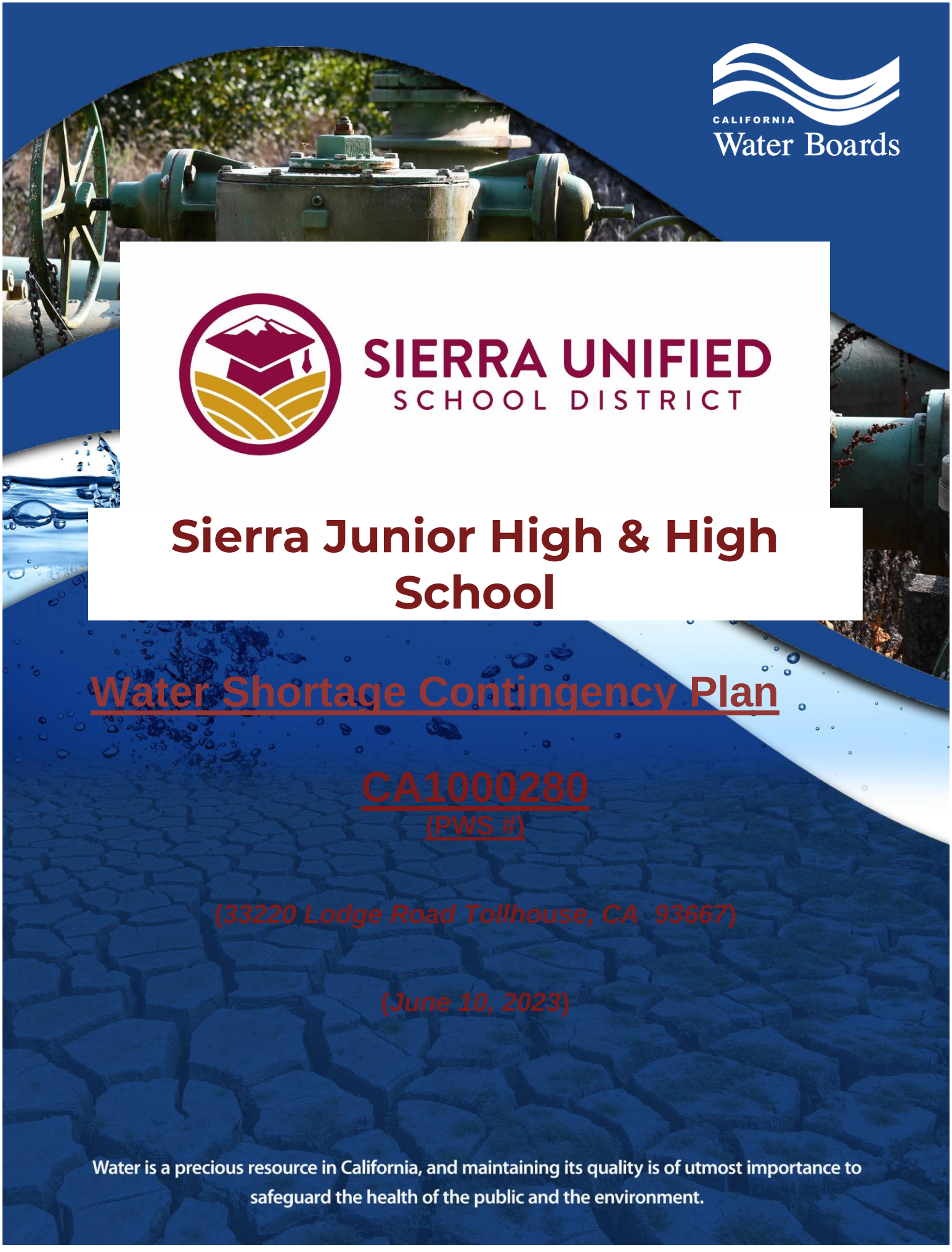

CALIFORNIA Water Boards

SIERRA UNIFIED SCHOOL DISTRICT

Sierra Junior High & High School

Water Shortage Contingency Plan

CA1000280
(PWS #)

(33220 Lodge Road Tollhouse, CA 93667)

(June 10, 2023)

Water is a precious resource in California, and maintaining its quality is of utmost importance to safeguard the health of the public and the environment.

Table of Contents

Chapter 1: Introduction

Water System Identification No.	CA1000280
System Name, Address, County	Sierra High School 33220 Lodge Road Tollhouse, CA 93667

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.* The school serves 800 students and staff in 39 buildings. In the winter, without irrigation, the school typically uses 60,000 gallons per day. With irrigation in the late summer, the school uses 125,000 gallons per day. The school has three wells and a 157,000-gallon steel bolted water tank. The potable well, well 01, has a total depth of 92 feet and is located at 37.0385191, -119.4498057 approximately 10' East of the steel building. The well was built in 1953 and has no Drill Completion Report on record. It has a turbine style 20-hp pump normally maintained at a depth of 70 feet. The average elevations in the well are monitored monthly during the non-irrigation months, and weekly during the irrigation months. Well 02, has a total depth of 73 feet and is located at 37.0365919,-119.4466528 approximately 500 feet southeast of well 01. The well was built in 1959 and has no well completion report on record. It has a submersible 25hp pump normally maintained at a depth of 70 feet. The average elevations in the well are monitored monthly during the non-irrigation month and weekly during the irrigation months. Well 03 has a total depth of 626 feet and is located at 37.0373469,-119.4473740 approximately 120 feet Northeast of well 02. The well was built in 2014 and has no Well Completion Report on record. It has a submersible __hp pump normally maintained at a depth of 580 feet. The average elevations in the well are monitored monthly during the non-irrigation month and weekly during the irrigation months. Well water is treated with sodium hypochlorite for disinfection before being transferred to a 157,000-gallon storage tank near the South end of the property. The System runs gravity pressure to the campus and all other attached Facilities. All the schools' Irrigation is supplied by the same source as the rest of the campus. All Irrigation is plumbed through Backflow Prevention Valves to prevent any contamination. The operations plans, manuals, locations of valves and pipes, and well pumping records are in the Facilities Office. The water system is typically checked once a week by the T-1 certified operator, Casey Franks. Florencio Perez with Flowz LLC is trained in all emergency operations of this water system and assists the school in the absence of Casey Franks.

Name, Title, Contact Info of the person responsible for Plan Response and Development (Authorized Official)	MOT Director, Craig Barnes 33220 Lodge Rd, Tollhouse, Ca. 93667 559-855-8314 ext. 104 cbarnes@sierrausd.org Role: Response, Coordination and Contracts
Optional Other Contacts (e.g., communications support)	Title, Casey Franks 33220 Lodge Rd, Tollhouse, Ca. 93667 559-855-8314 ext. 121 cfranks@sierrausd.org Role: Plan Development
Optional Other Contacts (e.g., to address technical issues)	Office Manager, Melissa Miller 33220 Lodge Rd, Tollhouse, Ca. 93667 559-855-8314 ext. 100 mwintersteen@sierrausd.org Role: Communicate and Updates plan every five years
Optional Other Contacts (e.g., to update the plan every 5 years)	Maintenance Manager, Kelly Capps 33220 Lodge Rd, Tollhouse, Ca. 93667 559-855-8314 ext. 102 kcapps@sierrausd.org Role: Communicate and Updates plan every five years

Chapter 2: Contacts

The Superintendent, Jordan Reeves, 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 Superintendent, Jordan Reeves, 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
Superintendent, Jordan Reeves 29143 Auberry Rd Prather Ca 93651 559-855-3662 Jreeves@sierrausd.org	• All elements on this plan

Principal, TBA 33326 Lodge Rd Tollhouse Ca 93667 559-855-8314	• Notify superintendent of needs • Meet and assist emergency personnel and/or outside agencies, as needed • Oversee communications and ensure Plan implementation
MOT Director, Craig Barnes 33220 Lodge Rd, Tollhouse, Ca. 93667 559-855-8314 ext. 104 cbarnes@sierrausd.org	• Assist with emergency personnel and outside agencies, as needed • Coordinate with vendors • Coordinate with water haulers

External Emergency Notification List

Organization or Department	Name & Position	Telephone	Email
State Water Board District Engineer and/or Staff[1]	Kesha REHS	559-445-5116	Kesha.Criswell-ingram@waterboards.ca.gov
County Environmental Health Specialist		559-600-3357	EnvironmentalHealth@fresnocountyca.gov
Local Fire Agency non-emergency contact	Station 75	559-493-4300	Fresnocountyfire.org
County Office of Emergency Services		559-600-4065	OES@fresnocountyca.gov
Groundwater Sustainability Agency[2] (GSA) contact / Other Regional Water Planning contact	Scott Mitchell	559-540-0901	Scott.Mitchell@water.ca.gov
Mutual Aid Contact	Mike Waters	559-392-3850	
Other	Chance Alberta	559-760-1474	Chance@sierranevadadrilling.com

[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

[2] Map of various groundwater basins and their risk prioritization; https://gis.water.ca.gov/app/bp-dashboard/final/

Service / Repair Notifications

Organization or Department	Name & Position	Telephone	Night or Call Phone	Email
Water Operator	Casey Franks	559-855-8314	209-782-8021	Cfranks@sierrausd.org
Backup Water Operator	Florencio Perez	559-707-4868	559-707-4868-	Fperez.flowz@yahoo.com
Electric Utility Co	PG&E	800-743-5000		
Electrician	Justin Harrison	559-430-5381	559-430-5381	Jharrison@sierrausd.org
Plumber	Walter Tobin	559-765-1690	559-765-1690	Wtobin@sierrausd.org
Water Hauler[3]	AEI	559-392-1182	559-392-1182	Aeiequipment@hotmail.com
Bottled Water Vendor	Sparkletts	800-728-5508		
Emergency Toilet/Shower Providers	United Rentals	800-422-6619		
Well Drilling/Pump Company	Chance Alberta	559-760-1474		Chance@sierranevadadrilling.com
Back Flow Company	Fedor Plumbing	559-804-1178		Fedorplumbing@gmail.com
Community Partners/Technical Assistance Reps.				

[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

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[4] 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] or outages have occurred, State Water Resources Control Board staff and/or County Environmental Health (for LPA Programs[6]) 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.

[4] California Water Watch Tool website: https://cww.water.ca.gov/
[5] Pounds per square inch (psi). 20 psi is the minimum allowable pressure in a distribution system.
[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

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 notice 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 may be 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 for utilization 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 their 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]. 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.

[7] Typical life expectancies of water treatment equipment: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/tmfplanningandreports/Typical_life.pdf

This Plan includes 6 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 the water needs are not met by 10% of the demand. Or if any of the following occur:

- Typical water supply capacity or water elevation in Well's 01, 02, and 03 decreases by more than 15% of its expected average seasonal value.
- California Water Watch[8] "Current Drought Map" shows the school's region is in an area of moderate or severe drought.
- California Water Watch for the school's zip code shows "Water Year to Date Precipitation" less than 60% of average.
- GSA's or nearby cities and public water systems are initiating drought measures.

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 5 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 the water needs are not met by 10-20% of the demand. Or if any of the following occur:

[8] California Water Watch map -- https://cww.water.ca.gov/

- Typical water supply capacity or water elevation in Well's 01, 02, and 03 decreases by more than 25% of its expected average seasonal value.
- California Water Watch "Current Drought Map" shows the school's region is in an area of extreme drought.
- California Water Watch for the school's zip code shows "Water Year to Date Precipitation" less than 40% of average.
- Local, State or Federal Drought Emergency Orders are in put in place.

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 10 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 the water needs are not met by 20-30% of the demand. Or if any of the following occur:

- California Water Watch for the school's zip code shows "Water Year to Date Precipitation" less than 25% of average,
- Typical water supply capacity or water elevation in Well's 01, 02, and 03 decreases by more than 40% of its expected average seasonal value.

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 15 consecutive days and if there are no local, State, or Federal mandates on water conservation. 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 the water needs are not met by 30-40% of the demand. Or if any of the following occur:

- Typical water supply capacity or water elevation in Well's 01, 02, and 03 decreases by more than 50% of its expected average seasonal value.
- A natural disaster occurs that may critically impact the water supply (e.g., fire, earthquake, pandemic, power outage caused by weather, etc.)
- Other water systems failures occur that may critically impact the water supply or its safety (e.g., well collapse, well pump failure, treatment failure, vandalism/terrorism)

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 20 consecutive days.

Stage 4 of the Plan may be rescinded immediately when:

- All the conditions listed as triggering events have ceased to exist

  and in the case of any water outage and/or significant treatment failures, the following have been met:
- Public health officials have deemed the water supply safe for human consumption, or
- Other directed actions by public health officials have been implemented to notify the public and take corrective actions of any water system hazards.

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 the water needs are not met by 40-50% of the demand.

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 25 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 the water needs are not met by more than 50% of the demand.

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 30 consecutive days. Upon termination of Stage 6, Stage 5 becomes operative unless otherwise specified.

Chapter 4: Drought Response Actions

The MOT Director, Craig Barnes or designee, shall monitor water supply and/or demand conditions on a 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 MOT Director, Craig Barnes, or designee, shall notify the staff, parents, students, and public by means of one of the following Methods:

Method 1: Notice to everyone on school website, under General Information

Method 2: Notice on Parent Phone App notification system

Method 3: Email to parent and student listing

Method 4: County Emergency Messaging text alert

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 10 percent reduction in total monthly water usage.

Best Management Practices for Supply Management:

a) Inspect distribution system for needed repairs

b) Verify mutual aid relationship contacts with AEI Transportation are up to date should water need to be hauled to/from their school district.

Voluntary Water Use Restrictions for Reducing Demand:

a) Do a visual survey for pipe leaks and repair/replace any faucets, sprinklers or other apparatuses that may be resulting in water loss.

b) Limit distribution system flushing.

c) Ensure irrigation does not occur within 48 hours after measurable rainfall.

d) Reduce irrigation times by 20% of normal.

Stage 2 Response -- Water Shortage WARNING Conditions

Target: Achieve a 15 **percent reduction in the total monthly water usage.**

Best Management Practices for Supply Management: Periodic visual of irrigation and facilities.

Mandatory Water Use Restrictions for Reducing Demand: Limit fleet vehicle washing and hosing down pavement areas
Reduce irrigation times by 30% of normal

Notification Method(s) and Frequency: Inform Staff via Email and Aeries monthly

Agencies Contacted: State Water Board

All requirements of Stage 1 shall remain in effect during Stage 2.

Stage 3 Response -- ACUTE Water Shortage Conditions

Target: Achieve a 30% **percent reduction in the total monthly water usage.**

Best Management Practices for Supply Management: Frequent visual of irrigation and facilities.

Mandatory Water Use Restrictions for Reducing Demand: Limit fleet vehicle washing and hosing down pavement areas
Reduce irrigation times by 40% of normal

Notification Method(s) and Frequency: Inform Staff via Email and Aeries bi-monthly

Agencies Contacted: State Water Board

All requirements of Stage 2 shall remain in effect during Stage 3.

Stage 4 Response -- CRITICAL Water Shortage Conditions

Target: Achieve a 40 percent **reduction in the total monthly water usage.**

Best Management Practices for Supply Management: Weekly visual of irrigation and facilities. Limit time on irrigation.

Mandatory Water Use Restrictions for Reducing Demand: Stop fleet vehicle washing and hosing down pavement areas
Reduce irrigation times by 50% of normal

Notification Method(s) and Frequency: Inform Staff via Email and Aeries Weekly

Agencies Contacted: State Water Board

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

Stage 5 Response – EMERGENCY Water Shortage Conditions

Target: Achieve a 50 percent reduction in the total monthly water usage.

Best Management Practices for Supply Management: Stop ALL irrigation for a minimum of 24 hours

Mandatory Water Use Restrictions for Reducing Demand: Stop ALL irrigation for a minimum of 24 hours. If irrigation resumes, adjust run times to no more than 40% of normal

Notification Method(s) and Frequency: Daily reminders of water conservation

Agencies Contacted: State Water Board

All requirements of Stage 4 shall remain in effect during Stage 5.

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, Craig Barnes, Facilities and Transportation Director, 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: 559-445-5116

County Office of Emergency Services: 559-600-4065

Local Fire Agency: 559-493-4300

Other: Site Administration 559-855-3662

2. Obtain Replacement Water Supply to Address Potential or Actual Water Outages

Source of Alternative Water Supply: AEI Transportation (559)392-1182

Distribution of Alternative Water Supply: Bottled water made available

- Special Considerations for sanitation: Follow procedures based on Water Board recommendations

Notification Regarding Access to Alternative Water Supplies: Aeries Communication, Letter to be sent home, Posted at District Office

3. Notification of Students, Parents and Public

Methods: Aeries Communication, Letter to be sent home, Posted at District Office

4. Ensure all nonessential 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 stage, triggers and response actions for quick reference.

Stages	Shortage Range	Triggers	Response Actions	Communication Actions	Termination Actions
Stage 1 WATCH	Up to 10%	• *15% decrease in elevation/capacity* • *Moderate/severe drought* • *Precipitation < 60%* • *Nearby systems initiating drought measures*	• *Visual survey for leaks, needed repairs* • *Reduce irrigation by 20% of normal* • *No irrigation 48 hrs. after rain*	*Method 1 (webpage)*	*5 days without listed triggers*
Stage 2 WARNING	Up to 20%	• *25% decrease in elevation/capacity* • *Extreme drought* • *Precipitation < 40%* • *Local, State, Federal Drought Emergency*	• *Increase GW elevation readings to 2x/month* • *Evaluate engineering needs for new well/storage* • *Reduce irrigation times by 30% of normal* • *No distribution system flushing*	*Method 1 (webpage)* *Method 3 (email)*	*15 days without listed triggers, or immediately if Local, State, or Federal Drought Emergency Lifted and no other triggers are present*
Stage 3 ACUTE	Up to 30%	• *40% decrease in elevation/capacity* • *Precipitation < 25%*	*See Chapter 4 for details*	*Method 1 (webpage)* *Method 2 (parent app)* *Method 3 (email)*	*15 days without listed triggers*
Stage 4 CRITICAL	Up to 40%	*Water system malfunction*	*See Chapter 4 for details*	*Method 1 (webpage)* *Method 2 (parent app)* *Method 3 (email)*	*20 days without listed triggers*

Stage 5 EMERGENCY	Up to 50%	*Natural Disaster* Water system failure	*See Chapter 4 for details*	*Method 1 (webpage)* *Method 2 (parent app)* *Method 3 (email)*	*25 days without listed triggers*
Stage 6 CATASTROPHIC WATER LOSS	> 50%	• *Potential or actual water outage* • *Distribution pressure less than 20 psi*	*See Chapter 4 for details*	*Method 1 (webpage)* *Method 2 (parent app)* *Method 3 (email)* *Method 4 (if appropriate)*	*All triggering events ceased and public health agency approval*

Chapter 6: Informational Only – Educational Water Conservation Resources

This section provides various 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

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

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