2025 ANNUAL WATER QUALITY REPORT

ABOUT THIS REPORT AND DATA

The City of Astoria Public Works Department is pleased to present the 2025 Water Quality Report. This report provides important information about the cleanliness, safety, and purity of our water. All data has been collected and reported in compliance with regulations set by the U.S. Environmental Protection Agency and the Oregon Health Authority Drinking Water Services. There were no Drinking Water violations this year.

Federal and state drinking water standards require monitoring and reporting of specific water quality parameters. The U.S. Environmental Protection Agency (EPA) has established maximum contaminant levels (MCLs) for these parameters—thresholds set to ensure there is no known or expected risk to health.

To maintain accuracy and reliability, the EPA mandates that only state-certified laboratories using approved standard methods analyze water samples for public water systems. The 2025 data reflects Astoria's treated water quality results from the Astoria Headworks Water Treatment Plant, as well as samples collected throughout the city's distribution system.

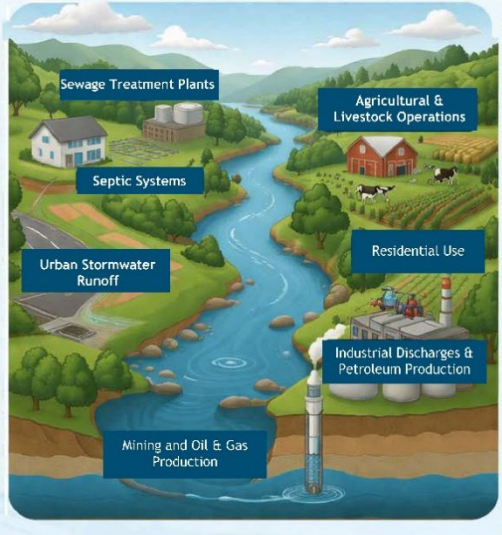
To ensure tap water remains safe to drink, the EPA enforces regulations limiting the presence of certain contaminants in public water supplies. Similarly, the U.S. Food and Drug Administration (FDA) establishes limits for contaminants in bottled water, ensuring comparable protection for public health.

The City of Astoria consistently meets or exceeds federal and state requirements for safe drinking water. Drinking water sources—including rivers, lakes, streams, ponds, reservoirs, springs, and wells—naturally absorb minerals and, in some cases, radioactive material. As water moves through the environment, it can also pick up substances from animal activity and human sources.

If you are interested in ways to get involved such as attending city council meetings please visit the city website at astoria.gov. For general questions about this report please contact Water Quality Supervisor, Jason Miles, via phone at (503) 298-2503 or via email at jmiles@astoria.gov.

POTENTIAL SOURCE WATER CONTAMINANTS

The sources of 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 can pick up contaminants and substances that may affect your drinking water.



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 salt 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 agriculture, urban 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 stormwater runoff and septic systems.

Radioactive Contaminants
Which can be naturally-occurring or be the result of oil and gas production and mining activities.

Routine sampling is done on the finished drinking water to ensure that the drinking water delivered to the customers is safe.

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.

ACCORDING TO THE EPA

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Contaminants do not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline 1-800-426-4791.

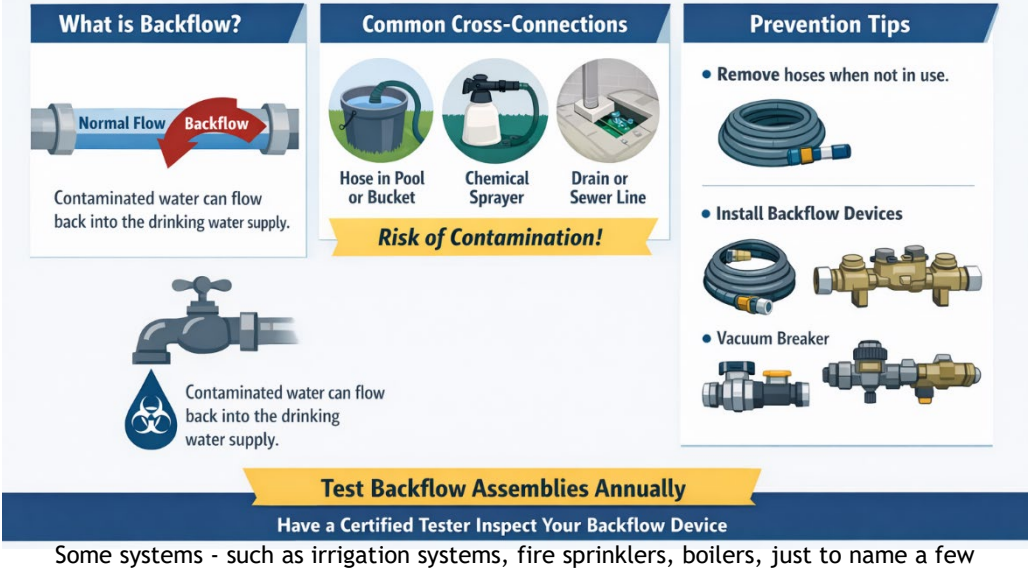
Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people (such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some senior citizens, and infants) may be more vulnerable to contaminants in drinking water than the general population. These people should seek advice about drinking water from their health care providers.

Federal guidelines from the EPA and the Center for Disease Control regarding the appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

BACKFLOW AND HOW TO PREVENT IT

Backflow occurs when water flows in the wrong direction and enters the pipes that supply our drinking water. This can happen during events like water main breaks or heavy water use, such as when fire hydrants are used during a fire. When backflow occurs, contaminated water can potentially enter the drinking water system.

A cross-connection is any actual or potential physical connection between drinking water and a source of contaminated or non-drinkable water, such as a sewer, drain, pool, or chemical container. If a backflow event happens, these connections can allow unsafe water to flow back into the clean water supply.



Some systems - such as irrigation systems, fire sprinklers, boilers, just to name a few - require special backflow prevention assemblies by law. These devices must be tested annually by a certified backflow tester. While the city may send reminders, it is the property owner's responsibility to ensure testing is completed.

2025 WATER QUALITY DATA

Contaminants	Test Date	Your Water	Violation	MCLG	MCL	Typical Source
INORGANIC CONTAMINANTS						
Fluoride	2025	Highest: 1.42 ppm	No	4 ppm	4 ppm	Erosion of natural deposits; water additive that promotes strong teeth; Yearly average: 0.75 ppm
Nitrate	2025	0.322 ppm	No	10 ppm	10 ppm	Runoff from fertilizer use; leaking from septic tanks, sewage, and erosion of natural deposits
Barium	2020	0.00652 ppm	No	N/A	2.0 ppm	Erosion of natural deposits
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
Combined Radium (-226 and -228)	2020	Non-detect	No	0.0 pCi/l	5.0 pCi/L	Naturally occurs in some drinking water sources
RESULTS OF LEAD AND COPPER TESTING *(90TH PERCENTILE CONCENTRATIONS FROM 30 SAMPLE SITES)*						
Lead	2024	1.56 ppb	No	0 ppb	AL = 15 ppb	Corrosion of household plumbing; erosion of natural deposits
Copper	2024	0.274 ppm	No	1.3 ppm	AL = 1.3 ppm	Corrosion of household plumbing; erosion of natural deposits; wood preservative leaching
DISINFECTION BY PRODUCTS, BYPRODUCT PRECURSORS AND DISINFECTION RESIDUALS						
Total Trihalomethanes (TTHMs)	2025	52.0 ppb (Running Annual Avg.)	No	N/A	80 ppb (Running Annual Avg.)	Byproduct of drinking water disinfection; Range: 30.2 – 86.9 ppb
Haloacetic Acids (HAA5)	2025	50.5 ppb (Running Annual Avg.)	No	N/A	60 ppb (Running Annual Avg.)	Byproduct of drinking water disinfection; Range: 25.7 – 101.1 ppb
Chlorine	2025	Highest: 1.92 ppm	No	MRDLG = 4 ppm	MRDL = 4 ppm	Water additive used to control microbes; Average: 0.96 ppm; Range: 0.07 – 1.92 ppm at distribution points
MICROBIOLOGICAL CONTAMINANT INDICATOR						
Turbidity	2025	Highest: 0.67 NTU	No	N/A	TT = 95% of daily readings ≤ 1 NTU	Soil runoff; Yearly average: 0.06 NTU

GLOSSARY OF TERMS

- **Contaminant:** Any physical, chemical, biological, or radiological substance or matter that could potentially create a health hazard.
- **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 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.
- **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 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 byproducts 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 groundwater sources. High levels of nitrates exceeding the Maximum Contaminant Level can contribute to health problems.
- **Pesticide:** Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating pests, including insects, fungi, weeds, rodents, and bacteria.
- **Herbicide:** Any substance or mixture of substances intended to prevent, destroy, repel, or mitigate any weed.
- **Pico-Curies per Liter or pCi/L:** a measure of the radioactivity in water

ABOUT ASTORIA'S WATER SYSTEM

Astoria's Water System: Pure, Reliable, and Locally Sourced

Astoria's drinking water comes exclusively from the Bear Creek Watershed, a 3,700-acre, City-owned and protected area located about 12 miles east of town near Svensen. This pristine watershed is the sole source of the City's supply, drawing from Main Lake, Middle Lake, Bear Creek, Cedar Creek, and Spur 14 Creek. Because the watershed is actively managed by the City, land use is carefully controlled to protect water quality at its source.

Before treatment, water is filtered using a slow sand system, a proven process that enhances water quality without complex mechanical treatment. Following filtration, water is disinfected with chlorine to ensure it remains safe as it travels through the system. A 12-mile-long, 21-inch pipeline conveys treated water to Astoria while also supplying seven neighboring water districts along the route.

To support reliable storage and consistent pressure, the City maintains two primary reservoirs with a combined capacity of 25.5 million gallons. The system also includes four booster pump stations, a 131,000-gallon tank serving higher elevations, and two 150,000-gallon tanks that improve service on the east side of Astoria. Approximately 80 miles of water mains—some dating back to 1895—deliver water to more than 4,000 connections, supported by 448 fire hydrants and over 1,000 control valves.

The Oregon Health Authority has assessed Astoria's water source and identified soil erosion as the primary potential contaminant. However, the City's proactive management ensures a safe, clean, and reliable water supply for all residents. For more information about this assessment, please contact Jason Miles, via phone at (503) 298-2503 or via email at jmiles@astoria.gov.

WATER TREATMENT PROCESS

PREVENTING LEAD IN THE WATER

The City of Astoria, along with all public water systems, was required by the Environmental Protection Agency (EPA) under the Lead and Copper Rule Revisions (LCRR) to complete an inventory of water service lines to identify any lead-containing pipes. Service lines are the pipes that run from the water main to the water meter and from the meter to the home. This inventory did not include internal household plumbing. **We are pleased to report that no lead service lines were found!**

This comprehensive inventory was completed using a combination of historical records, field observations during routine utility work (such as leak repairs and meter replacements), and statistical sampling. A total of 351 homes were randomly selected for inspection of both public and private service lines. This approach provides 95% statistical confidence that no lead service lines exist in the system. More information on the inventory is available upon request from Jason Miles via phone at (503)-298-2503 or email at jmiles@astoria.gov.

The City routinely monitors tap water for lead and copper every three years. In 2024, samples were collected from 30 homes with plumbing more likely to contribute to elevated lead or copper levels. Results met all EPA standards, with only one site exceeding the action level for lead. Because Astoria remains in compliance, additional corrosion control treatment is not required. The next round of sampling is scheduled for June 2027.

Lead can cause serious health problems, especially for pregnant women and young children. In drinking water, lead primarily comes from materials and components associated with service lines and household plumbing.

While the City of Astoria is responsible for providing high-quality drinking water and removing lead service lines, it cannot control the materials used in private plumbing systems. Homeowners share responsibility for reducing exposure by identifying and removing lead-containing materials within their homes to help protect themselves and their families from such materials.

To reduce potential exposure:

- Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes.
- Use water from the cold tap for consumption and food preparation.
- Consider using a filter certified by an American National Standards Institute (ANSI) accredited certifier to reduce lead.

If you are concerned about lead in your water and please contact Astoria Public Works at (503) 325-3424. Additional information on lead in drinking water, testing methods, and ways to reduce exposure is available at: http://www.epa.gov/safewater/lead

There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children may experience decreased IQ, attention span, and learning or behavioral challenges. Exposure before or during pregnancy can increase the risk of these effects. In adults, lead exposure may contribute to high blood pressure, heart disease, and kidney or nervous system problems.

CITY OF ASTORIA RECOGNIZED AS AN OUTSTANDING PERFORMER!

IN WATER SYSTEM SURVEY BY THE OREGON HEALTH AUTHORITY

The City of Astoria has been recognized as an **Outstanding Performer** in its water system survey by the Oregon Health Authority (OHA).

This designation is awarded to water systems that demonstrate exceptional management, compliance with state and federal regulations, and a strong commitment to providing safe, high-quality drinking water to the community.

This recognition reflects the hard work of our utility staff and reinforces our commitment to delivering clean, reliable water to our residents.

CONTACT US

Astoria remains committed to long-term stewardship, investing in both its natural watershed and infrastructure to ensure high-quality water for current and future generations.

At the City of Astoria, we deeply value our customers and are committed to ensuring your satisfaction. To stay informed about issues affecting your water and community, we encourage you to attend a City Council meeting. Meetings are regularly scheduled on the 1st and 3rd Mondays of each month.

For more information, please visit www.astoria.gov.

Water Quality?
Jason Miles, Water Quality Supervisor ..... *(503) 298-2503*
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Your Water Bill?
Utility Clerk ..... *(503) 325-5821*
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Water Emergencies?
Public Works Operations ..... *(503) 325-3524*

General Inquiries?
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pwoperations@astoria.gov