8 Water Shortage Contingency Plan

CWC 10632(a)

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

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

(2) The procedures used in conducting an annual water supply and demand assessment…

(3) 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…

(4) Shortage response actions that align with the defined shortage levels…

(5) Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments…

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

(7) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4)…

(8) A description of the financial consequences of, and responses for, drought conditions…

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

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

The WSCP presents VWD's contingency plan to address drought planning, water shortage response levels and actions, and management of water allocations during a declared water emergency. The WSCP will be re-evaluated at least every five years in coordination with the UWMP but could be updated more frequently based on lessons learned, new regulatory requirements, or other factors. The VWD WSCP can be found in Appendix G to this UWMP.

8.1 Annual Water Supply and Demand Assessment

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.

The new CWC Section 10632(1) requires that urban water suppliers conduct an annual water supply and demand assessment (Annual Assessment), beginning July 1, 2022. The WSCP describes the procedures used to 1) conduct the Annual Assessment, and 2) prepare and submit an Annual Assessment Report to the state. In addition, the WSCP outlines key inputs to conduct the Annual Assessment, the decision-making process for determining water supply reliability, and the ability/flexibility for VWD to use shortage response actions not included in the WSCP, as applicable.

The VWD Board of Directors, in accordance with the provisions of the CWC, will determine if a supply shortage exists and declare any foreseen water shortage level based on the results of the Annual Assessment, which will then be included in the Annual Assessment Report submitted to the state. The evaluation is conducted to determine if a shortage declaration is needed, and at what level. The Annual Assessment Report will document any anticipated shortage, any triggered shortage response actions, associated compliance and enforcement actions, and communication actions. More information on shortage response actions is included in Section 8.3, Shortage Response Actions. Reasonable alternative actions can be used to address identified water shortages, provided that descriptions of alternative actions are submitted with the Annual Assessment Report.

8.2 Water Shortage Levels

All water agencies are required to administer a strategy – an adopted ordinance or terms of service – to meet water waste prevention. For compliance, VWD had adopted Ordinances No. 162 and No. 195, which are included in Appendix H. O Ordinances No. 162 and 195 established regulations to be implemented during times of declared water shortages or emergencies to conserve water. This VWD WSCP, developed as part of the 2020 UWMP process, redefined and updated the reduction goals to establish six levels of drought response. Table 8-1 presents the shortage levels and corresponding actions to be implemented in times of shortage or emergency, with increasing restriction on water use in response to worsening drought or emergency conditions and decreasing available supplies.

Table 8-1. Water Shortage Levels

Water Shortage Level	Percent Reduction
Stage 1: Standard Operating Condition	10
Stage 2: Drought Watch Condition	20
Stage 3: Board Declared Emergency Action	30
Stage 4: Drought Critical Condition	40
Stage 5: State and Board Declared Extreme Emergency Action	50
Stage 6: State and Board Declared Extreme Emergency Action	> 50

8.3 Shortage Response Actions

Shortage response actions included in this WSCP are a mix of prohibitions on end use, consumption reduction methods, supply augmentation, and operational change measures. Table 8-2 provides a summary of voluntary and mandatory prohibitions and consumption reduction methods that are implemented within the VWD service area to meet mandated water use restrictions. Customers can select the specific water conservation measures/actions that are most appropriate for their setting; however, customers must abide by water waste prohibitions, water use reductions are mandatory, and monetary penalties may be levied on customers who do not meet reduction goals.

Table 8-2. Restrictions and Prohibitions on End Users

Shortage Level	Restrictions and Prohibitions on End Users	Penalty, Charge, or Other Enforcement?
2-6	Landscape - Restrict or prohibit runoff from landscape irrigation	Yes
2-6	Landscape - Limit landscape irrigation to specific times	Yes
2-6	Landscape - Limit landscape irrigation to specific days	Yes
2-6	Landscape - Prohibit certain types of landscape irrigation	Yes
2-6	Landscape - Prohibit irrigation 48 hours after rain	Yes
2-6	Landscape - Other landscape restriction or prohibition	Yes
2-6	CII - Lodging establishment must offer opt out of linen service	Yes
1-6	CII - Restaurants may only serve water upon request	Yes
2-6	Water Features - Restrict water use for decorative water features, such as fountains	Yes
2-6	Other water feature or swimming pool restriction	Yes
2-6	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Yes
2-6	Other - Require automatic shut of hoses	Yes
2-6	Other - Prohibit use of potable water for construction and dust control	Yes
2-6	Other - Prohibit use of potable water for washing hard surfaces	Yes
2-6	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Yes

Note:
CII = Commercial, industrial, and institutional

8.4 Drought Response Plan

VWD's established drought levels are explained in the following sections. Table 8-1 provides a summary of VWD's drought response levels, which align with the SDCWA model drought response plan.

- **Level 1 – Drought Watch:** With this alert, VWD will increase public outreach and take action to encourage voluntary conservation practices.
- **Level 2 – Drought Alert:** With this alert, VWD will implement mandatory conservation practices to reduce water use by up to 20 percent. These practices include limiting landscape irrigation and repairing leaks within 5 days of notification.
- **Level 3 – Drought Alert:** With this alert, VWD will implement mandatory conservation practices to reduce water use by up to 30 percent. These practices include additional limitations on landscape irrigation and repairing leaks within 4 days of notification.
- **Level 4 – Drought Critical:** With this alert, VWD will implement mandatory conservation practices to reduce water use by up to 40 percent. Additional conservation practices include the prohibition of filling pools or fountains and washing vehicles and require repair of leaks within 72 hours of notification. With minor exceptions, no new potable water annexations will be allowed during a Level 4 Drought condition.
- **Level 5 – Drought Critical:** With this alert, VWD will implement mandatory conservation practices to reduce water use by up to 50 percent. Additional conservation practices include prohibition on outdoor landscape irrigation, the prohibition of filling pools or fountains and washing vehicles and require repair of leaks within 48 hours of notification. With minor exceptions, no new potable water services will be allowed during a Level 5 drought condition.
- **Level 6 – Drought Emergency:** With this alert, VWD will implement mandatory conservation practices to reduce water use above 50 percent for VWD to have adequate supplies to meet anticipated demands. Additional conservation practices include prohibited landscape irrigation, excluding commercial growers or nurseries, and the repair of leaks within 24 hours of notification.

8.5 Penalties and Charges

The VWD takes progressive action when responding to water waste prohibitions. Violators are typically contacted first by phone and given an opportunity to voluntarily comply. Ongoing water wasters are subsequently sent a Notice of Violation, followed by a fine. Administrative fines can be levied for each violation of a provision of the ordinances as follows:

- First violation: $100 fine
- Second violation: $200 fine if it occurred within 1 year of the prior violation.
- Each additional violation: $500 fine if it occurred within 1 year of the prior violation.

- Enforcement for further violations increases in severity and may include installation of a flow-restricting device in the meter, imprisonment, a fine up to $1,000, and/or discontinuing service to the property where the violation occurred.

Additionally, VWD will initiate drought patrols, if enacted by the Governor's Executive Order.

8.6 Determining Water Shortage Reductions

Currently the VWD is using the SWRCB emergency regulation method to measure and determine actual water savings made from implementing the WSCP. The SWRCB uses 2013 water production data and requires water agencies to report monthly water production as compared to 2013. The VWD has maintained a 25 percent reduction as compared to 2013.

The section below includes consumption reduction methods implemented by the VWD.

- **Expand Public Information Campaign** – enlarge media campaign; create bill envelope snipes and inserts with conservation information; articles submitted to local newspapers; conduct water efficiency workshops for different customer sectors.
- **Offer Water Use Surveys** – actively reach out to high water users to offer water use surveys.
- **Provide Rebates or Giveaways of Plumbing Fixtures and Devices** – as offered by the MWD, issue free rain barrels.
- **Provide Rebates for Landscape Irrigation Efficiency** – as offered by the MWD.
- **Increase Water Waste Patrols** – implement Water Waste Patrols.
- **Other** – Implement High User Response and Letters (HURL) Program targeting highest water users.

Table 8-3. Consumption Reduction Methods

Stage	Consumption Reduction Methods by Water Supplier	Additional Explanation or Reference
1-6	Expand Public Information Campaign	As part of ordinances, but also to meet Governor's mandate.
1-6	Offer Water Use Surveys	Available at all times.
1-6	Provide Rebates on Plumbing Fixtures and Devices	Available at all times.
1-6	Provide Rebates for Landscape Irrigation Efficiency	Available at all times.
2-6	Increase Water Waste Patrols	Implemented after Governor's mandate.
4-6	Moratorium or Net Zero Demand Increase on Annexations or New Connections	Would be invoked at Level 4.
2-6	Implement or Modify Drought Rate Structure or Surcharge	Is available if District fails to meet reduction mandates.
2-6	Other	HURL Program.

8.7 Revenue and Expenditure Impacts

Implementation of the WSCP will reduce revenues from water sales, but not from fixed meter charges. VWD sets fixed meter charges, called Ready-To-Serve charges, to recover approximately 80 percent of VWD's fixed costs (repairs, replacement, maintenance, meter reading, billing, regulatory, safety, general and administrative, etc.). Reduced sales do not impact revenues from Ready-To-Serve charges. Fiscal impact from implementing WSCP is limited to water sales revenue, which is mostly offset from decreased water costs.

8.7.1 Drought Rate Structures and Surcharges

VWD's rate structure includes higher per unit (1 unit = 748 gallons) charges in tiers of higher use to encourage conservation. VWD may implement a drought rate structure when a Level 2 drought alert is declared. The drought rate structure has the ability to determine whether to impose additional tiers and higher rates in the higher tiers, escalating in correlation with the percentage of cutback from mandated supply reduction (i.e., the higher the supply reduction, the higher the rate.)

8.7.2 Use of Financial Reserves

VWD budgets water sales assuming compliance with any drought or supply restrictions whether encouraged through voluntary conservation or mandate. Funding for replacement reserves are planned for ceiling of those reserves and may be used for revenue short falls from conservation beyond the levels budgeted. Reserves that surpass favorable budget variances are transferred to rate stabilization funds.

8.7.3 Other Measures

During the budget and/or rate setting process, a revenue requirement is determined assuming conservation targets are achieved, and reserve levels are at their highest. Rates are recommended to achieve that revenue requirement; however, not before cost cutting measures and capital deferrals are considered to reduce the revenue requirement.

8.8 Catastrophic Supply Interruption Planning

A catastrophic water shortage occurs when a disaster, such as earthquake, results in insufficient available water to meet the region's needs or eliminates access to imported water supplies. For increased reliability, VWD subscribes to SDCWA's ICP and Emergency Storage Program (ESP). Both were developed to protect public health and safety and to potentially limit economic damage that could occur from a severe shortage of water supplies.

8.8.1 Integrated Contingency Plan

SDCWA's ICP provides information necessary to respond to an emergency that causes severe damage to SDCWA's water distribution system or impedes SDCWA's ability to provide reliable service to its member agencies. The ICP describes the situations and incidents that will trigger the activation of SDCWA's ICP and Emergency Operations

Center. It also provides direction and strategies for responding to a crisis. SDCWA's ICP includes:

- Authorities, policies, and procedures associated with emergency response activities.
- Emergency Operations Center activities, including activation and deactivation guidelines.
- Multi-agency and multi-jurisdictional coordination, particularly between SDCWA, its member agencies, and MWD in accordance with Standardized Emergency Management System and National Incident Management System guidelines.
- Incident Command System management and organization and emergency staffing required to assist in mitigating any significant emergency or disaster.
- Mutual Aid Agreement and covenants that outline the terms and conditions under which mutual aid assistance will be provided.
- Hazard-specific action plans and Incident Command System position checklists.

In addition, the plan uses a step-by-step approach to emergency response planning by providing tools such as resource and information lists, personnel rosters, pertinent policies and procedures, and reference materials.

Separate from the ICP, the District has a direct connection to the Claude "Bud" Lewis Desalination Plant in Carlsbad.

8.8.2 SDCWA Water Shortage and Drought Response Plan

SDCWA, in conjunction with its member agencies, developed a Water Shortage and Drought Response Plan (WSDRP) in 2006, which was subsequently updated in 2012, to guide water shortage and drought management activities in the event that the region faces supply shortages due to drought conditions. The goal of the WSDRP is to provide a balanced, flexible, systematic approach to identifying regional actions necessary to reduce the impacts that occur from water shortages. The WSDRP includes three stages: voluntary supply management, supply enhancement, and mandatory cutbacks. During each of the stages, SDCWA may implement voluntary or mandatory drought contingency measures to prepare and respond to drought conditions. The 2012 update to the WSDRP revised the regional supply allocation methodology for guiding decisions when normal demands cannot be met.

The WSDRP also includes provisions whereby SDCWA would implement and utilize supplies governed by the ESP during a prolonged drought or other water shortage situation where imported and local supplies do not meet 75 percent of the Water Authority's member agencies urban demands. The ESP is a system of reservoirs, pipelines, and other facilities designed to store and move water around the County of San Diego in the event of a natural disaster. A natural disaster, such as an earthquake, could potentially disrupt water service in San Diego, especially because the pipelines that carry imported water to San Diego County from Metropolitan cross several major fault lines on their way to San Diego County. The ESP was completed in late 2014, providing 90,100 AF of stored water for emergency purposes to meet the region's needs through at least 2045.

8.9 Plan Adoption and Submittal

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.

A public hearing, conducted by the VWD, was held on June 2, 2021, as a video conference. Members of the public were able to participate via a webinar link or telephone connection to listen and/or view the meeting proceedings and provide public comments and input on the draft WSCP. Following adoption of the WSCP, VWD will submit the plan to DWR and, no later than 30 days after filing the WSCP, VWD will make the WSCP available to the public.