



WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER



Planning and preparation are the keys to maintaining supply

As a water system professional, how would you react if you suddenly had a water shortage that could disrupt your supply indefinitely? Whether a shortage is due to drought, flooding, temporary loss of a water source, declining water tables, or the impacts of climate change, are you ready?

All public water systems, from the smallest to the largest, should have a Water Shortage Response Plan complete with conservation goals and actions. What can you do ahead of time to avoid a shortage? What do you tell customers? Do you have alternative water supplies? This is the time of year to think “drought preparedness”!

Planning for a drought now may make the difference between having water or running out.

The difference between water use efficiency and water conservation

Over the past few years, we have talked a lot about water use efficiency (WUE) and water conservation. With the potential for water shortages in parts of the state later this summer, these terms take on a new significance and urgency.

You can see the difference between a WUE program and water conservation when water supplies are stressed and there's a need to reduce water use even further.

WUE program

A complete WUE program includes both supply side (water system) and demand side (customer) strategies for efficient water use. A utility should demonstrate its efficient water use and help customers use water efficiently, too.

Water use efficiency is the water system's efforts to minimize supply side and demand side inefficiencies by eliminating wasteful water

practices and promoting long-term water-saving goals. Use only the water you need—eliminate waste!



Water conservation

Even with a successful WUE program, there are times when your efficiency efforts just aren't enough. When water supplies are stressed, you may find that a more aggressive approach to reducing water use is necessary.

Water conservation reflects your efforts to reduce the amount of water you and your customers would normally use.

Think of this as a tool to cope with reduced water supplies, such as developing a Drought Plan or a Water Shortage Response Plan. These plans allow you to meet priority needs by reducing consumer demand.

Whether you ask them to be more efficient by eliminating waste, or you ask them to conserve by reducing their use, it all starts with the customer. The less they use, the less you have to pump, treat, store and distribute. This will save money and water for you and your customers!

Don't apologize for the disaster that didn't happen

When you avoid a crisis by doing everything a good water system should do, it's time to have another essential conversation with your customers. They need to know what you did to avoid the crisis, so don't be bashful about telling that part of the story—and proudly.



Your customers should know it took foresight, good planning, and good communication on your part to get them through the challenge and that without those efforts, there might well have been a crisis. Yes, it may feel like bragging, but tell them anyway.

Talking with your customers before, during, and after a threat builds trust and confidence in your water system. They'll understand that you're planning ahead and looking out for their interests so their water will be there when they need it. They'll also be more likely to cooperate the next time you need to ask them to conserve.

Point out that emergency preparedness is essential to a utility's success. You can share the credit—congratulate your customers for being smart and preparing for the worst, then celebrate the disaster that didn't happen.

10 ways to prepare for a drought-related water shortage

- 1. Develop a Water Shortage Response Plan.** Drought is another type of drinking water emergency. Include detailed actions for water conservation and, in extreme situations, water curtailment.
- 2. Identify who your key contacts for drought will be.** Designate a water shortage or emergency response lead to ensure effective preparation, communication, and technical procedures are in place.
- 3. Engage your customers in drought preparation.** Identify conservation goals and activities for your water system and your customers. **Hint:** Build on the water use efficiency work you already did.
- 4. Check water levels in your wells or other water sources monthly.** As drought develops, check weekly. Look for changes that occur over time. Learn how to measure water levels.
- 5. Watch for other indicators.** Changes in water quality (including sediments or air in the water), changes in customer water use, pumping rates, even wellhead electrical use can be subtle warning signals of a shortage.
- 6. Identify an alternative water supply.** Will you use a water tanker truck, bottled water, intertie to another system, or something else? Make sure you have a "Plan B," and maybe even a "Plan C."
- 7. Know how to use emergency sources safely.** Contact your regional engineer to learn what's required to bring an emergency source on line. Also see *Emergency Drinking Water Sources* (331-317) (See page 12).
- 8. Find leaks and repair them.** Leaky water pipes can waste large amounts of water at either the water system level or household level (customers).
- 9. Technical assistance.** Information is available to help water systems in a supply emergency. Call our regional office when problems arise (see page 12). Check online for resources, prevention, and planning tips.
- 10. Be prepared to issue a health advisory.** A service interruption caused by a water shortage affects water quantity and creates a potential health risk that requires emergency notification to customers.



How well do you know your water supply?

Does your water source consistently provide enough water to meet your needs? How does it hold up during drought? These are questions all water utilities should consider, especially when establishing water use efficiency programs and water-saving goals.

Understanding where your water comes from is more complex than identifying it as groundwater or surface water. It's recognizing that others rely on the same water source you use every day. It's being aware that while the quality and quantity of your water supply may be adequate now, it may not always be that way.

“Water supply characteristics” are factors that may affect the availability and suitability of your water source to provide for short-term and long-term needs. Factors include source location, production capacity, the source’s natural variability, and legally available water rights.

As you think about your water supply characteristics, consider who or what relies on the water downstream from you, especially neighboring water systems. Farmers, industry, and agriculture rely on water to do business and provide jobs for local residents. Yearly and seasonal variations in water supplies can put tremendous stress on aquifers, stream flow, and reservoirs, especially during a drought.

In addition, depleting reservoirs and groundwater puts water supplies, human health, and the environment at serious risk. When water levels drop, concentrations of natural or human pollutants can rise.

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Stressed water supplies are a great reason to focus on WUE efforts

When competition for water increases and factors, such as drought, place a strain on water supplies, it's time to revisit your water use efficiency (WUE) program and goals. During times like these, elected board members and customers are likely to support a more aggressive approach to saving water.

When we adopted the Water Use Efficiency Rule in 2007, many water systems looked at their existing WUE programs and decided to keep doing what they've always done. If yours was one of those systems, ask yourself this:

- Did we establish a meaningful WUE goal or was our response more of an exercise to meet the state's goal-setting requirements and deadlines?
- Is there more we could do to save water?
- What could we do to encourage customers to do more?

Take this opportunity to evaluate your existing WUE program and consider setting short-term goals that could help your system get through a drought or shortage. And how about setting a more aggressive water-saving goal for the long-term?

Achieving goals that are more aggressive will take more than sending annual conservation tips to your customers. Consider implementing efficiency measures that really save water, such as setting up a rebate program to help customers replace old, inefficient showerheads and toilets with WaterSense-labeled ones. The WaterSense logo identifies products that meet EPA water efficiency criteria.

DID YOU KNOW?

- The average person unknowingly wastes up to 30 gallons of water every day.
- About 4 percent of the nation's electricity is used to move or treat water and wastewater.

Know your water supply... (Continued from Page 11)

Test your water supply knowledge

Here are questions to help you identify your water supply characteristics. You should use the answers to establish a water use efficiency program and goals:

Natural conditions

- Has drought ever significantly affected your system?
- Is your supply limited by seasonal variations?
- How have water levels changed in your well (summer to winter, year to year)?
- Can all your sources produce enough water to meet high demand?

Sharing the resource, sharing the risk

- How is your neighborhood or community changing? Could new development, such as an increase in paved surfaces and exempt wells, affect an aquifer or stream?
- Does customer demand change seasonally or year to year?
- How do static water levels change in your well?
- Have you ever had to deepen or rehabilitate your well to meet demand?
- Are you required to mitigate for instream flows as a condition of using your water? Can senior water rights, instream flows, or tribal rights interrupt your water use?

- How would an increase in well drilling and reliance on groundwater in your area affect your ability to meet current and future demand?

Options for the future and sustainability

- Do you have an emergency intertie with a neighboring utility? Might they ask you for one?
- Can you meet projected demand for the next 6, 20, and 50 years?
- Do you have additional water rights?
- If you need more water rights, can you buy more? How long will it take to get them?

If you know the answers to these questions, how do you use the information to manage your water system? How can you use your answers to establish a water use efficiency program and goals?

Many of these questions don't have simple or easy answers. So, it's important to start asking the questions now and plan accordingly.

For help, e-mail Mike Dixel, water resources policy lead, at michael.dixel@doh.wa.gov or call (360) 236-3154.

Water shortage resources

We have information, expertise, and resources to help you prepare for—or manage—a water shortage. To tap these resources:

Call us at the nearest regional office:

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|-------------------|----------------------------------|
| Eastern Region: | Spokane Valley
(509) 329-2100 |
| Northwest Region: | Kent (253) 395-6750 |
| Southwest Region: | Tumwater (360) 236-3030 |

Check out the following publications online at < <https://fortress.wa.gov/doh/eh/dw/publications/publications.cfm> >

Preparing Water Shortage Response Plans (331-301)

Emergency drinking water sources (331-317)

Water Shortage Response Plans for small public drinking water systems (331-316)

Department of Health's role during a drought emergency (331-297)

Emergency Funding for Water Systems (331-420)