



101 NW "A" St.  
Grants Pass, OR 97526



## City of Grants Pass 2009 Water Quality Report



### *Dear Water Customer,*

As the purveyor of potable water to the citizens of Grants Pass, we are required by the Environmental Protection Agency to prepare and distribute a brief annual water quality report summarizing information regarding the source of the water, any detected contaminants in the water, compliance with drinking water related rules, and appropriate educational information. The purpose of this Consumer Confidence Report (CCR) is to improve public health by providing educational information to allow you, our customers, to make educated decisions regarding any potential health risks pertaining to the quality, treatment, and management of the drinking water supply. If you desire any additional information regarding the City's water delivery system or have suggestions on how we can better serve you, please feel free to contact me at 471-2650 or any of the other entities listed within the CCR.

Respectfully yours,

Terry S. Haugen  
Public Works Director

## Source of Supply

Our water source is surface water drawn from the Rogue River. The Rogue River has supplied the City of Grants Pass with its drinking water since 1888. From 1888 to 1930 water was pumped from the Rogue River and chlorinated to kill bacteria; however it was not filtered. At certain times of the year the drinking water was very turbid. There was a definite need for filtration to make the water a clear and pleasant tasting commodity.

During the period from the 1930's to 1983 the Water Filtration Plant expanded to our present capacity of 18.2 million gallons per day. Depending on the time of year and customer demand, the water treatment plant presently produces between 1.1 and 14.14 million gallons per day. In 2009, the City distributed over 2.025 billion gallons of water.

## Water Treatment

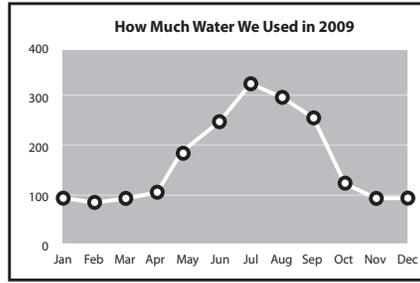
Water drawn from the Rogue River is mixed with a coagulant called Alum (Aluminum Sulfate). Alum causes suspended materials in the water to clump together and form larger particles called "foc". The water enters sedimentation basins, where the floc (which is heavier than water) settles to the bottom of the tanks. The water then flows from the sedimentation basins into dual-media filters. The filters remove any remaining particles present in the water.

In the final step, chlorine is added to the water for disinfection and to keep it safe in the distribution system as it travels to a reservoir and on to your tap.

Plant operators are certified by the Department of Human Services Drinking Water Program (DHS-DWP) and are trained in all aspects of water treatment. They are required to complete continuing education classes in order to maintain their certification and to keep up to date on the latest standards and technology used in water treatment. We are pleased to report that the water we distribute is safe and meets all Federal and State requirements.

## Storage and Distribution

Treated water piped from the plant is pumped and stored by thirteen remote pumping stations and eight reservoirs. The distribution system is made up of five different elevation zones located throughout the city and over 160 miles of distribution lines varying in size from 2 to 36 inches in diameter. Liquid chlorine is added at strategic points in the distribution system to maintain the chlorine residual mandated by the DHS-DWP.



Rogue River Turbidity (2009 Averages)	
Summer Daily Average	2.8 NTU's
Winter Daily Average	5.9 NTU's
Maximum Daily Average	65 NTU's

Production Data (2009 Averages)	
Summer Daily Average	9.4753 MGD
Winter Daily Average	3.5587 MGD
Maximum Daily Flow	14.1747 MG

## Monitoring and Reporting Requirements

The Grants Pass Water Filtration Plant routinely monitors for contaminants in our water according to Federal and State laws. The data within this report comes from the monitoring of our potable water supply for the period of January 1, 2009 to December 31, 2009. *All water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.*

Federal and State regulations include procedures and schedules for monitoring water from the source to the tap. The DHS ensures that public water systems in Oregon comply with all regulations, follow monitoring schedules, and report monitoring results.

We at the Grants Pass Water Filtration Plant and Distribution Department work hard to provide the highest quality water to every tap. The Rogue River is the center piece of our community and we ask that all of our customers help us to protect this valuable resource.



## Results of Turbidity and Microbiological Analysis of Treated Water After Disinfection

(All results meet State and Federal drinking water regulations)

Variable	Maximum Amount Found	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contaminant	Meets Regs?
Physical Testing Characteristic Turbidity	0.170 NTU 0.040 NTU Yearly Daily Average	TT A violation exists if > 5% of samples are > 0.30 NTU	n/a	Soil erosion and stream sediment	Yes
Microbiological Testing Total Coliform Bacteria	One positive test	5% or more samples test positive	Zero positive tests	Soil bacteria and animal feces	Yes
Disinfection Residual	1.30 ppm Range 0.90 ppm - 1.30 ppm	MRDL = 4.0 ppm	MRDLG = 4.0 ppm	Chlorine is used as a disinfectant in the water treatment process	Yes

**NOTES:**

**Turbidity and NTU's.** Turbidity is regulated because it can provide a medium for bacterial growth. Turbidity is measured in NTU's. The filtration plant consistently treats water that is well under Federal and State standards.

**Total Coliform Bacteria.** Testing for these bacteria after disinfection helps confirm the effectiveness of the disinfection process. (Bacteria may have been present in the source water) Total coliform bacteria are also indicators of possible contamination that might occur after treatment.

**Chlorine Residual.** Federal and State drinking water regulations require detectable disinfectant residual (chlorine) throughout our water distribution system. Water entering the Grants Pass distribution system has approximately 1.1 part per million of chlorine. Note: This system violated the Surface Water Treatment Rule on December 8, 2009. Water was distributed that had not met the required amount of Contact Time. Contact Time had been achieved by the first customer connection, and only the treatment plant staff were exposed to inadequately disinfected Water. To prevent further occurrences chlorine residuals will be elevated slightly and the plant operated at a slower flow rate during cold water months.

## Results of Disinfection By-product Analysis

(All results meet State and Federal drinking water regulations)

Variable	Average Amount Found	Range of Multiple Tests	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contaminant	Meets Regs?
Total Trihalomethanes (TTHM's)	43.1 ppb	20.2 - 96.2* ppb	Running Annual Average >80 ppb	Zero ppb	By-products of chlorination used in the water treatment process.	Yes
Haloacetic Acids (HAA5's)	27.3 ppb	15.7 - 42.0 ppb	Running Annual Average >60 ppb	Zero ppb		

**NOTES:** During disinfection, certain by-products form as a chemical reaction between chlorine and naturally occurring organic matter in the water. The disinfection process is carefully controlled so that the disinfection effectiveness is maintained while keeping the levels of disinfection by-products below regulatory limits.

\* Disinfection by-products are monitored quarterly. The results of one quarter are averaged with results of three previous quarters and reported as a running annual average (RAA). One of the total trihalomethane (TTHM) results exceeded the 0.080 ppb MCL but because the RAA was below the MCL a violation did not occur.

Some people who drink water containing TTHMs in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous system, and may have an increased risk of getting cancer. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

## Results of Lead and Copper Analysis

(All results meet State and Federal drinking water regulations)

Variable	90'th Percentile	Action Level* (AL)	Complies?	Source of Contaminant
Copper	0.824 ppm	90% of the homes tested must have levels less than 1.3 ppm of Copper and 15 ppb of Lead	Yes No samples exceeded the action level	Corrosion of Household plumbing; Erosion of natural deposits
Lead	6.26 ppb		Yes No samples exceeded the action level	

**\*Action Levels. The concentration of a contaminate which, if exceeded, triggers treatment or other requirements that a water system must follow.**

**NOTES:** Plumbing components may contribute to elevated lead and copper at the tap. There is no detectable lead in Grants Pass water supply sources. Copper occurs naturally at very low levels. Some homes and buildings may have elevated lead levels at the tap if water stands in the pipes for several hours. Lead may leach from faucets or plumbing components. Leaching may also occur in copper pipes that are joined with lead-based solder. The lead and copper results reported here are from a targeted group of homes in Grants Pass retail and wholesale service area. This group of homes meets Criteria for being at risk of having elevated levels of lead and copper at the tap.

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 Grants Pass Water Filtration Plant's 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 two 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 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Additional Water Quality Tests Analysis

(All results meet State and Federal drinking water regulations)

Variable	Maximum Amount Found in Calendar Year 2009	Maximum Contaminant Level Goal (MCLG)
Fluoride	ND @ 0.20 ppm	4.0 ppm
Hardness as CaCo3	41.3 ppm (2.42 grains per gallon)	250 ppm

These guidelines are secondary standards, no MCLs have been established for these contaminants. They are generally based on aesthetics rather than health concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

### Acronyms and Key Definitions

**Contaminant** - *Any substance found in water;* however, not all contaminants are harmful.

**MCL** - *Maximum Contaminant Level,* 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.

**MCLG** - *Maximum Contaminant Level Goal,* 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.

**MRDL** - *Maximum Residual Disinfectant Level,* 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.

**MRDLG** - *Maximum Residual Disinfectant Level Goal,* 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.

**ND@** - *Not Detected* at a particular detection point because laboratory instruments are only able to detect chemicals to certain minimum levels.

**NTU** - *Nephelometric Turbidity Unit.* Unit of measure used to describe water clarity. The smaller the number the clearer the water.

**ppb** - *Parts per Billion.* A part per billion indicates the amount of a substance in a billion parts of water; this compares with one penny in \$10 million.

**ppm** - *Parts per Million.* A part per million means that one part of a particular substance is present for every million parts of water; this compares to one penny in \$10,000. Similarly, it is the same as 1 mg/l (milligram per liter).

**TT** - *Treatment Technique.* A required process intended to reduce the level of a contaminant in drinking water.

### Frequently Asked Questions

**Does the City add fluoride to the water?** No, we do not add fluoride to the water. However there is naturally occurring fluoride in the drinking water, at a level which is not beneficial for cavity fighting nor does it present a health hazard.

**Why does the taste and odor of my water sometimes differ?** Water naturally varies in taste and odor at different times of the year. Taste and odor problems in your drinking water can come from new or old pipelines, plumbing fixtures or changes in raw water quality.

**Is Grants Pass water soft or hard?** Grants Pass water is soft to moderately soft. It ranges from 1.90 to 3.4 grains of hardness per gallon (less than 59 parts per million CaCO3).

**What is the pH of the City's water?** Grants Pass water after treatment averages 7.2 pH units.

**More information:** More information about contaminants and potential health effects can be obtained by calling the following numbers:

**Environmental Protection Agency Safe Drinking Water Hotline at:** 1-800-426-4791

**Department of Human Services Drinking Water Program:** (503) 731-4010

**City of Grants Pass Water Filtration Plant:** (541) 474-6353

**Josephine County Health Department:** (541) 474-5325