

**Water**

**Shortage**

**Contingency**

**Plan**

**Template for**

California Public Water Systems

(Schools)

**WATER SHORTAGE CONTINGENCY PLAN TEMPLATE**

**FOR SCHOOLS**

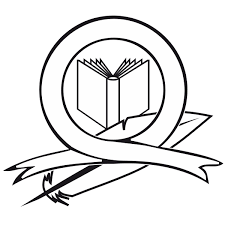
**Instructions:** This water shortage contingency plan template (Plan) is designed for a school that is also a nontransient noncommunity public water system. In addition to this template, there is a completed example available for reference, for “Happy Days School”. **This template is optional and is supplied for your convenience. The State Water Resources Control Board recognizes that schools are required to have Emergency Planning documents designed to support student safety during a range of emergency events. Existing Emergency Planning documents, if modified, to incorporate mandatory elements specified in** [**Section 10609.60 of Water Code**](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB552) **will meet the statutory requirement. A summary of mandatory elements includes:**

* Updating the plan at least every 5 years

* Placing the Plan (or its applicable portions) on the school website, or if no website exists then making it available, upon request

* Providing drought-planning contacts, including:
  + At least one contact responsible for water shortage planning and response and for the development of the plan.
  + Contacts for local public safety partners and potential vendors that can provide repairs or alternative water sources, including, but not limited to, local community-based organizations that work with the population in and around areas served by the water system, contractors for drilling wells, vended water suppliers, and emergency shower vendors.
  + State and local agency contacts who should be informed when a drought or water shortage emergency is emerging or has occurred.
  + Regional water planning groups or mutual aid networks, to the extent they exist.

* Triggering mechanisms and levels for action, including both of the following:
  + Standard water shortage levels corresponding to progressive ranges of actions based on the water supply conditions. Water shortage levels shall also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, a fire, and other potential emergency events.
  + Water shortage mitigation, response, customer communications, enforcement, and relief actions that align with the water shortage levels required above.

****Water Shortage Contingency Plan

***School Logo (if desired)***

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(*School / Public Water System Name*)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(*Address, City, Zip Code*)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(*PWS #*)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**(*Date of Plan Effectiveness*)**

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# Chapter 1: Introduction

|  |  |
| --- | --- |
| Water System Identification No. | CA\_\_\_\_\_\_\_\_\_\_\_ |
| System Name,  Address, County |  |
| Basic Description and Location of System Facilities | Describe the water system:  *The State Water Board recommends providing general information regarding the water supply sources and capacity, typical water usages, key distribution system infrastructure such as storage tanks or pressure zones, and past experiences with drought for reference; or alternatively attaching a recent water system inspection report as an Appendix.* |

|  |  |
| --- | --- |
| **Name, Title, Contact Info of the person responsible for Plan Response and Development (Authorized Official)** |  |
| **Optional Other Contacts (e.g. communications support)** |  |
| **Optional Other Contacts (e.g. to address technical issues)** |  |
| **Optional Other Contacts (e.g. to update the plan every 5 years)** |  |

# Chapter 2: Contacts

The {Authorized Official, Position Title}, or designees specified below, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to maintain adequate water supplies for the school or to meet any other community public health needs. The {Authorized Official, Position Title}, or designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

## **Internal Chain of Command – Lines of Authority**

|  |  |
| --- | --- |
| **Name, Title and Contact Information** | **Responsibilities during an emergency** |
|  |  |
|  |  |
|  |  |

## **External Emergency Notification List**

|  |  |  |  |
| --- | --- | --- | --- |
| **Organization or Department** | **Name & Position** | **Telephone** | **Email** |
| State Water Board District Engineer and/or Staff[[1]](#footnote-2) |  |  |  |
| County Environmental Health Specialist |  |  |  |
| Local Fire Agency  non-emergency contact |  |  |  |
| County Office of Emergency Services |  |  |  |
| Groundwater Sustainability Agency[[2]](#footnote-3) (GSA) contact / Other Regional Water Planning contact |  |  |  |
| Mutual Aid Contact |  |  |  |
| Other |  |  |  |

## **Service / Repair Notifications**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Organization or Department** | **Name & Position** | **Telephone** | **Night or Call Phone** | **Email** |
| Water Operator |  |  |  |  |
| Backup Water Operator |  |  |  |  |
| Electric Utility Co |  |  |  |  |
| Electrician |  |  |  |  |
| Plumber |  |  |  |  |
| Water Hauler[[3]](#footnote-4) |  |  |  |  |
| Bottled Water Vendor |  |  |  |  |
| Emergency Toilet/Shower Providers |  |  |  |  |
| Well Drilling/Pump Company |  |  |  |  |
| Back Flow Company |  |  |  |  |
| Community Partners/Technical Assistance Reps. |  |  |  |  |
| Other |  |  |  |  |

# Chapter 3: Criteria for Initiation and Termination of Water Shortage Response Stages

The table below provides a summary of possible events that may trigger water shortages for school water systems. These events should be considered as initiation and termination of Water Shortage Response Stages are developed.

|  |  |
| --- | --- |
| **Events for Consideration** | **Potential Water System Impacts &**  **Appropriate Agency Contacts** |
| **Drought** | California has experienced continuous and historic drought levels. Potential local impacts from drought can be assessed using the available [California Water Watch](https://cww.water.ca.gov/)[[4]](#footnote-5) tool and by measuring elevations in drinking water sources. Drought may result in the need for varying levels of conservation. If County, State or Federal Drought Orders are put in place, water conservation may also be legally required.  In the event that water outages appear to be imminent, pressure in the distribution system fails below 20 psi[[5]](#footnote-6) or outages have occurred, State Water Resources Control Board staff and/or County Environmental Health (for LPA Programs[[6]](#footnote-7)) should be contacted for additional direction. During water outages, local fire departments should also be notified. |
| **Fire** | Fire potential is high throughout much of California. Fire officials may request water conservation while they are addressing active fires; and some schools may be a shelter-in-place site during these emergencies. Thus, conservation may be required due to the additional water supply demand. Additionally, in all cases of water outage fire officials, State Water Resources Control Board staff and/or County Environmental Health (with LPA Programs) should be notified. |
| **Earthquake** | Earthquakes occur throughout California and may result in well failure due to ground movement, or water loss due to broken pipes. Potential contamination of water supply can also occur when broken sewers or septic lines occur near broken drinking water pipes. Should the water system be severely impacted due to an earthquake and need assistance, the County Office of Emergency Services should be contacted. Subsequent calls to the State Water Resource Control Board and/or County Environmental Health (with LPA Programs) are also appropriate. If water outages occur, local fire departments should also be notified. |
| **Significant Treatment Failure** | If water is treated to remove contamination, either chemical or bacterial, the failure of that treatment may result in the need for conservation and reliance on storage, or other actions, until the treatment system can be repaired. Public noticing and/or alternative water may also need to be provided. State Water Resources Control Board staff and/or County Environmental Health (with LPA Programs) should be notified to discuss corrective actions. |
| **Pandemic** | In the event of illness or death of the certified operator, particularly where extensive treatment is necessary, water conservation and reliance on storage maybe necessary when no trained backup operator is readily available to operate the water system. State Water Resources Control Board staff and/or County Environmental Health (with LPA Programs) should be notified to discuss options. |
| **Vandalism/**  **Terrorism** | Depending on the severity of the event, water in wells or storage tanks that have been tampered with may not be safe to be utilized until additional investigation is performed. Alternative water supplies may be necessary in this case as well as coordination with enforcement authorities, the State Water Resources Control Board, and/or County Environmental Health (with LPA Programs). |
| **Power Outage** | Power outages may result in pump failure. If backup power and adequate water storage are unavailable, this may lead to water outages or the need for extensive conservation. In the event of water outages or distribution pressure below 20 psi, State Water Resources Control Board staff and/or County Environmental Health (with LPA Programs) should be notified to discuss options. |
| **Well Pump or Well Failure** | Well pumps may unexpectedly fail if not properly maintained or utilized beyond its typical life expectancy. Wells also have a life expectancy and need to be replaced as the internal casing can fail over time. Typical life expectancies of water treatment and water distribution equipment is available for review on the State Water Resources Control Board website for reference[[7]](#footnote-8). This equipment should be properly maintained and replaced to prevent failure. However, should water outages occur State Water Resources Control Board staff and/or County Environmental Health (with LPA Programs) should be notified to discuss options. |

This Plan includes Insert Number[[8]](#footnote-9) stages of water conservation for the school. The triggers for initiation of each Stage and the requirements for termination of each Stage are described below.

**Stage 1 Triggers -- Water Shortage WATCH Conditions**

Requirements for initiation:

The School shall implement actions and certain restrictions on non-essential water uses provided in Chapter 4 of this Plan when \_\_\_\_\_\_\_\_\_\_\_\_ (*describe triggering criteria*).

Requirements for termination:

Stage 1 of the Plan may be rescinded when all the conditions listed as triggering events have ceased to exist for a period of \_\_\_ consecutive days.

**Stage 2 Triggers -- Water Shortage WARNING Conditions**

Requirements for initiation:

The School shall implement actions and certain restrictions on non-essential water uses provided in Chapter 4 of this Plan when \_\_\_\_\_\_\_\_\_\_\_\_ (*describe triggering criteria)*

Requirements for termination:

Stage 2 of the Plan may be rescinded when all the conditions listed as triggering events have ceased to exist for a period of \_\_\_ consecutive days. Upon termination of Stage 2, Stage 1 becomes operative unless otherwise specified.

**Stage 3 Triggers – ACUTE Water Shortage Conditions**

Requirements for initiation:

The School shall implement actions and certain restrictions on non-essential water uses provided in Chapter 4 of this Plan when \_\_\_\_\_\_\_\_\_\_\_\_ (*describe triggering criteria*).

Requirements for termination:

Stage 3 of the Plan may be rescinded when all the conditions listed as triggering events have ceased to exist for a period of \_\_\_ consecutive days. Upon termination of Stage 3, Stage 2 becomes operative unless otherwise specified.

**Stage 4 Triggers -- CRITICAL Water Shortage Conditions**

Requirements for initiation:

The School shall implement actions and certain restrictions on non-essential water uses provided in Chapter 4 of this Plan when \_\_\_\_\_\_\_\_\_\_\_\_ (*describe triggering criteria*).

Requirements for termination:

Stage 4 of the Plan may be rescinded when all the conditions listed as triggering events have ceased to exist for a period of \_\_\_ consecutive days. Upon termination of Stage 4, Stage 3 becomes operative unless otherwise specified.

**Stage 5 Triggers -- EMERGENCY Water Shortage Conditions**

Requirements for initiation:

The School shall implement actions and certain restrictions on non-essential water uses provided in Chapter 4 of this Plan when \_\_\_\_\_\_\_\_\_\_\_\_ (*describe triggering criteria*).

Requirements for termination:

Stage 5 of the Plan may be rescinded when all the conditions listed as triggering events have ceased to exist for a period of \_\_\_ consecutive days. Upon termination of Stage 5, Stage 4 becomes operative unless otherwise specified.

**Stage 6 Triggers – CATASTROPHIC Water Shortage Conditions**

Requirements for initiation:

The School shall implement actions and certain restrictions on water uses provided in Chapter 4 of this Plan when \_\_\_\_\_\_\_\_\_\_\_\_ (*describe triggering criteria*).

Requirements for termination:

Stage 6 of the Plan may be rescinded when all the conditions listed as triggering events have ceased to exist for a period of \_\_\_ consecutive days.  Upon termination of Stage 6, Stage 5 becomes operative unless otherwise specified.

# Chapter 4: Drought Response Actions

The {Authorized Official, Position Title}, or designee, shall monitor water supply and/or demand conditions on a daily/weekly/monthly basis and, in accordance with the triggering criteria set forth in this Plan, shall determine if a water shortage condition exists and the severity of any such water shortage conditions (*e.g., 1-Watch, 2-Warning, 3-Acute, 4-Critical, 5-Emergency, 6-Catastrophic Water Loss*), and shall implement the following notification procedures accordingly:

**Description of Customer Notification Methods:**

The {Authorized Official, Position Title}, or designee, shall notify the staff, parents, students, and public by means of one of the following Methods:

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Note:******Notification methods should consider the need for multiple notification pathways and the needs of non-English speaking families.***

Prepared materials from Department of Water Resources, “Save Our Water Toolkit”, may be used as drought communication tools with the school system logo added.  The link for these materials is provided below.

<https://saveourwater.com/en/Partner-Toolkit>

Additionally, K-12 focused water conservation and water education materials, provided in Chapter 6, may also be utilized for drought and/or water conservation awareness and supporting science curriculum.

**Stage 1 Response -- Water Shortage WATCH Conditions**

**Target: Achieve a \_\_\_ percent reduction in \_\_\_\_\_\_\_\_\_\_.**

Best Management Practices for Supply Management:

Voluntary Water Use Restrictions for Reducing Demand:

Notification Method(s) and Frequency:

Agencies Contacted:

**Stage 2 Response -- Water Shortage WARNING Conditions**

**Target:  Achieve a** **\_\_\_ percent reduction in \_\_\_\_\_\_\_\_\_\_.**

Best Management Practices for Supply Management:

Mandatory Water Use Restrictions for Reducing Demand:

Notification Method(s) and Frequency:

Agencies Contacted:

 All requirements of Stage 1 shall remain in effect during Stage 2 except:

**Stage 3 Response -- ACUTE Water Shortage Conditions**

**Target:  Achieve a** **\_\_\_ percent reduction in \_\_\_\_\_\_\_\_\_\_.**

Best Management Practices for Supply Management:

Mandatory Water Use Restrictions for Reducing Demand:

Notification Method(s) and Frequency:

Agencies Contacted:

All requirements of Stage 2 shall remain in effect during Stage 3 except:

**Stage 4 Response -- CRITICAL Water Shortage Conditions**

**Target:  Achieve a** **\_\_\_ percent reduction in \_\_\_\_\_\_\_\_\_\_.**

Best Management Practices for Supply Management:

Mandatory Water Use Restrictions for Reducing Demand:

Notification Method(s) and Frequency:

Agencies Contacted:

All requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

**Stage 5 Response – EMERGENCY Water Shortage Conditions**

**Target:  Achieve a** **\_\_\_ percent reduction in \_\_\_\_\_\_\_\_\_\_.**

Best Management Practices for Supply Management:

Mandatory Water Use Restrictions for Reducing Demand:

Notification Method(s) and Frequency:

Agencies Contacted:

All requirements of Stage 4 shall remain in effect during Stage 5 except:

**Stage 6 Response -- CATASTROPHIC Water Shortage Conditions**

In the event of water outages, water pressure in the distribution system of less than 20 psi, or water shortage conditions that would otherwise result in school closure, the {Authorized Official, Position Title}, or designee, shall at minimum implement the following steps.

1. **Notification of Emergency Service Providers**

If adequate water supply will potentially become unavailable for fire response, medical services, public services, etc., then the following emergency providers will be notified as soon as possible to ensure that adequate planning, response and assistance may be provided:

State Water Board and/or County Environmental Health: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

County Office of Emergency Services: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Local Fire Agency: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Obtain Replacement Water Supply to Address Potential or Actual Water Outages**

Source of Alternative Water Supply: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Distribution of Alternative Water Supply: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Special Considerations for sanitation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Notification Regarding Access to Alternative Water Supplies:

1. **Notification of Students, Parents and Public**

Methods: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Ensure all nonessential water uses of water, such as irrigation and leaks, have ceased.**

# Chapter 5: Water Shortage Triggers and Response Stages Summary

This optional table provides a summary of each water shortage stages, triggers and response actions for quick reference.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Stages** | **Shortage Range** | **Triggers** | **Response Actions** | **Communication Actions** | **Termination Actions** |
| **Stage 1** WATCH | Up to 10% |  |  |  |  |
| **Stage 2** WARNING | Up to 20% |  |  |  |  |
| **Stage 3** ACUTE | Up to 30% |  |  |  |  |
| **Stage 4** CRITICAL | Up to 40% |  |  |  |  |
| **Stage 5** EMERGENCY | Up to 50% |  |  |  |  |
| **Stage 6** CATASTROPHIC WATER LOSS | > 50% |  |  |  |  |

## Chapter 6: Informational Only – Educational Water Conservation Resources

This section provides a variety of water or drought related information and materials for supporting water education at schools. It is not meant for inclusion in the template language.

* Water Education Foundation “Project WET” Program: <https://www.projectwet.org/>
* DWR K-12 Education Resources: <https://water.ca.gov/What-We-Do/Education/Education-Materials>
* USEPA WaterSense for Kids: <https://www.epa.gov/watersense/watersense-kids>

Water Education and Water Drought Information for Students by County (sample, not a comprehensive list):

Contra Costa County – Contra Costa Water District, Water Education Program:

* <https://www.ccwater.com/166/Water-Education> and <https://www.ccwater.com/568/WEP-Resource-Corner>

Parts of Los Angeles, Orange, Riverside, San Bernardino, San Diego and parts of Ventura Counties, The Metropolitan Water District of Southern California Water Education:

* <https://www1.mwdh2o.com/DocSvcsPubs/Education_Site/index.html>

Placer County – City of Roseville:

* https://www.roseville.ca.us/cms/one.aspx?pageId=8715907

Sonoma County – Sonoma Water – Water Classroom/Field Programs:

* <https://www.sonomawater.org/ClassroomandFieldPrograms>

Solano County, Solano Resource Conservation District and Solano County Water Agency K-12 Programs:

* <https://www.scwa2.com/water-efficiency/schools/school-programs-k12/>
* <https://www.solanorcd.org/projects-and-programs/education/swep.html>

1. Map of State Water Resource Control Board District Engineers can be found by County at the website below:

   https://www.waterboards.ca.gov/drinking\_water/programs/documents/ddwem/DDWdistrictofficesmap.pdf [↑](#footnote-ref-2)
2. Map of various groundwater basins and their risk prioritization; https://gis.water.ca.gov/app/bp-dashboard/final/ [↑](#footnote-ref-3)
3. Use only licensed water haulers from the California Department of Public Health, see website below under “Licensed Water Haulers by County” – hit “cancel” when it requests a username and password:

   https://www.cdph.ca.gov/Programs/CEH/DFDCS/pages/fdbprograms/foodsafetyprogram/water.aspx [↑](#footnote-ref-4)
4. California Water Watch Tool website: https://cww.water.ca.gov/ [↑](#footnote-ref-5)
5. Pounds per square inch (psi). 20 psi is the minimum allowable pressure in a distribution system. [↑](#footnote-ref-6)
6. In counties with Local Primacy Agency (LPA) programs, County Environmental Health Programs instead of the State Water Resources Control Board regulate small water system with less than 200 connections. A list of Counties where LPA Programs exist are provided on this website: https://www.waterboards.ca.gov/drinking\_water/programs/documents/web\_contact\_info\_district\_lpa.pdf [↑](#footnote-ref-7)
7. Typical life expectancies of water treatment equipment:

   https://www.waterboards.ca.gov/drinking\_water/certlic/drinkingwater/documents/tmfplanningandreports/Typical\_life.pdf [↑](#footnote-ref-8)
8. **The template provides space for six stages of conservation to facilitate coordinated messaging with nearby urban water system that are required to have six stages. However, it is recognized that fewer stages may be appropriate for schools in many cases and stages can be removed, as appropriate.** However, in all cases it is recommended that a catastrophic water shortage be included, and plans created to provide for alternative water supply in the event of long-standing water outages. [↑](#footnote-ref-9)