

Our Water Quality Commitment:

You Can Count on Washington Water Employees to . . .

- ⇒ provide you with the highest quality water possible
- ⇒ sample, test and treat your water on a regular basis
- ⇒ work diligently to meet every water quality standard on every system, every day
- ⇒ maintain water distribution system reliability
- ⇒ provide you with the highest level of customer service possible

Important Phone Numbers:

Washington Water Service Company
P.O. Box 336
Gig Harbor, WA 98335-0336
Office: (253) 851-4060
Toll Free: (877) 408-4060
<http://www.wawater.com>

NW Regional Operations Mgr:
Dan Brown

Washington State Department of Health
Northwest Office of Drinking Water
20435- 72nd Avenue South Suite 200, K17-12
Kent WA 98032-2358
(253) 395-6750
<http://www.doh.wa.gov/ehp/dw/>



WASHINGTON WATER
SERVICE COMPANY

Sea Cliff Estates Water System State ID #76880P

2011 Drinking Water Report

Washington Water Service Company (WWSC) is committed to being a leader in providing communities and customers with traditional and innovative utility services. WWSC is proud of its service record and is staffed with courteous and knowledgeable water professionals who are dedicated to meeting your needs. While we are proud of our past record, we continually strive to improve upon the quality of services we provide to you, our valued customer.

This *2011 Drinking Water Report* is your annual update on the quality and safety of your drinking water. It includes the water quality monitoring results from the **most recent round** of testing done on your system, in accordance with state and federal regulations. This report also provides access through references and telephone numbers to source water assessments, health effects data and additional information about your water system. This allows you to make personal health-based decisions regarding your drinking water consumption and become more involved in decisions which may affect your health. We hope you find this information helpful!

Washington Water Service Co.
Toll-free: (877) 408-4060

Regarding “contaminants” in drinking water:

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. In order to ensure that tap water is safe to drink, the Washington State Department of Health and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington State Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Sources of drinking water:

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

Reminder:

Any hazardous material that you put onto the ground or in your septic tank could potentially pollute the groundwater. Please help the Sea Cliff Estates Water System prevent groundwater contamination for this and future generations.

Where does my water come from?

Your water comes from thirteen sources and is considered groundwater. The water is pumped into the system from thirteen wells, which range in depth from 75 to 496 feet. Chlorine is added for disinfection purposes at the Upper Sea Cliff Reservoir, to kill bacteria that may be present there. It is also added at the Hoover well to oxidize and eliminate the naturally-occurring hydrogen sulfide o (“rotten eggs”) odor in this source water.

Contaminants that may be present in source water include:

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



Water Quality Data

How To Read The Tables:

Your water is tested for more than 100 contaminants for which state and federal standards have been set. **Tables 1 & 2** list all primary contaminants that were detected (in any amount) along with their respective Maximum Contaminant Levels (MCLs). Primary standards protect public health by limiting the levels of these contaminants in drinking water. **Table 3** shows the levels of secondary contaminants and common water properties of interest to many consumers. Secondary contaminants have no known health effects but can affect the aesthetic properties of water (taste, odor and appearance). Secondary Maximum Contaminant Levels (SMCLs) are guidelines only.

Terms and Abbreviations used:

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.

Maximum Contaminant Level Goal (MCLG): the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants (e.g., chlorine, chloramines, chlorine dioxide).

Maximum Residual Disinfectant Level Goal (MRDLG): the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Action Level (AL): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper 90th Percentile Value: Out of every 10 homes sampled, 9 were at or below this level. This must be \leq the AL or additional steps must be taken.

ppb: parts per billion **ppm:** parts per million

Sodium. The EPA recommends 20 ppm sodium as a level of concern for those consumers who must restrict their dietary intake. The highest level of sodium in your drinking water was last measured in 2008 at 6 ppm.

TABLE 1: Primary Contaminants Detected In Your Drinking Water

| Primary Contaminant | Units | Year Tested ^a | MCL | MCLG | YOUR WATER ^b | Compliant? (Y/N) | Major Sources in Drinking Water |
|--|-------|--------------------------|----------------|-----------|--------------------------------------|------------------|---|
| Nitrate | ppm | 2010 | 10 | 10 | < 0.2 - 1.7 | Y | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Arsenic | ppb | 2008-10 | 10 | 0 | < 2 - 4 | Y | Erosion of natural deposits (e.g., volcanic rock); runoff from orchards; runoff from glass and electronics production |
| Chromium | ppb | 2008-10 | 100 | 100 | < 10 - 30 | Y | Discharge from pulp mills; erosion of natural deposits |
| Disinfectant (an additive, as measured only in the areas served by the chlorinated Upper Sea Cliff Reservoir and Hoover well) | | | | | | | |
| Chlorine | ppm | 2010 | MRDL = 4 | MRDLG = 4 | 0.01 ^c | Y | Water additive used to kill microbes; also used to oxidize and eliminate hydrogen sulfide odor ("rotten eggs") |
| Microbiological | | | | | Highest No. Monthly Positives | | |
| Total coliform bacteria | | 2010 | 1 ^d | 0 | 1 | Y ^d | Naturally present in the environment |

TABLE 2: Lead and Copper Monitoring - Samples are collected at customer faucets. The number of homes sampled is based on population served by the system. Specific EPA-mandated criteria are used to select the homes:

| Primary Contaminant | Units | Year Tested ^a | AL | No. of Homes Sampled | 90th Percentile Value | No. of Homes Exceeding the AL | Compliant? (Y/N) | Major Sources in Drinking Water |
|---------------------|-------|--------------------------|-----|----------------------|-----------------------|-------------------------------|------------------|--|
| Copper | ppm | 2009 | 1.3 | 10 | 0.10 | 0 | Y | Corrosion of household plumbing systems; erosion of natural deposits |
| Lead | ppb | 2009 | 15 | 10 | < 2 | 0 | Y | Corrosion of household plumbing systems; erosion of natural deposits |

TABLE 3: Secondary Contaminants (Inorganic Chemical and Physical)

| Secondary Contaminant | Units | Year Tested ^a | SMCL | YOUR WATER ^b | Compliant? (Y/N) | Major Sources in Drinking Water |
|-----------------------|-------|--------------------------|------|-------------------------|------------------|---|
| Iron | ppm | 2008-10 | 0.30 | < 0.1 - 0.61 | Y ^e | Leaching from natural deposits; industrial wastes |
| Manganese | ppm | 2008-10 | 0.05 | < 0.01 - 0.15 | Y ^e | Leaching from natural deposits |

^a Most recent testing done, in accordance with the regulations (required every 3 years).

^b There are thirteen sources (wells) on this system and each is tested. A range of concentrations is shown if their results differ.

^c This is annual average chlorine concentration. Range in 2010 = 0.00 - 0.06 ppm chlorine.

^d For systems that collect < 40 coliform samples per month, the MCL is one positive (unsatisfactory) monthly sample. One positive sample does not necessarily pose a public health threat. Upon notification by the lab of the single positive routine sample in July 2010 (the other two monthly samples were satisfactory), several "repeat" samples were collected throughout the system to **confirm** the presence of coliforms. All of these samples were absent of coliforms. An increased number of routine samples (5, instead of the usual 3) were collected in the following month (Aug) to confirm that coliforms remained absent, and one of these five was also positive. This triggered another set of "repeat" samples to confirm the presence but all of these samples were satisfactory. The five routine samples collected in Sept were satisfactory, as were all other routine monthly samples in 2010.

^e Secondary maximum contaminant levels (SMCLs) are guidelines only, to control the aesthetic effects caused by nuisance minerals like iron and manganese (colored and "dirty" water, and staining and build-up on/in plumbing and fixtures). There are no known health effects associated with drinking water containing iron and manganese at these concentrations. Eight of the thirteen wells have non-detectable iron concentrations (< 0.1 ppm), and made up 78% of the total water supplied to the system in 2010. Four wells ranged from 0.20 - 0.38 ppm. Well #12, at 0.61 ppm iron, supplied just 0.3% of total water produced in 2010.

Synthetic Organic Chemicals. All 13 wells were tested for 14 different herbicides and 30+ pesticides in either 2009 or 2010. There were no detections, in **any** amount, of any of these contaminants. No further monitoring is required until sometime during the new 2011-2019 compliance period.

Radioactive Contaminants. Your drinking water sources were tested for radium 228 and gross alpha in 2009-2010. These can be naturally occurring or the result of oil and gas production and mining activities. There were no detections of these contaminants.

Water Hardness. Groundwater picks up minerals such as calcium and magnesium as it moves through soil and rock. Hardness is a measure of the calcium and magnesium present. As the hardness increases, soaps become difficult to "lather up". Soapy and scaly deposits may begin to form on plumbing fixtures, windows and dishes. Although a nuisance, hard water is safe for drinking, cooking, bathing and other household uses. The 13 wells serving this system have a hardness range of **46 - 74 ppm, as CaCO₃**. This is equivalent to 2.7 - 4.3 "grains per gallon" of hardness. 0 - 75 ppm hardness is considered "soft" water, 75 - 150 ppm is "moderately hard", 150 - 300 ppm is "hard" and > 300 ppm is "very hard".

The Office of Drinking Water has compiled **source water assessment program (SWAP) data** for all community water systems in Washington. SWAP data for your system is available by accessing DOH's web site at:

<http://www4.doh.wa.gov/dw/swap/app/login.cfm?app=maps>

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as those with cancer undergoing chemotherapy, those 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/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling EPA's Safe Drinking Water Hotline or by visiting their web site shown below:

Safe Drinking Water Hotline
1-800-426-4791
www.epa.gov/ogwdw