

## **LWVOR Water Study – Update**

**2. Identify the major watersheds and sub watersheds in which you live. Describe the uses of the water resources in that community, i.e., recreational, agricultural, industrial, residential, and ecological. Have major pollutant concerns been identified (sediment/turbidity, mercury, temperature, bacteria, etc.)?**

The major watershed in which Portland residents reside is the Willamette River Basin. However, drinking water is supplied by two sources: the Bull Run watershed, located entirely within the Sandy River Basin, and the Columbia South Shore Well Field, located within the Columbia River Basin.

The Bull Run Reserve was established in 1892 and first supplied water to the Portland area in 1895. The Bull Run watershed is 4% owned and managed by the City of Portland and 96% federal land. It is managed by the US Forest Service; 53% is classified as “old growth” and has never been logged.

The water source is 90-95% rain water, with the remainder from snowmelt.

There are two reservoirs within the Bull Run watershed; the water travels by gravity from the watershed to reservoirs and storage facilities within the City of Portland via three supply line conduits.

Water from Bull Run is treated with chlorine; ammonia is added later. The City of Portland investigated, but rejected, water filtration. The water consistently complies with regulations for source water, and the City is granted a filtration avoidance waiver through the EPA.\* The City shifts to the well field when turbidity concerns arise.

The only contaminants are naturally occurring microbial organisms at very low levels from mammalian wildlife and some bird species. The Triannual Water Quality Analysis lists only one statistic that is close to the EPA standard, but well within range: pH is 8.1, standard is 6.5 – 8.5. All items are well below accepted levels; several measured items are reported as less than the method reporting limit.

The second water resource for the City of Portland is the Columbia South Shore Well Field. It is the largest groundwater supply in Oregon, and is the second largest water supply in Oregon, right behind the Bull Run watershed water supply. The well field taps three aquifers within a six square mile footprint, within a twelve square mile protection area or 30 year time travel area. There are currently 26 baseline wells, one contingency well, 2 shallow wells that are not being used, and 5 possible wells currently not in use.

The well field will supply all water needs for the Portland Water Bureau for short periods of time during turbidity of the Bull Run supply. It is also used to augment the supply in late summer and early fall when use may be high and rainfall low.

Wellhead protection regulations aimed at new and existing businesses that use or store hazardous materials that could pose a threat to the groundwater were adopted in 2003. The groundwater meets all state and federal drinking water regulations.

There are no recreational, agricultural, industrial or residential uses occurring within the Bull Run watershed. As noted, there are regulations on agricultural and industrial uses within the well field protection area. Most areas within the Bull Run watershed are designated core dol-water habitat for fish. A few areas are designated salmon and steelhead spawning use from August 15 to May 15, with a very small area designated such until June 15.

\*The City of Portland is negotiating a continuance of the waiver at this time.

**Sources:**

Albright, Randy. Phone conversation: Portland Water Bureau, November 18, 2008.

Bull Run – A World Treasure, produced by the Bull Run Interest Group, May 1998, not copyrighted

<http://www.portlandonline.com/water/index>

[http://or.water.usgs.gov/projs\\_dir/or007/or007.html](http://or.water.usgs.gov/projs_dir/or007/or007.html)

Implementation Plan for the Formation of a Proposed Bull Run Regional Drinking Water Agency Phase II, September 2002, prepared by Murray, Smith & Associates, Inc. in association with CH2M Hill and Integrated Utilities Group, Inc.

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