

2017 *Cryptosporidium* Detection Frequently Asked Questions

What Happened?

Through February 13, 2017 a total of 29 samples have been tested for *Cryptosporidium* from the Bull Run in 2017. Of these samples the following had detections for *Cryptosporidium*:

Sample Collection Date	Number of Oocysts in a 50L sample
January 2, 2017	2
January 3, 2017	3
January 25, 2017	1
February 1, 2017	1
February 7, 2017	1
February 8, 2017	2
February 13, 2017	1

What is a *Cryptosporidium* oocyst?

Cryptosporidium is a parasite that lives in the intestines of infected animals or humans. An oocyst (*oh-sist*) refers to the resting stage of a single *Cryptosporidium* organism. The oocyst has a protective shell-like structure that protects the organism from harsh environmental conditions, such as chlorine disinfection. Many types of *Cryptosporidium* exist, but most are not infectious in humans.

What should the public do?

The City is working closely with the Multnomah County Health Department and State of Oregon Health Authority. Based on these detections, public health officials do not expect any health impacts for the general population from the detection of low amounts of *Cryptosporidium*. However, people with severely weakened immune systems may be at additional risk and should seek advice from their health care provider.

Who is most at-risk as a result of these detections?

The Environmental Protection Agency recommends that some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency (EPA)/ [Centers for Disease Control and Prevention \(CDC\) guidelines](#) on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at **800-426-4791**.

What are common symptoms of *Cryptosporidium* infection?

Cryptosporidium is a microscopic parasite that can cause temporary gastrointestinal illness called cryptosporidiosis. Cryptosporidiosis can be caused by consuming water contaminated with infected animal excrement or from oral contact with feces from a contaminated person. Watery diarrhea is the most common symptom, but stomach cramps, nausea, vomiting, and fever are other symptoms. Symptoms typically develop four to six days after the infection and can last between one and two weeks. In rare occasions, symptoms can reoccur for up to thirty days. While the majority of adults and children with healthy immune systems recover naturally, it is recommended to contact your medical provider if you have specific concerns. Immunocompromised people may be at higher risk and should consult with their health care provider for additional preventative information.

Does Portland treat for *Cryptosporidium*?

No. On March 14, 2012, the Oregon Health Authority issued the Portland Water Bureau a variance from the federal drinking water rules requiring the treatment of Bull Run drinking water for *Cryptosporidium*. As a result of the variance the Portland Water Bureau does not treat for *Cryptosporidium*. The treatment variance was issued in accordance with federal and state law and is valid for 10 years.

Why was the Portland Water Bureau granted a treatment variance?

Water quality monitoring demonstrated that the risk of exposure to *Cryptosporidium* from Bull Run water was already as low as the federal rules required. Bull Run water has a low risk of *Cryptosporidium* occurrence. This is due to the absence of the most common *Cryptosporidium* sources such as human waste and livestock, stringent watershed protections, a natural environment that limits contamination, and a low likelihood of *Cryptosporidium* resulting from wildlife in the watershed.

When was the last time *Cryptosporidium* was detected from Portland's drinking water?

The detections this year are the first detections at the intake since December 30, 2011, when a single oocyst was detected. Prior to that, *Cryptosporidium* had not been detected at the intake since August 2002. *Cryptosporidium* was also detected in the Bull Run watershed in 2011, 2012 and 2015.

What is Portland doing as a result of this detection?

As required by the conditions of the variance, the Portland Water Bureau had been testing at least 100 liters per week (26 gallons) from the source water intake for *Cryptosporidium*. Since Jan. 8, the Portland Water Bureau began increased monitoring of at least 250 liters per week (66 gallons) at the source water intake for at least one year. Due to the continued detections of *Cryptosporidium*, on February 13, 2017 the Portland Water Bureau stopped using the Bull Run source and activated its secondary source, the Columbia South Shore Well Field. The Portland Water Bureau will continue to monitor the Bull Run for *Cryptosporidium*. These results along with continued coordination with health officials will be used to decide when to return to the Bull Run as our drinking water source.

Will this affect Portland's treatment variance for *Cryptosporidium*?

Per the conditions of the variance, under Demonstration Monitoring, the Portland Water Bureau must demonstrate that the *Cryptosporidium* concentration is less than 0.075 oocysts per 1,000 liters. If after one year, the *Cryptosporidium* concentration is greater than 0.075 oocysts per 1,000 liters, OHA may revoke Portland's treatment variance. OHA may also revoke the variance if they deem the lack of treatment for *Cryptosporidium* poses an unreasonable threat to public health.

What will happen if Portland cannot meet the requirements of the variance?

If OHA were to revoke Portland's treatment variance, Portland would need to submit a schedule to comply with the treatment requirements for *Cryptosporidium*. Prior to receiving the treatment variance, the Portland Water Bureau had plans to construct an ultra-violet (UV) treatment facility to comply with the EPA *Cryptosporidium* treatment requirement. A UV treatment plant would have cost approximately \$70 million to construct in 2012. A low confidence estimate of the cost of treatment today is \$100 million.

Can I use a filter or home treatment to protect myself from *Cryptosporidium*?

Yes, make sure that it is labeled and certified to remove *Cryptosporidium* and is NSF/ANSI 53 or 58 rated. Look for the language “cyst reduction” or “cyst removal”. Reverse osmosis and carbon filters are the most common types of filters available. Make sure that the manufacturer states “absolute” pore size of 1 micron or smaller. If the brand only states “nominal” pore size of 1 micron, then it may not remove all *Cryptosporidium*. Because the filter cartridges collect *Cryptosporidium*, it is recommended that they are replaced by a person that is not immunocompromised while wearing gloves. Follow the manufacturers recommended filter cartridge replacement schedule.