



# **City of Poway**

## **Water Shortage Contingency Plan**

*Final*

**Prepared by:**



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## List of Abbreviations

|             |   |
|-------------|---|
| AF          | acre-feet   |
| AFY         | acre-feet per year  |
| AWIA        | American Water Infrastructure Act   |
| CII         | Commercial, Industrial, and Institutional   |
| City        | City of Poway   |
| CWC         | California Water Code   |
| DWR         | California Department of Water Resources  |
| ESP         | Emergency Storage Project   |
| MG          | million gallons   |
| MGD         | million gallons per day   |
| MHM Plan    | Multi-Hazard Mitigation Plan for San Diego County                                     |
| MWD<br>Plan | Metropolitan Water District of Southern California<br>Water Shortage Contingency Plan |
| PMC         | Poway Municipal Code  |
| Poway       | City of Poway   |
| SDCWA       | San Diego County Water Authority  |
| UWMP        | Urban Water Management Plan   |
| UWMP Act    | Urban Water Management Planning Act   |
| WSCP        | Water Shortage Contingency Plan   |
| WTP         | Water Treatment Plant   |

# Water Shortage Contingency Plan

## 1.1. Introduction

This Water Shortage Contingency Plan (WSCP or Plan) addresses water supply contingency planning and drought planning for the City of Poway (City or Poway). Poway currently obtains all of its potable water supply from the San Diego County Water Authority (SDCWA), which is expected to continue into the future. Therefore, the City's WSCP and its subsequent response actions are directly linked to SDCWA's water supply reliability.

It should be noted that the DWR requires water suppliers use their standardized submittal tables in the Plan. Some of the tables provided in this WSCP have titles that are designated by DWR to ensure compliance with Water Code Section 10644 (a)(2), which states "*The plan, or amendments to the plan, submitted to the department ... shall include any standardized forms, tables, or displays specified by the department*".

## Water Shortage Contingency Legislation

Poway's *Water Conservation Plan, Chapter 8.94* of the Poway Municipal Code (PMC), was adopted by the City Council on November 18, 2008, as Ordinance 682. Poway is creating this WSCP to supplement its *Water Conservation Plan* in order to comply with the new 2018 legislation that was adopted in response to the 2015 drought. This WSCP was adopted in May 2021.

Pursuant to the new 2018 legislation, water suppliers must address several requirements with prescriptive elements in their WSCPs, which include, but are not limited to:

- Describe key attributes and procedures for conducting an annual water supply reliability assessment;
- Adjust to six standard water shortage response levels (progressive ranges of 10%, 20%, 30%, 40%, 50%, and greater than 50% shortage) or crosswalk the six standard stages to the supplier's existing four stages;
- Quantify estimated water savings associated with each shortage response action;
- Describe communication protocols and public outreach measures;
- Identify monitoring and reporting procedures to track compliance; and
- Discuss methods to reevaluate and improve the WSCP.

The purpose of a WSCP is to establish water management requirements necessary to conserve water, enable effective water supply planning, and assure reasonable and beneficial use of water. The WSCP is also meant to prevent waste of water, unreasonable use of water, and unreasonable methods of water use. Additionally, the WSCP aims to assure adequate supplies of water are available to meet the needs of the public, and to further public health, safety, and welfare, while also recognizing that water is a scarce natural resource that requires careful management not only in times of drought, but at all times.

Poway's *Water Conservation Plan* identifies four levels of action in response to a water supply shortage (Levels 1 through 4). To meet the new WSCP requirement outlined above, Poway elected to crosswalk its existing four stages (or levels) of action with the six standard stages. Poway's *Water Conservation Plan* defines the water use efficiency measures that are applicable at all times to all

persons or businesses using City water, though these measures are not mandatory until Level 2 (or by separate, specific action of the Poway City Council at Level 1). Level 1 water conservation measures are voluntary and will be promoted through local and regional public education and awareness measures. During water conservation Levels 2 through 4, conservation measures and water-use restrictions are mandatory and become progressively restrictive in order to attain escalating conservation goals. Level 4 includes the City's strictest mandatory use restrictions to achieve a conservation target above 40%. Violations of the City's WSCP may be subject to administrative, civil, and criminal penalties and remedies as specified in the *Water Conservation Plan* and as provided elsewhere in the PMC.

The City's *Water Conservation Plan* specifies the procedural and administrative requirements for implementing a water shortage condition. Examples of situations that could trigger determination of a water shortage condition include:

- General water supply shortage;
- Limited capacity in the SDCWA's distribution facilities;
- Potential for a major failure of the supply or distribution facilities belonging to the Metropolitan Water District of Southern California (MWD), SDCWA, and/or the City; or
- Conditions prevailing in San Diego County that require available water resources be put to maximum beneficial use.

## 1.2. Annual Water Supply and Demand Assessment

Beginning in 2022, pursuant to the new requirements discussed in California Water Code (CWC) 10632.1, water suppliers will be required to submit a water supply and demand assessment report (Annual Assessment) to the Department of Water Resources (DWR) on or before July 1st of each year. The Annual Assessment will be used to evaluate short-term water supply reliability for the upcoming fiscal year. Poway's Annual Assessment will consider existing and projected water supply sources (including imported water from SDCWA), unconstrained customer demand, planned water use for the current year assuming that the following year will be dry, infrastructure capabilities and constraints, and any other local factors that may influence or disrupt water supplies. Because Poway obtains all of its potable water supply from the SDCWA, evaluation criteria and procedures for conducting Poway's Annual Assessment will be aligned with the criteria and procedures used for SDCWA's annual assessment. The City's timeline for developing its Annual Assessment is presented in **Table 1-1**.

**Table 1-1: Annual Assessment Process and Timeline**

| Time Frame   | Step  | Action   |
|--|-------|--|
| March - April  | 1(a)  | Poway estimates available local supplies.  |
|  | 1(b)  | Poway coordinates with SDCWA to gather necessary information for SDCWA to conduct its wholesaler assessment.                               |
| April - May  | 2(a)  | SDCWA announces member agency allocation determination for current year.   |
|  | 2(b)  | SDCWA determines carryover (and emergency storage apportionments if under emergency).  |
|  | 2(c)  | Poway conducts its Annual Assessment:  |
|  | (i)   | Poway determines total available supply – inclusive of imported water supply.  |
|  | (ii)  | Poway determines infrastructure constraints (including water quality conditions limiting local sources).                                   |
|  | (iii) | Poway determines expected demand for current year and one subsequent dry year, anticipated to be based on regional projections from SDCWA. |
| June   | (iv)  | Poway compares supply and demand and makes a determination of the water supply reliability.  |
|  | 3(a)  | Poway City Council reviews and approves Annual Assessment determination.   |
|  | 3(b)  | Poway coordinates with SDCWA on submittal of the report. Annual Assessment report to be submitted to the state by July 1.                  |
| NOTES: The process outlined above is provided as a guideline and may be modified based on conditions present during the evaluation period. |       |  |

Poway will perform its water supply and demand assessment annually in spring each year to assess short-term reliability for the upcoming fiscal year. Results of the analysis will be discussed in a report and presented to the City Council in June. If the analysis projects a supply deficit, the City Council will vote to determine the appropriate shortage response level and associated actions necessary to reduce demand to ensure adequate supply. Because the City purchases water from the SDCWA, the Annual Assessment will be conducted in coordination with the SDCWA’s annual assessment. As such, the timeline for conducting the City’s Annual Assessment is based on the SDCWA’s timeline.

### 1.3. Stages of Action

In 2008, SDCWA developed a Model Drought Response Conservation Program Ordinance for use by SDCWA Member Agencies. DWR’s *2008 Updated Urban Drought Guidebook* was used as a reference. SDCWA’s model drought ordinance is an appendix to its 2015 Urban Water Management Plan (UWMP). Poway used the 2008 SDCWA model ordinance to develop its *Water Conservation Plan*, which was first adopted by the Poway City Council on December 2, 2008 as *PMC Chapter 8.94*. The current version of *Chapter 8.94* is provided as an attachment to this WSCP. Poway’s ordinance identifies four water shortage response levels, which are described in detail below.

The *Water Conservation Plan* encourages efficient water use, discourages wasteful water use practices, and establishes water use efficiency measures. Water use efficiency measures apply on a voluntary basis at all times and are mandatory upon declaration of a Water Shortage Response Level 1, based on separate action by the City Council, and automatically remain mandatory with the declaration of a Response Level 2, 3, or 4. The water use efficiency measures that are encouraged at all times as listed in the PMC Section 8.94.040 are as follows:

- Do not wash down paved surfaces
- Do not allow water waste from inefficient landscape irrigation

- Irrigate residential and commercial landscapes before 10 a.m. and after 6 p.m. only
- Use a hand-held hose equipped with a positive shut-off nozzle or bucket for watering landscaped areas not irrigated by a landscape irrigation system
- Irrigate nursery and commercial grower’s products before 10 a.m. and after 6 p.m. only. Water is permitted at any time using a hand-held hose equipped with a positive shut-off nozzle or bucket
- Use only recirculated water to operate ornamental fountains
- Wash vehicles only using a hand-held hose equipped with a positive shut-off nozzle and a bucket, or a high pressure/low volume wash system
- Offer guests in hotels the option of not laundering towels and linens daily
- Do not use single-pass cooling equipment in new commercial applications
- Use a water recirculation system for commercial conveyor car washes and all new commercial laundry systems
- Run only fully loaded dishwashers and washing machines
- Repair all water leaks within five days of notification by the City of Poway
- Use recycled or non-potable water for construction purposes when available

**Table 1-2** presents the six standard water shortage response levels and connects them to the stages outlined in Poway’s *Water Conservation Plan*.

**Table 1-2: Stages of Water Shortage Contingency Plan**

| DWR Table 8-1: Retail - Stages of Water Shortage Contingency Plan |                          |                     |   |
|---|--------------------------|---------------------|---|
| Standard Level  | Percent Supply Reduction | Poway Level         | Shortage Response Actions   |
| Level 1   | up to 10%                | Level 1 (up to 10%) | Level 1 corresponds to Poway Level 1. Includes voluntary water shortage actions to achieve demand reductions, such as providing refills at restaurants and laundering at hotels upon request only.  |
| Level 2   | up to 20%                | Level 2 (up to 20%) | Level 2 corresponds to Poway Level 2. Mandates the voluntary actions included under Level 1 and includes additional measures focused on reducing outdoor water use such as limiting landscape irrigation for residential and commercial properties to a schedule, imposing time limits for lawn watering, and requiring covers for pools and spas.  |
| Level 3   | up to 30%                | Level 3 (up to 40%) | Level 3 corresponds to Poway Level 3. Includes mandatory Level 1 and 2 actions and additional actions focused on reducing outdoor water use such as further limiting landscape irrigation for residential and commercial properties, prohibiting emptying and refilling of swimming pools and spas, and prohibiting vehicle washing except at facilities using recycled or recirculating water. |
| Level 4   | up to 40%                | Level 3 (up to 40%) | Level 4 corresponds to Poway Level 3. Refer to the description provided for Level 3 above.  |

| DWR Table 8-1: Retail - Stages of Water Shortage Contingency Plan |                          |                     |   |
|---|--------------------------|---------------------|---|
| Standard Level  | Percent Supply Reduction | Poway Level         | Shortage Response Actions   |
| Level 5   | up to 50%                | Level 4 (above 40%) | Level 5 corresponds to Poway Level 4. Includes mandatory Level 1, 2, 3, and 4 actions and additional actions focused on reducing outdoor water use such as prohibiting all landscape irrigation (with exceptions for commercial growers, nurseries, and other listed uses). |
| Level 6   | above 50%                | Level 4 (above 40%) | Level 6 corresponds to Poway Level 4. Refer to the description provided for Level 5 above.  |

Each of Poway’s four shortage response levels are discussed in more detail below.

**Level 1 – Water Shortage Watch (up to 10% reduction)**

The City of Poway will enter into a Water Shortage Response Level 1 when SDCWA notifies its member agencies that a demand reduction of up to 10% is required due to water supply shortages resulting from drought in order to ensure sufficient supplies will be available to meet anticipated demands. The City Manager may declare a Level 1 condition upon a written determination of the existence of facts and circumstances supporting the determination. During a Water Shortage Response Level 1, the City of Poway will increase public outreach efforts to encourage the following voluntary water conservation measures:

- Reset irrigation clocks as necessary to water once per week in winter and not more than three times per week in summer.
- Add water to maintain the level of water in swimming pools and spas only when necessary. A pool cover shall be installed on all single-family residential pools and spas.
- Serve and refill water in restaurants only upon request.

Additionally, the water use efficiency measures in PMC Section 8.94.040, and additional measures under the Level 1 Response may become mandatory upon separate action by the City Council.

**Level 2 – Water Shortage Alert (up to 20% reduction)**

The City of Poway will enter into a Water Shortage Response Level 2 when SDCWA notifies its member agencies that a demand reduction of up to 20% is required due to water supply shortages resulting from drought in order to ensure sufficient supplies will be available to meet anticipated demands. The City Manager may declare a Level 2 Response, implementing mandatory water use restrictions, with ratification by the City Council by resolution. During a Water Shortage Response Level 2, all water conservation measures under PMC section 8.94.040, and under Level 1, become mandatory with the addition of the following measures:

- Landscape watering shall be conducted only in conformance with landscape watering schedules and restrictions for commercial and residential properties as approved by the City Manager.
- All leaks must be repaired within 72 hours of notification by the City of Poway.
- If the mandatory reduction level is less than 15 percent, ornamental fountains or similar water features shall not be operated for more than six hours per day. If the mandatory

reduction level is more than 15 percent, ornamental fountains shall not be operated unless reclaimed water is used.

- If the mandatory reduction level is less than 15 percent, pool covers shall be encouraged but not required. If the mandatory reduction level is more than 15 percent, pool covers will be required.

During a Level 2 condition, the City of Poway's City Council may establish a water allocation for property receiving water service from the City of Poway. Additionally, the City Council may implement a conservation rate structure designed to encourage water conservation.

### **Level 3 – Water Shortage Critical (up to 40% reduction)**

The City of Poway will enter into a Water Shortage Response Level 3 when SDCWA notifies its member agencies that a demand reduction of up to 40% is required due to water supply shortages resulting from drought in order to ensure sufficient supplies will be available to meet anticipated demands. The City Manager may declare a Level 3 Response with ratification by the City Council by resolution. During a Water Shortage Response Level 3, all water conservation measures under PMC Section 8.94.040, Level 1 and Level 2 are mandatory with the addition of the following mandatory measures:

- Landscape watering shall be conducted only in conformance with landscape watering schedules and restrictions for commercial and residential properties as approved by the City Manager.
- Vehicles shall not be washed except at commercial carwashes that recirculate water or by high pressure/low volume wash systems.
- Emptying and refilling of swimming pools and spas is prohibited.
- All leaks must be repaired within 48 hours of notification by the City of Poway.

Upon declaration of a Water Shortage Response Level 3 and by separate action of the City Council, the City of Poway may suspend consideration of annexation to its service area. The City Council may establish a water allocation for property receiving water service from the City of Poway and the City is authorized to implement a conservation rate structure, including penalties for using water in excess of set allocations. Additionally, the City can, by separate Council action, mandate that no new water service shall be provided, and no new meters will be installed.

### **Level 4 – Water Shortage Emergency (above 40% reduction)**

The City of Poway will enter into a Water Shortage Response Level 4 when SDCWA notifies its member agencies that a demand reduction greater than 40% is required due to water supply shortages resulting from drought in order to ensure sufficient supplies will be available to meet anticipated demands. The City of Poway may declare a Level 4 condition in the manner and on the grounds provided in CWC Section 350. All conservation measures under Levels 1-3 must be adhered to with the addition of the following measures:

- All landscape irrigation is prohibited with the exception of crops and landscape products of commercial growers and nurseries.
- All leaks must be repaired within 24 hours of notification by the City of Poway.

Upon declaration of a water shortage emergency, the City Council may establish a water allocation for property receiving water service from the City of Poway. Additionally, the City Council may

implement a conservation rate structure, including penalties for using water in excess of set allocations.

## 1.4. Shortage Response Actions

Poway’s Municipal Code includes mandatory prohibitions on the waste of water. **Table 1-3** provides the response actions associated with each water shortage response level, a quantitative estimate of how much each action is anticipated to reduce demands, and whether the City of Poway enforces the measure with a penalty or charge. Each of the four water shortage response levels identified in Poway’s *Water Conservation Plan* identifies water use restrictions of increasing severity. As described above, measures under a Level 1 condition are voluntary with no penalty, unless a separate action is taken by the City Council to make the measures mandatory and enforceable by penalty or fines as described under **Section 1.5**.

**Table 1-3: Restrictions and Prohibitions on End Users**

| DWR Table 8-2 Retail: Restrictions and Prohibitions on End Uses |  |                        |   |  |
|---|--|------------------------|---|--|
| Level <sup>2</sup>  | Demand Reduction Actions   | Shortage Gap Reduction | Additional Explanation or Reference ( <i>optional</i> )   | Penalty, Charge, or Other Enforcement? |
| Level 1   | Other - Prohibit use of potable water for washing hard surfaces  | 1%                     |   | No <sup>1</sup>                        |
| Level 1   | Landscape - Restrict or prohibit runoff from landscape irrigation  | 0.1%                   |   | No                                     |
| Level 1   | Landscape - Limit landscape irrigation to specific times   | 4%                     | Irrigate residential and commercial landscapes, and nursery or commercial grower's products before 10 a.m. and after 6 p.m. only. | No                                     |
| Level 1   | Other - Require automatic shut of hoses  | 1%                     |   | No                                     |
| Level 1   | Water Features - Restrict water use for decorative water features, such as fountains   | 2%                     |   | No                                     |
| Level 1   | Wash vehicles only using a hand-held hose equipped with a positive shut-off nozzle and a bucket, or a high pressure/low volume wash system | < 0.1%                 |   | No                                     |
| Level 1   | CII - Lodging establishment must offer opt out of linen service  | 0.2%                   |   | No                                     |

| <b>DWR Table 8-2 Retail: Restrictions and Prohibitions on End Uses</b> |   |                               |  |   |
|--|---|-------------------------------|--|---|
| <b>Level <sup>2</sup></b>  | <b>Demand Reduction Actions</b>   | <b>Shortage Gap Reduction</b> | <b>Additional Explanation or Reference (<i>optional</i>)</b>   | <b>Penalty, Charge, or Other Enforcement?</b> |
| Level 1  | CII - Other CII restriction or prohibition  | 0.2%                          | Do not use single-pass cooling equipment in new commercial applications  | No  |
| Level 1  | CII - Other CII restriction or prohibition  | 0.2%                          | Use a water recirculation system for commercial conveyor car washes and all new commercial laundry systems   | No  |
| Level 1  | Other   | 1%                            | Run only fully loaded dishwashers and washing machines   | No  |
| Level 1  | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner    | 1%                            | Repair all water leaks within five days of notification by the City of Poway   | No  |
| Level 1  | Other - Prohibit use of potable water for construction and dust control             | < 0.1%                        | Use recycled or non-potable water for construction purposes when available   | No  |
| Level 1  | Landscape - Limit landscape irrigation to specific days                             | 6%                            | Reset irrigation clocks as necessary to water once per week in winter and not more than three times per week in summer   | No  |
| Level 1  | Pools - Allow filling of swimming pools only when an appropriate cover is in place. | 1%                            | Add water to maintain the level of water in swimming pools and spas only when necessary. A pool cover shall be installed on all single-family residential pools and spas | No  |
| Level 1  | CII - Restaurants may only serve water upon request                                 | 0.2%                          |  | No  |
| Level 2  | Landscape - Limit landscape irrigation to specific days                             | 8%                            | Landscape watering shall be conducted only in conformance with landscape watering schedules and restrictions for residential and commercial properties                   | Yes   |
| Level 2  | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner    | 1%                            | All leaks must be repaired within 72 hours of notification   | Yes   |

| DWR Table 8-2 Retail: Restrictions and Prohibitions on End Uses |   |                        |   |  |
|---|---|------------------------|---|--|
| Level <sup>2</sup>  | Demand Reduction Actions  | Shortage Gap Reduction | Additional Explanation or Reference ( <i>optional</i> )   | Penalty, Charge, or Other Enforcement? |
| Level 2   | Water Features - Restrict water use for decorative water features, such as fountains        | 0.2%                   | If the mandatory reduction level is less than 15 percent, ornamental fountains or similar water features shall not be operated for more than six hours per day. If the mandatory reduction level is more than 15 percent, ornamental fountains shall not be operated unless reclaimed water is used | Yes                                    |
| Level 2   | Pools and Spas - Require covers for pools and spas  | 1%                     | If the mandatory reduction level is less than 15 percent, pool covers shall be encouraged but not required. If the mandatory reduction level is more than 15 percent, pool covers will be required  | Yes                                    |
| Level 3   | Landscape - Limit landscape irrigation to specific days                                     | 12%                    | Landscape watering shall be conducted only in conformance with landscape watering schedules and restrictions for residential and commercial properties  | Yes                                    |
| Level 3   | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | 1%                     | Vehicles shall not be washed except at commercial carwashes that recirculate water or by high pressure/low volume wash systems  | Yes                                    |
| Level 3   | Other water feature or swimming pool restriction  | 2%                     | Emptying and refilling of swimming pools and spas is prohibited   | Yes                                    |
| Level 3   | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner            | 2%                     | All leaks must be repaired within 48 hours of notification  | Yes                                    |
| Level 4   | Landscape - Prohibit all landscape irrigation   | 24%                    | With the exception of crops and landscape products of commercial growers or nurseries   | Yes                                    |
| Level 4   | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner            | 4%                     | All leaks must be repaired within 24 hours of notification  | Yes                                    |

NOTES: <sup>1</sup> Level 1 measures may be mandatory with a penalty when separate action is taken by City Council. Level 1 measures are mandatory under Level 2 through 4 water supply conditions.<sup>2</sup> Mandatory water shortage restrictions enforced in previous stages also apply to the current stage unless the current stage includes an equivalent action to reflect stricter measures, in which case the stricter measure would apply.

## 1.5. Communication Protocols

Upon a water shortage declaration action by the City Manager (Level 1), the City will increase its public education and outreach efforts to expand public awareness of the need to implement the voluntary water conservation practices. Upon a water shortage declaration action by the City Council (Levels 2-4), the City will expand its public information campaign to notify the public of the mandatory water conservation measures. Poway will provide notice of the water shortage rules and regulations to all residents and businesses within its service area, in addition to its customers of record, through a variety of media and communications methods, such as print or internet.

Upon declaration of a Level 1 shortage, the City Manager may publish a notice of the determination in one or more newspapers, including a newspaper of general circulation within the City. Upon declaration of a Level 2-4 shortage or Water Shortage Emergency, Poway shall coordinate with the City Manager and shall publish a copy or summary of the resolution in a newspaper used for publication of official notices at least one time within five (5) days of the declaration. If Poway establishes a water allocation under Water Shortage Response Levels 3-4, the City will provide notice of the allocation by including it in the regular billing statement for water service fees or charges or by any other mailing to the address to which the City customarily mails the billing statement for fees or charges for ongoing water service. Upon declaration of any water shortage condition level, the City may also post notice on its website.

If possible, Poway may activate its public information campaign prior to a formal water shortage declaration to provide customers with advanced notice of impending water use restrictions. The City could continually update its webpage to notify residents of current and planned shortage levels and modify and expand the webpage, as necessary. During the 2015 drought, the City utilized bill inserts to inform its customers of water shortage levels and the associated mandatory demand reduction actions. Other actions that Poway may take to increase public outreach are contacting large water users and businesses that are most likely to be seriously affected directly in writing and/or providing public notifications for non-English speakers.

Poway's shortage response actions are similarly aligned to the SDCWA's actions; therefore, any public outreach and messaging campaigns conducted by SDCWA will also benefit the City as it triggers different levels.

## 1.6. Penalties, Charges, Other Enforcement of Prohibitions

PMC Chapter 8.94 Section 140 addresses enforcement provisions associated with the City's *Water Conservation Plan*, including penalties for violating the water use restrictions. A summary of the penalties for violation of any provisions of the *Water Conservation Plan* is provided in **Table 1-4**. Additional penalties for violation of a City ordinance may apply, as set forth in Chapters 1.08 and 1.10 of the PMC.

**Table 1-4: Summary of Water Conservation Plan Enforcement Provisions**

| Violation         | Penalty   |
|-------------------|---|
| First             | Letter of Warning   |
| Second            | \$100 fine  |
| Third             | \$200 fine  |
| Fourth and above  | \$500 fine and possible installation of a flow restrictor |
| Further Violation | Termination of water service                              |

## 1.7. Consumption Reduction Methods

The *Water Conservation Plan* includes water use efficiency measures applicable at all times to all persons or businesses using City of Poway water, though the measures are not mandatory until Level 2 (or by separate, specific action of the Poway City Council at Level 1). **Table 1-5** provides the consumption reduction measure implemented by the Poway to reduce water demands throughout its service area.

**Table 1-5: Consumption Reduction Methods**

| DWR Table 8-3: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods |   |                        |   |
|--|---|------------------------|---|
| Level  | Supply Augmentation Methods by Water Supplier             | Shortage Gap Reduction | Additional Explanation or Reference ( <i>optional</i> )   |
| All Levels   | Offer Water Use Surveys                                   | 1%                     |   |
| All Levels   | Provide Rebates on Plumbing Fixtures and Devices          | 1%                     |   |
| All Levels   | Provide Rebates for Landscape Irrigation Efficiency       | 2%                     |   |
| All Levels   | Provide Rebates for Turf Replacement                      | 1%                     |   |
| Level 1  | Expand Public Information Campaign                        | 4%                     | Ask customers to voluntarily reduce water by 10 percent, inform customers of the water use efficiency measures, and encourage customers to utilize the water conservation incentives and programs offered by the City of Poway. |
| Levels 2, 3, and 4   | Other   | Variable               | The City Council may establish water allocations for property receiving water service from the City of Poway.   |
| Levels 2, 3, and 4   | Implement or Modify Drought Rate Structure or Surcharge   | 2%                     | The City Council may implement a conservation rate structure  |
| Levels 3, and 4  | Moratorium or Net Zero Demand Increase on New Connections | Variable               |   |

## 1.8. Determining Water Shortage Reductions

Should Poway need to implement measures to reduce water use, an analysis of water use data would be completed, including an assessment of metered water deliveries by customer sector (i.e., customer water sales). Customer water meters are read bi-monthly, divided throughout the City into four billing cycles. Other ways to measure water use include comparisons of the amount of water purchased monthly from SDCWA and the volume of water treated at the City's Water Treatment Plant (WTP) and placed into the distribution system.

## 1.9. Refinement Procedures

Poway's WSCP is a living document, and as such can be responsive to the effectiveness of conservation measures in the midst of a water shortage. During declared shortage levels, Poway will analyze monthly monitoring data and convene the City Council to determine if adaptive measures need to be taken to achieve the necessary shortage reduction levels. In the case that the measures are not working as desired, the City will add new actions or refine current actions to achieve greater savings. Measures from a higher stage could be adopted into the current stage, such as requiring leak repairs within 24 hours for Stage 3 rather than 48 hours. When updates are needed, Poway will coordinate with all appropriate City departments to refine the plan and provide updated information and measures to City Council for approval.

## 1.10. Revenue and Expenditure Impacts

Water shortages in Poway would likely impact revenues and implementation of a water shortage program would impact expenditures for additional supply of raw water, changes to computer programs, and changes to the billing process.

Poway's *Water Conservation Plan* includes four water shortage response levels, including three levels of mandatory conservation, from up to 20% to more than 40%. Reductions in potable water sales would result in a reduction in revenue. The impact would depend on the amount of sales reduction and the length of water shortage conditions. For example, if sales declined by 10% for several months, the impact on revenue and operations would be mild. If a severe water shortage occurred, necessitating that the City declare a Level 4 Water Shortage Emergency, requiring mandatory reduced water use of greater than 40%, the revenue impact would be substantial, particularly during high water usage times of the year and for an extended duration.

Measures to overcome revenue impacts would include purchasing less raw water from SDCWA and processing less water at the WTP (potentially resulting in decreased chemical and energy costs). Potable water in reservoirs would be sold first, and the raw water in the Lake Poway reservoir would be accessed for treatment. The City Council could consider adjustments to water rates and billing strategy. Rates are adopted by Resolution of the City Council following an extensive public notification process as required by Proposition 218.

All water sales in Poway, both potable and recycled, are metered. Customers receive water bills bi-monthly and are charged based on metered use. The rate includes components for treatment, delivery, pumping, capital replacement, debt service, and administration. Millions of dollars have been invested in the WTP, reservoirs, and distribution system. Fixed costs and maintenance expenses occur regardless of customer usage. The "capacity" and "commodity" billing structure provide financial stability for the water system even in times of drought or heavy rain. Conservation, even during a water shortage, will not have a long-term significant financial impact because the City Council adjusts rates to balance "capacity" costs and "commodity" costs. As a result, use of financial reserves to address decreased water sales during a water shortage is minimized. Often, use of financial reserves are not necessary; however, during the 2015 prolonged drought, reserves were used. To replenish the depleted financial reserves, the City Council adopted Ordinance 784 in January 2016. Ordinance 784 increased water and sewer rates and included a temporary "drought surcharge" of \$0.75 per unit of water used. This temporary surcharge restored the reserve to pre-2015 drought levels and was eliminated in December 2018.

Financial analysis of revenues and expenditures associated with the City's water system occurs continuously in several ways, including:

- **Rate Adjustments** – Periodically the City conducts a thorough analysis of water system revenues and expenditures related to establishing water rates. Water rates must be set to recover operating and capital costs, while at the same time, not over-collecting revenue. When the City’s cost to purchase water from SDCWA is adjusted, the rate model must be evaluated to determine if any adjustments are necessary. The process of reviewing rates includes detailed analysis of water sales. The financial impact of significantly decreased water sales as a result of a water shortage would be evaluated.
- **Annual Operating Budget, Capital Infrastructure Plan, and Water Fund Reserves** – Annually as the City prepares the operating budget for the water system and manages the budget during the year, staff assesses the current water supply situation and consumption patterns to assess revenue impacts. Based on reduced water sales, City staff adjusts capital, replacement and rehabilitation, and operation and maintenance expenditures. The City also establishes reserve funds which may be accessed in an emergency or other type of unexpected financial situation. The City’s formally adopted reserve policy calls for maintaining a Water Fund reserve balance at 20% of the total Water Operating budget.

During years when the City experiences higher than average rainfall, water sales tend to decrease, which also impacts actual revenue compared to projections.

## 1.11. Catastrophic Supply Interruption

This section discusses Poway’s local contingency planning efforts to prepare for a catastrophic water supply interruption, including the City’s interruption plan, *Water Conservation Plan*, and its specific methods to reduce water use by 50% or more if necessary. This section also discusses the measures that SDCWA has taken to increase supply reliability for its member agencies.

### Local Supply Reliability Planning

The City of Poway meets federal and state guidelines for planning for potential hazards. CWC Section 10632 (a)(3) requires the UWMP to describe actions that would be taken by the water supplier to prepare for a catastrophic interruption of water supply including, but not limited to, a regional power outage, earthquake, or other disaster. Poway has a catastrophic supply interruption plan that includes interruption of raw water from SDCWA, interruption of Poway’s delivery and distribution systems, and non-drought related events. A summary of the City’s catastrophic supply interruption plan is provided below in **Table 1-6**.

**Table 1-6: Catastrophic Supply Interruption Plan**

| Catastrophic Event                                | Plan  |
|---|---|
| Regional Power Outage                             | Use emergency generators at critical facilities.                                |
| Earthquake affecting Poway’s Raw Water Supply     | Use stored water in Lake Poway and implement the <i>Water Conservation Plan</i> |
| System Failure affecting Poway’s Raw Water Supply | Use stored water in Lake Poway and implement the <i>Water Conservation Plan</i> |
| System Failure at Poway Water Treatment Plant     | Isolate problem areas of plant and operate plant manually                       |
| System Failure in Poway Distribution System       | Isolate problem areas and restore service outward from the Treatment Plant      |

In 1970-1971, the Poway Municipal Water District constructed Lake Poway to store 3,300 AF (about 1,075 MG) of raw water for catastrophic interruptions of the water supply. The dam is inspected and monitored on a regular basis. This volume is approximately 32% of the City's average annual deliveries over the past 10 years and would provide the City with adequate water supplies for approximately three to six months, depending on the season and conservation levels.

If a major catastrophe affected the ability of SDCWA to provide Poway with raw water, Poway would still have raw water in Lake Poway and some potable water in storage reservoirs. For example, assuming Lake Poway is at its maximum operating level, and the City Council activated the 20% level of the *Water Conservation Plan*, the City could provide water to its customers for up to four months (6 MGD). If major regional raw water supply deficiencies occurred, the extent to which Poway could meet water demand from its customers would be proportional to conservation. For example, if Poway's supply of imported raw water was totally disrupted and Poway instituted 50% conservation, it is estimated that the City could supply potable water to Poway customers for up to six months (4 MGD).

Currently, Poway's WTP is its only source of potable water. The City is currently working with the SDCWA to establish a treated water connection along the Ramona Aqueduct. At the March 25, 2021 SDCWA Board meeting, Poway's formal request for a new treated water connection was approved. Poway is currently working on the design of the treated water connection and estimates completion of construction by 2025.

In response to regional wildfires in 2003 and 2007, Poway implemented a comprehensive plan to ensure backup power and redundant water sources for pumped zones. Every pump station now has provisions to operate using mobile and stationary generators purchased by the City. Poway also maintains diesel generators at the WTP so it can continue operating in the event of a power outage.

Poway is currently updating its Emergency Response Plan pursuant to Section 2013(b) of the American Water Infrastructure Act (AWIA) of 2018, which requires that community water suppliers serving populations greater than 3,300 develop or update an Emergency Response Plan that incorporates the findings of their risk and resilience assessments.

## Emergency Storage Project and Supply Reliability

In order to provide sufficient emergency water storage to supply to its member agencies during an extended period, the SDCWA implemented the Emergency Storage Project (ESP) in 2014. The ESP is a system of reservoirs, pipelines, pump stations, and other conveyance facilities intended to improve San Diego's regional water storage capacity and allow stored emergency water to be delivered to SDCWA's member agencies within San Diego County during a prolonged regional interruption. The pipelines that carry imported water from MWD to San Diego cross several major fault lines on their way to San Diego County. Consequently, an earthquake, drought, or other disaster could interrupt San Diego County's imported water supply for up to six months. The ESP facilities can be used to help deliver emergency water supplies to member agencies during two- and six-month emergency events in which the region is either completely unable or only partially able to receive imported water deliveries due to a disaster that renders their transmission system inoperable. By providing interconnections within regional facilities, the ESP is designed to make water available to the San Diego region even during catastrophic conditions when there is an interruption in imported water deliveries.

The regional emergency water supply reservoirs (with their ESP capacity) are Olivenhain (18,000 AF), Lake Hodges (20,000 AF), and San Vicente (52,100 AF). The actual amount of ESP water to be delivered to a particular member agency during an emergency event will depend on many factors such as member agency demands, local supplies, infrastructure, availability of MWD supplies, and

duration of emergency. The ESP was designed to provide a total of 90,100 AF of stored water to meet the region's emergency needs through at least 2030 and recent trends in regional water demand indicate this volume of emergency storage will serve the region beyond 2045. SDCWA's Board of Directors may also authorize that supplies from the ESP be used in a prolonged drought or other water shortage situations where imported and local supplies do not meet 75% of the SDCWA's member agencies urban demands.

As discussed in the SDCWA's Draft UWMP, SDCWA anticipates that it will have more than enough available supply to meet its own demands and the demands of its member agencies under a five-year multi-year drought scenario. Therefore, if Poway anticipates a shortage, it can augment supply and offset the anticipated deficit by purchasing more water from the SDCWA.

### Seismic Risk Assessment and Mitigation Plan

CWC 10632.5 requires an urban water supplier to include within its UWMP 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. Pursuant to CWC 10632.5(c), an urban water supplier may comply with this requirement by submitting a copy of the most recently adopted multi-hazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the multi-hazard mitigation plan addresses seismic risk.

In 2004, the City completed a Hazard Mitigation Plan as part of the County of San Diego's Hazard Mitigation Plan submitted to the State of California Office of Emergency Services. The City of Poway also completed a vulnerability assessment of its water system and submitted it and the emergency response plan to the Environmental Protection Agency and the State of California.

Excerpts of the Multi-Hazard Mitigation Plan for San Diego County (MHM Plan) are provided in Appendix H of the 2020 UWMP, including a hazard assessment specific to Poway and a general evaluation of regional seismic risks. The MHM Plan was prepared with input from SDCWA and under the federal Disaster Mitigation Act of 2000.