

## Tualatin Valley Water District



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(503) 642-1511 [www.tvwd.org](http://www.tvwd.org)

### Where Does Your Water Comes From?

Sherwood has two water sources. One source is groundwater from four production wells within the City. The other source is from the Portland Water Bureau, who primarily uses water from the Bull Run Watershed. Located about 30 miles east of Portland, it is one of the few water systems that remains unfiltered. The Portland Water Bureau also uses a groundwater well field to augment the Bull Run supply. For more information about Portland's water supply, visit [www.portlandonline.com/water](http://www.portlandonline.com/water).

### How Is Your Water Treated?

Sherwood's well water is treated with chlorine, with one well also treated to remove iron and manganese.

Water from Portland's Bull Run does not require filtering. Before delivery to the City, the water is disinfected with chloramines (a combination of ammonia and chlorine) and receives a pH adjustment to minimize corrosion.

### How Do Contaminants Get Into Your Water?

"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 source water (water that hasn't been treated) 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.

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 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

### GIARDIA AND CRYPTOSPORIDIUM

The City's water supplies are tested for giardia and cryptosporidium. These microscopic organisms can cause outbreaks of intestinal disease, but scientists have not yet determined the best testing methods or the levels at which a public health danger occurs. Giardia and cryptosporidium may be present in very small amounts in our raw source water, but have not been detected in our finished drinking water. Current treatment technologies cannot guarantee 100 percent removal from the source water. For giardia, raw water results are: a minimum of 0 cysts; a maximum of 5 cysts in 1 sample of 50 liters of water. No cryptosporidium oocysts were detected in water samples in 2008.

### Look Inside for more information about Lead, Copper and other tapwater testing results

### Important Information About Your Water System

Beginning in July, Sherwood customers will begin to receive monthly billings from the City. The reservoir project at Sunset park is progressing with scheduled completion in October. Please visit: [www.sherwoodwater.org](http://www.sherwoodwater.org) for additional information regarding Utility Billing, Reservoir Construction and Wilsonville Pipeline.

# The Water You Drink

## City of Sherwood 2008 Water Quality Report



Issued May 2009 based on water quality data for the year 2008. The U.S. Environmental Protection Agency (EPA) requires us to send this report to our customers by July 1, 2009.

Safe, reliable drinking water is a basic life necessity. The City of Sherwood is proud to deliver water to more than 16,400 people every day. 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. In accordance with federal guidelines, this report provides the information you need to know about the water you drink.

In 2000, the City of Sherwood contracted TVWD to manage the City's water supply. This allows TVWD to share their expertise with ongoing administration, operation, maintenance, repair and replacement of Sherwood's water system. This also helps ensure Sherwood receives an additional supply of water during periods of high use.

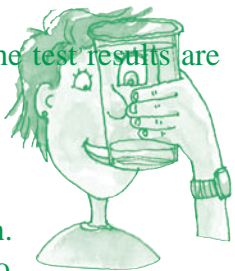
In 2005, the Oregon Department of Human Services and Oregon Department of Environmental Quality conducted a source water assessment on the City of Sherwood's groundwater wells. Results indicate that the water system would be sensitive to a contamination event inside the identified Drinking Water Protection Area. Potential sources include high density housing areas, sewer lines and transportation corridors. For more information please call (503) 642-1511.

### The Key Message

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

### Is Your Water Safe?

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 contaminants that have been detected in the water are included in this report.



Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, 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 (Centers 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 (800) 426-4791.

Frequency of testing varies per federal and state requirements.

If you have any questions about this report, contact TVWD's Water Quality Department at (503) 642-1511, or visit our Web site at [www.tvwd.org](http://www.tvwd.org).

### Look Inside For Tapwater Lab Test Results

The City of Sherwood, TVWD, and the City of Portland test your water supply 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 Department of Human Services' Drinking Water Program, the local agency responsible for enforcing EPA's Safe Drinking Water Act. **If a health related contaminant is not listed in this report, it was not detected.**

### REGULATED CONTAMINANTS (TESTED IN 2008 UNLESS OTHERWISE NOTED)

	Contaminant	Unit of Measurement	Amount Detected Min - Max	MCL Maximum Contaminant Level	MCLG Maximum Contaminant Level Goal	Major Sources
MICROBIOLOGICAL	Total Coliform	Percentage of monthly samples	0 positive samples	No more than one detected sample per month	0 bacteria detected	Naturally present in the environment
	Turbidity (Measured in Bull Run water only)	NTU	0.2 - 5.0	5.0 NTU (Treatment Technique)	Not applicable	Soil runoff; erosion of natural deposits
INORGANICS	Nitrate	ppm	ND - 1.0	10	10	Runoff from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
	Arsenic	ppb	ND - 2.0	10	0	Erosion of natural deposits in groundwater aquifers
	Barium	ppm	0.005 - 0.030	2	2	Erosion of natural deposits in groundwater aquifers
ORGANICS	P - Dichloro-benzene	ppb	ND - 1.0	75	75	Used in the manufacture of dyes, agrochemicals, pharmaceuticals and plastics  This Volatile Organic Compound was detected in Portland's distribution system in May 2008. A possible source is construction work on a transmission line. It was not detected in Portland's compliance sample, source waters or after extensive follow-up sampling and has not been detected since. At the levels detected, 1.3% of the MCL, it does not pose a health risk.
	TTHMs (Total Trihalomethanes)	ppb	21.6 RAA (17.6 - 35.9)	80	0	
DISINFECTION BYPRODUCTS	Total Haloacetic Acids (five)	ppb	26.0 RAA (13.9 - 26.7)	60 standard	0 standard	Byproduct of drinking water chlorination
	Disinfectant Residual	ppm	1.13 Average (0.05 - 1.85)	4.0 (MRDL)	4.0 (MRDLG)	Water additive used to control microbes
	Radium 226/228	pCi/L	ND - 1.67	5	0	Erosion of natural deposits in groundwater aquifers
Gross Alpha (2008)	pCi/L	ND - 1.2	15	0		
Uranium (2008)	ppb	ND	30	0		

### LEAD AND COPPER

While there is no MCL for lead or copper, the federal government identifies "action levels" that trigger certain actions by the water provider. The action level is based on the 90th percentile. This means that 90 percent of the samples must meet or be under 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. TVWD 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. If you are concerned about lead in your drinking 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 Lead Line at (503) 988-4000 or [www.leadline.org](http://www.leadline.org), or the Safe Drinking Water Hotline at (800) 426-4791 or [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

Contaminant	Samples Taken (Regional)	Action Level	90th Percentile	Action Level Exceedences
Lead	116	15 ppb	10 ppb	6 (5%)
Copper	116	1.3 ppm	0.34 ppm	0

In compliance with federal requirements, the District, along with our water source providers, has taken actions to reduce our customers' exposure to lead and copper in drinking water. These include corrosion control, source water treatment, and public education. Other ways to reduce lead include:

- Use cold, fresh water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- Do not boil water to remove lead. Boiling water will not reduce lead.
- Test your water for lead. Call the LeadLine at (503) 988-4000 to find out how to get a FREE lead in water test.
- Consider buying low-lead fixtures. New brass faucets, fittings, and valves, may contribute to lead in your drinking water. Federal law currently allows end-use brass fixtures, such as faucets, to contain up to 8% lead. These fixtures are labeled as "lead free." When buying new fixtures, consumers should seek out those with the lowest lead content.

### UNREGULATED CONTAMINANTS (TESTED IN 2007)

Contaminant	Unit of Measurement	Amount Detected Min - Max	Major Sources
Sodium	ppm	2.6 - 24.3	Added to water during treatment and erosion of natural deposits. At the levels found in drinking water, Sodium is unlikely to significantly contribute to adverse health effects.
Hardness (CaCO <sub>3</sub> ) Calcium Carbonate	ppm gpm (grains per gallon)	4 - 112 0.2 - 6.5	Erosion of natural deposits in groundwater aquifers

### What Does That Mean?

**Action Level:** The concentration of a contaminant that, 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. MCLs are set at very stringent levels. A person would have to drink 2 liters of water at the MCL level every day for a lifetime to have a 1-in-1 million chance of having the associated health effects.

**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 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.

**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.

**ND (Non-detection):** No presence of a contaminant was detected.

**NTU:** Nephelometric turbidity units, a measure of turbidity.

**pCi/L:** Picocuries per liter, a measure of radioactivity.

**ppb:** Parts per billion. 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.

**ppm:** Parts per million. 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.

**RAA:** Running Annual Average. The average result from quarterly samples taken within the distribution system. This average is used to determine compliance with MCLs.

**TT:** Treatment technique; a required process intended to reduce the level of a contaminant in drinking water.

**Turbidity:** A measure of the light-scattering particulate in the water, or how clear the water is.

### RADON (UNREGULATED)

Radon is a radioactive gas that occurs naturally in groundwater and is released from water into the air during household use. At high exposure levels, it can cause lung cancer. In 2008, testing of Portland groundwater showed a level of 264 pCi/L.

The EPA is currently preparing a regulation that will specify a maximum contaminant level for radon scheduled in 2009. For more information about Radon, visit [www.epa.gov/radon](http://www.epa.gov/radon).