impacts from a water shortage. The

estimated water savings potential summarized in **Table 1-3** and **Table 1-4** represent a range from published industry references.

Table 1-3. Estimated Savings by Shortage Level

LEVEL	SUPPLY CONDITION/SHORTAGE, %	NORMAL SUPPLY, AF	REQUIRED SAVINGS ¹ , AF	ESTIMATED SAVINGS FROM QUANTIFIABLE ACTIONS ² , AF	ESTIMATED SAVINGS FROM UNQUANTIFIABLE ACTIONS, AF
1	<5%	1,090	55	1	54
2	5-15%	1,090	164	3	161
3	15-25%	1,090	273	348	166
4	25-50%	1,090	545	374	171
5	>50%	1,090	556	374	182

¹ Required savings may be met through a combination of quantifiable and unquantifiable actions. The City will only implement measures to the extent necessary to mitigate a water shortage, although estimates may indicate a greater savings is obtainable. It is anticipated that required savings will be met through quantifiable shortage response actions and through other unquantifiable actions, including outreach efforts.

² Quantifiable savings are estimated based on various published sources and are provided as a guide. The degree of implementation of actions can vary in each stage and can result in a wide range of savings. For a list of all the City’s specific shortage response actions and their maximum potential savings, refer to Table 1-4.

Table 1-4. DWR 8-3 Demand Reduction Actions

SHORTAGE LEVEL	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE	PENALTY, CHARGE, OR OTHER ENFORCEMENT
1	Expand Public Information Campaign			No
1	Provide Rebates on Plumbing Fixtures and Devices			No
1	Provide Rebates for Landscape Irrigation Efficiency			No
1	Provide Rebates for Turf Replacement			No
1	Other - Require automatic shut of hoses			Yes
1	CII - Restaurants may only serve water upon request	1 AFY		Yes
1	Landscape - Restrict or prohibit runoff from landscape irrigation			Yes
2	Landscape - Limit landscape irrigation to specific times	2 AFY	Watering shall not take place between the hours of 10:00 am and 4:00 pm	Yes
2	Other - Prohibit use of potable water for washing hard surfaces			Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water			Yes
3	Other - Prohibit use of potable water for construction and dust control	2 AFY		Yes
3	Other water feature or swimming pool restriction		Draining of pools or refilling shall be done only for health or safety reasons.	Yes
3	Landscape - Limit landscape irrigation to specific days	266 AFY		Yes
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	77 AFY	Expeditious leak repair (within 72 hrs)	Yes
4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	26 AFY	Expeditious leak repair (within 24 hrs)	Yes
4	Implement or Modify Drought Rate Structure or Surcharge			Yes
5	Implement or Modify Drought Rate Structure or Surcharge			Yes

1.4.2 Supply Augmentation

Given the City's sufficient supply, the City has no immediate plan to augment supply in response to shortages. During dry years, the City can utilize stored SWP from the San Luis Reservoir as available or extract additional groundwater as needed while abiding by any safe yield restrictions on the basin.

1.4.3 Operational Changes

During shortage conditions, operations may be affected by demand reduction responses. Operational changes to address a short-term water shortage may be implemented based on the severity of the reduction goal. The City will maximize its groundwater supply by implementing operational strategies and demand reduction measures. As part of the Annual Assessment process, the City will consider their operational procedures at the time of a shortage to identify changes that can be implemented to address water shortage on a short-term basis, include but not limited to:

- Expansion of public information campaign to educate and inform customers of the water shortage emergency and required water savings
- Water conservation newsletter and water conservation webpage both include updated water information, water conservation tips, information about water conservation programs by the City and other agencies.
- Specify the days and/or hours during which water users may irrigate;
- Require users to supply their own drinking and cooking water;
- Hold all customers to specified maximum usages of water for each category of users;
- Take any other action which the City Council deems necessary to protect the public health or safety, prevent contamination of wells or other sources of water, or ensure an adequate water supply;
- Improve the efficiency of groundwater nitrate treatment by blending and/or matching the well supply to the input capabilities of the RO system by fine tuning the pump output with the installation of SCADA or installing a day tank ahead of the WTF.

1.4.4 Additional Mandatory Restrictions

In addition to the mandatory conservation and rationing measures imposed in Stages 1 through 5, the City Council and the Public Works Director are authorized to take further actions including:

- Limit irrigation to specified hours, or prohibit irrigation;
- Prohibit the filling or refilling of swimming pools, hot tubs or spas.
- Outdoor irrigation resulting in excessive runoff is prohibited
- Using potable water for street washing is prohibited
- Any use which results in excessive gutter runoff is prohibited
- Washing boats, marinas, buildings and outdoor paved areas is prohibited
- Emptying and refilling swimming pools and commercial spas is prohibited
- The use of potable water for compaction, dust control and construction purposes is prohibited
- Any water use that results in gutter runoff is prohibited

1.4.5 Emergency Response Plan

In 2021, the City will complete a Risk and Resilience Assessment (RRA) and Emergency Response Plan (ERP) in accordance with America's Water Infrastructure Act (AWIA) of 2018. The purpose of the RRA and ERP is to meet the AWIA compliance requirements and plan for long-term resilience of the City's infrastructure. The RRA will assess the City's water system to identify critical assets and processes that may be vulnerable to human and natural hazards, and to identify measures that can be taken to reduce risk and enhance resilience from service disruption for the benefit of customers. The RRA identifies and characterizes both infrastructure-specific and system-wide vulnerabilities and threats and quantifies the consequences of disruption. The RRA also identifies various options (and constraints) in addressing and mitigating risk. The RRA, in conjunction with the ERP, charts a course for water system resilience. The RRA also provided various recommendations to increase reliability of the City's system. Since critical pieces of infrastructure and specific vulnerabilities are detailed in the RRA and ERP, the contents of the document are confidential and for use by the City's staff only. However, the City can confirm that these plans meet the requirements set forth by AWIA and evaluate seismic risks and mitigation actions to the City's infrastructure.

In the event of a water shortage emergency resulting from equipment failure, power outage, or other catastrophe the City may implement its five-stage plan for conservation, as described above, with either voluntary or mandatory reductions depending on the severity of the shortage. For severe disasters (Stage 5), mandatory water use reductions are specified.

A catastrophic supply interruption can occur when the City loses one or more of its main water supplies. The likelihood of experiencing a simultaneous loss of more than one supply is low. For instance, local power outages may limit use of groundwater, but the City has stand-by emergency generators to assist in times of short-term power outages. If the available supply is insufficient to meet the demand and water quality requirements, an emergency notification will be sent to all water customers, to inform them of the condition. The message will include the expected duration of the condition, and restrictions on water use for the duration of the condition. Additional actions which The City will implement during a catastrophic interruption of water supply due to an earthquake are outlined below:

- Assess the condition of the water supply system. Arrange to provide emergency water (e.g., use of groundwater supplies in the event of non-availability of the SWP water).
- Identify priorities including hospitals, schools, and other emergency operation centers.
- Complete the damage assessment checklist for reservoirs, water treatment plants, wells and boosters, system transmission and distribution.
- Coordinate with fire district to identify immediate firefighting needs.
- Determine any health hazard of the water supply and issue any notification to the customers, if necessary.
- Make arrangements to conduct bacteriological tests, in order to determine possible contamination.

1.4.6 Seismic Risk Assessment and Mitigation Plan

Disasters, such as earthquakes, can and will occur without notice. Refer to the 2019 San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan (**Appendix J**) Section 5.3.10 for Seismic Risk Assessment and Section 7 for Mitigation Plan procedures.

1.4.7 Shortage Response Action Effectiveness

The City determines the actual reduction in water use through metering. Data from production meters and from customer usage meters is used to analyze the water conservation impacts during shortages. Additionally, customers can track their usage as recorded on their monthly water bill.

Additionally, the City tracks actual reductions in water use based on the water shortage contingency analysis, by monitoring system demands at each of the City's five water tank sites using the Supervisory Control and Data Acquisition (SCADA) system. The SCADA system tracks current production as well as tank levels giving information on demands. Water use analysis can be performed on a daily and/or weekly basis depending on monitoring needs, and customer usage is analyzed monthly.

Estimates of the effectiveness for actions have been included in **Table 1-3**. It is assumed that a given required shortage to be addressed in each level can be met by quantifiable measures and the remainder of shortage can be addressed by unquantifiable measures, both from **Table 1-4**, operations changes and additional mandatory restrictions. It is expected that response actions effectiveness is also a result of successful communication and outreach efforts.

1.5 Communication Protocols

This section is in accordance with CWC Section 10632(a)(5) and describes the communication protocols and procedures to inform customers, the public, and state and local officials of any current or predicted water shortages. When a shortage level is enacted or changed, a notice is sent to all water customers in their water bill and the City's website updated. Based on the severity of the shortage condition, the City may also advertise on the local Channel 20 what the shortage conditions are and ways to save water. The city website contains various brochures and links to ways water customers can conserve water indoors and outdoors. When the City moves to severely restricted water supply notices are provided containing the mandatory water restrictions to all visitor serving facilities. The notice is to be displayed by the facility in a prominent area to educate Morro Bays visitors. The city has an active Facebook and Nextdoor account and will provide water conservation messaging as deemed necessary.

1.6 Compliance and Enforcement

The City's WSCP enforces prohibitions and assesses penalties for prohibited water use violation as described below:

- If customer violates irrigation restrictions, the City shall turn off the customer's water after giving written notice to the customer;
- If customer flagrantly wastes water, the City shall turn off the customer's water after giving written notice to the customer;
- If customer fails to repair leaks within three days of notification, the City shall turn off the customer's water after giving written notice to the customer;
- If limits to maximum usages of water are set and a customer violates that use, the customer may be assessed a penalty of \$3 per hundred cubic feet (hcf) of water used over the maximum.

1.7 Legal Authorities

The City's WSCP is found in the City's municipal code of ordinances within Chapter 13.04 Water Service and Rates. Within Chapter 13.04, Section VII Emergencies includes the four subsections which comprise the City's WSCP. The WSCP's four subsections are detailed as:

- Section 13.04.320 Determination of low water levels - Grants the City Council authority to declare when a low water level condition exists.
- Section 13.04.330 Council water conservation powers - Identifies the water conservation powers of the City Council when it is deemed necessary to conserve water during low water level periods.
- Section 13.04.340 Public works director powers - Identifies the legal authority of the Public Works Director to enforce water conservation measures if the City Council adopts a resolution declaring a low water level or water system emergency.
- Section 13.04.345 Mandatory water conservation requirements - Identifies the mandatory water conservation requirements for the five increasing levels, or stages, of conservation as the City's water supplies are reduced during drought conditions.

Under State law, the City is authorized after declaration of a water shortage emergency to restrict the water uses and to prohibit the waste or use of the City's water during such periods for any purpose other than domestic use, sanitation, fire protection or such other uses as may be determined by the City Council.

The City shall coordinate with San Louis Obispo 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.

1.8 Financial Consequences of WSCP

The majority of the operating costs for most water agencies are fixed rather than a function of the amount of water sold. As a result, when significant conservation programs are undertaken, it is frequently necessary to raise water rates because the revenue generated is based on lower total consumption while the revenue required is basically fixed. In order to counteract the financial impact of conservation, the City may institute Water Shortage Emergency Rates so that lower projected water consumption would generate added revenue needed by the City.

The Water Shortage Emergency Rates are designed to help the water enterprise remain financially stable during periods of emergency water shortages and reduced water sales. In 2015, the City Council held a public hearing and approved Resolution No. 30-15, which adopts water rate increases and establishes Water Shortage Emergency Rates.

The Water Shortage Emergency Rates help the City remain financially stable during periods of emergency water shortages and reduced water sales. These rates apply to metered water use. Pursuant to California law, any applied Water Shortage Emergency Rates will not exceed the City's cost of providing service. The City only implements Water Shortage Emergency Rates, as needed, to support financial stability under a more-severe Stage 4 or Stage 5 water shortage emergency.

The City is also required, by agreement with Central Coast Water Authority, to maintain a financial reserve of 25 percent of annual operating costs. There is no specific City policy authorizing the use of such reserves for drought-related financial shortfalls.

In the event Water Division funds were significantly affected by drought-related shortfalls, capital projects could be delayed or an internal service loan from either the General Fund or Wastewater Fund could be implemented. Internal service loan(s) would require Council approval.

1.9 Monitoring and Reporting

This section is in accordance with CWC Section 10632(a)(9) and describes the reporting requirements and monitoring procedures to implement the WSCP and track and evaluate the response actions effectiveness.

As described in **Section 1.2**, the City intends to track its supplies and project demands on an annual basis, and if supply conditions described in **Table 1-2** are projected, the City will enact their WSCP. Monitoring demands is essential to ensure the WSCP response actions are adequately meeting reductions and decreasing the supply/demand gap. This will help to analyze the effectiveness of the WSCP or identify the need to activate additional response actions.

The water savings from implementation of the WSCP will be determined based on monthly production reports which will be compared to the supply from prior months, the same period of the prior year, and/or the allocation. At first, the cumulative consumption for the various sectors (e.g., residential, commercial, etc.) will be evaluated for reaching the target demand reduction level. Then, if needed, individual accounts will be monitored. Weather and other possible influences may be accounted for in the evaluation.

1.10 WSCP Refinement Procedures

This section is consistent with CWC Section 10632 (a)(10). The WSCP is best prepared and implemented as an adaptive management plan. The City will use results obtained from monitoring and reporting procedures (described in **Section 1.9**) to evaluate any needs for revisions. The WSCP is used to provide guidance to the Council, staff, and the public by identifying response actions to allow for efficient management of any water shortage with predictability and accountability.

To maintain a useful and efficient standard of practice in water shortage conditions, the requirements, criteria, and response actions need to be continually evaluated and improved upon to ensure that its shortage risk tolerance is adequate, and the shortage response actions are effective and up to date based on lessons learned from implementing the WSCP. Potential changes to the WSCP that would warrant an update include, but are not limited to, any changes to shortage level triggers, changes to the shortage level structure, and/or changes to the response actions. Any prospective changes to the WSCP would need to be presented at a public hearing, staff would obtain any comments and City Council would adopt the updated WSCP. The steps to formally amend the WSCP are discussed in **Section 1.12**.

Potential refinements will be documented and integrated in the next WSCP update. If new response actions are identified by staff or public, these could be advertised as voluntary actions until these are formally adopted as mandatory.

1.11 Special Water Feature Distinction

The CWC Section 10623 (b) now requires that suppliers analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code. Non-pool or non-spa water features may use or be able to use recycled water, whereas pools

and spas must use potable water for health and safety considerations so limitations to pools and spas may require different considerations compared to non-pool or non-spa water features.

1.12 Plan Adoption, Submittal, and Availability

This section was completed pursuant to CWC Section 10632(a)(c). Because the WSCP is a standalone document that can be updated as needed.

This 2020 WSCP was presented for adoption to the City Council at the October 12, 2021 Council meeting. Notifications were sent to all necessary Cities, Counties, and Districts 60 days prior to the October 12, 2021 public board meeting. To comply with the notice to the public, the City published notices in the local newspaper two weeks in advance with 5 days between publications. Copies of the 60-day notices and public hearing newspaper notices are provided in **Appendix B**. The WSCP was also made available in advance of the public hearing.

The WSCP was formally adopted on October 12, 2021 by the City Council through Resolution 67-21, included as **Attachment 1**. The WSCP was made available to all staff, customers, and any affected cities, counties, or other members of the public at the City and online within 30 days of the adoption date.

1.13 Resources and References

American Water Works Association (AWWA). (2019). *Manual of Water Supply Practices, Drought Preparedness and Response*.

Department of Water Resources. (2020). *Urban Water Management Plan Guidebook 2020*.

Water Systems Consulting Inc. (August 2021). *City of Morro Bay 2020 UWMP*.

Attachment 1: Adoption Resolution

RESOLUTION NO. 67-21

**RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF MORRO BAY, CALIFORNIA
ADOPTING THE WATER SHORTAGE CONTINGENCY PLAN**

**THE CITY COUNCIL
City of Morro Bay, California**

WHEREAS, the California Urban Water Management Planning Act, Water Code Section 10610 et seq. (the Act), mandates that every urban supplier of water providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan (UWMP); and

WHEREAS, as part of the UWMP, Water Code section 10632 requires urban water suppliers to prepare and adopt a Water Shortage Contingency Plan (WSCP); and

WHEREAS, the City of Morro Bay meets the Act's definition of an urban retail water supplier required to submit an UWMP and WSCP; and

WHEREAS, a WSCP is a standalone document that is created separately from the UWMP and included as part of the UWMP; and

WHEREAS, on August 9, 2021, the City of Morro Bay issued a notice of preparation of the Draft 2020 UWMP and WSCP for review and comment; and

WHEREAS, on September 28, 2021 the City of Morro Bay issued a notice of public hearing and availability of the Draft 2020 UWMP and WSCP for review and comment; and

WHEREAS, on October 12, 2021 the Morro Bay City Council conducted a public hearing pursuant to California Water Code sections 10642 and 10608.26 to consider and receive input on the Draft 2020 UWMP and WSCP; and

WHEREAS, all prerequisites to adoption of the WSCP have occurred.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Morro Bay, California:

1. The facts set forth in the Recitals are true and correct.
2. The City hereby adopts the 2020 WSCP www.morrobayca.gov/WSCP , for the City of Morro Bay and authorizes it to be filed with the California Department of Water Resources.
3. The Council finds and determines that, under the California Water Code Section 10652, the adoption of the WSCP and this resolution does not constitute a project under the California Environmental Quality Act.
4. The City Clerk is directed to file a certified copy of the attached WSCP with the California State Department of Water Resources and take all other necessary further administrative action for adoption of the WSCP.

5. This resolution shall take effect immediately upon its adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Morro Bay at a regular meeting thereof held on the 12th day of October 2021 by the following vote:

AYES: Headding, Addis, Barton, Ford, Heller
NOES: None
ABSENT: None



A handwritten signature in black ink, consisting of several loops and a vertical stroke, positioned above a horizontal line.

JOHN HEADDING, Mayor

ATTEST:



A handwritten signature in blue ink, appearing to read 'Dana Swanson', positioned above a horizontal line.

DANA SWANSON, City Clerk