2023 Annual
Water Quality Report

CITY OF
Vancouver
WASHINGTON

Information for Non-English Speaking Customers/Requesting Other Formats

This report contains important information about your drinking water. Please ask someone to translate it or call our office for assistance at 360-487-8177. To request other formats, contact Vancouver Public Works Operations: 360-487-8177 | WA Relay: 711

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Tài liệu này có tin tức quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu tài liệu này.

В этом сообщении содержится важная информация о воде, которую вы пьёте. Попросите кого-нибудь перевести для вас это сообщение или поговорите с человеком, который понимает его содержание.

Message to Customers: Keeping Your Water Safe

The City of Vancouver is pleased to present its annual Water Quality Report, with results of rigorous testing of our drinking water done by an independent lab that meets state and federal approvals. Test results conducted in 2023 showed Vancouver's water met all federal regulation, and in many cases, was better than Safe Drinking Water Act regulations required.

All of Vancouver's drinking water comes from underground aquifers and is delivered through a closed, protected and monitored system. In keeping with federal and state requirements, our water is treated with a trace amount of chlorine—a safe level that meets health standards for municipal water systems—as an extra precaution to guard against any potential contaminants, including viruses.

Vancouver's Water Utility is the third largest municipal water provider in Washington State, covering a 72-square-mile service area with more than 1,000 miles of water pipe and 40 wells at nine water stations. In 2023, the Utility provided 10.1 billion gallons of water to our more than 270,000 customers. Rates paid by water customers support around-the-clock operations and maintenance, as well as ongoing improvements to infrastructure and to the security of our water system.

Construction has continued on a significant water utility project at Water Station 5, located on 5.3 acres along the north side of East Mill Plain Boulevard and west of Devine Road next to Fire Station 3. Construction of two seismically resilient reservoirs, a new booster station and emergency power are almost complete. Security upgrades are underway at Water Station 5.

Also, replacement of aging water pipes as well as the installation of new transmission mains continues throughout the Utility's service area, improving efficiency and reliability.

Improvements at Water Station 5 increased capacity and reliability

New state regulations for per- and polyfluoroalkyl substances (PFAS) required testing of water for five different PFAS starting in 2023. Through proactive testing in 2020, PFAS were found at low levels in Vancouver's water stations. 2023 PFAS testing results for Vancouver's water are included in this Water Quality Report for your information.

Federal regulations require Vancouver to make its annual Water Quality Report available to all customers. This year's report is provided to you electronically. To announce the availability of the electronic report, inserts are being included in bills to all customers within our Water Utility service area. Please take time to read about your water.

Water Quality Summary for 2023

The City of Vancouver reaches beyond state and federal requirements and has its water analyzed for more than 238 different substances, some regulated and some not regulated. The substances listed below are regulated and were detected in Vancouver's water during 2023. All samples taken are from treated water delivered to the distribution system. Chemical analysis of organics is measured in parts per billion (ppb). Analysis of inorganics is measured in parts per million (ppm). Highest measured values represent an exception to the overall average concentrations in water delivered in the system. All results are below federal drinking water regulations.

Required Testing at Groundwater Sources

Contaminant (unit)	Highest Level Allowed (MCL)	Highest Level Detected	Lowest Level Detected	Ideal Goal (MCLG)	Potential Sources of Contaminant
Fluoride (ppm)	4.0	0.72	ND	4.0	Erosion of natural deposits; additive for strong teeth
Nitrate (ppm)	10	4.7	ND	10	Fertilizer, animal waste, septic systems, sewage

ND = non detect; ppt = parts per trillion (1 ppt is equivalent to a single drop of water in 20 Olympic-sized swimming pools)

Required Testing Within the Distribution System

Contaminant (unit)	Highest Level Allowed (MCL)	Highest Level Detected	Lowest Level Detected	Ideal Goal (MCLG)	Potential Sources of Contaminant
Total Coliform Bacteria	Less than 5% positive/month	0%	0%	0%	Naturally present in environment, contamination by mammals
Chlorine (ppm)	4.0	1.2	0.68	1.0	Additive for disinfectant residual

Contaminant (unit)	Highest Running Average Allowed	Running Annual Average	(MCLG)	Range of Level Detected	Regulation Met?	Potential Sources of Contaminant
Total Trihalomethane (ppb)	80	9.4	N/A	0.6–11.0	Yes	Biproduct of disinfection
Haloacetic Acids (ppb)	60	ND	N/A	ND	Yes	Biproduct of disinfection

Secondary (Aesthetic) Standards and Other Characteristics

These are additional substances, tested at groundwater sources, that relate to aesthetic qualities and may be of interest to customers.

Contaminant (unit)	Highest Level Allowed (MCL)	Highest Level Detected	Lowest Level Detected	Ideal Goal (MCLG)	Potential Sources of Contaminant
Copper (ppm)	1.3	0.043	ND	N/A	Naturally occurring
pH	6.5–8.5	8.0	7.4	N/A	Naturally occurring or treatment adjustment

Understanding PFAS

Vancouver, like many communities in Washington and across the nation, is addressing an emerging issue with per- and polyfluoroalkyl substances (PFAS). PFAS are a large group of human-made chemicals that have been used in industry and in consumer products worldwide since the 1940s.

About PFAS and Vancouver's Water

In 2020, the Water Utility completed proactive testing and found PFAS at low levels in some of the City's groundwater wells. The Utility took action and hired water quality experts to investigate possible sources and the extent of PFAS in the water supply and started work to identify treatment options.

New PFAS Testing

In 2023, the Water Utility began quarterly compliance testing and reporting for PFAS in alignment with requirements from the Washington State Department of Health. Recent testing in March 2024 showed four separate sample results that, while low, are slightly above recommended limits in state guidance.

The Washington State Department of Health develops State Action Levels to protect the health of drinking water consumers from contaminants not yet federally regulated. The State Action Levels for PFAS are public health goals set to protect all people, including sensitive populations and life stages, from potential harmful impacts of exposure to PFAS over a lifetime of drinking the water. If you have been drinking water over the State Action Level, it does not mean you will get sick or have health problems from this exposure.

City Actions to Protect Water Quality

- **Testing the water supply:** Operations staff continue to test and monitor water quality in compliance with state and federal requirements to ensure a safe water supply.
- **Evaluating treatment options:** Water quality engineers are evaluating treatment technologies to remove PFAS from the water supply.
- **Designing treatment systems:** Design is currently underway to install a treatment system at Water Station 14. Planning for a treatment system at Water Station 4 is in progress.
- **Finding long-term solutions:** Expert scientists are investigating potential sources of PFAS and the extent of PFAS in the local groundwater supply.
- **Planning for the future:** Future costs for PFAS treatment are included in the City's long-range capital plans.
- **Reducing costs:** The City is pursuing state and federal grants and loans to reduce the impact to ratepayers.
- **Adjusting operations:** Prioritize sources of water supply with lower levels of PFAS to operate before sources with higher levels to reduce concentrations within the distribution system.
- **Exploring interim measures:** The City is evaluating potential interim mitigation measures until long-term solutions are in place.
- **Sharing information:** Up-to-date information on PFAS and test results are being shared with all customers and the public so you can make informed decisions.

PFAS Sampling Results from March 2024

As required by state guidelines, below are the latest quarterly PFAS results as of the release of this report.

Type of PFAS	Vancouver Sampling Result Range	State Action Level	State Action Level Exceedance
Perfluorooctanoic acid (PFOA)	ND–11.1 ppt	10 ppt	Water Station 14
Perfluorooctanesulfonlc acid (PFOS)	ND–20.3 ppt	15 ppt	Water Stations 4, 8, 14, 15
Perfluorononanoic acid (PFNA)	ND	9 ppt	—
Perfluorohexanesulfonic acid (PFHxS)	ND–5.93 ppt	65 ppt	—
Perfluorobutanesulfonic acid (PFBS)	ND–6.97 ppt	345 ppt	—
Perfluoroheptanoic acid (PFHpA)	ND–3.22 ppt	—	—
Perfluorohexanoic acid (PFHxA)	ND–7.04 ppt	—	—

More Information About PFAS

PFAS are present in many everyday household materials including non-stick cookware, food packaging, clothing and furniture. These chemicals can enter the environment and water supplies from multiple sources and do not break down easily, which is why they are sometimes called "forever chemicals."

Potential Health Impacts

Scientists and public agencies are still studying how PFAS affect people's health. Health advice is updated as new science becomes available.

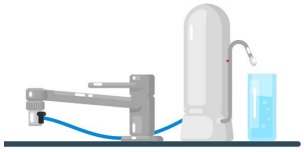
- **PFOA:** Some people who drink water containing PFOA in excess of the State Action Level over many years may experience problems with their cholesterol, liver, thyroid or immune system; have high blood pressure during pregnancy; have babies with lower birthweights; and be at higher risk of getting certain types of cancers.
- **PFOS:** Some people who drink water containing PFOS in excess of the State Action Level over many years may experience problems with their cholesterol, liver, thyroid, kidney or immune systems; or have children with lower birthweights.

Ways to Reduce Exposure

The Washington State Department of Health recommends the following:

- Learn about PFAS and steps you can take to reduce your exposure at epa.gov/pfas/meaningful-and-achievable-steps-you-can-take-reduce-your-risk or doh.wa.gov/pfas.
- If you are pregnant, breastfeeding or mixing infant formula with tap water, use an alternative source for drinking or mixing infant formula or install home water treatment that is certified to lower the levels of PFAS in your water.
- Boiling your water will not reduce PFAS levels.
- If you are concerned about potential health impacts from exposure to PFAS, please contact your doctor or health care professional.

Under the Sink Filter



Countertop Filter

We are committed to keeping the community informed as we learn more about treatment options and receive updates from federal and state authorities. To learn more about our response to PFAS, please visit cityofvancouver.us/PFAS or call Utility Customer Service at 360-487-7999.

EPA Unregulated Contaminant Monitoring Results

Unregulated contaminants are those for which EPA has not established drinking water standards. The Safe Drinking Water Act requires that EPA monitor for no more than 30 unregulated contaminants every five years. The Unregulated Contaminant Monitoring Rule (UCMR 5) sampling provides EPA with data to help determine if new regulatory standards are needed to improve drinking water quality. UCMR 5 included the testing of 29 PFAS compounds as well as lithium. Only the seven contaminants listed are those that had detections. All 23 remaining contaminants that were tested had levels below detection limits. For more information, please call EPA's hotline at 800-426-4791 or visit epa.gov/dwucmr.

Contaminant	Lowest Level Detected (ppt)	Highest Level Detected (ppt)	Average Level Detected (ppt)
PFBS	3.26	7.61	5.2
PFHpA	3.01	3.01	3.01
PFHxS	3.02	6.61	4.69
PFHxA	3.01	7.31	5.16
PFOS	4.13	18.6	10.98
PFOA	4.94	11.5	6.61
PFPeA	3.14	7.44	4.74

Additional Frequently Requested Information

The following results are not required by law but are provided to keep you informed about your water.

Contaminant (unit)	Highest Level Detected (MCL)	Lowest Level Detected
Alkalinity (ppm)	120	68
Calcium (ppm)	36.5	11.6
Hardness (ppm)	135	55
Magnesium (ppm)	11.8	6.2
Potassium (ppm)	4.2	2.0
Sodium* (ppm)	29.1**	7.8

**EPA guidance level for sodium in drinking water is 20 mg/L for those on diets with daily sodium restrictions*
***Elevated sodium level is a pH adjustment byproduct of EPA-required corrosion control at Water Station 15*

EPA Mandatory Safe Drinking Water Statements for All Community Water Systems

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 impacts can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 at 1-800- 426-4791.

Throughout the country, sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. The City of Vancouver relies 100 percent on groundwater. As water travels through aquifers, it dissolves naturally-occurring minerals and can pick up inorganic contaminants, which are naturally occurring, and organic contaminants, such as byproducts of industrial processes. To ensure safe tap water, EPA and Washington Board of Health regulate certain contaminants in public drinking water. Vancouver's water is tested for more substances than required. All results, shown in this report, meet or are better than required by EPA.

Information About Lead and Copper in Water

EPA rules require all public drinking water systems to regularly test a sample of potentially high-risk homes for lead and copper at an inside tap. Vancouver's Utility conducted lead and copper tests in July 2023, in keeping with federal Safe Drinking Water Act and Washington State Department of Health regulations. The Utility worked closely with residents to test water at the taps at a sampling of 54 homes most likely to be at risk, generally built between 1981 and 1989. All results showed lead and copper concentrations below EPA action levels that require additional treatment. The next round of lead and copper sampling will be completed in 2026. Visit cityofvancouver.us/water for details.

More Information

Lead is not present in Vancouver Water Utility's source water. In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water is sitting in pipes, the more dissolved metals, such as lead, it may contain. Exposure to lead can cause serious health impacts in all age groups. Infants and children who drink water containing lead could have decreases in IQ and attention span and increases in learning and behavior problems. Lead exposure among pregnant women increases prenatal risks. Lead exposure among women who later become pregnant has similar risks if lead stored in the mother's bones is released during pregnancy. Recent science suggests that adults who drink water containing lead have increased risks of heart disease, high blood pressure, kidney or nervous system problems. If you are concerned about lead in your water, you may wish to have your water tested. More information is available from EPA's Safe Drinking Water Hotline at 1-800-426-4791 or at epa.gov/safewater/lead.

	MCLG	Action Level*	Results**	Levels Tested	Homes Above Action Level	Source
Lead (ppb)	0	15	2.2	ND–7.9	0	Corrosion of home plumbing systems
Copper (ppm)	1.3	1.3	0.39	ND–0.99	0	Natural deposits/Corrosion of home plumbing systems

**Concentration of contaminant which, if exceeded, triggers treatment or other requirements*
***Represents 90th Percentile, or 90 percent of the samples were less than the values shown*

Aquifers - Source of 100% of Vancouver's Water Supply

The City of Vancouver gets all of the water supplied throughout our service area from wells tapping three underground aquifers—Orchards, Troutdale and the Sand-and-Gravel aquifers.

An aquifer is an underground layer of unconsolidated rock or sand that is saturated with usable amounts of water. Aquifers, which store and carry water, form significant natural water supplies. Recharge areas are important to a healthy aquifer. In a recharge area, water is able to seep into the earth and down to the aquifer, helping recharge these vital natural resources.

Vancouver's Water Service Area

To keep tap water safe, EPA prescribes regulations that limi contaminants. The City's Water Resources Protection Progra inspects and assists businesses in special well protection areas. Together, the City, State of Washington and federal regulations are working to keep our aquifers safe and our drinking water clean.

H2O: Helping Neighbors in Need

A little help can go a long way for those in our community who need it most. Help to Others, or H2O, is a City of Vancouver Utility program designed to help qualifying low-income residents in crisis situations pay for vital water and/or sewer utility services. The program is supported by donations from caring residents and businesses in our community. Donations are tax deductible under applicable IRS regulations.

Every dollar donated to the H2O program goes directly to helping people in our community. No matter how small or how big, your contribution to H2O can make a difference. Please consider making a donation in 2024. To learn how to make a one-time or recurring H2O donation by check or credit card, please call 360-487-7999 or visit cityofvancouver.us/atyourservice.

Terms and Definitions in This Report:

AL: Action Level. Concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow. **EPA:** United States Environmental Protection Agency, which enforces the Safe Drinking Water Act. **WSDOH:** Washington State Department of Health, which enforces the Safe Drinking Water Act within the State of Washington. **<:** Less than. **MCL:** Maximum Contaminant Level. Highest level of a contaminant allowed in drinking water. MCLs are set as close to ideal levels as current treatment technology allows. **ppb:** Parts per billion. One ppb = one milligram per 1000 liters. **ppm:** Parts per million. One ppm = one milligram per liter. **mg/L:** One milligram per liter. See ppm. **ND:** Non Detect. **THM:** Trihalomethanes. Total concentration of a series of chlorinated organic compounds, disinfection byproducts that are unavoidable and caused by a chemical reaction between chlorine and naturally occurring organic matter in water. **MCLG:** Maximum Contaminant Level Goal. Level of contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety. Only Primary Standards have MCLGs because Secondary Standards are not set for health reasons. **pCi/L:** picocuries per liter. Unit of measurement for radionuclides. **Hardness:** To convert ppm to grains per gallon, divide by 17.12. **SAL:** State Action Level. A level that is set to protect human health and is based on the best available science at the time.

Learn More

- Vancouver Water Quality/Operations: cityofvancouver.us/water or 360-487-8177
- Vancouver Utility Customer Service (bills/service): cityofvancouver.us/atyourservice or 360-487-7999
- Vancouver Backflow and Cross Connection Prevention: cityofvancouver.us/backflow or 360-487-8276
- Vancouver Water Resources Education Center: cityofvancouver.us/watercenter or 360-487-7111
- Vancouver Water Resources Protection Program: cityofvancouver.us/waterprotection or 360-487-7130
- EPA Safe Drinking Water: epa.gov/safewater or 800-426-4791

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