

# City of Philomath

2025 Annual

## Water Quality Report

Drinking Water Quality Data from 2024

This report informs you about the drinking water you use every day including where it comes from, how it is treated, and any contaminants found in it. In 2024 the City of Philomath drinking water met or surpassed every public health requirement, over 120 drinking water quality standards, set by the Oregon Department of Human Services and the U.S. Environmental Protection Agency.

Note: If you are a business or multifamily dwelling, please share this report with your employees or residents.

A large, artistic graphic of a water splash, showing a wave cresting and breaking, with water droplets and bubbles visible. The water is a clear, light blue color.

In 2023 the Philomath Water Treatment Plant and its  
Operators achieved the  
**OUTSTANDING PERFORMER**  
designation from the Oregon Health Authority, Public Health  
Division

# City of Philomath moved to Electronic Delivery of Annual Water Quality Report

The City of Philomath is constantly exploring new ways to provide its customer with the best customer service while keeping costs low. In 2017 the City decided to switch to an electronic delivery of the Annual Water Quality Report. This change streamlined the delivery of the report and reduced costs for printing and mailing. The report is available on the City's website at: <https://tinyurl.com/ybe87htu>.

If you would like a hard copy, you may pick one up at City Hall, Library, Police Station, Public Works or request one by calling 541-929-3579.

For any questions or request for additional information, please contact the Public Works office:

**Public Works Director:**

Kevin Fear

**Contact Number:**

541-929-3579

**Email:**

[Kfear@philomathoregon.gov](mailto:Kfear@philomathoregon.gov)

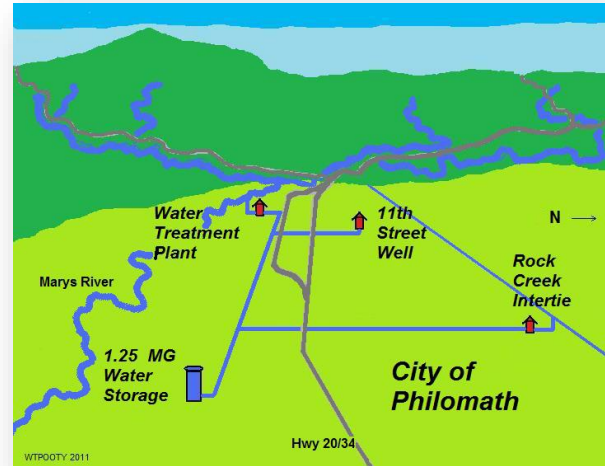
# Philomath's Water System

Total Population served: 5801

## Your Sources for Drinking Water

### Marys River

In 2024 about 91% of Philomath's drinking water came from the Marys River. The water is pumped to the Water Treatment Plant located on South Ninth Street. In the first step, a chemical called alum (aluminum sulfate) is added to the "raw water". Alum makes particles like dirt and sediment in the water coagulate or stick together. These particles clump together into larger particles called "floc". In the second step, the water enters an upflow clarifier, or primary filter. The floc particles then adhere to a synthetic material called media. During the third step, the water leaves the primary filter and flows through the final multi-media filter. The filters are used to remove any remaining particles in the water. A small amount of chlorine is added as it leaves the plant to kill any germs and to keep it safe in the reservoir and distribution system.



### 11th Street Well

In 2024 less than 1% of water consumed came from the 11th Street well, which is used when the plant and/or the inter-tie is down for maintenance or when demand is too great for the plant to keep up. It is used mainly as an emergency backup. A small amount of chlorine is also added as the water is pumped from the well.

### Philomath-Corvallis Inter-tie

The City of Philomath purchases water from Corvallis on an as needed basis providing Philomath with a backup source of water to help when the plant is down for repairs or maintenance. The intertie provided about 8% of the total water used in Philomath in 2024.

## Philomath Source Water Assessment Report

In 2001 the Department of Environmental Quality (DEQ) and the Environmental Protection Agency (EPA), with the help of the City of Philomath conducted a Source Water Assessment of the Marys River watershed as required by the Federal Safe Drinking Water Act. This assessment identifies potential sources of contaminants that could impact the quality of the Marys River.

Results of the assessment reveal that the contaminants of concern include sediments and turbidity, microbiological agents and nutrients. Potential sources of these contaminants include highways and railways, leaking septic systems, grazing animals, pastures, forest practices, rock quarries, lumber companies, water treatment plants, nurseries and auto shops.

Philomath's Source Water Assessment Report is available for review at the Public Works Department or on the city website at: <https://tinyurl.com/22vxpdf6>.

## City Water Meets Highest Standards

You will be pleased to know that in 2024, Philomath drinking water met all federal and state drinking water standards. Providing our customers with a safe and reliable supply of high-quality drinking water is a primary goal of the Philomath Public Works Department. Our commitment to water quality excellence has in many cases carried us beyond state and federal requirements. This annual report is intended to provide current information about your drinking water and some of the programs and technologies that make it among the safest in the world.

During 2024, 189.2 million gallons of drinking water were produced by the three facilities, down from 209.1 million gallons in 2023. Approximately 92% came from the treatment plant. The plant produced an annual average of just over 0.5 million gallons each day, while the well's production accounted for less than 1% and use of the inter-tie was about 8%. Usage from the well and the intertie depends on the time of year, customer demand, and maintenance requirements.

If after reading this report, you have questions or would like more information, please call the Public Works Department at 541-929-3579. Our employees are dedicated to excellent customer service and value your input.

## A Note For People With Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals such as those 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 individuals should be advised to consult their healthcare providers regarding drinking water safety. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium are available from the Safe Drinking Water Hotline at 800-426-4791.

## Why Is Chlorine Added To Our Water?

Although three quarters of the Earth's surface is covered with water, only about 1% is available for human consumption. Often this water must be treated to make it safe for human consumption. In 1908, chlorine was first used on a large scale in the United States to disinfect water supplies. Waterborne diseases such as cholera, typhoid, and dysentery were virtually eliminated in this country. Unfortunately, more than 1.5 billion people in developing countries do not have access to safe drinking water. Diseases associated with dirty water kill more than 25,000 people each day around the world, according to the World Health Organization.

Both our treatment plant and our well use chlorine to disinfect the water. Low doses of chlorine act as a disinfectant, protecting you from disease-causing microorganisms. We are required to add disinfectant to meet state and federal mandates for safe drinking water.

# Definitions

**MCLG= Maximum Contaminant Level Goal:** 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.

**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.

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

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

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

**MRDLG= Maximum Residual Disinfectant Level Goal:** 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 contamination.

**ppm=Parts per Million:** One part per million is equal to one cup of food coloring in an Olympic size swimming pool (130,000 gallons).

**ppb=Parts per Billion:** One part per billion is equal to one drop of food coloring in an Olympic size swimming pool (130,000 gallons).

**NTU=Nephelometric Turbidity Unit:** The standard unit of measurement used in water analysis to measure turbidity in water samples.

**pCi/L=Picocuries per liter:** Billionths of a curie per liter of water, a standard to measure radiations at very low levels.

**Radon** = A naturally occurring radioactive gas found throughout the U.S., more often in groundwater than in surface water. The City of Philomath is not required to test for Radon.

**Cryptosporidium** = A harmful microbial pathogen found in surface water throughout the U.S. Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Cryptosporidium must be ingested to cause disease and may be spread through other means than drinking water. The City of Philomath conducted a limited sampling for Cryptosporidium in late 2009 to 2010 before being released from further sampling by the Oregon Drinking Water program. Philomath finished with a highest mean month of .042 oocyst/L in unfiltered water taken before any treatment. There was none detected in finished water. The action level for Cryptosporidium is  $\geq$  .075 oocyst/L. There is currently no required testing for Cryptosporidium since the city did not exceed the limits for E. coli testing action levels in 2017. As of this writing, the state has not determined if any further testing is needed.

**Escherichia coli, known as E. coli,** = a bacterium that is present in all warm-blooded mammals. Birds and animals are carriers and E. coli has even been found in some fish and turtles. Sand and soil can harbor the E. coli bacteria. The City of Philomath tested for E. coli in its source water (Marys River) in late 2009-10 and in 2017-18. While some E. coli was detected in the river water, it was below the action level. There were no E. coli or fecal bacteria detected in water samples taken throughout the city.

## How Often Is Our Water Tested?

Before the water reaches your tap, samples from the water treatment plant, reservoir, and at numerous locations throughout the distribution system are tested. Dozens of tests are performed at the treatment plant each day, while more than 100 drinking water tests are conducted throughout the distribution system each year. Hundreds of other required tests are performed by state certified contract laboratories that specialize in drinking water analyses. Results from all these tests are summarized and sent monthly to the Oregon Health Division for review.

## FOR MORE INFORMATION

United States Environmental  
Protection Agency  
Safe Drinking Water Hotline  
1-800-426-4791  
[www.epa.gov](http://www.epa.gov)

Oregon Department of Human Services Drinking  
Water Program  
1-541-726-2587  
<https://yourwater.oregon.gov/inventory.php>  
(Philomath's ID #00624)

City of Philomath Website:  
[www.ci.philomath.or.us](http://www.ci.philomath.or.us)

# Blended Water Quality Data for 2024

## Distribution System Sampling Results

### All Three Source Waters Blended Together

(Philomath Water Treatment Plant, 11<sup>th</sup> Street Well and Corvallis/Philomath Intertie)

### Inorganic

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	MEETS REGS?	MAJOR SOURCES
Lead	2024	ppb	0	AL=15.0	Avg. 1.30	0.000	7.200	Yes	Corrosion of household plumbing
Copper	2024	ppm	1.3	AL=1.3	Avg. 0.125	0.018	0.466	Yes	Corrosion of household plumbing

Philomath's sampling frequency for lead and copper is every three (3) years. Every three (3) years, 20 samples are collected for analysis. Philomath does not have asbestos cement pipe, so therefore it is not required to sample for asbestos in the water.

### Microbiological

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	MEETS REGS?	MAJOR SOURCES
Turbidity	2024	NTU	N/A	TT	Avg .05	0.02	.17	Yes	Soil Runoff
Total Coliform	2024	No Unit	0	Presence of coliform bacteria in <5% of monthly samples	0	0	0	Yes	Naturally present in the environment
Fecal Coliform or E.coli bacteria	2024	No Unit	0	0	0	0	0	Yes	Human or animal fecal waste

Sampling frequency for Coliform Bacteria is 5 samples per month. Currently 6 samples are taken, 3 samples are taken approximately every 2 weeks to insure quality and more frequent monitoring than once per month. Samples are also taken after any shutdowns, repairs and pressure drops below 20 PSI.

### Disinfection By-Products, By-Product Precursors, and Disinfectant Residual

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	MEETS REGS?	MAJOR SOURCES
Haloacetic acids	2024	ppb	0.00	60.0	LRAA* 37.4	25.4	44.0	Yes	By-product of disinfection
Trihalomethanes	2024	ppb	0.00	80.0	LRAA* 32.7	41.8	46.1	Yes	By-product of disinfection
Total Organic Carbon	2024	ppm	N/A	TT	Avg 0.71	0.44	1.16	Yes	Naturally present in the environment
Chlorine Residual	2024	ppm	4.0	4.0	Avg 1.14	0.04	1.50	Yes	Remaining chlorine from disinfection

Chlorine residuals are sampled daily.

Total Organic Carbon is sampled quarterly, or 4 times per year.

For more information on Halo acetic Acids and Trihalomethanes, see the "Additional Important Information" page.

For the complete listing of all test results, go to the Oregon Drinking Water program website <https://yourwater.oregon.gov/inventory.php>

Enter ID #:00624 for Philomath results and enter ID # 00225 for Corvallis.

## Test Results That Are Included and Test Results That Are Not

Although we are required to test for more than one hundred substances, including radiological, inorganic chemicals, both synthetic and volatile organic chemicals, and microbiological, only the listed substances were found - and of those found, all results are well below the required MCL.

Complete test results can be found at <https://yourwater.oregon.gov/>. Use the "Water System Search" search link. Enter Philomath's water system number, 41-00624. All tests and information regarding the water system can be found in the links provided.

Other water testing the city is required to do is under the Unregulated Contaminant Monitoring Rule (UCMR). In 2023, the City began the fifth round of the UCMR's. Each round tests for several different contaminants. Sampling requirements vary from round to round. All water systems serving over 10,000 people sample during each round and water systems serving between 3300 to 10,000 people sample during some rounds, either by random selection or as required of all systems that size. For water systems serving less than 3000 people, sampling is required only when they are randomly selected.

## Other Required Testing

The City of Philomath has had to test during the UCMR4 and now the UCMR5. Since the City's population is below 10,000 people, EPA is responsible for all costs associated with sampling.

The Safe Drinking Water Act (SDWA) requires that once every five years EPA issue a list of unregulated contaminants to be monitored by public water systems (PWSs).

The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021. UCMR 5 requires a sample collection for 30 chemical contaminants between 2023 and 2025 using analytical methods developed by EPA and consensus organizations. This action provides EPA and other interested parties with scientifically valid data on the national occurrence of these contaminants in drinking water. Consistent with EPA's PFAS Strategic Roadmap, UCMR 5 will provide new data that is critically needed to improve EPA's understanding of the frequency that 29 PFAS (and lithium) are found in the nation's drinking water systems and at what levels. This data will ensure science-based decision-making and help prioritize protection of disadvantaged communities.

It's important to understand that the **UCMR does not set regulatory limits for any contaminants**. However, the data may be used by the EPA and the states to inform regulatory efforts. PFOA and PFOS are great examples. Since these two compounds were first studied under UCMR 3, several states have set MCLs (Maximum Contaminant Levels), health advisories, or reporting limits for these compounds. The EPA also plans to issue federally enforceable MCLs for PFOA and PFOS, possibly as early as the end of calendar year 2025.

[See the next page for a list of chemicals](#)

We have received the results of the testing from 2 of 2 sites, for all 4 of 4 testing cycles. The UCMR5 testing is complete for the City of Philomath and results have been included on the following page.

MRL=Maximum Reporting Level.

## UCMR5 Chemicals

### Perfluoroalkyl & Polyfluoroalkyl Substances

### Sampling Results

1	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11 Cl-PF3OUdS)	<MRL
2	1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	<MRL
3	1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	<MRL
4	1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	<MRL
5	4,8-dioxa-3H-perfluorononaic acid (ADONA)	<MRL
6	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	<MRL
7	hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	<MRL
8	nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<MRL
9	perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<MRL
10	perfluoro-3-methoxypropanoic acid (PFMPA)	<MRL
11	perfluoro-4-methoxybutanoic acid (PFMBA)	<MRL
12	perfluorobutanesulfonic acid (PFBS)	<MRL
13	perfluorobutanoic acid (PFBA)	<MRL
14	perfluorodecanoic acid (PFDA)	<MRL
15	perfluorodecanoic acid (PFDoA)	<MRL
16	perfluoroheptanesulfonic acid (PFHpS)	<MRL
17	perfluoroheptanoic acid (PFHpA)	<MRL
18	perfluorohexanesulfonic acid (PFHxS)	<MRL
19	perfluorohexanoic acid (PFHxA)	<MRL
20	perfluorononanoic acid (PFNA)	<MRL
21	perfluorooctanesulfonic acid (PFOS)	<MRL
22	perfluorooctanoic acid (PFOA)	<MRL
23	perfluoropentanesulfonic acid (PFPeS)	<MRL
24	perfluoropentanoic acid (PFPeA)	<MRL
25	perfluoroundecanoic acid (PFUnA)	<MRL
26	n-ethyl perfluorooctanesulfonamidoacetic acid (NEIFOSAA)	<MRL
27	n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<MRL
28	Perfluorotetradecanoic acid (PFTA)	<MRL
29	Perfluoroundecanoic acid (PFUnA)	<MRL

### One Metal/Pharmaceutical

### Sampling Results

30	lithium	<MRL
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For more information regarding UCMR5 please visit

<https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>





# Water Quality Data for 2024

## Philomath Water Treatment Plant

### Continue

### Radionuclides (RAD)

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Gross Alpha	2019	pCi/L	0	15.0	0.00	0.00	0.00	Yes	Erosion of natural deposits
Radium 226/228	2019	pCi/L	0	5.0	0.00	0.00	0.00	Yes	Erosion of natural deposits
Uranium	2019	pCi/L	0	0.03	0.00	0.00	0.00	Yes	Erosion of natural deposits

The sampling frequency for Radionuclides is every 9-year period for surface water. Next sampling cycle needs to be completed by December 31, 2034. No Sample date is scheduled currently.

### Additional Tests of Interest

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Turbidity	2024	NTU	N/A	TT	Avg. .05	.02	.17	Yes	Soil Runoff
pH	2024	ppm			Avg. 7.7	7.5	8.2	N/A	
Chlorine Residual	2024	Ppm	4.0	4.0	Avg. 1.14	0.04	1.50	Yes	Remaining chlorine from disinfection

## An Explanation of the Water Quality Data Table

The table above shows the results of our water quality analyses. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. All public water systems are required to report any detected contaminant within the last five years.

The table contains the name of each parameter, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the maximum reported value, the likely sources of each contaminant, footnotes explaining our findings, and a key to the units of measurement. Definitions of MCL and MCLG presented on the “definitions” page are important. The data presented in this report is from the most recent testing done in accordance with the state and federal regulations.

For the complete listing of all test results, go to the Oregon Drinking Water program website <https://yourwater.oregon.gov/inventory.php> Enter ID #:00624

Although we are required to test for more than one hundred substances, including radiological, inorganic chemicals, both synthetic and volatile organic chemicals, and microbiological, only the listed substances were found - and of those found, all results are well below the required MCL.

# Water Quality Data for 2024

## 11<sup>th</sup> Street Well (Emergency Back-up Source)

### Source of less than 0.1% of Total Water Supplied for 2024

### Inorganic Chemicals (IOC)

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Chromium	2021	ppm			.0014	N/A	N/A	Yes	Erosion of natural deposits
Fluoride	2021	ppm	4	4	.25	N/A	N/A	Yes	Erosion of natural deposits; water additive
Nickel	2021	ppm			.0012	N/A	N/A	N/A	Erosion of natural deposits
Nitrate	2024	ppm	10	10	0.00 One sample per year	N/A	N/A	Yes	Erosion of natural deposits; runoff from fertilizer use, septic tank leaching.
Sodium	2021	ppm	N/A	20*	36.4	N/A	N/A	N/A	Erosion of natural deposits

The sampling frequency for Inorganic Chemicals is every 9 years. Next sampling cycle needs to be completed by December 31, 2028.

No Sample date is scheduled at this time.

Nitrates are sampled once per year.

\* EPA advisory level only

### Synthetic Organic Chemical (SOC)

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
No SOC's were detected	2024								

The sampling frequency for Synthetic Organic Chemicals is every 3 years. Next sampling cycle needs to be completed by December 31, 2028. No Sample date is scheduled at this time.

### Volatile Organic Chemical (VOC)

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
No VOC's were detected	2023								

The sampling frequency for Volatile Organic Chemicals is every 3 years. Next sampling cycle needs to be completed by December 31, 2028. No Sample date is scheduled at this time.

For the complete listing of all test results, go to the Oregon Drinking Water program website <https://yourwater.oregon.gov/inventory.php>

Enter ID #:00624 for Philomath results and enter ID # 00225 for Corvallis.

# Water Quality Data for 2024

## 11<sup>th</sup> Street Well (Emergency Back-up Source)

### Continued

### Radionuclides (RAD)

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Gross Alpha	2024	pCi/L	0	15.0	0.0	0.0	0.0	Yes	Erosion of natural deposits
Radium -226/-228	2024	pCi/L	0	5.0	0.0	0.0	0.0	Yes	Erosion of natural deposits
Uranium	2017	pCi/L	0	.03	0.0	0.0	0.0	Yes	Erosion of natural deposits

The sampling frequency for Radionuclides is every 6 years for Gross Alpha and Radium -226/-228 and every 9 years for Uranium. Next sampling cycle needs to be completed by December 31, 2034 for all RADs. No Sample date is scheduled at this time.

### Other Tests of Interest

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Turbidity	N/A	NTU	N/A	TT	Not sampled in Ground Water	N/A	N/A	N/A	Soil runoff
Total Organic Carbon	N/A	ppm			Not sampled in Ground Water	N/A	N/A	N/A	Naturally present in the environment
pH	N/A	ppm	N/A		Not Sampled	N/A	N/A	N/A	

## An Explanation of the Water Quality Data Table

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The table contains the name of each parameter, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the maximum reported value, the likely sources of each contaminant, footnotes explaining the findings, the unit of measurement. Definitions of MCL and MCLG presented on the “Definitions” page are important. The data presented in this report is from the most recent testing done in accordance with the state and federal regulations.

For the complete listing of all test results, go to the Oregon Drinking Water program website <https://yourwater.oregon.gov/inventory.php>  
Enter ID #:00624 for Philomath results and enter ID # 00225 for Corvallis.

# Water Quality Data for 2024

## Corvallis-Philomath Inter-tie (Rock Creek Water)

Source of 8% of Total Water Supplied for 2023

### Inorganic

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Fluoride	2024	ppm	4	4	Average: 0.67	NA	NA	Yes	Erosion of natural deposits; water additive
Nitrate	2024	ppm	10	10	0.0 One sample per year	N/A	0.0	Yes	Erosion of natural deposits; runoff from fertilizer use, septic tank leaching.
Lead	2024	ppb	0.0	AL= 15.0	1.4	0.00	4.0	Yes	Corrosion of household plumbing
Copper	2024	ppm	1.3	AL= 1.3	.26	0.04	0.35	Yes	Corrosion of household plumbing

### Radionuclides

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Gross Alpha	2020	pCi/L	0	15.0	0.0	0.0	0.0	Yes	Erosion of natural deposits
Radium 226/228	2020	pCi/L	0	5.0	0.0	0.0	0.0	Yes	Erosion of natural deposits
Uranium	2020	pCi/L	0	.03	0.0	0.0	0.0	Yes	Erosion of natural deposits

### Microbiological, Disinfection By-Product Precursors, Disinfectant Residual

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	MEETS REGS?	MAJOR SOURCES
Turbidity	2024	NTU	N/A	TT	Not Reported	0.00	0.14	Yes	Soil runoff
Total Organic Carbon	2024	ppm			Avg. 0.48	0.34	0.63	N/A	Naturally present in the environment
Chlorine Residual	2024	ppm	4.0	4.0	Not Reported	0.0	0.0	Yes	Remaining Chlorine from disinfection
Haloacetic Acids	2024	ppb	0.0	60.0	Avg. 18.5	10.7	34	Yes	Disinfectant By-Product
Trihalomethanes	2024	ppb	0.0	80.0	Avg. 26.9	15.0	37.7	Yes	Disinfectant By-Product

# Water Quality Data for 2024

## Corvallis-Philomath Inter-tie (Rock Creek Water)

Continue

### Additional Tests of Interest

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Sodium	2022	ppm	N/A	20 *	10.8 One Sample	N/A	N/A	N/A	Erosion of natural deposits Not Reported
pH	2024	ppm			Avg 7.4	NA	NA	N/A	

## An Explanation of the Water Quality Data Table

The table above shows the results of Corvallis’s water quality analyses. Every regulated contaminant that was detected in the water, even in the most minute traces, is listed here. All public water systems are required to report any detected contaminant within the last five years. The table contains the name of each parameter, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the maximum reported value, the likely sources of each contaminant, footnotes explaining the findings, the unit of measurement. Definitions of MCL and MCLG presented on the “Definitions” page are important. The data presented in this report is from the most recent testing done in accordance with the state and federal regulations.

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Enter ID #:00624 for Philomath results and enter ID # 00225 for Corvallis.

\* EPA advisory level only.

# Water Quality Data for 2024

## Corvallis-Philomath Inter-tie (Taylor Treatment Plant)

While 8% of water was supplied by the Inter-tie with Rock Creek Water, a very minimal amount was from the Taylor Treatment Plant. This data is being supplied since some water was supplied by the Taylor Plant.

### Inorganic

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Fluoride	2024	ppm	4	4	Average: 0.85	NA	NA	Yes	Erosion of natural deposits; water additive
Nitrate	2024	ppm	10	10	0.1 One sample per year	N/A	0.0	Yes	Erosion of natural deposits; runoff from fertilizer use, septic tank leaching.
Lead	2023	ppb	0.0	AL= 15.0	1.4	0.00	4.0	Yes	Corrosion of household plumbing
Copper	2023	ppm	1.3	AL= 1.3	0.26	0.04	0.35	Yes	Corrosion of household plumbing

### Radionuclides

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Gross Alpha	2020	pCi/L	0	15.0	0.0	0.0	0.0	Yes	Erosion of natural deposits
Radium 226/228	2020	pCi/L	0	5.0	0.0	0.0	0.0	Yes	Erosion of natural deposits
Uranium	2020	pCi/L	0	.03	0.0	0.0	0.0	Yes	Erosion of natural deposits

### Microbiological, Disinfection By-Product Precursors, Disinfectant Residual

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	MEETS REGS?	MAJOR SOURCES
Turbidity	2024	NTU	N/A	TT	Not Reported	0.02	0.09	Yes	Soil runoff
Total Organic Carbon	2024	ppm			Avg. 0.56	0.46	0.66	N/A	Naturally present in the environment
Chlorine Residual	2024	ppm	4.0	4.0	Not Reported	0.0	0.0	Yes	Remaining Chlorine from disinfection
Haloacetic Acids	2024	ppb	0.0	60.0	Avg. 18.5	10.7	34	Yes	Disinfectant By-Product
Trihalomethanes	2024	ppb	0.0	80.0	Avg. 26.9	15.0	37.7	Yes	Disinfectant By-Product

# Water Quality Data for 2024

## Corvallis-Philomath Inter-tie (Taylor Treatment Plant)

Continue

### Additional Tests of Interest

TEST	TEST DATE	UNIT	MCLG (MRDLG)	MCL (MRDL)	DETECTED LEVEL	LOWEST RANGE	HIGHEST RANGE	Meets Regs?	MAJOR SOURCES
Sodium	2022	ppm	N/A	20 *	12.0 One Sample	N/A	N/A	N/A	Erosion of natural deposits Not Reported
pH	2024	ppm			Avg 7.2	NA	NA	N/A	

## An Explanation of the Water Quality Data Table

The table above shows the results of Corvallis's water quality analyses. Every regulated contaminant that was detected in the water, even in the most minute traces, is listed here. All public water systems are required to report any detected contaminant within the last five years. The table contains the name of each parameter, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the maximum reported value, the likely sources of each contaminant, footnotes explaining the findings, the unit of measurement. Definitions of MCL and MCLG presented on the "Definitions" page are important. The data presented in this report is from the most recent testing done in accordance with the state and federal regulations.

For the complete listing of all test results, go to the Oregon Drinking Water program website <https://yourwater.oregon.gov/inventory.php>

Enter ID #:00624 for Philomath results and enter ID # 00225 for Corvallis.

\* EPA advisory level only.



# Cross Connection and Backflow Prevention

Congress established the Safe Drinking Water Act (SDWA) in 1974 to protect human health from contaminants in drinking water and to prevent contamination of existing groundwater supplies. This Act, and its amendments (1986 and 1996), require many actions to protect drinking water and its sources. One of these actions is the installation and maintenance of an approved backflow prevention assembly at the water service connection whenever a potential hazard is determined to exist in the customer's system. Without proper protection devices, cross-connections can occur.

## What is a cross-connection?

It is a connection between your drinking water and another source of water that combines the two when a backflow condition occurs. When this condition occurs, your drinking water can become contaminated. The City of Philomath is deeply committed to its mission of protecting customers, water resources, and the environment. Our objective is to monitor the implementation and annual testing of devices which will prevent the water supply from becoming contaminated, even unintentionally.

According to the State of Oregon Rules for Safe Drinking Water, all users connected directly or indirectly to a public water system must have a backflow prevention device if there is any hazard risk. Risk hazards would include, but are not limited to: Underground irrigation systems, hot tubs, wells, etc.

This backflow device must be installed and maintained at the user's expense.

All backflow prevention devices must be tested annually, on the anniversary of the installation of the device, not from the last tested date, by a certified tester to ensure proper working order. The City of Philomath can provide consumers or property owners with a list of certified backflow prevention testers. The consumer or property owner selects one of his/her own choosing from the list to perform the test. The consumer or property owner should maintain written records of the test and ensure that The City of Philomath has been provided with a copy.

The City of Philomath is authorized to suspend water service to the consumer's premises in the event the backflow prevention device inspection and test reports are not provided as required.

If you have any questions about backflow prevention, please call the City of Philomath, Public Works Department at 541-929-3579.



## What You Should Know About Contaminates in Source Waters

When Congress passed the 1996 Safe Drinking Water Act amendments, the Environmental Protection Agency (EPA) was given the mandate to require public water systems to provide each customer with an Annual Water Quality Report every 12 months.

The sources of drinking water, both tap and bottled, include surface sources such as rivers, streams, lakes and reservoirs, and groundwater sources, or wells. As water moves through the ground or over surfaces, it dissolves naturally occurring minerals, and in some cases, radioactive material. Water can also pick up substances resulting from the presence of human or animal activity. Contaminants that may be present in the source water include:

**Microbial** - such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic** - salts and metals, which can occur naturally or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and herbicides** - from a variety of sources such as agriculture, stormwater runoff, and residential uses.

**Organic chemicals** - both synthetic and volatile, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

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

To insure that tap water is safe to drink, the EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. Bottled water must meet similar standards for contaminant levels as prescribed by the Food and Drug Administration (FDA).

All drinking water, including bottled water, may be reasonably 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 (800-426-4791) or by visiting the EPA website address: [www.epa.gov/safewater](http://www.epa.gov/safewater)

## Help Keep Our Water Clean- What You Can Do To Help

It is the people living and working in communities who have the most to gain or lose from the quality of their drinking water. Become an environmentally aware citizen and help avoid drinking water contamination. Things you can do around your home to help protect your drinking water include:

**Properly dispose of chemicals-** Never pour on the ground, down the drain, or toilet: cleaning supplies, paints, solvents, lawn and garden motor oil, antifreeze, or other waste chemicals. Participate in household hazardous waste collection events.

**Properly dispose of drugs and personal care products-** Never flush medications or personal care products down the toilet or drains. Take medications to the police department or watch the newspaper for drug take back programs.

**Use fertilizers, herbicides and pesticides properly-** Apply chemicals according to label instructions and avoid runoff. Do not exceed recommended application rates.

**Report spills on roadways-**Report spills from vehicles on the roadways by calling "911" so local emergency response teams can effectively contain and remediate the spill to prevent it from entering the waterways.

# Additional Important Information

## A Word About Lead In Drinking Water

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 Philomath 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

Philomath has met the criteria for reduced monitoring of Disinfectant by Products. (DBP).

DBP's are compounds that are produced when chlorine (disinfectant) encounters organic or inorganic materials that naturally occur in raw water. Treatment of the water removes a great deal of organics from the water, but the removal of all organic materials is nearly impossible resulting in minute particles remaining that combine with the chlorine. The two DBP's that are monitored are Trihalomethanes (TTHM) and Halo acetic Acids (HAA5). TTHM's are a grouping of four chemical compounds and HAA5's are a grouping of 5 chemical compounds. The Maximum Contaminate Level (MCL) on a running annual average for TTHM's is 80 parts per billion (ppb). HAA5 MCL is 60 ppb. Philomath's Long Running Annual Average has stayed below half of the MCL's for both groups allowing monitoring to be reduced from 2 dual sample sites (both sites TTHM and HAA5 samples) 4 times a year (quarterly) to 2 dual sample sites once per year.

### Helpful Tips For Reducing Water Use:

A lawn only needs approximately one inch of water per week to stay healthy and green. It is better to give your lawn a deep watering infrequently rather than every day. This promotes healthy root growth.

### Make sure your irrigation system is operating efficiently.

- Look for broken or misdirected spray heads
- Check how much water you are applying weekly by adjusting your watering schedule.
- Set your watering schedule for early morning or late evening to avoid water loss from evaporation.
- Consider using drip irrigation for watering.
- Plant native or drought tolerant plants that use less water once established.
- Be sure to check your toilets for leaks, even if you can't hear or see them. A leaky toilet can waste up to 100 gallons of your drinking water per day.

### Planning a home improvement job? Planting a tree? Installing a fence or deck?



### **WAIT! Here's what you need to know first:**

Homeowners often make risky assumptions about whether they should get their utility lines marked, but every digging job requires a call – even small projects like planting trees and shrubs. The depth of utility lines varies and there may be multiple utility lines in a common area. Digging without calling can disrupt service to an entire neighborhood, harm you and those around you and potentially result in fines and repair costs. Calling 811 before every digging job gets your underground utility lines marked for free and helps prevent undesired consequences.

# Reducing Exposure to lead in Philomath

Lead-contaminated drinking water in Flint, Michigan, Portland, Oregon, and Tacoma, Washington has drawn national attention to the issue of controlling lead exposure in public drinking water systems. The City of Philomath has worked to control lead in its water for several years; it is one of our standard operating procedures for keeping drinking water clean and safe.

## ***How does lead get into drinking water?***

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead in drinking water cause serious health problems, especially for pregnant women and young children. In 1991, the Environmental Protection Agency (EPA) published a regulation to control lead and copper in drinking water. The Lead and Copper Rule requires the City to collect representative water samples at customer taps to be analyzed for lead and copper, which can be present in drinking water if materials in water system's distribution pipes or a building's plumbing contain either metal. Certain characteristics of drinking water (primarily the pH) can cause fixtures with lead-based solder and brass faucets to corrode. When water is in contact with these fixtures over time, lead or copper can be released into the water. The amount of lead and/or copper can increase when water is in contact with such fixtures for extended periods. If lead or copper concentrations exceed the action level in more than 10% of customer samples, the City must take additional steps to control corrosion. The action level for lead is 15 parts per billion (ppb) and copper is 1.3 parts per million (ppm).

## ***What are the health effects of lead in drinking water?***

For information on lead in drinking water and how it can affect your health, visit the Oregon Health Authority Drinking Water Services fact sheet on lead at: <http://bit.ly/3JdTL7w>

## ***What is Philomath doing to reduce lead in drinking water?***

To reduce lead in Philomath's drinking water, City staff has taken a **three-tiered** approach:

### **1-Removal of lead components**

#### **Distribution System**

Philomath has determined both by record drawings, repair records and installation records that there are no lead pigtailed or lead pipes in the public water system. Lead pigtailed (sometimes known as goosenecks) were used in the early 1900's to connect the main water line to the customer's service line. These short lead pipes were used because they could be easily bent and allowed for flexible connections between the rigid pipes. Philomath has used flexible copper pipe for service lines on all existing water lines in service and there is no indications or reasons that lead pipe or pigtailed were ever used.

You can see the full spreadsheet with all city addresses and information on the City of Philomath's website at <https://tinyurl.com/2akbqs8l>. Private service material was checked at the meter, from past records or permits or input from homeowners regarding private service line pipe types.

## Schools

Philomath Public Works staff reviewed Record Drawings of the materials used in connecting local schools to the public water system. We confirmed that no lead pigtailed were used on the school service lines. The Philomath School District tested the school drinking water faucets for lead. A summary of the results are in the table below with full results on the Philomath School District Website at: <https://www.philomathsd.net/district-home/departments/facilities>

## Public Buildings

City-owned public buildings that have the greatest frequency of use by the public or which were constructed at a time when lead solder and fixtures were used. Testing was completed during routine sampling at the following buildings on August 11, 2021:

Building	Range of Lead Results (EPA Action Level = 15ppb; ND = Non-Detect)	Retest Result	Range of Copper Results (EPA Action Level = 1.3 ppm)	Retest Result
Clemens Primary School	ND-9		Not Sampled	
Philomath Elementary School	ND-42		Not Sampled	
Philomath Middle School	ND-2		Not Sampled	
Philomath High School	ND-11		Not Sampled	
Philomath Youth Activity Center (PYAC)	ND		Not Sampled	
Philomath Library	Not Sampled		Not Sampled	
Philomath City Hall	ND		0.327	

## 2. Application of Corrosion Control Treatment

Operators in Philomath's water treatment plant use chemicals to adjust the pH and alkalinity of water entering the distribution system to make it less likely to corrode plumbing components in the homes we serve. The Oregon Health Authority requires us to maintain a minimum pH of 7.5 in the drinking water to optimize corrosion control treatment. We try to maintain a 7.7 pH. We monitor pH on a continuous basis at the treatment plant and within the distribution system to assure the treatment system is working properly.

### 3. Ongoing Lead/Copper Testing and System Upgrades

When the Lead and Copper Rule went into effect, Public Works staff identified homes that were built between 1983 and 1985, considered by the EPA to be at higher risk of lead and copper corrosion because of plumbing materials that were used at that time. Staff began sampling 40 homes every six months in 1993, as the Rule requires. Based on our past sampling history, the Oregon Health Authority allowed Philomath to reduce sampling to 20 homes once every three years. The City of Philomath fully complies with all state and federal regulations for lead and copper testing. You can review the City's test results, along with any other public water system in the state, by visiting the Oregon Health Authority Drinking Water Service Water Online website at <https://yourwater.oregon.gov/>. You can also view our annual Water Quality Reports at <https://tinyurl.com/ybe87htu>.

While the Lead and Copper Rule applies to utilities, the Reduction of Lead in Drinking Water Act sets standards for the amount of lead allowed in pipe, plumbing fittings, fixtures, solder, and flux. In January 2014, the Act was amended to reduce the allowable lead content in these components from 8% to 0.25% or less. All system components purchased and installed in the City of Philomath Water System since this amendment are in compliance.



#### ***How do I find out if my home has lead plumbing?***

If your home was built before 1986, it may have copper pipes with lead solder. In addition, any faucet purchased before 1997 may be constructed of brass containing up to 8% lead. The only way to know if your water contains lead is to test it. You can find a laboratory approved to perform testing for lead in drinking water on the internet. Be sure to follow the sampling guidelines provided by the laboratory.

#### ***How can I reduce my exposure to lead in my drinking water?***

##### **Run your water to flush out lead**

If water has not been used for several hours, such as in the morning or after returning from work or school, run taps for 30 seconds to 2 minutes, or until it becomes colder, before cooking or drinking. This will flush water that has been sitting in pipes. (Conservation tip: If you run sprinklers, wash a load of laundry or shower first, you will not need to run the tap as long. Or consider catching the flushed tap water for plants or some other household use such as cleaning.)

##### **Periodically remove and clean the faucet screen / aerator**

Particles containing lead from solder or household plumbing can become trapped in your faucet aerator. Occasional cleaning will remove these particles and reduce your exposure to lead.

### **Always use cold water for cooking and drinking**

Lead dissolves more easily into hot water, so don't use water from the hot water tap to make baby formula or for cooking or drinking.

### **Consider buying low-lead faucets**

As of January 2014, all pipes, fittings and fixtures are required to contain less than 0.25% lead, which is termed "lead-free." In addition to seeking out products with the lowest lead content, fixtures with the WaterSense label will maximize water savings.

### **Consider investing in a filter**

Before you buy, confirm that the filter reduces lead – not all filters do. Remember that bacteria and other contaminants can collect in filters if not properly maintained, making water quality worse, not better. For water filter performance standards, contact [NSF International](http://www.nsfinternational.com) at 1-800-673-8010.

### **Additional Information:**

If you have questions about the City of Philomath's water, please contact the Public Works Department, at [pw@philomathoregon.gov](mailto:pw@philomathoregon.gov) or 541-929-3579.

- Oregon Health Authority Drinking Water Program: 971-673-0405
- Oregon Health Authority Lead Poisoning Prevention Program: 971-673-0440
- EPA Safe Drinking Water Hotline: 1-800-426-4791
- Centers for Disease Control and Prevention, "About Lead in Drinking Water"
- National Lead Information Center: 1-800-424-LEAD



# New Faces at the Water Treatment Plant

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## James Winge

James has been with the City of Philomath since August of 2011. He began his career with the City of Philomath as a Water/Wastewater Treatment Plant Operator. He had previously been the civilian Supervisor for the Reverse Osmosis Water Treatment plant at the Wake Island Air Force Base in the mid-Pacific from 2007-2010.

With the retirement of our previous Senior Water/Wastewater Treatment Plant Operator at the end of August of 2024, James has moved up to the position of Lead Water/Wastewater Operator and is doing an outstanding job. He has streamlined operations and has the plant running efficiently and has been able to make several needed repairs since taking over. James is looking forward to the challenge of getting a new water plant with enhanced treatment capabilities up and running.

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# New Faces at the Water Treatment Plant

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## Russ Howard



Russ has been with the City of Philomath since May of 2024. He began his career with the City of Philomath as a Utility Maintenance Worker 1. He quickly found an interest in water and wastewater treatment and was able to move over to the position of Water/Wastewater Operator with the vacancy that was left when James was promoted to the Lead Operator position.

Russ has proven to be a quick learner and dedicated operator with a great future ahead.

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## City of Philomath Water Reservoir is Complete

After a delay just a little over a year, the new 1.5-million-gallon reservoir is complete.

This will increase the available water needed for firefighting operations, peak demand usage and chlorine contact time when it is put into service. The next phase of the project will be the construction of the water treatment plant, which includes a new raw water intake at the Marys River and a pump station to disperse the water from the reservoir for use throughout the city.

The new water treatment plant should be out for bid in the spring of 2025 and completion in about 12-14 months.



HP Civil Inc from Stayton Oregon was the low bidder at \$4,221,000.

It was completed in January of 2025.

# Philomath is Working on a New Water Treatment Plant

The City of Philomath is in the engineering phase of constructing a new water treatment plant. Final touches are being put on the plans and hopefully go out to bid by spring of 2025.

The original plant was built in 1985 and has a life expectancy of 25 years. The current plant turns 40 years old this year and in water treatment plants such as this, that is ancient. Our biggest problem is that the components that make up the plant are wearing out. Many components are required to be rebuilt



and recalibrated on a yearly basis. Replacement parts to rebuild or make repairs are no longer available. Newer-like parts, if available, are usually completely different in size, shape and tolerances so most of the time they won't fit or work with the current configuration of the plant. Our operators have stocked up on yearly rebuild parts and parts that wear out from everyday use when they find out that a component is becoming obsolete. They have scoured eBay and Amazon for extra parts and less expensive parts, and they also contact other cities who might have similar treatment plants that they are replacing to see about acquiring any extra parts they have on hand. The plant has served its purpose, for much longer than expected, but parts are failing regularly triggering shutdowns and it is only a short matter of time before a failure will not be able to be repaired.

## Some information regarding the current plant:

**Built:** 1985

**Rated at:** 1.5 Million Gallons a Day (MGD)(about 1050 gallons per minute), output is about 1 MGD

**Filtering:** Rapid sand filters-2- Microfloc Trident TR210 upflow clarifier Filter units. Each unit operates independently and uses 6 layers of filter media starting with Anthracite, Sand, Garnet and 3 different levels and sizes of gravel media totaling about 6 feet in depth.

**Raw water pumps:** 3- 10 hp 375 gpm vertical turbines

**Finish pumps:** 3-40hp 375 gpm vertical turbines

**Clear Well Volume:** 40,000 gallons

## Chemicals feeds used at the plant:

**Liquid Alum (Aluminum Sulfate)**-coagulation and flocculation aid

**Sodium Carbonate (Soda Ash)**-Used to raise PH

**Polyelectrolyte**- Aids in stabilizing or initiating Coagulation, Flocculation

**Chlorine (Gas)**- Used as a disinfectant

**Fluorosilicic Acid**- Fluoride additive to prevent tooth decay

# City of Philomath Proposed Water Treatment Plant

A combination of several factors postponed the construction of the new water treatment plant from happening last year. The paragraphs below outline the original concept plan with estimated construction costs as of last year.

Due to a break-in period and adjustments needed to establish water within strict guidelines, both the new and existing plants will need to be operational at the same time for a period of time. The new reservoir will serve as an interim storage point for water from the new plant until it is verified that the water produced meets standards. Careful planning to ensure the water plant is completed at the same time the reservoir reaches its concrete cure time and can be put into service. This eliminates the down time of the contractor which weighs on the cost of the project.



WTP BUILDING

## Engineer's Conceptual Drawing

The proposed water treatment plant will be attached to the existing plant. The existing plant will be retained as the office and laboratory to minimize cost and size of the new proposed building. Improvements include switching from the rapid sand filters to membrane filtration which will enable us to consistently meet the increasingly strict water quality standards and also should decrease the need for as many and as much chemicals. It will also expand production from 1.5 Million gallons a Day (MGD) to 2.5 MGD.

As the Marys River has wandered and changed the channel and banks of the river, a new river intake structure will be constructed downstream, roughly at the end of S. 9<sup>th</sup> street as the banks and channel have been more stable over time and not varied in location as much as the current location.

In addition to designing a new plant and intake, a 1.5-million-gallon water reservoir was constructed. This will also increase the available water needed for firefighting operations, peak demand usage and chlorine contact time.

The total project cost is estimated to be \$13.5 million dollars. The new intake and treatment plant is anticipated to begin in June of 2025. It is expected to take about 12-14 months to construct.

**Plant Capacity:** 2.5 Million Gallons a Day (MGD)(about 1735 gallons per minute)

**Filtering Process:** Membrane filtration. Two racks of membrane filters with each rack capable of producing 1.25 million gallons a day. Higher filtration capabilities than sand filters

**Raw water pumps:** Two 100 hp 1,400 gpm variable speed soft start vertical turbine pumps

**Clearwell Volume:** 84,000 gallons

**Disinfecting, coagulating methods at the plant:**

**Liquid Alum (Aluminum Sulfate)-** coagulation and flocculation aid

**Sodium Carbonate (Soda Ash)-** Used to raise pH

**Polyelectrolyte-** Aids in stabilizing or initiating Coagulation, Flocculation

**Chlorine (Gas)-** Used as a disinfectant and to provide required chlorine residual in reservoirs and distribution water mains.

**Ultraviolet Light Disinfection-** Used to enhance and strengthen the chlorination disinfection process

**Fluorosilicic Acid-** Fluoride additive to prevent tooth decay

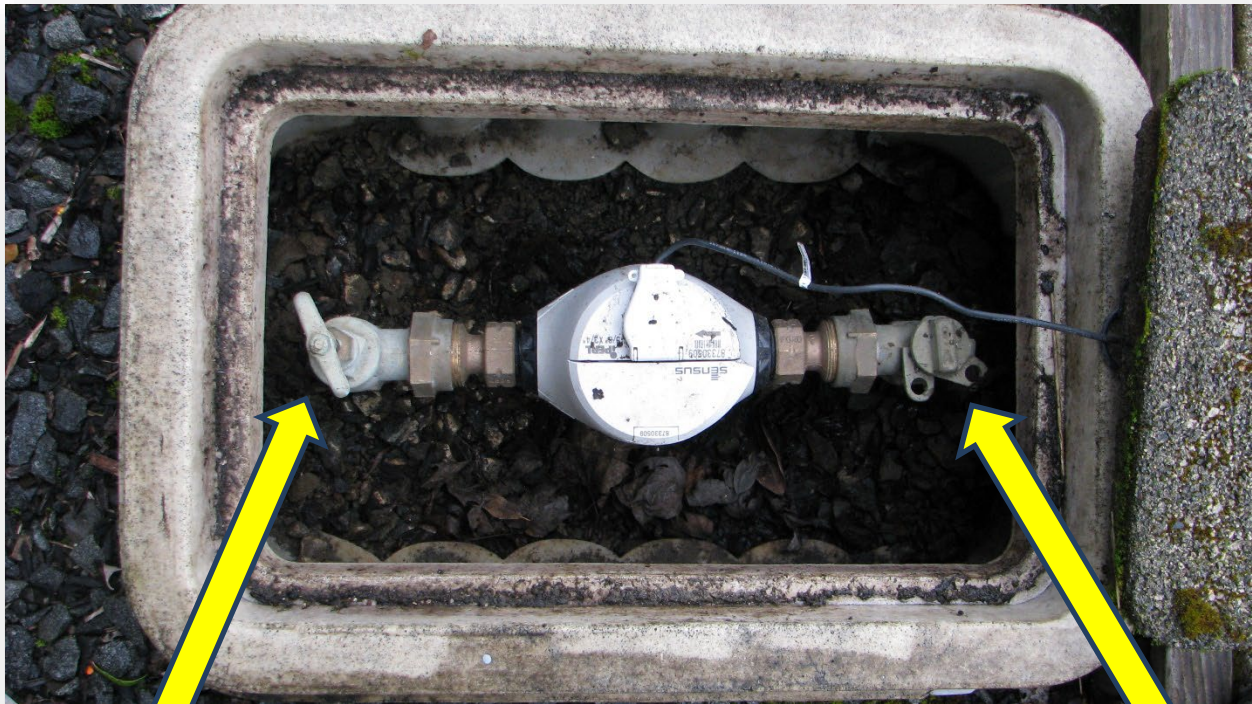
**Finished water pumps-** Two 150hp 1,400 gpm variable speed soft start vertical turbine pumps

## Do You Know Where Your Water Meter Shut-Off Valve Is?

It's the middle of the night and a water pipe has burst. You need to shut off the water to your house, but *do you know where the shut-off valve is located?*

It can take time to find the number and phone the Public Works office, for a city representative to get to your residence, and even longer if it is at night or after hours.

Below is a typical water meter setup with a residence shut-off valve installed. Your valve may look different, but it will be between the water meter and the residence. City ordinance now requires the installation of this valve; if you have an older house, you may not have one installed. If that is the case, we encourage you to get one installed by a plumber.



**Customer Valve**

**City Valve**

**Call Public Works at 541-929-3579 if you need assistance in locating your water meter setup.**

# Some Useful Tips to Help Keep Our Drinking Water Clean

## General Education

- Stormwater runoff is polluted.
- When it rains, water landing on driveways, roofs, roads, and other surfaces picks up pollutants and carries it directly to wetlands, streams, and ponds without treatment.
- Water entering storm drains is not treated; it all goes directly to nearby wetlands, streams, ponds, and eventually the river without treatment.
- Rainwater seeping into the ground is naturally filtered and recycled to groundwater to replenish drinking water supplies and keep streams flowing between storms.

## Storm Drains

- Storm drains carry water away without any treatment; any stormwater, fertilizer, leaves, and trash entering a storm drain flows directly to nearby wetlands, streams, ponds and eventually to the river without treatment.
- Never dump, wash, or rake anything into the path of storm drains.

## Home Care

- Don't dump household hazardous waste (which includes paint, paint thinner, drain and oven cleaners, and other products with warning labels) down storm drains, on the ground, or down household drains.
- Always follow labeled disposal instructions to avoid injury and environmental harm.
- Bring leftover household chemicals to Republic Services. Contact Republic Services at 541-754-0444 to schedule a drop-off appointment or find out when there will be a hazardous waste pick-up site in your area.
- If you have a septic system, have it inspected regularly (about every two years) and have regular pump-outs (about every three to five years, depending on use) to ensure that your system does not fail. If you have a cesspool or failing system, it should be inspected annually. Improperly maintained septic systems can be a source of contamination.
- Always keep household hazardous waste materials in their original containers.
- Never combine dangerous waste with other products.

## Diverting Rooftop Runoff

- If the runoff from your roof flows directly onto pavement, consider using downspout extenders to direct the water onto a landscaped area instead.
- Runoff can also be directed to a rain garden, which is a natural or dug shallow depression designed to soak up water.
- Roof runoff can be captured in a rain barrel and used later for irrigation, which not only reduces stormwater but conserves water.

## Auto Care

- If you change your own oil, never dump the used oil down storm drains, on the ground, or down household drains. Take the used oil to a transfer station in your community. A local auto parts shop might also accept used oil from you.
- It's best to wash your car at a certified car wash facility, as they are required to either recycle, collect, or dispose of the wash water properly. But if you wash your car at home, moving your car off a paved surface and onto a more permeable one such as a lawn or a gravel driveway can help keep the polluted was water out of the storm drains.
- Sweep, don't hose, the driveway or other paved surface.



## Pet Care

- Always pick up your pet's waste. It's easy to do when you're prepared, so carry a bag with you, put the waste in the bag, and throw in the trash-never in a storm drain!
- Don't feed waterfowl; it causes them to concentrate in higher numbers than they would if they had to rely solely on natural food supplies, and that results in large quantities of waste that are carried by stormwater to local ponds, streams, and rivers.
- If you have large animals, barnyard and manure management is critical. For information specific to livestock, please consult Benton County's website:

<https://www.co.benton.or.us/cd/page/tmdl-water-quality-pollutants>



## Yard Care

- Mow at the highest setting on your lawn mower. Longer grass helps to conserve water and control weeds.
- Leave grass clippings on the lawn to improve its health and quality. You'll also require less fertilizer.
- Keep fertilizer, pesticides, leaves, and grass clippings off hard surfaces and out of the path of storm drains. Sweep any product that spills back onto the lawn to prevent it from being washed into the storm drain.

## Yard Waste

- Compost yard waste when possible; it can be used as mulch later. But don't stockpile yard waste in wetlands or near surface waters.
- Compost leaves, use your yard debris cart, or utilize Republic Service's leaf pickup events.

## Lawn Chemicals

- Fertilize sparingly. If you only fertilize once a year, doing so in September is best; there are cooler temperatures, ample rain, and weeds are dying back. If you do apply fertilizer in the spring, do so after the grass is actively growing. A good rule of thumb is to wait until you've mown the lawn three times.
- Use slow-release fertilizers. The label should read: slow release or time release fertilizer with water-insoluble, slowly available, or slowly-available soluble nitrogen.
- More is not always better. Skip the "step programs" offered by many lawn care companies, and be sure to apply fertilizers and pesticides only as directed. If you use a lawn care company, ask them about their environmental options and certifications.
- Check the weather forecast before fertilizer or pesticide applications, and don't apply chemicals when there is rain predicted.
- Avoid using combination fertilizer/pesticide products. Hand pick weeds when possible, and if you must treat weeds or insects with pesticides, spot treat them rather than dousing the entire lawn.
- Avoid using lawn chemicals near wellheads or within 75 feet of waterways.

## Water Conservation

- Water wisely. Many species of turf grass go naturally dormant during hot, dry summer months and do not need to be watered when dormant. If you must water, water less often for longer lengths of time and put no more than one inch per week of water on the lawn.
- Adjust sprinklers so that they don't water paved surfaces. In the event that it's unavoidable, try to direct the flow of water towards your garden or lawn.
- Check the weather forecast if you have automatic sprinklers to ensure they aren't programmed to come on in the rain.
- Don't water in the heat of the day. Watering early in the morning or late in the evening minimizes the water lost to evaporation.
- Consider using slow-watering techniques such as drip irrigation or soaker hoses.