



## THE CITY OF CHEHALIS ANNUAL WATER QUALITY REPORT 2016



**Water Source:** The North Fork of the Newaukum River is the primary source of water for the City of Chehalis. The Intake is located approximately 17 miles from the city and our watershed area encompasses approximately 18 square miles. This area is predominately owned by the Weyerhaeuser Company. A secondary water source is provided by the Chehalis River via a pump station located on Riverside Drive. The city has water rights and certificates to withdraw 3.31 million gallons per day (MGD) from the North Fork of the Newaukum River and 1 MGD from the Chehalis River.

**Water Treatment:** The water treatment plant was constructed in 1961 and can treat up to 4.8 MGD. Drinking water is treated to remove large and microscopic particles and then disinfected with chlorine to kill bacteria. Fluoride is added to promote strong teeth and hydrated lime is used to control the pH of the treated water for taste and corrosion control issues. Plant operators perform lab tests on raw and treated water daily to maintain water quality. The Lewis County Health Department regularly analyzes our raw and treated water to ensure state and federal water quality guidelines are followed and their results are reviewed by the Washington State Department of Health.

**Distribution:** The City of Chehalis has two water reservoirs and 4 storage tanks with a total capacity of 6,734,000 gallons. The water is supplied to the distribution system via gravity. The city also operates and maintains six booster pump stations to provide water to the higher elevations and outlying areas. We have over eighty-two miles of distribution lines that provide drinking water to 2,940 homes and 835 businesses.

**Drinking Water Facts:** Drinking water, including bottled water, may contain small amounts of contaminants, but this does not necessarily create a health risk. Information regarding potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 800.426.4791. EPA/CDC (Center for Disease Control) can also provide guidelines to lessen the risk of infection by cryptosporidium and other microbial contaminants. People with compromised immune systems and some elderly and/or infants may be at greater risk. These people should seek advice from their health care providers.

**Water Supply:** The source waters of Chehalis do not contain lead or copper. However, they may leach into drinking water from household plumbing systems. Homes built prior to 1980 are considered "high risk" by EPA's criteria. Infants and children who drink water containing high levels of lead may experience physical or mental developmental delays or slight deficits in attention span and learning abilities. Over many years, adults may develop kidney problems or high blood pressure. Homes that exceed EPA guidelines should follow recommended flushing procedures (thirty seconds) to reduce the amount of lead in the water.

**Definitions:**

- ✓ MCLG (Maximum Contaminant Level Goal) The level below which there is no known health risk.
- ✓ MCL (Maximum Contaminant Level) The highest level of contaminant allowed in drinking water.
- ✓ SRL (State Reporting Level)
- ✓ N/A (Not Applicable)
- ✓ mg/l (1 parts per million)
- ✓ NTU (Nephelometric Turbidity Unit) A unit of measure for turbidity
- ✓ AL (Action Level) Concentration of a contaminant requiring an action
- ✓ ND (Not Detected)

**Water Clarity:** Turbidity, a measure of water clarity, has no direct health effects but may reduce the effectiveness of disinfection. Since the North Fork watershed is protected, our water normally has very low turbidity.

**EPA's ALLOWABLE LIMITS**

<b>Water Clarity</b>				<b>Lowest % of Samples</b>
Detected Compounds	Units	SRL	MCL	Meeting Turbidity Limits
Clarity/Turbidity	NTU	0.1	N/A	100%

The city monitors and measures over 150 additional compounds that are not detected or are below the State Reporting Level (SRL) or EPA's Maximum Contaminant Level (MCL). The following is a list of the compounds most commonly questioned. Water test results are from both the North Fork of the Newaukum and the Chehalis Rivers.

**EPA'S ALLOWABLE LIMIT**

<b>Compound</b>	<b>Units</b>	<b>SRL</b>	<b>MCL</b>	<b>2015 Levels</b>	<b>Source</b>
Arsenic	mg/l	0.002	0.05	<0.001	Occurs Naturally
Mercury	mg/l	0.0005	0.002	<0.0002	Erosion of natural deposits
Nitrate	mg/l	0.5	10	<0.2	Runoff from fertilizer use
Fluoride	mg/l	0.2	4	.63 - .88	Promotes strong teeth

The inorganic chemicals listed below all tested below the MCL.

*Sodium	mg/l	5	n/a	NA
Manganese	mg/l	0.01	0.05	NA
Hardness (CaCO3)	mg/l	10	n/a	36
Iron	mg/l	0.1	0.3	<0.10

\*The EPA recommends 20 mg/l for persons restricting their daily sodium intake. (WAC 246-310 pg 93)

## LEAD AND COPPER MONITORING:

\*Number of Homes

Parameter & Units	SRL	Action Level	90 <sup>th</sup> Percentile	Exceeding Action Level
Lead, ppm	0.001 mg/l	0.015	<0.002	0
Copper, ppm	0.2 mg/l	1.3	0.06	0

\*20 homes tested in 2014 (testing done every two years)

## 2015 Distribution System Monitoring Results:

The following shows several compounds and their levels during tests performed in 2015. All results were below established allowable levels.

Detected Compounds	MCLG	MCL	AVG	Range	Typical
<b>Source</b>					
Coliform & Microbial Sampling, 10 samples per month. % of positive Coliform Samples Taken in 2015	0	5%	ND	n/a	Occurs Naturally
Total Trihalomethanes, ppb	0	80	44	27 – 61.7	All Disinfection By-Products
Chloroform	unregulated		40.8	25-58	
Bromodichloromethane	unregulated		3.2	2.1 – 4.9	

## ADDITIONAL INFORMATION

### Water Use Efficiency Rule:

For the protection of water resources, WAC-246-920-830 requires that all public water systems in Washington State adopt a water use efficiency goal and identify the methods necessary to achieve this goal. In 2012 the City of Chehalis adopted the 2012 – 2018 Water Efficiency Goal of a daily average reduction of 25,000 gallons per day (GPD) by 2018

To meet current State mandated requirements the city will continue with annual citywide system leak surveys, large meter testing and replacement of aging water meters in our system. Also, the City will continue to support the “Water Wise Program” for fifth graders and provide staff and curriculum for the “Assessments for Human Environment Interactions” class for tenth graders based on the protection of our water sources and various water conservation tips.

If you have questions, comments, or are interested in learning more about the City of Chehalis water distribution system or treatment process, please contact water Superintendent Dave Vasilauskas at 360.748.0238 Ext 2 or [dvasilauskas@ci.chehalis.wa.us](mailto:dvasilauskas@ci.chehalis.wa.us). City of Chehalis ID #12250P

**Billing: 2007 NE Kresky Ave. - 360.748.6664**

Water Treatment Plant: 360.748.4955

Washington State Department of Health web site: [www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw)

Environmental Protection Agency web site: [www.epa.gov/safewater](http://www.epa.gov/safewater)

EPA Safe Drinking Water Hotline email: [hotline-sdwa@epamail.epa.gov](mailto:hotline-sdwa@epamail.epa.gov)

EPA Safe Drinking Water Hotline 800.426.4791

### MISCELLANEOUS WATER CONSERVATION TIPS

Water is essential to our health, our communities and our environment. Depleting reservoirs and groundwater can put water supplies, human health and the environment at serious risk. The average person unknowingly wastes up to 30 gallons of water every day - water leaks dripping 60 drops per minute can waste up to 3,504 gallons of water per year.

- ✓ The amount of water old toilets use can be modified by a toilet displacement device or a plastic bottle weighted with pebbles and water gently placed inside the toilet tank – **NEVER USE A BRICK** – consider replacing the toilet with a new low-flow toilet
- ✓ Don't use the toilet as a wastebasket
- ✓ Check for leaks by using food coloring or a leak detection tablet in the toilet tank – if color appears in the bowl without flushing there is a leak that requires immediate attention
- ✓ Install low-flow aerators in each faucet and water-efficient showerheads
- ✓ Do not let the water run while brushing your teeth or washing your face and take shorter showers
- ✓ Keep a bottle or pitcher of drinking water in the refrigerator to eliminate the need to let the tap run waiting for the water to get cold
- ✓ Use the dishwasher only when it is full
- ✓ Water the lawn in short repeated intervals for best absorption, especially on slopes or compacted soils - the lawn is getting dry when footprints remain after walking on it
- ✓ Use a shut-off nozzle for outdoor watering, cleaning or washing the car
- ✓ Use a broom to clean walkways and driveways – not the hose
- ✓ Use the proper water level, load size selection and water temperature when washing clothes – consider installing a water efficient washing machine
- ✓ To check for leaks, turn off all indoor and outdoor faucets, check the meter reading, wait 15 minutes, check the meter, if the reading has changed you may have a leak

Your water meter is in a small concrete vault or green plastic box located near the street. For assistance please call 360.748.6664