

Ensuring Your Water Is Safe

All water contains small amounts of impurities like dissolved elements, harmless bacteria, and suspended particles. The Portland Water District maintains a thorough program to ensure that harmful bacteria do not enter the water system. The program focuses on four key components:

- Maintaining a clean source of water through a comprehensive lake and watershed protection program around Sebago Lake;
- Disinfecting the water at the Sebago Lake Water Treatment Facility using ozone, ultraviolet light, and chloramines;
- Repairing water main breaks in a manner that prevents contamination; and
- Monitoring water quality as the water travels through the distribution system to your tap.

Routine water quality monitoring occurs each day of the week. The Revised Total Coliform Rule, an EPA drinking water regulation, requires that we collect and test at least 120 samples each month throughout the system for total coliform bacteria and *Escherichia coli* (*E. coli*).



Water Words

Coliform Bacteria

Microorganisms common throughout the environment. Used as an indicator of water quality for public drinking water systems.

Pathogen

A disease-causing organism. Through routine sampling it can be demonstrated that no pathogens are present in the drinking water.

E. coli

Escherichia coli. A bacteria that resides in high numbers in the human digestive system. It is sometimes found in water and is an indicator of possible contamination by human or animal fecal matter.

Safe Drinking Water Act

Federal law passed in 1974 designed to ensure the safety of public drinking water. Total Coliform Rule is a section of the Safe Drinking Water Act which requires routine testing for coliforms.

Colilert™

A laboratory test used to detect coliform bacteria and *E. coli*. The test is produced locally by Idexx Laboratories in Westbrook, Maine.



Ensuring Your Water is Safe through Regular Monitoring



Portland Water District
FROM SEBAGO LAKE TO CASCO BAY

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What are coliform bacteria?

Coliform bacteria are a group of common microorganisms found throughout the environment and in the digestive systems of warm-blooded animals. Nearly all are harmless to humans but a few, including some types of *E. coli*, are pathogens – meaning they can cause disease.

Why test for coliform bacteria?

While coliform bacteria are common in the environment, they shouldn't be in the water coming to your home. If detected with regularity in a public water system, it likely means something needs to be fixed, like a treatment process or a break in a pipe. Water utilities routinely perform coliform testing

because it is a simple yet reliable indicator of water quality and safety. Detecting coliform bacteria does not always mean pathogens are present, but not detecting them is a positive indicator that the system is secure and treatment is functioning properly.

What does it mean when coliforms are detected in the water?

Because a vast majority of coliform bacteria are harmless,

a single positive test for total coliform does not mean your water is unsafe. Large public water systems like PWD must ensure no more than 5% of the samples taken in any month are positive for total coliforms. This means that if 120 samples are collected, corrective action must be taken after 6 positive samples. **Detecting coliforms in the Greater Portland system is rare; in a typical month we have zero or one positive sample, far below the 5% limit that would indicate the need for an investigation and correction.**

If coliforms are detected in the water, what does the Portland Water District do?

If coliform bacteria are found, we will re-sample at the site of the detection and from two additional sample sites in the same neighborhood. Chlorine levels are also measured. Sometimes, if the level of chlorine is found to be less than ideal, PWD will flush the local system to deliver newer, fresher water to the site.

If coliforms are present, how do you know *E. coli* is not?

Each sample collected is analyzed at our state-accredited laboratory using a product called Colilert™. Colilert™ can detect the presence of both total

coliforms and *E. coli* simultaneously. **Even after the testing of tens of thousands of samples, the Portland Water District has never confirmed the presence of *E. coli* in a distribution system sample.**

What would happen if *E. coli* was detected?

If *E. coli* is ever confirmed in the water system, customers will immediately be notified and alerted to boil the water before drinking. Bacteria, including *E. coli*, are killed when the water is boiled. Notification would be made through all means including website, television, e-mail, etc. Customers would be instructed to continue boiling their drinking water until the cause is identified, corrected, and the water re-tested enough times to confirm its safety.

Our Commitment

The Portland Water District's priority is to ensure the safety of your drinking water by complying with the federal Safe Drinking Water Act and all EPA regulations that protect public health.

For Additional Information:

Contact our Customer Service Center or email us at customerservice@pwd.org or lab@pwd.org.

