

RCAP

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let's talk

Drinking

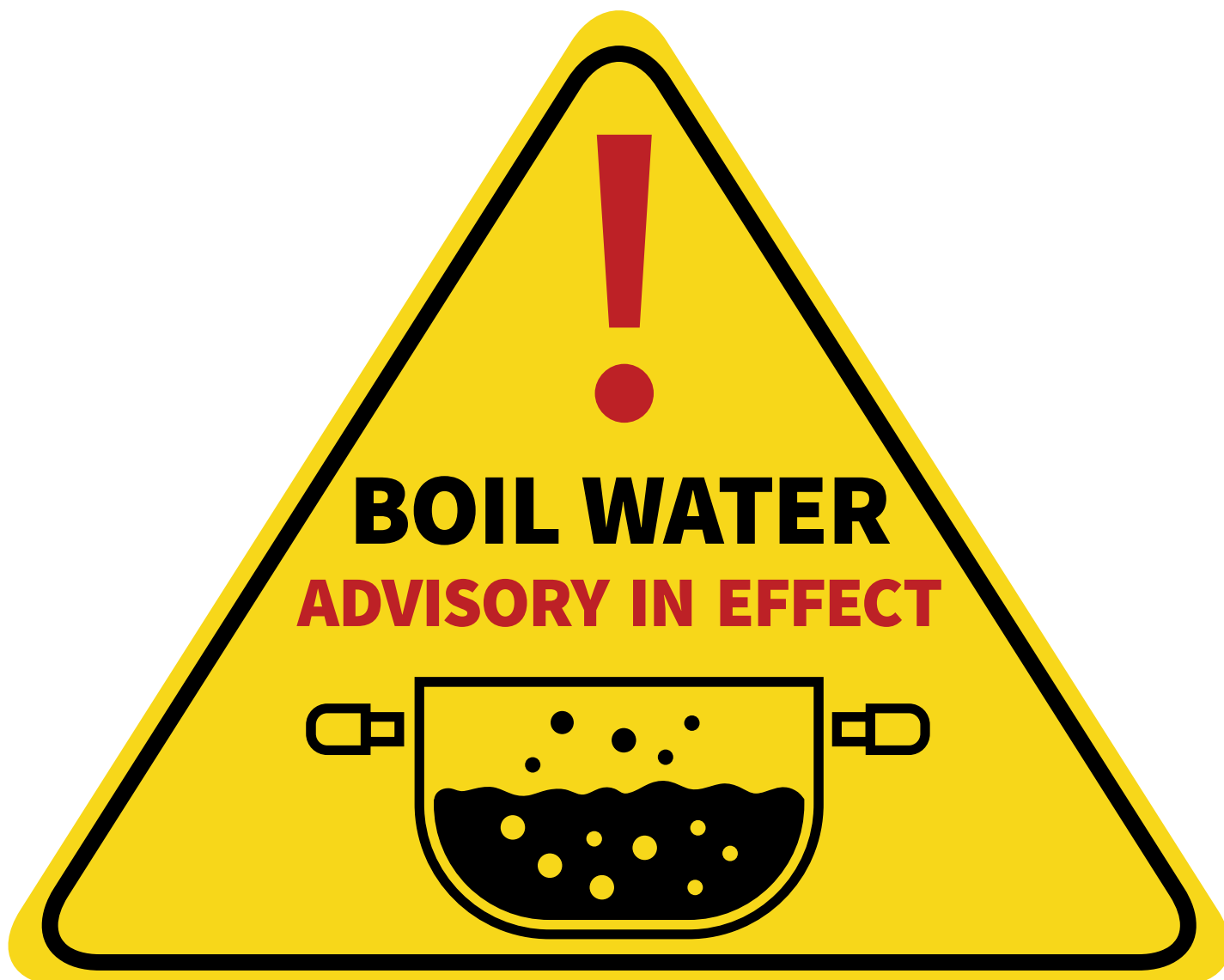
Water

systems and access



**UNDERSTANDING
BOIL WATER ADVISORIES,
COVID-19'S IMPACT ON
MAINE'S COMMUNITY
WATER SYSTEMS,
AGREED ORDER ASSISTANCE,
and MORE**





Boil Water Advisories and Orders

What they mean and how to respond.

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It is not often employees of small cities and towns hear gratitude, but they did after their experience with the polar vortex that spanned the U.S. in February 2021. The extreme freezing temperatures led to severe water main breaks in many cities and towns, resulting in widespread Boil Water Orders and Boil Water Advisories.

The media attention on the polar vortex amplified concerns. When residents heard the name of their town or city on the television, radio, or social media platforms issuing a boil water advisory or order, panic

followed. Questions such as: “Are my children and pets safe?” “Can we eat the dinner I cooked?” “I just showered; am I now going to be sick?” and “When will the water come back on?” became trending topics.

Most people do not think about the water that comes to their home for bathing, cooking, and drinking unless the amount or quality is threatened. This article dives into a few of the most frequent questions about boil water notices for water consumers.

“There’s plenty of water in the universe without life, but nowhere is there life without water.”

— SYLVIA A. EARLE,
AMERICAN MARINE BIOLOGIST

What is a Boil Water Order or Boil Water Advisory?

Public water systems and water operators take water quality very seriously. Routine testing and maintenance occur 24 hours a day, seven days a week. However, occasionally, there is a problem with water quality that can lead to a Boil Water Order or Boil Water Advisory.

The public water system can advise you to boil water—issue a **Boil Water Advisory**—when there is an unconfirmed concern or potential problem with the quality of your drinking water. Significant water main breaks or other low-pressure events where the possibility of contamination intrusion exists can trigger a Boil Water Advisory. It can take 24 to 48 hours to receive sample results from the laboratory to confirm that the water is safe.

A **Boil Water Order** occurs when there is a likely threat to public health issued by the regulator—in this case, the Missouri Department of Natural Resources (DNR). The most common reason for issuing a Boil Water Order is the presence of fecal coliform or E. coli bacteria, typically caused by low water pressure or inadequate levels of chlorine in systems that require chlorination.

Other technical terms you occasionally hear causing Boil Water Orders are:

- High turbidity levels
- Cross-connections contamination
- Inadequate treatment techniques
- The presence of other microbial pathogens such as Giardia or Cryptosporidium.

How is water quality maintained?

Water operators, the state regulator—which, for Missouri, is the DNR—and the Environmental Protection Agency (EPA) work hard to monitor, inspect, maintain, and regulate public water systems 24 hours a day, seven days a week, 365 days a year.

Testing

Samples are taken monthly, or more frequently depending on system size, by an employee of the city, town, or state and submitted to a certified lab to be tested. This tests whether the drinking water is safe for direct consumption, bathing, and cooking. Water operators perform tests regularly to detect contamination. If contamination is suspected, the public water system needs to contact the state regulator regarding the results. Every water

system requires reports of the events recorded with the regulator, which are then accessible online via their Drinking Water Watch.

Flushing

Have you ever seen water flowing from fire hydrants and water towers? You might think there's a problem. However, it can part of a standard maintenance strategy to keep water fresh and safe to drink within the pipes, also known as the distribution system. Flushing is used as a tool to remove sediment from water lines that may build up over time. Flushing also helps to get water moving and can be used to replace stagnant water with fresh water in areas without much flow in the distribution system.

Water main break repair

If you have a water main break, water quality can be impacted either through the break or through a pressure drop during the break or the repair. Flushing is often used following break repair to expel any contaminated water.

What steps should I take if I'm under a Boil Water Order or Advisory?

Knowledge is power. Understanding why a boil water notice occurred is the first step; knowing what to do is the next. Educating yourself and your family on the proper procedure to follow if a Boil Water Order or Advisory is issued will help build confidence in your drinking water quality when they occur and reduce risks involved with contaminated drinking water.

- Boil water vigorously for three minutes before use. Use only boiled water for drinking, diluting fruit juices, other food preparation, and brushing teeth. Note: Let the water cool sufficiently before drinking (to approximately 110 degrees F or below) to avoid scalding
- Buying bottled water may be a practical alternative to boiling drinking water under a Boil Water Order or a Boil Water Advisory. Bottled water offers a safe water source for drinking, cooking, and brushing your teeth. We would recommend larger bottles versus individual-sized in order to limit the impact on the solid waste stream
- Dispose of ice cubes, and do not use ice from a household automatic icemaker—remake ice cubes with boiled water.
- Disinfect dishes and other food contact surfaces through immersion for at least one minute in clean tap water that is mixed with one teaspoon of unscented household bleach per gallon of water.
- Usually, you don't need to boil water for bathing or for your children to play in a kiddie pool, sprinkler, or under the hose. Watch closely that children are not ingesting any water as they play.
- Waterborne diseases can affect specific groups of people. Contact your physician for additional information if you have or are caring for someone who has cuts, severe rashes, or reduced immune function or who is under six months of age or elderly. Additionally, chemotherapy, organ transplants, and diseases like HIV/AIDS can reduce immune function and increase the risk of waterborne illness.

What are the symptoms of water-borne illness?

It's not entirely uncommon to experience a waterborne illness, even though, according to the Centers for Disease Control and Prevention, the U.S. has some of the in the world. Still, 7.2 million Americans (1 in 44 people) get sick from diseases spread through the water every year. We share this not to scare you, but to inform you. Disease symptoms include diarrhea, cramps, nausea, jaundice, associated headaches, and fatigue. However, these symptoms do not result only from disease-causing organisms in drinking water—several factors other than your drinking water can cause these symptoms.

What can we do to help?

From personal experience, when a Boil Water Order or Advisory is issued, the public is likely to remain calm if given guidelines and prompt communication. Proactive and timely communication in understandable language is key. Many cities and towns post updates on social media accounts such as Facebook to keep the citizens informed on the progress of repairing a water main break or waiting on the results from a laboratory.

As a resident, be patient with the employees and water operators. They are the experts and do the best they can. Most live in the community and experience the same conditions in their own homes, and they want the repairs completed or results back as quickly as you do. Learning about your town's infrastructure and your role in spreading helpful information will create a stronger community during a crisis.

Residents, city and town employees, businesses, and the infrastructure itself felt the stress of the polar vortex in 2021. However, seeing communities unite and develop an appreciation for drinking water was an unexpected gift. Not every emergency will be of that magnitude, but it's important to remember that every event shapes the relationship between a public water system and the community it serves.

