

Drinking Water Quality Report 2011



Consumer Confidence Report

The City of Cottage Grove is pleased to present you with this year's annual Water Quality Report. The public water system serves approximately 9745 citizens. This report is designed to inform you about the quality of drinking water and services we deliver to you every day. Our constant goal is to supply you with a reliable supply of high quality drinking water. We are committed to ensuring the quality of your water.

If you have any questions about this report or your water utility, please contact Ray Pardee, Water Production Superintendent, at: (541) 942-3349.

Cottage Grove's drinking water supply comes from surface water through an intake located on the Row River. The intake is within the Coast Fork Willamette Sub-Basin of the Willamette Basin. The streams that contribute to the intake have a total tributary area of approximately 371 square miles.

The sources of drinking water (both tap water and bottled water) can be from wells, streams, rivers, reservoirs or springs. As water travels over the surface of the land or through the ground it may pick up contaminants. Contaminants that may be present in source waters include: Microbial such as bacteria or viruses; Inorganic such as salts or metals; Pesticides and Herbicides; Organic chemicals such as by-products of industrial process and naturally occurring Radioactive contaminants.

The Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

The Food and Drug Administration (FDA) prescribes regulations for bottled water.

All of Cottage Grove's drinking water is treated before it is distributed to the consumer. The City's water treatment plant operators are state certified and complete required educational courses to maintain certification annually and to assure technical competence in the most recent advances in water treatment.

The City of Cottage Grove recognizes the importance of identifying contaminants in the water. With the aid of online process analyzers, the operators continuously monitor the water treatment process 24 hours a day, seven days a week, 365 days a year.

Water treatment plant operators sample and test the water, according to Federal and State laws, screening for any of the approximately 91 currently regulated contaminants that could be in your drinking water.

The following tables show the results of Cottage Grove's water quality analysis. Every regulated contaminant that **was detected** in Cottage Grove's water from January 1, 2011 to December 31, 2011 is listed. The regulations do not require the water to be tested for all (approximately 91) of the regulated contaminants each and every year. The data presented in the report are from the most recent testing done in accordance with the regulations.

In these tables you may find many terms and abbreviations you might not be familiar with. To help you better understand the terms used in the tables, definitions are provided on the following page.

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DEFINITIONS

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead – Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person’s total lead exposure. All potential sources of lead in a household should be identified and removed, replaced or reduced.

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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 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.

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Nephelometric Turbidity Unit (NTU) – Nephelometric turbidity unit is an empirical measure of the clarity of water. Turbidity in excess of 5 NTU is just visibly noticeable to the average person.

Non-Detects (ND) – Contaminant not detectable at laboratory testing limits.

Parts Per Billion (PPB) or Micrograms Per Liter (ug/L) – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts Per Million (PPM) or Milligrams Per Liter (mg/L) – One part per million corresponds to one minute in two years, or a single penny in \$10,000.

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

Turbidity – Turbidity is a measure of the cloudiness of the water. The City monitors it because it is a good indicator of the effectiveness of the treatment process.

Turbidity has no health effects. However, turbidity 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.

Key To Abbreviations In The Tables

AL	Action Level	NTU	Nephelometric Turbidity Unit
MCL	Maximum Contaminant Level	N/A	Not Applicable
MCLG	Maximum Contaminant Level Goal	PPB	Parts Per Billion
mg/L	Milligrams Per Liter	PPM	Parts Per Million
MRDL	Maximum Residual Disinfectant Level	RAA	Running Annual Average
MRDLG	Maximum Residual Disinfectant Level Goal	TT	Treatment Technique
ND	Non-Detects	ug/L	Micrograms Per Liter

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Detected Levels of Regulated (Primary) Contaminants

ROW RIVER WATER TREATMENT PLANT						
Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity - Highest Single Measurement	No	0.12	NTU	N/A	> 5 TT	Soil Erosion
Turbidity - Lowest Monthly Percentage	No	100%	NTU	N/A	95% ≤ 1 TT	Soil Erosion
WATER DISTRIBUTION SYSTEM						
Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants						
Copper (last test date 2009)	No	90th% value = N/D	PPM	1.3	AL = 1.3 Zero sites exceeded the action level	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (last test date 2009)	No	90th% value = 6	PPB	0	AL = 15 Zero sites exceeded the action level	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate as N	No	0.15	mg/L	10	10	Run off from fertilizer use; Leaching from Septic tanks, Sewage; Erosion of natural deposits
Disinfection Byproducts, Byproduct Precursors, and Disinfectant Residuals						
TTHM (Total Trihalomethanes)	No	Range = 12.0 - 25.2 RAA = 18.0	PPB	N/A	80	By-Product of drinking water disinfection
HAA5 (Haloacetic Acid)	No	Range = 6.0 - 19.5 RAA = 12.4	PPB	N/A	60	By-Product of drinking water disinfection
Chlorine	No	Range = 0.07 - 0.78 RAA = 0.55	PPM	MRDLG 4	MRDL 4.0	Water additive used to control microbes
TOC of Finished Water (Total Organic Carbon)	No	Range = 0.50 - 0.89 RAA = 0.66	PPM	N/A	2 TT	Naturally present in the environment

Detected Levels of Unregulated (Secondary) Contaminants

Contaminant	Level Detected	Unit of Measure	SMCL*	Likely Source of Contamination
Sodium (Last test date 2011)	4.05	mg/L	20	Naturally present in the environment and a water treatment additive
Sulfate (Last test date 2011)	9.38	mg/L	250	Naturally present in the environment
Hardness of Finished Water Calcium Carbonate (CaCO3)	Range = 14 - 29 Avg = 20	mg/L	N/A	Naturally present in the environment
pH of Finished Water	Range = 7.0 - 7.6 Avg = 7.4	pH Unit	6.5-8.5	Naturally present in the environment
Chloroform	Range = 12.0 - 23.3 Avg = 15.9	PPB	N/A	By-Product of drinking water disinfection
Bromodichloromethane	Range = 0.0 - 1.9 Avg = 1.4	PPB	N/A	By-Product of drinking water disinfection
Dichloroacetic Acid	Range = 2.9 - 10.4 Avg = 5.9	PPB	N/A	By-Product of drinking water disinfection
Trichloroacetic Acid	Range = 3.1 - 12.0 Avg = 7.8	PPB	N/A	By-Product of drinking water disinfection

* SMCL - Secondary Maximum Contaminant Level. Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

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Water Source Information

A Source Water Assessment has been completed by the Department of Environmental Quality (DEQ) to identify the surface areas (and/or subsurface areas) that supply water to the City of Cottage Grove's public water system intakes and to inventory the potential contaminant sources that may impact the water supply.

Potential contaminant sources or "sensitive areas" identified in the watershed include managed forestlands, campgrounds and recreational areas, nurseries, quarries, several parks, residential areas with septic systems and wells, gas stations (currently active and historic), a former mill, and the drinking water treatment plants.

These "sensitive areas" are the main existing potential sources of contamination that could, if improperly managed or released, impact the water quality in the watershed.

The information in this assessment provides a basis for prioritizing areas in and around our community that are most vulnerable to potential impacts and can be used by the City of Cottage Grove community to develop a voluntary Drinking Water Protection Plan.

Assessment was completed to provide information that the City of Cottage Grove's public water system staff/operators, consumers and community citizens can use to begin developing strategies to protect the source of their drinking water, and to minimize future public expenditures for drinking water treatment.

The City of Cottage Grove's Source Water Assessment Report provides additional details on the methodology and results of this assessment. The full report is available for review at: **Cottage Grove Public Library, 700 East Gibbs Avenue.**

Information on Lead in Drinking Water

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 Cottage Grove 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 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 (1-800-426-4791)** or at www.epa.gov/safewater/lead.

All sources of water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline (1-800-426-4791)**.

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 (1-800-426-4791)**.

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Additional Information

We want our valued customers to be informed about their water quality. If you want to learn more, please attend any of our regularly scheduled City Council meetings. They are held on the second and fourth Monday of each month at 7:00 p.m. in the City Hall Council Chambers.

The City of Cottage Grove considers it our paramount responsibility to supply safe water for the health and future of our community. Please call our office if you have any questions, **(541) 942-3349** or visit our web site at:

www.cottagegrove.org

Additional information can be obtained from the following websites:

1. Environmental Protection Agency at: www.epa.gov/safewater/
2. Oregon Health Authority/Drinking Water Program at: www.oregon.gov/DHS/ph/dwp
3. National Sanitation Foundation at: www.nsf.org or call 1-877-8NSF-HELP
4. American Water Works Association (AWWA): www.drinktap.org and www.awwa.org

ROW RIVER WATER TREATMENT PLANT



Water System Planning and Improvements

Future planned improvements to the water system include the replacement of approximately 1.6 miles of water transmission line. The transmission line to be replaced is a 14" diameter steel line that runs from Bryson Sears Road to Dorena Mobile Home Park. The 14" steel line is planned to be replaced with a 6" Poly Vinyl Chloride (PVC) plastic line.

There are three pressure boosting pumping stations in the city. They supply the additional required pressure needed to serve customers at higher elevations than what can be supplied by the City's gravity fed finished water storage reservoirs. All three are in need of some level of upgrading. One, located at Taylor Avenue and Hillside Drive, will be completely replaced. All three are planned to be equipped with radio communications, a back-up emergency power supply source and enhanced security features.

Another planned improvement is to add 2 additional million gallons a day of capacity of Micro-Filtration Membrane filters to the Row River Water Treatment Plant.

MICRO-FILTRATION MEMBRANE FILTERS

