

DROUGHT RESPONSE PLAN

**A WATER SHORTAGE CONTINGENCY STRATEGY
FOR THE WASHINGTON COUNTY WATER
DISTRICT, NEVADA COUNTY, CALIFORNIA**

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Drought Response Plan: A Water Shortage Contingency Strategy

This document presents the Drought Response Plan (“DRP”), also known as the Water Shortage Contingency Plan, for the Washington County Water District (WCWD) serving the town of Washington, Nevada County, California. This plan identifies actions and procedures to enable the WCWD to prepare for, identify, and respond to a drought or other water shortage emergency. The objective of the plan is to help Washington preserve essential public services and

minimize the effects of a water shortage on public health and safety, economic activities, environmental resources, and the individual lifestyles of its community members.

HOW TO USE THIS PLAN

This Water Shortage Contingency Plan has been formatted as an implementation action plan for the WCWD in time of drought or water shortage of any kind. The plan itself describes drought scenarios, with each representing a progressively worsening and critical situation. The document further describes circumstances that would trigger use of the plan, specific actions for WCWD staff to take during each of the scenarios, as well as specific actions for water customers to take.

SUMMARY OF WCWD'S WATER SERVICE

The WCWD currently supplies about 7.4 acre feet (AF) of treated water per year for 115 metered connections from Canyon Creek via a diversion dam sandfilter transfer pipe intake. There is currently no carry-over storage from water season to water season, with the exception of the small reservoir in Canyon Creek and the 200,000 gal Storage Tank, an amount of storage that likely comprises less than two weeks of the water needs for Relief Hill Road and the Downtown Area for human consumption. However, no residual storage is available to service the 17 connections located between the treatment plant and the storage tank.

The City has pre-1914 water rights on Canyon Creek and does not have any in-stream flow requirements of which the Town is aware. NID operates Bowman Reservoir above WCWD's intake and does have a USFWS mandated minimum flow requirement for instream fisheries values of 3 CFS, April 1-Oct 31 and 2 CFS from Nov 1-May 31.

There is no statewide standard for water shortage stages; purveyors determine stages appropriate for their particular circumstances. The drought stages and water supply conditions identified for Washington are based on a review of guiding public documents, use of samples of other small communities' drought plans and NID's drought stages.

Consistency with NID's water shortage stages is highly relevant, given that NID is an important water supplier in the Region and operates a reservoir and water rights in the same system as WCWD. However, it should be noted that as a water purveyor, Washington has the ability to call a drought stage independently of NID. In addition, the State may impose voluntary or mandatory restrictions as well. If and when the State imposes restrictions, they may or may not coincide with NID's and Washington's stages.

Prior to the beginning of the irrigation season, but no later than April 1 of each year, WCWD will evaluate upstream reservoir storage and the forecasted runoff/snowmelt for Canyon Creek, to

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determine which water supply scenario to follow. The survey information from California Department of Water Resources California Cooperative Snow Surveys as well as the Drought Stages declared by other State and Regional entities (e.g., DWR, NID and Nevada City) will be paramount to evaluating water supply and will be used to make a preliminary determination of the Town's water supplies, potential risks and water conservation strategies.

WATER SHORTAGE RESPONSE COORDINATOR

In general, each additional stage is likely to require additional staff time and other WCWD resources (e.g., engineering, mailings, response to public questions and concerns, internal communications, and external communications with the public).

The WCWD will establish a *Water Shortage Response Coordinator* to work with the Water Treatment Plant Operator to coordinate responses to drought conditions and other water shortages.

The following describes recommended actions to be taken by WCWD at each progressive stage of drought or water shortage emergency. Measures not described below may be necessary in certain situations, and it will be incumbent on the experience and discretion of WCWD to take actions necessary to protect public health and safety, environmental health, and economic resources.

WATER SUPPLY SCENARIOS AND RECOMMENDED ACTIONS

These scenarios assume that in all water years that it will be the WCWD's policy to:

1. Conduct water uses analyses to calculate typical water use statistics by water season and year type.
2. Use water use data, or customer reporting to support rapid response to identified leaks or system inefficiencies
3. Enforce its policies concerning rapid repair of leaks within the customer's sphere of responsibility (i.e., customer laterals)
4. Conduct annual system inspections/upgrades to maintain efficiency and reduce water and power waste
5. Provide incentives to customers to reduce water consumption, including plumbing retrofit installations (free low-flow showerheads, sink aerators, toilet volume reducers, hose shut off valves) and toilet leak detection tablets.
 - a. Track water use changes for customers who install these fixtures
6. Pursue wherever possible funds to support installation of infrastructure for additional water sources or water recycling for non-potable uses (i.e., rainwater capture, greywater recycling, stormwater recycling)
7. Pursue wherever possible funds to support installation of appliances and fixtures for water conservation (e.g., ultra-low-flow toilets, high efficiency clothes washers, high efficiency dishwashers)
8. Institute specific policies with respect to monitoring and enforcing flow reductions for each announced drought scenario
9. Institute year-round mandatory reductions in potable water waste:

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- a. Use of shut-off valves on all hoses,
- b. Prohibit washing cars, boats, trailers or other vehicles except by hose with an automatic shut-off nozzle and bucket.
- c. Prohibit washing sidewalks, walkways, driveways, parking lots or other hard surfaced areas.
- d. Prohibit watering past the point of saturation
- e. Make a reasonable effort to repair in-home water leaks in toilets, plumbing fixtures and water lines within 24 hours.

Scenario 1: Normal Water Conditions (0-10% shortage, NID Stage 1 I) – WCWD Actions

- A. Conduct monthly meter reading to identify distribution system water leaks
- B. Encourage voluntary customer water conservation through education efforts via mail inserts with the water bill, including specific recommendations for calculating water use and conservation actions.
- C. Maintain usage records to track outcome of meter installations and system upgrades.

Recommended **Voluntary** Customer Actions:

- B. Make conscious efforts to conserve water. Water is to be used for beneficial purposes only; all unnecessary and wasteful uses of water are prohibited.
- C. Water is to be confined to the customer's property and not allowed to run off to adjoining properties, sidewalks, ditches, gutters or storm drains.
- D. Residential, garden, and landscape water use:
 - i. Limit watering to the evening and early morning hours only (8pm to 6am); avoid use of sprinklers.
 - ii. Irrigation systems: inspect systems and repair leaks; adjust spray heads to provide optimum coverage and eliminate avoidable over-spray; change run-time for valves consistent with weather fluctuations; reduce minutes of run-time for each irrigation valve if water run-off is occurring.

Scenario 2: Water Shortage Warning (10-25% shortage; NID Drought Stages 2 or 3) – WCWD Actions

- A. Begin expanded direct public information campaign with clear messages.
 - a. Explain drought situations to the public via direct mailers.

- b. Inform customers of their water use and their reduction targets via bill inserts. c. Encourage all customers to know how much water they use and describe how they can achieve this with educational bill inserts and door-to-door audits by customer request.
- C. Monitor water demand monthly to assess water savings accomplished.
- D. WCWD Board adds Water Shortage Response to its meeting Agenda, and provides updates to the public as needed.
- E. Consider adding drought surcharge to all bills, which will be waived if an audit is conducted, recommended changes from the audit are instituted, and water use is shown to decline

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Recommended **Mandatory** Customer Actions:

- A. Reduce water use by 10-25% from prior year for similar billing period (amount of mandatory reduction will be voted on by the WCWD Board).
- B. Residential, garden, and landscape water use:
 - i. Residential, garden, and landscape watering shall be limited to two days per week.
 - ii. Limit watering to the evening and early morning hours only (8pm to 6am); avoid use of sprinklers.
 - iii. Irrigation systems: inspect systems and repair leaks; adjust spray heads to provide optimum coverage and eliminate avoidable over-spray; change run-time for valves consistent with weather fluctuations; reduce minutes of run-time for each irrigation valve if water run-off is occurring.
- G. Use re-circulating water only in ornamental fountains, ponds or lakes, and post signage nearby that states that re-circulated water is being used.

Scenario 3: Critical Water Shortage Emergency (25-50% shortage; NID Drought Stages 4 or 5) – WCWD Actions

- A. Intensify implementation of all measures in Scenarios 2 and 3.
- B. Conduct door to door communications with the public on the situation and what is expected of them.
- C. WCWD Board convenes Monthly to discuss the drought response, water use reductions and increased enforcement, if necessary (or more often, depending on the nature of the crisis), and provides updates to the public as needed.
- D. Initiate Crisis Communication Plan (see below)
- E. Implement mandatory water rationing, including per capita water use allocations for residential customers, if/as appropriate.
- F. Display signage in town with information on the Critical Water Shortage G. Consider any additional measures that may be taken in crisis situations to further reduce water demand and/or identify additional supplies. (see Scenario 4)

Scenario 4: Emergency Water Supply Failure

For an infrastructure-related failure or other unanticipated water supply emergency, water delivery options will be immediately evaluated and a staff recommendation made to the WCWD Board within 48 hours of notification of the emergency. Two options exist should water flow be cut off from the intake at Canyon Creek:

1. In critical low-flow years, Washington has installed an emergency inlet pipe higher up in the streambed in Canyon Creek to obtain water when levels drop below the diversion dam intake. Modifications to the emergency intake could be made to move or extend the intake to another part of Canyon Creek to maintain flow into WCWD's water treatment system
2. If there is no flow in Canyon Creek, an emergency pump could temporarily connect the South Yuba River to the WCWD's water treatment system (with post-emergency permitting required) The pump and hoses required for such an emergency water take should be purchased via the Capital Improvement Plan and tested prior to an

emergency occurring.

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- A. WCWD Board convenes Weekly to initiate the WCWD's procedural response, determine critical water use reductions and increased enforcement, if necessary, and provide updates to the public as needed until the emergency is resolved.
- B. Conduct door to door communications with the public on the situation and what is expected of them within 4 hours of the emergency being reported.
- C. Display signage in town within 4 hours with information on the emergency D. Send out mailing to all customers within 24 hours of the emergency being reported.

Recommended **Mandatory** Customer Actions for both Scenarios 3 and 4: A. Mandatory water rationing, including per capita water use allocations for residential customers.

- B. Institute weekly meter reading and install flow restrictors if and as necessary. C. Prohibit all outdoor irrigation with potable water.
- D. Do not refill a swimming pool, spa or hot tub until the crisis has passed.
- E. Do not use potable water for outdoor cleaning, irrigation and construction purposes (including but not limited to dust control, settling of backfill, flushing of plumbing lines, and washing of equipment, buildings and vehicles).
- F. The primary objective during critical drought conditions or water emergencies is protection of water supply for public health and safety purposes. Water shall be allocated in the following priority per California Water Code:
 - 1. Human Consumption and Hygiene
 - 2. Livestock and animals
 - 3. Perennial crops
 - 4. Annual crops

OUTREACH: PUBLIC INFORMATION AND EDUCATION

At a minimum, when a Drought Stage is announced, a public notice should be prepared, approved by the WCWD Board, and distributed via mail to all customers with their water bill. In addition this information should be displayed on signs at strategic locations in town. Water shortage notice and conservation instructions should be provided in water customer bills making clear which actions are expected, which are voluntary (if any), and which are mandatory. As much as possible information and education materials should be targeted to WCWD's customer base.

The State Department of Water Resources has partnered with the Association of California Water Agencies to create SaveOurWater.org, a non-profit entity set up to provide effective information and educational materials and opportunities developed by communications professionals, and will be a valuable resource for WCWD staff tasked with communicating with customers. That and select other websites appear below.

For use by WCWD staff and customers:

- SaveOurWater.org (public info samples; business toolkit; household toolkit) CA.com/drought (State drought site)
- ACWA.com (Association of California Water Agencies)
- RCAC.org (Rural Community Assistance Corp.)
- EPA.gov/watersense (Federal site; checklists for customers, how to fix leaks, etc)

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Crisis Communication Plan (for Scenarios 3 and 4)

A Crisis Communication Plan is to be implemented during Scenarios 3 and 4. The Plan consists of scripted messages to be developed based on the circumstances and needs of the situation, and an emergency notification list.

When an emergency occurs, the need to communicate is immediate. If water delivery is diminished or threatened,

customers will want to know how they will be impacted. It will be important to move as quickly as possible from simply reacting to the incident, to pro-actively developing and managing a strategy to overcome the incident.

Emergency Notification List

The entities that must be contacted will likely depend on the circumstances of the crisis. The Emergency Notification List should include an array of agencies and other contacts that are likely to be needed and it should be completed with names, phone numbers and email addresses by April 1 of each year (or before the irrigation season begins, whichever comes first) – do not wait for a crisis to occur and then try to locate the information. When considering additional entities to contact, consider all regulatory agencies that may be pertinent, as well as all interests and entities that may be affected by the crisis.

[ATTACH CONTACT LIST HERE ONCE DEVELOPED AND REVISIT/UPDATE EACH YEAR]