

# Safe Drinking Water Act Regulatory Compliance Efforts by the Portland Water Bureau

## Briefing Overview for the Public Utility Board April 4, 2017

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### Regulatory Update: *Cryptosporidium*, LT2, and the Bull Run Treatment Variance

- Mar 2012:** PWB is granted a variance to the *Cryptosporidium* treatment requirements of EPA's LT2 Rule. Because of the variance, PWB avoids building a UV treatment plant for *Crypto*. Conditions of the variance include sampling for *Crypto* at least 2 times per week (100 liters per week), called "observation monitoring." If *Crypto* is detected, increase sampling to at least 5 times per week for 1 year (250+ liters per week), called "demonstration monitoring." The variance shall be revoked by OHA if after 1 year the *Crypto* concentration is greater than or equal to 0.075 oocysts per 1,000 liters.
- Apr 2012 – Dec 2016:** PWB conducts observation monitoring. Out of 1,149 samples and a total of 26,159 liters, no *Crypto* oocysts are detected.
- Jan 2017:** During the first week of January, PWB detects *Crypto* in each of two 50-liter samples, 2 and 3 oocysts, respectively. Demonstration monitoring begins January 8. An additional oocyst is detected on January 25.
- Feb 2017:** Nine additional samples out of 21 are positive for *Crypto* (1 to 2 oocysts each). PWB switches sources from Bull Run to the Columbia South Shore wellfield on February 13.
- Mar 2017:** Two additional samples out of 21 are positive for *Crypto* (1 oocyst each). Most recent detection was on March 12. PWB returns to serving Bull Run on March 15.
- PWB's current average concentration for demonstration monitoring (through 3/22) is 5 oocysts per 1,000 liters. If no *Crypto* is detected during the remaining demonstration monitoring year, the projected concentration will be 1.0 oocysts per 1000 liters, exceeding the threshold of 0.075 oocysts/1000 liters by more than a factor of 10.
- PWB has reported this information to OHA and is awaiting a response.

### Additional Information:

- **Genotyping:** DNA analysis of oocysts indicates wildlife-associated genotypes of *Cryptosporidium*, not the common human pathogen types (e.g. *C. hominis* and *C. parvum*)
- **Public Health:** County and State health officials continue to believe that Bull Run water poses a low risk to public health. There have been no apparent cases of cryptosporidiosis that correspond to the *Cryptosporidium* detections in Bull Run.
- **Ongoing Investigations:** PWB continues to investigate the potential source of these detections. Additional surveillance detected *Cryptosporidium* in both Reservoir 1 and Reservoir 2 in samples collected on February 21, indicating source(s) from the upper watershed that drains into Reservoir 1. Numerous samples collected at streams that flow into Reservoir 1 have been negative for *Crypto*. PWB convened a web-based expert panel on March 21 to review existing information and seek technical feedback and recommendations. State and County officials were also in attendance.
- **More information** on LT2, the Bull Run Treatment Variance, and PWB's most recent *Cryptosporidium* data is available online at [www.portlandoregon.gov/water/treatmentvariance](http://www.portlandoregon.gov/water/treatmentvariance).