

South Hastings Loop Water Quality Report – 2011

To comply with Safe Drinking Water Act amendments and the Washington State Department of Health mandates, Jefferson County Public Utility District #1 annually issues a water quality report for each of its water systems. The purpose of this report is to describe our water quality lab results in an effort to advance our consumer's understanding of drinking water and the need to protect our drinking water resources. If you have any specific water system questions please feel free to contact the South Hastings Loop water system manager, Doug Reeder, at 385-5800 ext 305 or 301-0708 (cell). **Additionally, the PUD Board meets** on the first and third Tuesday of each month at 5:00 p.m. at the PUD office; please feel free to attend. Your district is District 2 and your commissioner is Ken McMillen. **Please conserve and use water wisely. Conservation tips can be found at jeffpud.org. FREE conservation kits are available at the PUD office upon request.**

Is my water safe? The City and PUD safeguard its water supplies and we are proud to report that your tap water met or exceeded all federal and state drinking water health standards last year. This CCR is produced with the assistance of the City of Port Townsend.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land or through the ground, it dissolves naturally-occurring mineral and, in some cases, radioactive material, and can pick up substances from the presence of animals or from human activity.

Your water is purchased wholesale from the City of Port Townsend. The water comes from the Big and Little Quilcene Rivers in the Olympic National Forest. The water is stored at Lords Lake and City Lake. The City disinfects the surface water with chlorine. Chlorination, the standard disinfectant for water systems around the world, is the treatment that eliminated waterborne diseases such as cholera and typhoid fever from this country in the early part of the 20th Century. However, chlorine does react with naturally occurring organic material in water to produce chemicals called trihalomethanes (THMs). Chloroform is one such compound. Scientific research today concludes these byproducts may increase a person's risk of cancer. Due to this potential risk, THMs are regulated.

Examples of contaminants that may affect source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; **Inorganic contaminants**, such as salts and metal, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic waste water discharges, oil and gas production, mining or farming, **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses, **Radioactive contaminants**, most of which are naturally occurring, and **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can also come from gas stations, stormwater, and septic systems.

Do I need to take special precautions? Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminant in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amount of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791), or Donna Freier at the State DOH (360-236-3162).

Water Quality Data

The table on the other side shows all the drinking water contaminants that were detected and reported by the City of Port Townsend. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Data presented in this table is from testing done January 1 - December 31, 2010 unless otherwise noted. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

Contaminant	MCL	MCLG	Range of Detections	Testing Frequency	Violation	Typical Source of Contaminant
Total organic carbon (mg/L)	TT	NA	0.37-0.72	Quarterly	NA	Naturally present in the environment
Turbidity (NTU)	TT=5	0	0.16-1.17	Continuous	No	Soil runoff
	TT= percentage of samples<0.5 NTU		100%			

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. The maximum contaminant level for turbidity is 5 NTUs.

Terms & abbreviations used above: **Maximum Contaminant Level Goal (MCLG):** the level of a contaminant in drinking water below which there is not known or expected risk to health. MCLGs allow for a margin of safety. **Maximum Contaminant Level (MCL):** the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. **Action Level (AL):** the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow **mg/l:** milligrams per liter (same as ppm). **NA:** not applicable; **nd:** not detectable at testing limit **NTU:** Nephelometric Turbidity Units - a measure of the cloudiness of the water. **Oocyst:** hard, resistant spore phase of Cryptosporidium **pCi/l:** picocuries per liter (a measure of radiation); **ppb:** parts per billion or micrograms per liter; **ppm:** parts per million or milligrams per liter ; **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

- Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.
- Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects and may lead to an increased risk of getting cancer.
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