

# 2009 Drinking Water Quality Report

## Drinking Water Quality Report

The City of West Linn is pleased to provide you with this year's *Drinking Water Quality Report*. We want to keep you informed about the water and services provided to our customers in 2008. It is our constant goal to provide you with a safe and dependable supply of drinking water.

We encourage public interest and participation in our community's decisions affecting drinking water. Regular meetings of the West Linn City Council occur on the second and fourth Monday of each month at City Hall, 22500 Salamo Road, West Linn, at 7:00 p.m.

## Where does our water come from?

The Clackamas River in Clackamas County, Oregon is the surface water source that supplies the Southfork Water Board Water Treatment Plant, located in Oregon City. The Southfork Treatment Plant is jointly owned by the City of West Linn and the City of Oregon City.

To deliver water from Southfork Treatment Plant, West Linn owns a 24" transmission main that begins at the Division Street Pump Station located near Willamette Falls Hospital in Oregon City. To bring the water across the Willamette River to West Linn, the transmission water main is suspended beneath the Interstate 205 Bridge. West Linn also has an emergency-only interconnection with Lake Oswego.

## What are some of the system improvements made in 2008?

- Completed Water System Master Plan
- Repaired I-205 (Abernethy Bridge) water transmission main
- Replaced telemetry at Public Works Operations, Rosemont Tower and Bland Reservoir
- Division Street Pump Station improvements to provide the City with greater control of the water system

## What is the Source Water Assessment Report (SWAR)?

The 1996 Amendments to the Safe Drinking Water Act required each public water system to conduct a source water assessment. This meant identifying the source area for the water system and then conducting an inventory of potential contamination sources that may impact the drinking water supply.

The SWAR for West Linn was completed in 2002. The delineated drinking water protection area is occupied by a wide variety of land uses: residential/municipal, agricultural/forest, and commercial/industrial. A total of 1,127 potential contaminant sources were identified within the area that could, if improperly managed or released, impact the water quality of the watershed.

The water providers in the Clackamas River Basin have been working together on various water resource issues for more than a decade, spending approximately \$1 million on watershed related projects. The group funded a major portion of the watershed assessment and jointly funded, with the US Geologic Service, the first pesticide study in the basin.

More recent projects have included working with Portland State University to develop a dynamic model of stream flows in the lower river, partnering with the USGS on water quality monitoring stations and flow balance studies as well as providing ongoing financial support to the Clackamas River Basin Council in support of their water quality related activities.

Currently, Clackamas water providers are developing a Drinking Water Protection Plan that will help guide their source water protection efforts for years to come. Information about the Clackamas River Watershed is contained in the *Clackamas River Basin Source Water Assessment*, available at [westlinnoregon.gov](http://westlinnoregon.gov). Clackamas River Water Providers website is: [clackamasproviders.org](http://clackamasproviders.org).

## We're here to help:

### Questions about water quality?

Call 503-656-6081.

### Questions about your water bill?

Call 503-657-0331.

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

Substance/ Contaminant Name	Date Tested	Units	MCLG (MRDLG)	MCL	Detected Level (Highest Annual Average)	Range	Violation?	Major Sources
TTHMs <sup>1</sup>	2008 sampled quarterly	ppb	0	80 ppb	34	30-40	No	By-product of drinking water chlorination
HAA5 (5 halo acetic acids)	2008 sampled quarterly	ppb	0	60 ppb	28	18-38	No	By-product of drinking water chlorination
Chlorine	Daily; plus 26 samples taken monthly	ppm	4	4	.70 mg/l	.55 - .80	No	Water additive used to control microbes
Total Organic Carbon - Raw H <sub>2</sub> O <sup>2</sup>	2008	ppm	---	TT	1.57	0.93 – 4.82	No	Naturally present in the environment
Total Organic Carbon - Finished Water <sup>2</sup>	2008	ppm	---	TT	0.89	0.55 – 1.44	No	Naturally present in the environment

<sup>1</sup> Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5) are produced by a chemical reaction between chlorine and organic matter in the water. Optimizing disinfection in drinking water minimizes the production of these two disinfection by-products.

<sup>2</sup> Total Organic Carbon has no health effects; however TOC provides a medium for the formation of disinfection by-products.

### Microbiological Contaminants

Turbidity	Date Tested	Units	MCLG	MCL	Maximum Detected	Violation	Major Sources
Turbidity <sup>1</sup>	(Continuous) Every two hours during water treatment plant operation	ntu	N/A	(TT) = 0.3 ntu in 95% of samples	0.10 <sup>2</sup>	No	Soil runoff

<sup>1</sup> Turbidity is a measure of the cloudiness or suspended particles in the water. Turbidity is monitored and recorded because it is a good indicator of the effectiveness of the water treatment plant filtration system.

<sup>2</sup> All samples met the turbidity limit of < 0.3 NTU throughout 2008.

### Unregulated Contaminants<sup>1</sup>

Substance/ Contaminant Name	Date Tested	Units	MCL	Detected Level	Major Sources
Sodium	February 19, 2008	ppm	20.0 <sup>2</sup>	8.5	Runoff/leaching from natural deposits
Chloride	February 19, 2008	ppm	250	6	Most chloride is attached to sodium in the form of sodium chloride (table salt).

<sup>1</sup> Monitoring for unregulated contaminants helps the EPA to determine where certain contaminants occur and whether they need to regulate those contaminants in the future.

<sup>2</sup> Sodium is an unregulated contaminant but it is recommended its content in drinking water be limited to below 20.0 ppm.

### Lead & Copper

Lead/Copper Corrosion	Date Tested	Units	MCLG	Action Level	90 <sup>th</sup> Percentile <sup>1</sup>	Violation?	Major Sources
Lead—lead at consumers tap <sup>2</sup>	August 27, 2008	ppb	0	15	23	No	Corrosion of household plumbing systems; erosion of natural deposits.
Copper—copper at consumers tap <sup>3</sup>	August 27, 2008	ppm	1.3	1.3	0	No	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives

<sup>1</sup> The 90<sup>th</sup> percentile is the highest result found in 90% of the samples when they are listed in order from the lowest to the highest results.

<sup>2</sup> 9 of 60 samples tested for lead exceeded the Action Level of 15 parts per billion. (Only 2 of the 9 samples exceeded the action level in West Linn homes. Samples are collected by homeowners at their tap inside of their homes.)

<sup>3</sup> None of the 60 samples tested for copper exceeded the Action Level of 1.3 parts per million. (Samples are collected by homeowners at tap inside of home.)

### Key to Tables:

AL= Action Level	pCi/L= Picocuries Per Liter
MCL= Maximum Contaminant Level	ppb= Parts Per Billion or Micrograms Per Liter (ug/l)
MCLG= Maximum Contaminant Level Goal	ppm= Parts Per Million or Milligrams Per Liter (mg/l)
ntu= Nephelometric Turbidity Units	TT= Treatment Technique

## Drinking Water Sources

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells.

As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

## Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also, come from gas stations, urban storm water runoff, and septic systems
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

## Water Quality Information

The results of tests performed in 2008 or the most recent testing available are presented on the water quality tables. The City of West Linn and the Southfork Water Board Water Treatment Plant routinely monitor for contaminants in your drinking water as required by Federal and State laws.

Only contaminants found to be present in the drinking water are listed in the following tables. Your drinking water is tested for more than 90 other contaminants. West Linn's public water system identification number is 4100944. The Southfork Water Board water system identification number is 4100591. Terms used in the Water Quality Table are defined here as follows:

- *Maximum Contaminant Level (MCL)*: The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
- *Maximum Contaminant Level Goal (MCLG)*: The level of a contaminant in drinking water, below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- *Action Level*: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.
- *Treatment Technique (TT)*: A required process intended to reduce the level of a contaminant in drinking water.

- *Range*: The lowest to the highest values for all samples tested for each contaminant. (This value is listed only where applicable.)
- *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 contamination.

## Monitoring for Lead & Copper

EPA requires testing for lead and copper at customers' taps most likely to contain these substances.

Targeted homes were constructed between 1983 and 1987 and installed with copper piping using lead-based solder. In 2008, Oregon City, West Linn, and Clackamas River Water reported lead/copper testing as a single entity because we receive our water from the same water treatment plant.

As a result of exceeding the Action Level for lead during this round of sampling the following steps were taken:

1. Educational information about lead in drinking water was provided to all water customers in West Linn, Oregon City and Clackamas River Water South service areas.
2. South Fork Water Board, in coordination with the Department of Human Services, continues to investigate strategies that will reduce the corrosion of lead from household plumbing.

### Important Lead Information

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 West Linn 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 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 Safe Drinking Water Hotline or at: [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

### Health Effects of Lead

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

### More Information About Water Quality

- For more information about West Linn's drinking water, call Jim Whynot with the City of West Linn at 503-656-6081.
- West Linn is a member of the American Water Works Association.
- Southfork Water Board's website: [www.sfwb.org](http://www.sfwb.org)
- Learn more about the City of West Linn water system at [westlinnoregon.gov](http://westlinnoregon.gov).
- For more information on drinking water quality data and regulations visit the Oregon Department of Human Services, Drinking Water Program website at [www.oregon.gov/DHS/ph/dwp](http://www.oregon.gov/DHS/ph/dwp).

### Important Health Information

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. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791). In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.



CITY OF  
**West Linn**

### About the City of West Linn

The City of West Linn is a community where citizens, civic organizations, businesses and city government work together to ensure that the community retains its hometown identity, quality of life, and natural beauty. The estimated population is 24,400. The City Council consists of the Mayor and four Councilors who act as the board of directors of the City of West Linn municipal corporation. The Council sets policies for the city government, enacts ordinances and hires, directs, and evaluates the city manager. Municipal services are provided by City employees and headed by the City Manager. The city operates its own police department, a municipal court, water, wastewater and storm water utilities, street operations, planning, building inspection, engineering, fleet management, administration, library, and parks and recreation.