

Tests of Bull Run water find no cryptosporidium; Portland wants to skip treatment plant

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Portland's two Bull Run reservoirs supply 884,000 customers in the city and surrounding suburbs with drinking water.

Portland tested 750 samples of Bull Run water last year for the potentially lethal parasite **cryptosporidium** in Oregon's largest source of drinking water, sampling 3,500 gallons over 12 months from the reservoirs' intakes and potential hot spots in their tributaries.

It found a grand total of zero.

The result is the city's strongest argument yet against an **Environmental Protection Agency** requirement that it build a \$100 million treatment plant by 2014 to kill the chlorine-resistant parasite in the name of public health.

Portland's Water Bureau will use the data -- the most rigorous testing for cryptosporidium in the nation, the bureau says -- to request a variance from the federal rule

later this year.

David Shaff, the bureau's administrator, said its scientists worked with EPA officials to design the sampling, testing water and wildlife scat to search for the parasite.

"We think there is a good case to make that we're the one jurisdiction in the entire country that should get a variance," Shaff said. "We have pretty much answered all the questions that they have."

But the variance still appears to be a long shot.

In an October letter to the bureau, Michael Bussell, director of EPA's Seattle office of water and watersheds, said the agency "has been clear there are no specific steps that can be taken that will ensure a variance is granted." Based on current information, he added, "we cannot see how we could recommend to the State that a variance ... be granted."

Bussell was unavailable for comment Monday.

As it stands, Portland's century-old system is one of the simplest and most protected in the nation. The Bull Run reservoirs near Mount Hood are protected from logging, grazing and public access over their 104-square-mile watershed.

The bureau injects chlorine and ammonia, but there's no further treatment before the water flows by gravity to nearly 900,000 customers in the city and suburbs.

Absent a variance, the federal treatment rule, adopted in 2006, would change that.

The city is preparing to build a \$100 million plant that would kill cryptosporidium with ultraviolet light if a variance is not granted. The plant would cost \$3 million a year to operate, the bureau estimates, helping drive up water rates.

Portland will try to build a case that the untreated Bull Run water actually contains less of the parasite than the federal rule estimates for water treated under the new standard -- 0.75 parasites per 10,000 liters of drinking water.

The EPA's rule-making began after a waterborne cryptosporidiosis outbreak in Milwaukee, Wis., in 1993 that killed an estimated 100 people and sickened 400,000.

A massive outbreak is nearly impossible in Portland because Bull Run watershed is miles from sewage systems and herds of cattle, by far the most significant sources of the infection. Cryptosporidium was last detected in the watershed in 2002.

But the EPA worries about contamination from other animals, and about low-dose exposure of the elderly, infants, cancer patients and others with weak immune systems, particularly people with AIDS.

In the past year, the bureau also took 252 wildlife scat samples, finding two cryptosporidium oocysts in one sample from coyote scat. The cysts could not be genotyped to tell if they were the infectious variety.

Shaff says the EPA is worried about setting a precedent for wriggling out of drinking water rules. It is being "extremely conservative" and "very cautious," Shaff said: "From their perspective, no cryptosporidium is the best cryptosporidium."

Portland ratepayer advocates use stronger language.

"We don't have the sources of cryptosporidium in source water or in the distribution system," says Kent Craford, who represents a group of Portland large water users. "It's like we've been declared cancer free but we're still going through with the full chemo treatment."

Local health officials say cryptosporidiosis, the gastrointestinal ailment associated with the fecal microbe, is a blip on the radar screen of health risks.

The lion's share of cases stem from diaper changing, toddlers with subpar hygiene and contaminated public swimming pools, they say, not from the at-most extremely low levels of the parasite in Bull Run water.

Craford, **Friends of the Reservoirs** and other advocates want the bureau to do more to avoid the rule, including seeking Congressional action or an implementation delay.

They also want the bureau to seek respite from requirements under the same federal rule to take its in-town drinking water reservoirs at Mount Tabor and Washington parks offline, with a tab that could reach \$400 million.

Sampling of 7,000 liters at one reservoir in Washington Park and one at Mount Tabor in 2008 and 2009 also found no cryptosporidium.

Shaff of the Water Bureau says that sampling was more limited, and that the EPA has firmly closed the door on allowing the in-town reservoirs to remain open. "That will really be when hell freezes over," he says. Advocates say the possibilities haven't been exhausted.

The bureau plans to submit a Bull Run variance by spring, tapping consultant Camp Dresser and McKee to help at a cost of up to \$600,000. It hopes to have an answer from EPA by year's end.

-- **Scott Learn**

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