

# THE Sherwood WATER QUALITY REPORT

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The City of Sherwood is proud to deliver water to more than 19,000 people every day. In accordance with federal guidelines, this report provides the information you need to know about the water you drink. Contaminant levels in your drinking water are well below state and federal regulatory limits. The test results are shown on the following pages.

Although the City's water supplies are tested for more than 200 regulated and unregulated contaminants, only those that have been detected in 2016 are included in this report.

We think it is important for our customers to understand where their water comes from, how safe it is, and what actions we take to ensure its continuing safety. If you have any questions about the contents of this report, or about something not included in this report, please contact the Public Works Utility Manager, Richard Sattler, at 503.925.2319 or [sattlerr@sherwoodoregon.gov](mailto:sattlerr@sherwoodoregon.gov).



**The City of Sherwood**  
consistently delivers water that meets or surpasses all federal and state standards.  
You can have confidence in the quality of your drinking water.

## Willamette River Water Treatment Plant

### 6 Steps to produce safe, good-tasting water

**STEP 1:** Raw water intake draws water into the...

**STEP 2:** Enhanced sedimentation process, which removes materials from the addition of flocculants

**STEP 3:** Ozone is then added to kill bacteria, viruses, Giardia, Cryptosporidium and assist with taste and odor

**STEP 4:** Next, Granular Activated Carbon removes turbidity and pathogens in addition to removing taste and odor

**STEP 5:** Water is then taken through a sand filter which "polishes" to improve particle removal

**STEP 6:** Lastly, Chlorine-secondary disinfectant is added to prevent bacterial growth for its trip through the pipeline

Take a tour of the Willamette River Water Treatment Plant to learn more about the process of making your water. Call Veolia Water at 503.582.9655 to schedule an appointment.



**Find us online at your favorite social media site.**



## GET INVOLVED - JOIN THE CONVERSATION

The Sherwood City Council meets every first and third Tuesday at 7:00 p.m. at the Sherwood City Hall, 22560 SW Pine Street. With the exception of any scheduled Executive Session, the meetings are open to the public and residents are encouraged to attend.

# WATER QUALITY CONTAMINANTS

To ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Your water is tested for approximately 200 contaminants. These include all contaminants regulated by the EPA plus a number of unregulated contaminants. Sampling is conducted at various locations in the water supply and distribution system. Test results are submitted to the Oregon Health Authority, Drinking Water Program, the local agency responsible for enforcing EPA's Safe Drinking Water Act.

**"Contaminant"** refers to any substance that may be found in water. As water travels over the surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or human activities. Contaminants that may be present in untreated source water include: biological contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides; organic chemicals from industrial or petroleum use; and radioactive materials.

## INORGANIC CONTAMINANTS

Contaminant	Unit of Measure	Amt. Detected low—high	MCL	MCLG	Source
Barium	ppm	0.004 - 0.0067	2	2	Erosion of natural deposits in ground water aquifers
Copper	ppm	0.011 - 0.016	AL=1.3	1.3	Corrosion of household fixtures; erosion of natural deposits
Lead	ppb	ND	AL=15	0	Corrosion of household fixtures; erosion of natural deposits
Nitrate-N	ppm	0.32 - 1.0	10	10	Runoff from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Vanadium	ppb	ND - 2.3	N/A	N/A	Naturally present in the environment

## MICROBIOLOGICAL CONTAMINANTS

Contaminant	Unit of Measure	Amt. Detected low—high	MCL	MCLG	Source
Total Coliform Bacteria ◇	% in monthly samples	1 out of 240 <sup>^</sup>	1 per month	0	Naturally present in the environment
Turbidity ±	NTU	0.03 - 0.096	TT *	NA	Soil runoff and sediments

◇ Total coliform bacteria are used as indicators of microbial contamination of drinking water. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are harder than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

<sup>^</sup> In September Sherwood collected 1 positive sample for coliform. Follow-up samples were collected with results being negative.

± The typical cause of turbidity is sediment suspended in the water that can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. Turbidity has no serious health effects.

\* TT is equal to or less than 0.3 NTU in 95% of samples each month.

## DISINFECTION BYPRODUCTS

Contaminant	Unit of Measure	Amt. Detected low—high	MRDL	MRDLG	Source
Bromate	ppb	1.2 - 2.2	10	0	Byproduct of water disinfection
Chlorine	ppm	<0.1 - 1.2	4	4	Water additive used to control microbes
Haloacetic Acids	ppb	4.5 - 9.1 Avg. 5.9	60	N/A	Byproduct of water disinfection
Total Organic Carbons	ppm	0.42 - 2.3 Avg. 1.073	TT	N/A	Naturally present in the environment
Total Trihalomethanes	ppb	13.9 - 32.8 Avg. 22.1	80	N/A	Byproduct of water disinfection

# EPA ON WATER QUALITY



Drinking water and 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. To ensure that tap water is safe, the federal Environmental Protection Agency (EPA) sets regulations that limit the amount of certain contaminants in water provided by public systems. The Food and Drug Administration (FDA) establishes similar limits for bottled water.

Some people may be more vulnerable to contaminants in drinking water than the general populations. People who

are immuno-compromised, such as those with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Center for Disease Control) 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 at 1 800-426-4791.

In 2005, the Oregon Department of Human Services and Oregon Department of Environmental Quality conducted a source water assessment on the City of Sherwood's groundwater wells. Results indicate that the water system would be sensitive to a contamination event inside the identified Drinking Water Protection Area. Potential sources include high density housing areas, sewer lines and transportation corridors. This source assessment is available for review.

**If a health related contaminant is not listed in this report it was not detected.**

## LEAD AND COPPER

Contaminant	# of Samples	AL	MCLG	90th Percentile	Sites Above AL
Copper	0 of 60	1.3 ppm	1.3 ppm	0	0
Lead	0 of 60	15 ppb	0 ppb	0	0

The values shown are the results of samples collected in 2016. On a 3 year cycle the next round of testing will occur in 2019.

While there is no MCL for lead or copper, the federal government identifies an "action level" (AL) that triggers certain actions by the water provider. The action level is based on the 90th percentile. This means that 90 percent of the samples must be at or below the defined action level. The action level for copper is 1.3 ppm and the action level for lead is 15 ppb.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is pri-

marily from materials and components associated with service lines and home plumbing. Sherwood 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 running your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Contact the Safe Drinking Water Hotline at 800-426-4791 or [water.epa.gov/drink/info/lead/index.cfm](http://water.epa.gov/drink/info/lead/index.cfm) to learn more.

**Action Level (AL):** The concentration of a contaminant that, if exceeded, triggers a 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 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 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.

**Nephelometric Turbidity Units (NTU):** a measure of turbidity.

**No Detection (ND):** In all of the tested samples there was no contaminant detected.

**Parts per billion (ppb):** 1 ppb means that one part of a particular contaminant is present for every 1 billion (1,000,000,000) parts of water. 1 ppb is equivalent to 1 inch in 16,000 miles, 1 second in 32 years and 1 cent in \$10 million dollars.

**Parts per million (ppm):** 1 ppm means that one part of a particular contaminant is present for every 1 million (1,000,000) parts of water. 1 ppm is equivalent to 1 inch in 16 miles, 1 minute in 2 years and 1 cent in \$10,000 dollars.

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

## DEFINITIONS