Drinking Water Quality Report 2005

City of Cottage Grove

Consumer Confidence Report

The City of Cottage Grove is pleased to present you with this year's annual Water Quality Report. 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 the surface water intakes located on Layng Creek, Prather Creek and Row River. The Layng Creek and Prather Creek intakes are located within the Umpqua National Forest. The Row River intake is located on the Row River.

The public water system serves approximately 9,300 citizens. The combination of the geographic areas contributing to the Row River, Prather Creek, and Layng Creek intakes make up Cottage Grove's drinking water protection area for surface water sources. The intakes located in the Lower Row River and Layng Creek Watersheds are part of the Coast Fork Willamette Sub-Basin of the Willamette Basin. The streams that contribute to the intakes have a total tributary area of approximately 371 square miles.

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 educational courses annually to maintain certification 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 on-line analyzers, the operators monitor the water treatment process seven days a week, 365 days a year.

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

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, 2005 to December 31, 2005 is listed. The regulations do not require the water to be tested for all 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.

Drinking Water Quality Report 2005

DEFINITIONS

Action Level (AL) – The concentration of a contaminant that, 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. MCLG's allow for a margin of safety.

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 Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

Maximum Residual Disinfectant Level (MRDL) – The highest level of disinfectant allowed in drinking water.

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 – 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 – 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 has no health effects, however, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may mask 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**	**PPB**	**Parts Per Billion**
MCLG	**Maximum Contaminant Level Goal**	**PPM**	**Parts Per Million**
MRDLG	**Maximum Residual Disinfectant Level Goal**	**TT**	**Treatment Technique**
MRDL	**Maximum Residual Disinfectant Level**	**RAA**	**Running Annual Average**
ND	**Non-Detects**	**N/A**	**Not Applicable**

Drinking Water Quality Report 2005

The Layng Creek Water Treatment Plant supplies finished water to all City of Cottage Grove customers.

TABLE I
Layng Creek Water Treatment Plant

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity – highest single measurement	No	1	NTU	N/A	1 TT	Soil erosion
Turbidity – lowest monthly percentage	No	96%	NTU	N/A	95% <0.3 TT	Soil erosion
Radiological Contaminants						
Uranium – Layng Creek (most recent test date May 2003	No	0.02	PPB	0	30	Erosion of natural deposits
Uranium – Prather Creek (most recent test date May 2003)	No	0.02	PPB	0	30	Erosion of natural deposits

The Row River Water Treatment Plant supplies finished water to all City of Cottage Grove customers except those customers east of the City starting on the east side of the Row River.

TABLE II
Row River Water Treatment Plant

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity – highest single measurement	No	1	NTU	N/A	1 TT	Soil erosion
Turbidity – lowest monthly percentage	No	97%	NTU	N/A	95% <0.3 TT	Soil erosion
Radiological Contaminants						
Uranium (Most recent test date May 2003)	No	0.01	PPB	0	30	Erosion of natural deposits

TABLE III
Water Distribution System

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants						
Copper (most recent test date August 2003)	No	90th % value= 0.292	PPM	1.3	AL = 1.3 0 sites exceeded the action level	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (most recent test date August 2003)	No	90th % value = 8	PPB	0	AL = 15 1 site exceeded the action level	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection Byproducts, Byproduct Precursors, and Disinfectant Residuals						
TTHM (Total Trihalomethanes)	No	Range 14.7-34.5 RAA 24.5	PPB	N/A	80	By-product of drinking water disinfection
HAA5 (Haloacetic Acid)	No	Range 16.4-25.0 RAA 21.0	PPB	N/A	60	By-product of drinking water disinfection
Chlorine	No	Range 0.10-1.07 RAA 0.53	PPM	MRDLG 4	MRDL 4.0	Water additive used to control microbes
Finished Water TOC (Total Organic Carbon) Layng Creek WTP	No	Range 0.52-1.40 RAA 0.75	PPM	N/A	TT 2 PPM Finished Water	Naturally present in the environment
Finished Water TOC (Total Organic Carbon) Row River WTP	No	Range 0.83-2.50 RAA 1.23	PPM	N/A	TT 2 PPM Finished Water	Naturally present in the environment

Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

TABLE IV
Detected Levels of Unregulated Contaminants

Contaminant	Unit of Measure	Layng Creek Plant Level Detected	Row River Plant Level Detected	Likely Source of Contaminant
Inorganic Contaminants				
Sodium (most recent test date July 2002)	PPM	4.99	2.88	Naturally present in the environment
Sulfate (most recent test date July 2002)	PPM	5.89	3.91	Naturally present in the environment
Hardness (as CaCO3) Finished Water	PPM	Avg = 20 Range = 10 - 29	Avg = 20 Range = 13 – 29	Naturally present in the environment
pH Finished Water	pH Units	Avg = 7.3 Range = 7.0 – 8.1	Avg = 7.3 Range = 7.0 – 8.1	Naturally present in the environment
Chloroform	PPB	Avg = 23.1 Range = 14.7 – 32.4	Avg = 21.9 Range = 13.4 – 30.6	By-product of drinking water disinfection
Bromodi-Chloromethane	PPB	Avg = 2.1 Range = 1.4 – 2.5	Avg = 2.0 Range = 1.3 – 2.3	By-product of drinking water disinfection
Dichloro-Acetic Acid	PPB	Avg = 6.3 Range = 3.4 – 10.1	Avg = 7.7 Range = 3.9 – 10.2	By-product of drinking water disinfection
Trichloro-Acetic Acid	PPB	Avg = 13.7 Range = 12.6 – 14.9	Avg = 14.3 Range = 14.0 – 14.8	By-product of drinking water disinfection

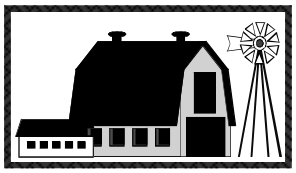
Drinking Water Quality Report 2005

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.

The City of Cottage Grove's source water is obtained from the delineated drinking water protection area. The delineated drinking water protection area is primarily dominated by managed forestland uses in the upper reaches and by residential and limited commercial development along the main rivers, creeks and Dorena Lake.

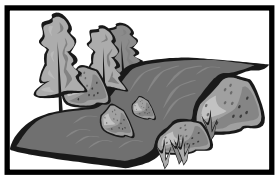
Potential contaminant sources or "sensitive areas" identified in the watershed include managed forestlands, campgrounds and recreational areas, nurseries, quarries, several parks, residential areas with septic systems and wells, gas stations (currently active and historic), a former mill, and the drinking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

A total of 45 potential contaminant sources were identified in the City of Cottage Grove's drinking water protection area. All of these sources are located in the "sensitive areas" and 43 are high-to-moderate risk sources within "sensitive areas". These "sensitive areas" include areas with high soil permeability, high soil erosion potential, high runoff potential and areas within 1,000 feet from the river or streams.

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 assessment was prepared under the requirements and guidelines of the Federal Safe Drinking Water Act (SDWA).

All sources of water are subject to potential contamination by substances that are naturally occurring or man made. 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).**

Additional Information

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)**.

Drinking Water Quality Report 2005

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.**

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 7:30 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. Department of Human Services/Drinking Water Program at: **www.ohd.hr.state.or.us/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**

Water System Planning and Improvements

The City's water production facilities are currently comprised of two (2) water treatment plants which produce the City's drinking water supply from four (4) separate surface water sources. The Layng Creek water treatment plant diverts water from Layng and Prather Creeks, and the Row River water treatment plant diverts water from two locations on the Row River.

The Layng Creek water treatment plant is located approximately 20 miles east of Cottage Grove, and treated water from that treatment plant is conveyed to the City through an aging transmission line that was constructed in the mid-1940's. The City is currently under a compliance order to upgrade its water production facilities, because the Layng Creek treatment plant is not capable of treating drinking water 100% of the time to public drinking water standards required by the Safe Drinking Water Act. Therefore, the City must upgrade its water production facilities in order to regularly be in compliance with drinking water requirements. The Layng Creek treatment plant and transmission line are both at the end of their useful lives. It has been the City's preference to replace the Layng Creek treatment plant and continue to produce drinking water from Layng Creek; however, based on construction costs, the Layng Creek facilities cannot be replaced cost effectively at their current locations. So, the Layng Creek treatment plant is scheduled to be abandoned by 2008. Upon abandonment of the Layng Creek facilities, it will be necessary for the City to replace the Layng Creek drinking water production capacity which will cease upon abandonment.

The City has performed an engineering evaluation of its water production needs, and determined that its best and most cost effective option for replacement of the Layng Creek water production facilities is to increase the water production capacity of the Row River plant.

The Row River plant is a modern treatment facility that was constructed in 1992, and it is located at the east boundary of the City's Urban Growth area. Treated water from the Row River plant is currently filtered and disinfected prior to being pumped into the City's reservoirs where it is held until required for use in the water distribution system.

The Row River water treatment plant was originally constructed with expansion capabilities. The base facilities in this treatment plant can accommodate an ultimate water production capacity of 7.5 million gallons per day even though the first phase improvements that were completed in 1992 included the installation of only one (1) treatment unit capable of producing 2 million gallons of drinking water per day. Additional treatment units will be installed as part of the planned expansion of the Row River plant to meet the City's current drinking water needs.

The preliminary design of the new Row River water treatment plant improvements are scheduled to begin immediately. The project will be funded by low interest loans through the State Revolving and Water/Wastewater loan programs administered through the Oregon Economic and Community Development Department. Loan agreements have been executed for the planned improvements to the Row River water treatment plant which are estimated to cost $7,200,000.

Drinking Water Quality Report 2005