THE Sherwood WATER QUALITY REPORT

WWW.SHERWOODOREGON.GOV

We don't often pause to consider the incredible value of a safe reliable water supply - and the water system that delivers it - in our everyday lives. Did you know that, as your community water provider, the City of Sherwood is responsible for much more than making sure high quality water comes out of your tap?

The City of Sherwood is proud to deliver water to more than 19,000 people every day. While piping this water to our customers we are also providing the city with…

PUBLIC HEALTH PROTECTION

Our job is to ensure that you can drink from virtually any public tap with a high assurance of safety. In addition to constant online monitoring, we take more than 240 samples each year to ensure Sherwood's water supplies meet rigorous federal and state health protective standards.

FIRE PROTECTION

A well-maintained water system is critical in protecting our community from the ever-present threat of fire. Maintaining 752 fire hydrants is absolutely vital to the ability to suppress fires and also influences new home construction, business location decisions and insurance rates.

SUPPORT FOR THE ECONOMY

Businesses and housing developments do not succeed without a safe and sustainable water supply. Our 81 miles of water pipeline serves everyone from companies to more than 19,000 residential customers in our City.

THE OVERALL QUALITY OF LIFE WE ENJOY

We often take for granted that safe water is always accessible to drink, to wash our clothes, to water our lawns and for a multitude of other purposes. We are here to make sure that water is there to maintain a high quality of life.

We take pride in playing such a large part in your life by providing you and your family safe and reliable drinking water.

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.

City of Sherwood Oregon

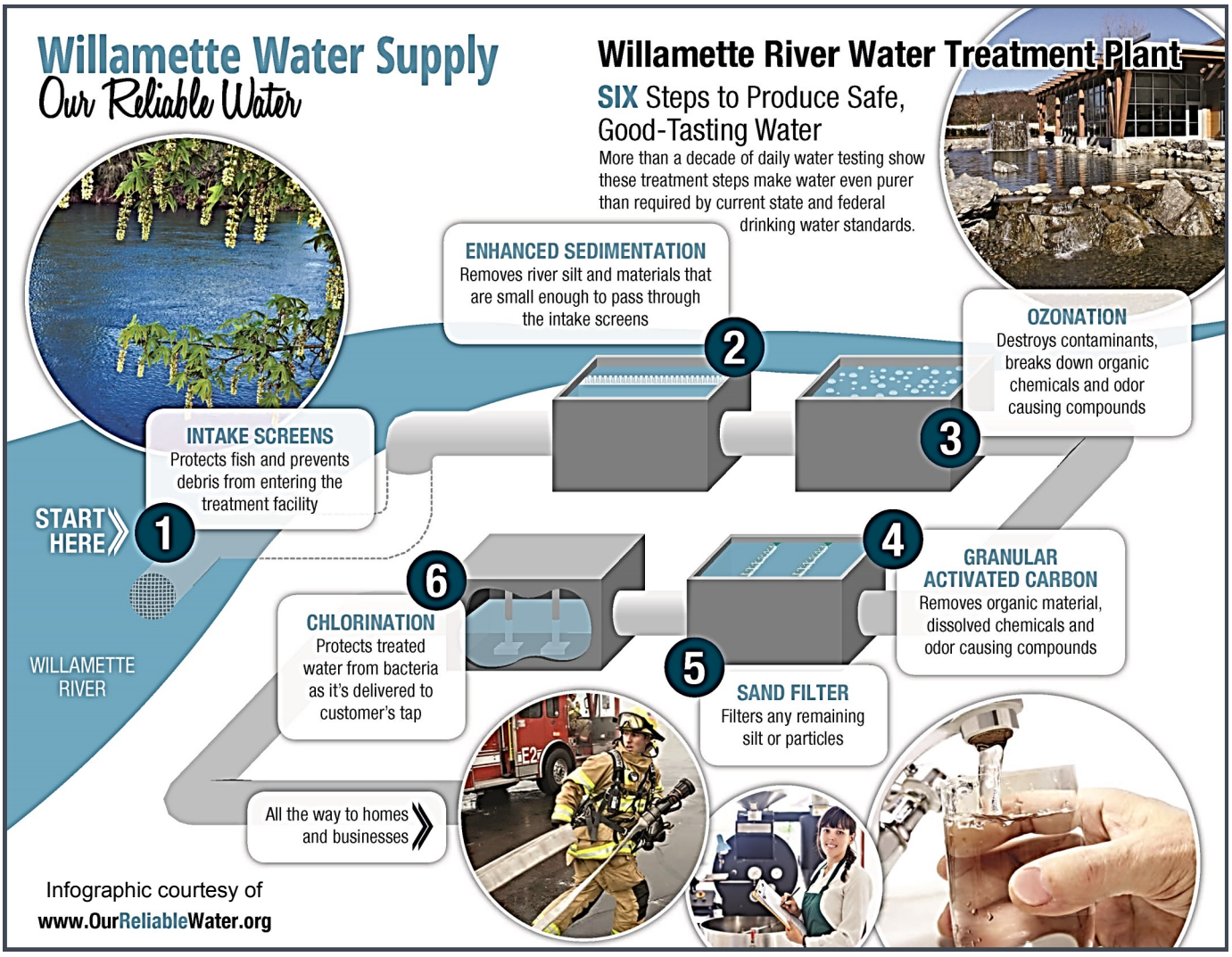
In accordance with federal guidelines, this report provides the information you need to know about the water you drink. Contaminant levels in your drinking water are well below state and federal regulatory limits. The test results are shown on the following pages.

Although the City's water supplies are tested for more than 200 regulated and unregulated contaminants, only those that have been detected in 2015 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.

SHERWOOD'S WATER SOURCES

The city relies on the Willamette River Water Treatment Plant for its water supply. The plant utilizes a multi-barrier system, meaning that they treat the water extensively in many different ways, in order to produce water that exceeds the current and future drinking water standards. The WRWTP provides the City with an availability of 5 million gallons per day.



The city remains connected to Portland's Bull Run source and to the local ground water wells, which are available as emergency sources. Sherwood did not pull from these sources in 2015 and therefore they are not included in this report.

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.

GET INVOLVED - LEARN MORE

You are invited to join in on 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. Or take a tour of the WRWTP to learn more about the process of making your water. Call Veolia Water at 503 582-9655 to schedule an appointment.

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.

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

INORGANIC CONTAMINANTS

Contaminant	Unit of Measure	Amt. Detected low—high	MCL	MCLG	Source
Barium	ppm	0.0039 - 0.01	2	2	Erosion of natural deposits in ground water aquifers
Copper	ppm	0.014 - 0.024	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	0.29 - 0.63	10	10	Runoff from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

MICROBIOLOGICAL CONTAMINANTS

Contaminant	Unit of Measure	Amt. Detected low—high	MCL	MCLG	Source
Total Coliform Bacteria ◊	% in monthly samples	ND	1 per month	0	Naturally present in the environment
Turbidity ±	NTU	0.03 - 0.08	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 hardier than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.

± 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.

DEFINITIONS

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.

WATER QUALITY CONTAMINANTS

DISINFECTION BYPRODUCTS

Contaminant	Unit of Measure	Amt. Detected low—high	MRDL	MRDLG	Source
Bromate	ppb	ND - 2.9	10	0	Byproduct of water disinfection
Chlorine	ppm	<0.1 - 1.7	4	4	Water additive used to control microbes
Haloacetic Acids	ppb	5 - 44 Avg.-14	60	N/A	Byproduct of water disinfection
Total Organic Carbons	ppm	0.440 - 0.563 Avg. - 0.610	TT	N/A	Naturally present in the environment
Total Trihalomethanes	ppb	22 - 37 Avg. - 27	80	N/A	Byproduct of water disinfection

Violation Note: Sherwood received a violation of disinfectant monitoring for failure to report on samples collected for the 2nd quarter of 2015 (April-June). Sherwood returned to compliance on September 6th, 2015. Contract laboratory failed to report on sample collected prior to the end of the 2nd quarter of 2015.

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

Copper and lead samples were not collected in 2015. The values shown are the results of samples collected in 2013. On a 3 year cycle the next round of testing will occur in 2016.

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 primarily 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 1 800-426-4791 or http://water.epa.gov/drink/info/lead/index.cfm to learn more.

UNREGULATED CONTAMINANT MONITORING RULE 3

Contaminant	Unit of Measure	Amt. Detected low—high	MCL	MCLG	Source
Chlorate	ppb	51-160	N/A	N/A	Naturally present in the environment
Chromium	ppb	0.21-0.29	N/A	N/A	Natural metal present in the environment
Hexavalent Chromium	ppb	0.0075-0.1	N/A	N/A	Naturally present in the environment
Strontium	ppb	13.6-45	N/A	N/A	Naturally present in the environment
Vanadium	ppb	0.31-3	N/A	N/A	Naturally present in the environment

The Unregulated Contaminant Monitoring Rule 3 is a requirement set by the EPA for public water systems to monitor for a list of 21 currently unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard and to set a Maximum Contaminant Level (MCL).

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.

INDOOR WATER CONSERVATION

Do you know how much water you really use in a day? In a month? In a year? Many agencies have studied this question in order to provide our users a sense of perspective of how they might compare with national averages and to encourage a family effort to conserve this vital resource.

Toilet	Faucet	Shower	Clothes washer	Leak	Bath	Other*	Dishwasher
24%	20%	20%	16%	13%	3%	3%	2%
32.6 gphd	27.0 gphd	26.9 gphd	22.0 gphd	17.8 gphd	4.4 gphd	4.0 gphd	2.2 gphd

* The "Other" category includes evaporative cooling, humidification, water softening, and other uncategorized indoor uses.
gphd - gallons per household per day

Infographic courtesy of the Residential End Uses of Water, Version 2 (2016) by the Water Research Foundation. Read the whole report at www.waterrf.org/PublicReportLibrary/4309A.pdf

The City of Sherwood has partnered with the Regional Water Providers Consortium to provide our customers an array of tips and tools to bring water conservation efforts into their homes.

Please visit www.ConserveH2o.org for tips on reducing the amount of water used in your home and stop by the Utility Billing Department at 15527 SW Willamette St. for FREE conservation items and information.

Use the Alliance for Water Efficiency's water calculator to get an estimate of how much water your household uses. The calculator compares your estimated water usage to an "average" home and a highly efficient home.

Visit www.home-water-works.org/calculator to get started saving water .

homewaterworks

The key to watering your landscape and lawn efficiently is to adjust your watering schedule as the weather changes throughout the irrigation season.
Sign-up at www.ConserveH2o.org/user to receive a weekly email containing the precise amount of water in inches needed for your landscape based upon current and historical weather reports.

OUTDOOR WATER CONSERVATION

During the warm summer months we spend our time tending our lawn and growing our gardens both of which require an increased amount of water. Here are a few tips to reduce your water use while maintaining a vibrant landscape…

- Adjust your sprinklers so that they're watering your lawn and garden, and not the street or sidewalk.
- Water early in the morning (before 10a.m) or later in the evening (after 6 p.m.) when temperatures are cooler and evaporation is minimized.
- Set it, but don't forget it! Whether you have a manual or automatic system, be sure to adjust your watering schedules throughout the irrigation season.
- Get more tips and tools at www.ConserveH2o.org