

### What We Do Day After Day, Year After Year

The City of Astoria delivers water that is a clean, quality product. All the information contained in this report has been collected and reported in accordance with the rules and regulations of the Environmental Protection Agency (EPA) and the Oregon Department of Human Services Drinking Water Program. Each day, City employees work around-the-clock to ensure that the water provided meets or exceeds these standards and expectations. This report contains information concerning **The City of Astoria Water System, Identification (WSID) #4100055**. Samples are collected monthly from the water systems and are tested for coliform bacteria (an indicator of contamination). The water is tested every day during the year to monitor and track potential problems in the disinfection process and/or distribution system. Inorganic and organic compounds are tested every three years. These are either naturally occurring or human made and can enter into your water system through improper disposal of chemical solutions or unprotected cross connections. Lead and copper samples are collected once every three years from customers' taps that are most likely to contain those substances based upon when the home was built. The monitoring and reporting of these results are sent to the Oregon Department of Human Services Drinking Water Program. More information maybe optioned at <http://www.oregon.gov/DHS/ph/dwp/>

### Where does my water come from?

Astoria gets its entire water supply from the Bear Creek watershed located about 12 miles east of Astoria, near Svensen. The 3700 acre watershed is entirely owned and managed by the City. Water is filtered by slow sand filters located in the watershed. There are three lakes that store water in the watershed. They are Main Lake, Middle, and Wickiup Lake. Water gets to town through a 12 mile pipeline and is stored in 2 reservoirs and 3 tanks in town.

### Source water assessment and its availability

The state performed an assessment of our source water. A source water assessment identifies potential sources of contamination to the water that is use for your drinking water. The primary source of contamination is erosion. Please call us at (503) 325-3524 if you would like more information about this assessment.

### Safe 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 water poses a health risk. More information about contaminates and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791) or by visiting their web site at [www.epa.gov/ow](http://www.epa.gov/ow).

### Hydrant Flushing and Water Quality

Annually, water crews are active in hydrant flushing and distribution valve maintenance. Hydrant flushing is an important part of long term water quality management. During hydrant flushing, water pressures and volumes are recorded to help calibrate the water system's hydraulic model. You may notice reduced pressures and discolored water for short periods of time. The overall effect of hydrant flushing results in better water quality and better system control.

### Water Quality Monitoring Results

The City of Astoria routinely monitors for contaminants in your drinking water according to Federal and State laws. The data in the table is from January 1, 2009 to December 31, 2009, unless otherwise noted. Although Astoria's water supplies are tested for all regulated and many unregulated contaminants, only contaminants that have been detected in the water are included in this report. Through our monitoring and testing, some contaminants have been detected. The results, however, meet or surpass all State and Federal drinking water standards.

Sampling of the water system has detected high Haloaceti Acids levels. The MCL for Haloacetic Acids is 60 ppb as a running annual average. Of 20 samples the high was 103.9 ppb and low of 16.4ppm. The annual running average for sites that went over 60 ppb was 55.03ppm. The Systems annual running average is 46.02ppb.

Contaminant Monitoring Test Results						
Contaminant	Last test Date	Violation	Your water	MCLG	MCL	Typical Source
Turbidity	2009	No	0.26 NTU	n/a	TT = 1.0 NTU	Soil runoff
Copper	2007	No	0.33 ppm	1.3 ppm	AL = 1.3 ppm	Corrosion of household plumbing; erosion of natural deposits; wood preservative leaching
Lead	2007	No	11. ppb	0 ppb	AL = 15 ppb	Corrosion of household plumbing; erosion of natural deposits
Fluoride	2009	No	1.38 ppm	4 ppm	4 ppm	Erosion of natural deposits; water additive which promotes strong teeth
Nitrate (as N)	2009	No	0.6 ppm	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Trihalomethanes	2009	No	34.16 ppb Running Annual Average	n/a	80 ppb Running Annual Average	By-product of drinking water disinfection
Haloacetic Acids	2009	No	46.02 ppb Running Annual Average	n/a	60 ppb Running Annual Average	By-product of drinking water disinfection
Chlorine	2009	No	2.07 ppm	MRDLG= 4 ppm	MRDL = 4ppm	Water additive used to control microbes
Uranium	2009	No	2 ppb	n/a	3 ppb	Naturally occurs in some drinking water sources

### Definitions

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goals as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLGs):** 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.

**None Detected (ND):** No contaminants were detected.

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

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health.

MRDLG's do not reflect the benefits of the use of disinfectants to controls microbial.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary to control microbial contaminants.

**Part per million (ppm); part per billion (ppb):** These units describe the levels of detected contaminants. One part per million is equal to one minute in two years, or the distance of one inch from Downtown Astoria to Downtown Seaside. One part per billion is equal to one minute in 2,000 years or one foot from the earth to the moon.

**Haloacetic Acids (HAA5s) and Total Trihalomethanes (TTHMs):** Disinfection byproducts that results from a chemical reaction between chlorine and naturally occurring organic or inorganic matter in the water. The disinfection process is carefully controlled to remain effective while keeping disinfection byproduct levels low.

**Turbidity and Nephelometric Turbidity Units (NTUs):** Turbidity is a measure of the cloudiness of the water and is measured in Nephelometric Turbidity Units (NTU). Precipitation and snow melt are the greatest contributors of turbidity and make disinfection more difficult.

**Fluoride:** Fluoride is a naturally occurring trace element in groundwater and at low levels helps prevent dental cavities. The City of Astoria does add fluoride to a level of 1 milligram per liter or ppm. The United States Public Health Service and the Centers for Disease Control consider the fluoride levels in Astoria's water sources to be optimal for helping to prevent tooth decay. You may want to consult your dentist for more information on fluoride treatments to help prevent tooth decay, especially for young children.

**Radiological:** Radioactivity is commonly measured in picocuries (pCi). This unit of measure is named for the French physicist Marie Curie, who was a pioneer in the research on radioactive elements and their decay. One pCi is equal to the decay of about two radioactive atoms per minute.

**Nitrates:** Nitrates are found at extremely low levels in both surface and groundwater sources and the amounts vary between locations and surface water. High levels of nitrates exceeding the Maximum Contaminant Level can contribute to health problems.

### Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infection. These individuals should seek advice about drinking water from their healthcare providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infections by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or by visiting their web site at [www.epa.gov/ow](http://www.epa.gov/ow).

### Lead and Copper

The City of Astoria continues monitoring tap water samples from a sample group of 30 homes. This group sampling takes place every three years and was last completed in 2007. These are homes where the plumbing may contribute to elevated levels of lead and copper, based on when the house was built. Lead is not usually detected in our water sources. These metals can, however, enter the drinking water supply through corrosion within the water distribution system or in household plumbing systems. Samples are collected at customers' homes after the water has been standing in their plumbing 6-8 hours.

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Astoria Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

### Frequently Asked Questions:

**What can I do about chlorine odors?** The odor is just chlorine doing its job. The simplest way to get rid of the odor is to pour a container of water and let it sit in the refrigerator. Overnight, the chlorine will have dissipated and the odor will be gone.

**What about security?** Security has become even more important for our water system since the events of 9/11. Sites are fenced, locked, monitored and equipped with alarms, and the surface water intake structure has water quality telemetry, intrusion alarms and is monitored by on-site personnel. Reservoirs stations are equipped with telemetry units and will send alarms when set operational parameters are exceeded. Each site is routinely visited and is monitored 24 hours a day, seven days a week.

**Is bottled water safer than tap water?** The safety of bottled water depends on its source and the treatment it has undergone. Bottled water is considered a food product, so it is regulated by the Food and Drug Administration. The Environmental Protection Agency regulates water utilities. The FDA has been tightening regulations, and now bottled water generally must meet the EPA's Purity and Safety Requirements for Public Drinking Water. Using bottled water is a personal preference. However, if you are using bottled water for health reasons, we suggest that you thoroughly research the product that you are selecting to assure that it offers the level of protection that you are seeking.

### How Can I Get Involved?

Attend one of the City Council meetings if you would like to learn more about issues affecting your community and the water. City Council meetings are regularly scheduled every 1<sup>st</sup> and 3<sup>rd</sup> Monday. [www.astoria.or.us](http://www.astoria.or.us)

### Contact Information

At the City of Astoria, we value our customers and work hard to ensure your satisfaction. If you have questions or comments about this report or other issues, please contact our Water Quality Supervisor, Gary McLauchlin at (503) 325-3524 or [gmc@astoria.or.us](mailto:gmc@astoria.or.us)

### ENESPAÑOL

Este Informe Contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda

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