

Fact Sheet



DIVISION OF DRINKING WATER

Emergency Preparedness

Need for Emergency Preparedness & Regulatory Background

Implementation of the 2020 Safe Drinking Water Plan (2020 Plan) focuses on recommendations necessary to achieve compliance with the Safe Drinking Water Act, in recognition that safe drinking water is fundamental to the health of all communities in California. The 2020 Plan contains recommendations for public water systems and are grouped in the four thematic areas of Sustainability, Equity/Human Right to Water, Emergency Preparedness, and Program Action. This factsheet includes background information and recommendations related to the Emergency Preparedness theme.

California's history of natural disasters and other emergencies, such as cyber attacks or the impact of climate change on our state's water resources, prove the need for public water systems to be prepared to respond to emergencies. In emergency response, public water

systems are a critical resource that limit property damage, save lives, and aid recovery.

Recently, California and the federal government have acted to improve water system security, emergency preparedness and response, and water system resiliency in the face of climate change. These actions include the **2018 America's Water Infrastructure Act** and **California's 2020 Water Resilience Portfolio**. The 2018 America's Water Infrastructure Act required medium and large community water systems to develop emergency response plans. It did not include similar requirements for small water systems, leading to inequitable progress. While the Water Resilience Portfolio aimed to improve all systems regardless of size, the gap still needs to be closed between the preparedness of small systems and larger systems.

Community Water Systems

Community water systems are a type of public water system. They may be run by cities, counties, mutual partnerships or private companies. Community water systems are responsible for providing safe, affordable drinking water to customers year-round. Small community water systems (serving fewer than 3,300 connections) face numerous challenges in meeting this responsibility because of problems related to the size of their system.

- In general, small water systems are less resilient in emergencies. Medium and large community water systems serving 3,300 or more connections are more resilient in emergencies.
- Medium and large community water systems have better economies of scale, which means costs can be spread out over larger groups of people. Smaller water systems are unable to spread these costs out across a larger number of customers.

- Medium and large community water systems are subject to federal regulations, which require detailed emergency response plans. Small community water systems are not subject to these same regulations, and California does not have the authority to require emergency response plans. Many medium and large water systems have established partnerships with mutual aid organizations; however, small systems often lack the resources to develop emergency plans and partnerships with mutual aid organizations.
- Smaller community water systems have the highest rates of drinking water standards violations. Many only have one source of drinking water, which makes them vulnerable to water outages during an emergency, increasing the possibility of a public health crisis. While medium and large community water systems in the state have high levels of preparedness, small water systems need to catch up to be equally prepared for emergencies.

Mutual Aid and Emergency Response Plans

Impact and recovery efforts from natural disasters and other emergencies could be significantly reduced if all community water systems were members of mutual aid organizations and had emergency response plans. Mutual aid organizations are networks of organizations that work together to meet the resource needs of everyone in a community. In this context, emergency support networks are comprised of water systems helping water systems.

Emergency response plans are used to prepare for and respond to natural or man-made events, including cyber attacks, by ensuring that water supplies for drinking and sanitation are safe, reliable, and resilient. These can range from small water main breaks to large scale earthquakes or water distribution system contamination. Mutual aid networks can assist water systems in implementing response plans, leading to improved emergency response.

Case Study: Mutual aid and recovery and the Ridgecrest earthquake

The most powerful earthquake in California in the last 20 years occurred in Ridgecrest in July 2019. A privately owned water system serving the town of Trona experienced the most damage to its water distribution system compared to other systems in the affected area. To protect public health, the water system issued boil water notices. The water system did not accept mutual aid, resulting in a delay in lifting the boil water notices and a lack of water supply for residents. Had the water system accepted mutual aid, safe water for sanitation and consumption could have been restored sooner and less resources could have been spent on securing bottled water, portable showers, and more.

Top Four Emergency Preparedness Recommendations

The 2020 Safe Drinking Water Plan identified [15 recommendations for emergency preparedness](#), below are four of the recommendations:

1. All community water systems should be required to participate via membership in a mutual aid organization with other water utilities.
2. The State Water Board should establish statutory requirements for all community water systems to develop, maintain, and exercise, an emergency response plan.
3. The State Water Board will continue to encourage vulnerable water systems, particularly those that rely on only a single groundwater source, to study and improve their reliability, increase existing community water systems source capacity requirements to include a minimum of two sources, either through an intertie to another water system or an additional well source, and ensure backup power supply.
4. Focused programs should be developed to ensure California water systems are planning and preparing for the impacts of climate change. This may include:
 - Technical assistance providers to develop regionalized training on climate vulnerabilities;
 - Funding programs to help water systems to develop climate change vulnerability assessments and mitigation plans; and
 - Ensure funding for water systems to mitigate challenges that will enhance resiliency to changing climate.

For additional information on emergency preparedness, visit:

[SAFER Drinking Water Program | California State Water Resources Control Board](#)
[California Department of Housing and Community Development](#)
[Home | California Office of Environmental Health Hazard Assessment \(ca.gov\)](#)
[California Public Utilities Commission](#)
[Department of Water Resources \(ca.gov\)](#)
[California Department of Real Estate](#)
[2020 Safe Drinking Water Plan- Chapter 2, Current Regulations of Drinking Water](#)
[2020 Safe Drinking Water Plan- Chapter 12, 2020 Implementation](#)

For questions regarding emergency preparedness, contact:

Division of Drinking Water, Technical Operations Section at DDW-TechOps@waterboards.ca.gov or (619) 525-4021