



Covington 212 2024 Water Quality Report

We are pleased to present your 2024 Annual Water Quality Report.

This report is designed to update you about the quality of water and services we deliver to you every day, but most importantly, this report shows your drinking water source meets all primary state and federal regulations.

On page 3, you'll find the most recent water quality results through the monitoring period ending December 31, 2024.

If you would like to receive more information about current water quality issues, make comments, or ask questions, please contact our Planning and Compliance Department at PUDPlanning@thurstonpud.org or call our office at (360) 357-8783, Option 3 between 8 a.m. and 4 p.m. Monday through Friday.

How To Contact Us...

Office Address:

1230 Ruddell Road SE
Lacey, WA 98503

Phone Number (s):

(360) 357-8783 or 1 (866) 357-8783

Email:

PUDCustomerService@thurstonpud.org

Website:

www.thurstonpud.org

Conservation *Saving Water Can Be Simple*

Water is a precious, limited resource. When we each do our part in conservation, using only as much water as we need, we help ensure enough water remains available to meet the needs of wildlife and our growing community.

Want to learn more about saving water indoors and out?

- Check out our website at <https://www.thurstonpud.org/water-systems.htm>, you will find water-saving tips and practices to utilize at home.
- Our monthly newsletters also feature conservation articles year-round, read the current and historical newsletters on our website at <https://www.thurstonpud.org/newsletters.htm>.

Get Involved

Commission meetings are held the second and fourth Tuesday of every month. The meetings start at 5:00p.m. and are open to the public.

Check out our website at www.thurstonpud.org

WATER USE EFFICIENCY ANNUAL REPORT

Thurston PUD is required to send you a Water Use Efficiency Report on an annual basis. To comply with this State law, Thurston PUD approved a new conservation goal in October 2020 for your water system. The goal is as follows:

REDUCE AND/OR MAINTAIN THE ANNUAL AVERAGE DEMAND PER CONNECTION, FOR ALL GROUP A SYSTEMS, TO NO MORE THAN 250 GALLONS PER DAY.

The Covington water system is fully metered and the total water produced for 2024 was 2,478,655 gallons. The system had a 3 gallon per minute leak loss for the year. In 2024, the average household used 209 gallons per day meeting the PUD's current conservation goal.

A copy of the report filed with the State is available on our website. To receive a copy by mail, please call our office at (360) 357-8783.

LEAD AND DRINKING WATER *What you need to know*

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. Thurston PUD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

To help reduce potential exposure to lead, for any drinking water tap that has not been used for 6 hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from the EPA's Safe Drinking Water Hotline at 1-800-426-4791 or online at <http://www.epa.gov/safewater/lead>.

CROSS-CONNECTION CONTROL *Protecting the Water You Drink from Backflow*

Thurston PUD, in accordance with WAC 246-290-490, administers a cross-connection control program that helps protect your drinking water by preventing contaminants from entering your water system through inspections, public education, and requiring physical devices called backflow prevention assemblies. Backflow prevention assemblies allow water to travel one-way into a customer-owned piping system, such as an irrigation or fire suppression system, and does not allow water to flow back into the community water supply if a back-siphonage or backpressure condition exists.

Thurston PUD staff members currently track and manage over 1,300 backflow assemblies as part of the cross-connection control program. Each assembly is required to be tested annually to ensure they are functioning properly to help safeguard the water that you, your family, and your neighbors utilize everyday. Requiring a backflow assembly on an underground irrigation system that is connected to the drinking water supply is one way we help to prevent contaminants from entering your community water system.

A garden hose can create a cross-connection! The end of a garden hose can be connected to or come into contact with many potential contaminants. Never submerge hoses in buckets, spas, animal watering troughs or any other receiving vessel. A hose bibb vacuum breaker (see illustration) is an inexpensive, easy to install device designed to help prevent backflow through your garden hoses. They are available at most hardware stores and only cost approximately \$7 each.

Two ways to help keep your water safe from cross-connections:

1. Fill out a new cross-connection survey form (www.thurstonpud.com) every time you add anything to your system.
2. Send in your required annual test results for any backflow device you have installed on your irrigation system.

If you are not sure if your underground irrigation system has a backflow assembly installed, or if you have any other questions about Thurston PUD's cross-connection control program and requirements, please contact the Planning & Compliance Team at backflow@thurstonpud.org or (360) 357-8783, Option 3.



ANNUAL WATER QUALITY REPORT: Covington 212 - ID 02050D

The water source for the Covington Water system is City of Lacey through a master meter. <https://cityoflacey.org/Water-quality/>

Treatment	Description
City of Lacey Chlorination	Treatment consists of a chemical feed pump injecting sodium hypochlorite (chlorine) to protect against possible bacterial contamination.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2024 calendar year. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk.

We test for Primary and Secondary Contaminants both regulated and unregulated, as required by the EPA and the State Department of Health. The regulated and unregulated analysis (contaminants) tests are commonly referred to as Inorganic Chemical (IOC), Volatile Organic Chemical (VOC) and Synthetic Organic Chemical (SOC) tests.

Required Testing (last testing date):

Monthly Bacteriological	Inorganic Contaminants – See City of Lacey Annual Report	Disinfection Byproducts – 2021
Annual Nitrate – See City of Lacey Annual Report	Volatile Organic Contaminants – See City of Lacey Annual Report	Lead & Copper – 2023

PRIMARY CONTAMINANTS					
Microbiological	MCLG	MCL	Your Water	Compliant(Y/N)	Typical Sources
Total Coliform Bacteria	N/A	TT	0	Y	Naturally present in the environment.
Disinfectants Disinfection Byproducts	MCLG	MCL	Your Water	Compliant(Y/N)	Typical Sources
Total Trihalomethanes (TTHM) (ppb)	N/A	80	5.89	Y	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	N/A	60	2.32	Y	
Lead and Copper Taken at Customer Taps	AL	No. of Homes Sampled	90 th Percentile Value	No. of Homes Exceeding AL	Typical Sources
Lead (ppb)	15	5	11.50	1	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	5	0.97	0	

Terms and Abbreviations Used:

ppm - parts per million ppb - parts per billion N/A - Not Applicable
ND - None Detected TT - Treatment Technique

Contaminant: A substance that impairs the quality of potable water and may create a hazard to public health.
MCLG (Maximum Contaminant Level Goal): the level of a contaminant in drinking water below which there is no know or expected risk to health. MCLGs allow for a margin of safety.
MCL (Maximum Contaminant Level): 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.
SRL (State Reporting Level): The minimum reportable detection of an analyte as established by Washington State Department of Health. If the test result is less than the SRL, the contaminant is considered not detected.
SMCL (Secondary Maximum Contaminant Level): These standards are developed as guidelines to protect the aesthetic qualities of drinking water and are not health based.
AL (Action Level): the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

2024 Water Quality Test Results

Contaminant	Highest Level Allowed (MCL)	Goal Not to Exceed (MCLG)	Highest Level Detected	Lowest Level Detected	Date of Highest Level Detected	Typical Source of Contaminant
Primary Standards Regulated by EPA for Protecting Public Health						
Arsenic	10 ppb	0	2 ppb	<1 ppb	11/2/2023	Erosion of natural deposits
Fluoride	4 ppm ¹	4 ppm	<0.2 ppm	<0.2 ppm	5/18/2021	Geology, natural weathering. Fluoride is not added to water
Lead	15 ppb	0	8 ppb	< 1 ppb	8/10/2021	Geology, brass fittings
Nitrate	10 ppm	10 ppm	4.5 ppm	<1 ppm	5/22/2024	Septic systems, fertilizer, animal waste
Ethylbenzene	700 ppb	700 ppb	0.52 ppb	0.52 ppb	8/30/2023	Discharge from petroleum refineries, paint from new reservoir
Xylenes	10,000 ppb	10,000 ppb	1.74 ppb	1.74 ppb	8/30/2023	Discharge from petroleum refineries and chemical factories, paint from new reservoir
Radium 228	5 pCi/L	0 pCi/L	1 pCi/L	< 1 pCi/L	7/19/2022	geology, natural weathering
Total Coliform Bacteria (% monthly samples testing positive)	5%	0%	1%	0%	11/12/2024	Naturally present in the environment
Free Chlorine Residual	4 ppm	4 ppm	0.89 ppm	0.30 ppm	5/1/2023	Added as a disinfectant to the water system
Total Trihalomethanes ²	80 ppb	NA	9.7 ppb	<0.5 ppb	8/23/2023	Reaction of chlorine with naturally occurring organic matter
Total Haloacetic acids	60 ppb	NA	8.39	5.69	1/11/2024	Reaction of chlorine with naturally occurring organic matter
Regulated Per- and Polyfluoroalkyl Substances (PFAS) ³						
PFOA	4 ppt	0 ppt	2.5 ppt	<0.075 ppt	12/1/2023	Run-off or leaching from firefighting foam, industrial discharge, and landfills; wastewater treatment plants
PFOS	4 ppt	0 ppt	2.6 ppt	<0.098 ppt	12/1/2023	
PFNA	10 ppt	10 ppt	0.14 ppt	<0.087 ppt	12/1/2023	
PFHxS	10 ppt	10 ppt	2.4 ppt	<0.061 ppt	8/21/2024	
PFBS	345 ppt (SAL)		4.21 ppt	<0.11 ppt	6/25/2024	
Unregulated PFAS						
PFPeS	unregulated		0.34 ppt	<0.05 ppt	12/1/2023	
PFBA	unregulated		0.81 ppt	<0.057 ppt	12/1/2023	
PFPeA	unregulated		18.8 ppt	<0.10 ppt	6/25/2024	
PFHxA	unregulated		9.83 ppt	<0.11 ppt	6/25/2024	
PFHpA	unregulated		0.71 ppt	<0.052 ppt	12/1/2023	
Secondary Standards Regulated by EPA for Aesthetics						
Chloride	250 ppm		18 ppm	1 ppm	8/10/2021	Geology, natural weathering
Copper	1300 ppb	1300 ppb	43 ppb	<20 ppb	8/10/2021	Geology, natural weathering
Iron	300 ppb		370 ppb	<100 ppb	9/13/2021	Geology, natural weathering
Manganese	50 ppb		71 ppb	<10 ppb	7/18/2024	Geology, natural weathering
Sulfate	250 ppm		14 ppm	2 ppm	7/13/2021	Geology, natural weathering
Conductivity	700 µS/cm		282 µS/cm	105 µS/cm	8/10/2021	Geology, natural weathering
Regulated by the State at the Consumer's Tap						
Contaminant	State Action Level (SAL)	Goal Not to Exceed (MCLG)	90% percentile	# Samples Over State Action Level	Date of Highest Level Detected	Typical Source of Contaminant
Copper	1300 ppb	1300 ppb	749 ppb	0 samples	7/19/2023	Corrosion of household plumbing or erosion of natural deposits
Lead	15 ppb	0 ppb	6.4 ppb	0 samples	7/19/2023	Corrosion of household plumbing or erosion of natural deposits
Unregulated Contaminants - sampled as required by EPA						
	State Action Level	Goal Not to Exceed (MCLG)	Highest Level Detected	Lowest Level Detected	Date of Highest Level Detected	Typical Source of Contaminant
Bromide	unregulated		48 ppb	< 0.02 ppb	4/7/2020	Geology and natural weathering, industrial and consumer products
Unregulated Water Constituents of interest for fish aquariums, and home brewing ⁴						
Alkalinity (mg/L as CaCO3)	unregulated		107	50	3/21/2023	Geology, natural weathering
Total Hardness (mg/L as CaCO ₃)	unregulated		120	32	8/10/2021	Geology, natural weathering
Calcium Hardness (mg/L as CaCO3)	unregulated		98	25	4/11/2018	Geology, natural weathering
Silica	unregulated		59 ppm	33 ppm	10/4/2011	Geology, natural weathering. Rarely tested
Sodium	unregulated		22 ppm	6 ppm	4/29/2021	Geology, natural weathering
¹ U.S. Department of Health and Human Services recommends <0.7 ppm fluoride in drinking water.						
² Highest locational running annual average was 7.66 ppb. In 2024, the highest concentrations of individual trihalomethanes were chloroform (5.93 ppb), bromoform (<0.5 ppb), chlrorodibromomethane (0.8 ppb), and bromodichloromethane (1.89 ppb).						
³ (PFBS)Perfluorobutanesulfonic acid; (PFPeS)Perfluoropentane sulfonic acid; (PFHxS)Perfluorohexanesulfonic acid; (PFOS)Perfluorooctanesulfonic acid; (PFBA)Perfluorobutanoic acid; (PFPeA)Perfluoropentanoic acid; (PFHxA)Perfluorohexanoic acid; (PFHpA)Perfluoroheptanoic acid; (PFOA)Perfluorooctanoic acid; (PFNA)Perfluorononanoic acid.						
⁴ Ranges shown are from all 20 groundwater wells that supply the water system. Ranges in tap water at specific locations will depend on which wells serve the particular area.						
Definitions:						
Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.						
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.						
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.						
ppm: Parts per million is equivalent to milligrams per liter (mg/l). One ppm is approximately equal to 1 drop in 22 gallons of water.						
ppb: Parts per billion is equivalent to micrograms/liter (µg/L). One ppb is approximately equal to 1 drop in 22,000 gallons of water (equivalent to about 1 drop in a small swimming pool).						
ppt: Parts per trillion is equivalent to nanograms/liter (ng/L). One ppt is approximately equal to 1 drop in 22,000,000 gallons of water (equivalent to about 1 drop in Long’s Pond).						
pCi/l: Picocuries per liter is the unit of measure used to describe an amount of radiation.						
Primary Standard: The MCL for these substances is set primarily for health reasons.						
Secondary Standard: The MCL for these substances is set primarily for non-health reasons such as color, taste, fixture staining or indirect health concerns when levels are too high.						

SOME CONTAMINANTS ARE REASONABLY EXPECTED TO BE FOUND IN DRINKING WATER

To ensure that tap water is safe to drink, the Department of Health and EPA prescribe regulations that limit the number of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled drinking water, may be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

The sources of drinking water (both tap water and bottled water) includes 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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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 result from 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 by-products 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.

Source Protection Information

The Washington State Department of Health Office of Drinking Water has compiled Source Water Assessment Program (SWAP) data for all community water systems in Washington. A source water assessment includes:

- A delineation (definition) of the source water protection area.
- An inventory of potential sources of contamination, and
- A susceptibility determination (how susceptible the source is to contamination).

SWAP data for your system is available online at <https://fortress.wa.gov/doh/swap/>

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health



Vulnerable Populations

Some people may be more vulnerable to contamination 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).