

Important Health Information from the EPA

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 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 from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Astoria 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 2 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 the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. The City routinely monitors tap water samples for lead and copper every three years. Sampling was done in 2018 from a sample group of 30 homes that were likely to have plumbing that may contribute to elevated lead and copper contamination. All samples were compliant with EPA standards. The latest round of monitoring was done in 2021. All samples were in compliance.

Contaminants that may be present in 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 metals, which can be naturally occurring or the result of urban storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

The City does not routinely test source water for these contaminants. The City takes pride in the way we manage our watershed. With proper management, the risk of contamination is greatly reduced. And to ensure that the drinking water that is delivered to consumers is safe, routine sampling is done on the finished drinking water.

Contact Information

At the City of Astoria, we value our customers and work hard to ensure your satisfaction. If you would like to learn more about issues affecting your water and community, please attend a City Council meeting. Meetings are regularly scheduled on the 1<sup>st</sup> and 3<sup>rd</sup> Mondays on the month. More information can be found at [www.astoria.or.us](http://www.astoria.or.us). If you have any questions or comments about this report or other issues, please contact the Water Quality Supervisor Eric Bufkin at (503)298-2503 or [ebufkin@astoria.or.us](mailto:ebufkin@astoria.or.us).



City of Astoria  
Public Works Department  
1095 Duane Street  
Astoria, Oregon 97103

PRSRT STD  
CAR RT SORT  
U.S. Postage Paid  
Permit #328  
Astoria, OR  
97103

POSTAL PATRON

Este documento contiene información muy importante sobre la calidad del agua en su comunidad. Tradúzcalo o hable con alguien que lo entienda bien.

City of Astoria  
Water Quality Report



Photo Courtesy of Cooper Bufkin

2021

The City of Astoria Public Works Department is pleased to present the Water Quality Report for 2021. The purpose of this report is to inform consumers about our water’s cleanliness, safety, and purity. All information in this report has been collected and reported in accordance with all applicable rules and regulations of the US Environmental Protection Agency and the Oregon Health Authority Drinking Water Services. Staff is committed to providing our consumers a safe, reliable, and clean water supply. This is accomplished by continually monitoring our water for various contaminants and pollutants to ensure that we meet or exceed regulatory standards. Specifically, ten samples per month are collected to check for bacteriological organisms; water is monitored daily to ensure we are maintaining a proper disinfectant level, proper fluoride level, and that the turbidity levels are acceptable; samples are collected based on a schedule provided by the Oregon Health Authority to test for disinfection byproducts, lead and copper, inorganic and organic compounds, pesticides and herbicides, and radiological contaminants.

Astoria’s Water Source

Astoria receives its entire water supply from the Bear Creek watershed located approximately twelve miles east of Astoria. The entire 3700 acre watershed is owned and managed by the City. Our source water can be pulled from multiple sources within the watershed including Main Lake, Middle Lake, Bear Creek, Cedar Creek, and Spur 14 Creek. The State has performed a source assessment on the City’s water supply. This assessment is used to identify potential sources of contamination for the drinking water. The State has determined that the primary source of contamination for our source water is from soil erosion. For more information about this assessment, please contact us at (503)325-3524.

**From the Environmental Protection Agency**

In general, sources for drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, in some cases radioactive material, and can pick up substances resulting from the presence of animals or human activity. According to the EPA, 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 contaminants and potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline (1-800-426-4791).

Water Quality Results

The City of Astoria routinely monitors the drinking water for contaminants as directed by State and Federal laws and rules. The data in the results table is for the monitoring period of January 1, 2021 to December 31, 2021, unless otherwise noted. Although Astoria’s water supplies are tested for all regulated and many unregulated contaminants, only the contaminants that were detected are included in this report.

Contaminant Monitoring Tests Results						
Contaminant	Last Test Date	Your Water	Violation	MCLG	MCL	Typical Source
Turbidity	2021	Highest 0.62 NTU	NO	N/A	TT = 1.0 NTU	Soil Runoff; Yearly Average 0.12 NTU
Copper	2021	0.265 ppm	NO	1.3 ppm	AL = 1.3 ppm	Corrosion of household plumbing; erosion of natural deposits; wood preservative leaching
Lead	2021	3 ppb	NO	0 ppb	AL = 15 ppb	Corrosion of household plumbing; erosion of natural deposits
Fluoride	2021	Highest 1.37 ppm	NO	4 ppm	4 ppm	Erosion of natural deposits; water additive which promotes strong teeth; Yearly Average 0.71 ppm
Combined Radium (-226 and -228)	2020	Non-Detect	NO	0.0 pCi/l	5.0 pCi/L	Naturally occurs in some drinking water sources
Barium	2020	0.00652 ppm	NO	N/A	2.0 ppm	Erosion of natural deposits
Total Trihalomethanes	2021	52.0 ppb Running Annual Average	NO	N/A	80 ppb	Byproduct of drinking water disinfection
Haloacetic Acids	2021	48 ppb Running Annual Average	NO	N/A	60 ppb	Byproduct of drinking water disinfection
Nitrate	2021	0.313 ppm	NO	N/A	10 ppm	Runoff from fertilizer use, leaking from septic tanks, sewage, and erosion of natural deposits
Chlorine	2021	Highest 2.26 ppm	NO	MRDLG = 4 ppm	MRDL = 4 ppm	Water additive used to control microbes. Average 1.77 ppm
Sodium	2020	6.50 ppm	NO	N/A	N/A	Naturally occurs in all drinking water sources
Uranium	2020	Non-Detect	NO	N/A	30 ppb	Naturally occurs in some drinking water sources

Definitions used in the report:

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

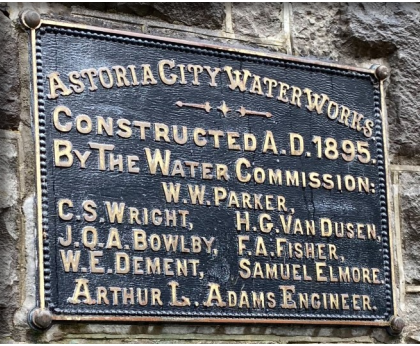


Photo Courtesy of Cooper Bufkin

- 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 are no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbes.

- 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.
- Parts Per Million (ppm) or Parts Per Billion (ppb):** These units describe the level of detected contaminants. One part per million would be the equivalent of one drop of water in approximately 130 gallons. Parts per billion would be one drop of water in approximately 130,000 gallons of water.
- Haloacetic Acids and Total Trihalomethanes:** Disinfection by-products that result 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 byproducts low.
- Nephelometric Turbidity Units (NTU):** Turbidity is a measure of the cloudiness of water and is measured in nephelometric turbidity units (NTU). Precipitation and snow melt are the greatest contributors to turbidity and make disinfection more difficult.
- Fluoride:** Fluoride is a naturally occurring trace element in groundwater and at low levels helps prevent dental cavities.
- Nitrates:** Nitrates are found at extremely low levels in both surface and ground water sources. High levels of nitrates exceeding the Maximum Contaminant Level can contribute to health problems.
- Pico-Curies per Liter or pCi/L:** a measure of the radioactivity in water