Keep Drinking Water Safe

Water systems and their operators must be ready to tackle any problems. Water contamination is one of them.

Barriers are physical structures and actions you take to prevent contamination from getting into and spreading through a water system. Barriers are necessary to address human error or a natural event that puts the safety of the water supply in jeopardy. A multiple-barrier approach includes five elements:

- Source protection to keep the raw water supply as clean as possible, eliminate possible contaminants and pollutant from around your established source control area.
- Treatment to remove chemicals or kill organisms before they can enter into the drinking water supply system and cause waterborne illnesses.
- Distribution system security to protect against the intrusion of contamination into the water supply system (wells, pipes, and storage tanks) through vandalism, accident, or malfunction.
- Monitor water quality to determine if the treatment process is working and to detect contamination in a timely manner. This includes regularly scheduled water quality sampling for bacteria and nitrate.
- Respond to an emergency in a well-planned and organized manner.

A well-managed system will continue to perform adequately despite problems. Record all plans to address the above elements.
Water Availability

We continue to receive complaints from managers about illegal hookups to their water systems. Because this continues to be a problem, we reprinted this information from an earlier newsletter.

Examples of hookups include:
• Temporary “mother-in-law” out-building that becomes permanent.
• An accessory garage turned into an apartment or rental.
• An accessory living unit separate from the main living structure.
• A garage with living space.

Nearly all small water systems are designed to serve only a few single family residences—they have minimal storage capacity and system infrastructure. Little or no capacity exists to add more demand on the system's resources.

As managers, it’s your responsibility to protect your water system and customers from decreased water pressure, insufficient storage, over connection and unaccounted for expenses. Your best tool to address this problem is the Water Availability Letter (WAL) process. Our agency requires a WAL for each residential and commercial building proposal having a water connection regardless of its proposed use.

We require the confirmation of water availability for two reasons.
1. State and local laws require proof of water availability for building permits.
2. To protect you and your customers from unnecessary system problems.

The Water Availability process gives you the opportunity to make a decision about your water system’s capacity to address additional demand, however small that might be. When you review a water request, get a copy of the building plans and ask yourself:

• Do I need to add water storage?
• Do I need to upgrade my system to meet fire flow for an additional building?
• Do I have the right sized water mains?
• Will there be extra costs as the demand on the system increases?
• Do my existing customers approve of additional demand and physical change to the system?
• Are there restrictions in your well-share agreements or other legal documents?

Protect and evaluate the capacity of your water system.

Due diligence on your part will help prevent future problems. If you determine your water system does not have the ability to meet the increased demand, don’t sign the WAL.

You control your water system and your WAL signature. Evaluate each of these requests in your water system’s best interest. We support your decisions to provide a safe and reliable source of drinking water to your friends and neighbors.
My Water Sample Failed. Now What?

It's the phone call no water system operator wants to get. The lab results are back, and your routine bacteria sample was unsatisfactory for total coliform.

What do you do next?
The first step is to collect another water sample within five days and submit it to the lab. The reason for a second sample is to confirm the results of the first sample.

Reduce the chance of a second bad sample.
Before you collect the second sample, ask yourself:

• Was the sample location a good sample faucet? Faucets with an aerator that can't be removed are not good sample locations.
• Was the spigot at ground level or spraying water sideways?
• Did you take the sample from a yard hydrant?
• Was the sample collected out of a hose?
• Was it pouring down rain and you were trying to block the weather with your body?

All of these situations increase the chance of a bad water sample. A good sample faucet goes a long way to prevent bad water samples.

Second time is the charm!
Great news! The lab notifies you that the second sample is satisfactory. Group B’s in Pierce County only need to collect one satisfactory sample to be back in compliance after an unsatisfactory sample.

What if the second sample was unsatisfactory?
Roll up your sleeves and figure out the problem:

• Inspect your water system.
• Make necessary repairs (replace a bladder tank, fix a leaking pipe, etc.)
• Think about any changes. Has there been anything in the last year that might have caused bad water samples (loss of pressure due to a power outage, replacing a well pump, installing new water line, etc.)?
• Perform a shock chlorination on the water system. We will send you a shock chlorination fact sheet along with the public notification form for users. See the facts at www.tpchd.org/shockchlorinate.

Coliform bacteria are not naturally present in groundwater. That’s why they are used as an indicator to check for sanitary integrity on water systems.

Once you get notified of the second bad water sample, you need to notify the users on the water system within five days. After you disinfect the system, you will need to collect another bacteria test and submit it to the lab. The majority of water systems will resolve their water quality issues with a shock chlorination.

If your water system continues to fail, we are here to help. We will discuss options and even meet with you onsite to look at the water system. Sometimes a fresh set of eyes can notice something that got missed.

We are here to help ensure residents have a safe and reliable source of drinking water.

Meet requirements and ensure safe drinking water.
It’s your responsibility!

• Test for bacteria once a year.
• Test for nitrates once every three years.
Water Rights Explained

The waters of Washington State belong to the public. No person or group can own them. A water right is the legal authorization to use a predefined quantity of public water for a designated purpose. The use must be beneficial, involve a reasonable amount of water, and be non-wasteful (i.e. agricultural use, commercial use, residential use). State law requires certain users of public waters to receive prior approval from the Department of Ecology. Exemptions to this requirement include water for:

- Livestock.
- A non-commercial lawn or garden one-half acre in size or less.
  - This is the combined area of all homes irrigating (each home cannot irrigate ½ acre.)

- A single home or groups of homes (limited to 5,000 gallons per day.)
  - Group B water systems with less than six connections qualify for this exemption.
- Industrial purposes (limited to 5,000 gallons per day, but no acre limit.)

If you want to know if your system has a water right or needs to have a water right, contact us at ehdwater@tpchd.org. For more information on water right questions, visit these links:

Washington Department of Ecology
www.ecy.wa.gov/programs/wr/rights/water-right-home.html

Landowner’s Guide to Washington Water Rights
www.ecy.wa.gov/programs/wr/rights/water-right-home.html

New Staff: Meet Luke

Luke Sturgeon, our Administrative Assistant II, joined the Drinking Water team in early December. He came to the Health Department after a career in the U.S. Air Force as an officer and aviator, where he gained considerable experience with regulatory compliance and customer service. Water and environmental regulations, however, are a new subject area for Luke. Part of the attraction of working at the Health Department, he says, is that it fulfills the same call to service that initially attracted him to the military.

Before his work here, Luke took the availability of clean water mostly for granted. He’s been surprised to learn how complex water regulations are and how much work goes into maintaining safe and reliable water systems. The drive to understand this complexity, and to help customers understand and work through it, is a big part of what motivates him every day.