

2016 City of Warrenton

WATER QUALITY REPORT

2015 YEAR END



We're very pleased to provide you with this year's Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been to provide you a safe and dependable supply of drinking water. There are many reports these days—in the press, on radio and television—questioning the safety of the water we drink.

- **How safe is the City of Warrenton's water?**
- **Where does the water come from and how does it get to my home?**
- **What is being done to improve the system?**

To help answer these questions, the City of Warrenton has prepared this report to show you how our drinking water compares with nationally-established standards.

Our source

The City of Warrenton's water is supplied by the Lewis and Clark River, Big South Fork of the Lewis and Clark River, Little South Fork of the Lewis and Clark River and Camp C Creek.

The City of Warrenton is working to develop a **Source Water Protection Plan** to ensure our sources remain free of contamination. Each patron can help in the protection effort by helping to keep areas clear of unauthorized access.

Water quality standards

The City of Warrenton routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring, with special notes telling when testing occurred. This table includes many terms and abbreviations with which you might not be familiar. To help you better understand these terms we have provided a key to definitions on the reverse side of this brochure.

Treating the water

The membrane filtration system went online in September 2002 providing customers with safe and clean drinking water. A recent addition to the water treatment facility is a pretreatment before filtration. This process aids in the removal of organic materials and inorganic materials and compounds and reduces the chlorine dosage by more than 30% that is needed to maintain the proper residual in our distribution system. The .2 micron openings

on the filters prevent bacteria, protozoa and parasitic organisms and cysts from entering the water system. After filtration, the water is disinfected with chlorine that is generated on site.

Pipes and reservoirs

Warrenton has two treated water reservoirs with a total of 7 million gallons, which provide both optimum system pressure and water supply redundancy to all parts of our water delivery area.

CONTAMINANT MONITORING TEST RESULTS

Contaminant	Last Test Date	Violation Yes/No	Level Detected	MCLG	MCL	Likely Source of Contamination	Comments
Arsenic	April 2015	No	0	0	7 million fibers per L	Erosion of natural geologic deposits, decay of asbestos-cement water pipes	Tested yearly.
Total Coliform Bacteria	December 2015	No	Highest number of positive samples in any one month = 1	0	1 positive sample per month	Naturally present in the environment	Coliforms are tested for 10 times each month. All were negative in 2014.
Turbidity	December 2015	No	Highest single measurement = 0.03 NTU	N/A	TT = 0.30 NTU	Soil runoff	Turbidity measures the cloudiness of water and is a good indicator of the effectiveness of our filtration system; 100% of our samples were below the MCL.
Combined Radium	October 2010	No	0	0 pCi/L	5 pCi/L	Erosion of natural deposits	Combined Radium consists of two isotopes—Radium 226 and Radium 228.
Uranium	October 2010	No	0	0 ppb	.03 ppm	Erosion of natural deposits	Radioactive contaminants are tested for every 6 years at the entrance to our distribution system.
Copper	October 2015	No	90th percentile = 0.450 ppm	1.3 ppm	AL = 1.3 ppm	Corrosion of household plumbing; erosion of natural deposits; wood preservative leaching	Lead and Copper are tested for every 3 years; samples are taken directly from a selection of customer's taps.
Lead	October 2015	No	90th percentile = 0.010 ppm	0 ppm	AL = 15 ppb	Corrosion of household plumbing; erosion of natural deposits	None of the test sites for Lead and Copper exceeded the action levels.
Fluoride	December 2015	No	Average = 0.8 Range = 0.5-0.9 ppm	4 ppm	4 ppm	Erosion of natural deposits; water additive which promotes strong teeth	Fluoride is added to our water during the treatment process; Fluoride levels are monitored daily.
Nitrate	December 2015	No	0.425 ppm	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Nitrate is tested for every year at the entrance to our distribution system.
Sodium	March 2015	No	8.5 ppm	Not regulated	Not regulated	Erosion of natural deposits; saltwater intrusion; residual of drinking water treatment process	Sodium and other inorganic contaminants are tested for every 9 years at the entrance to our distribution system.
Total Trihalomethanes	November 2015	No	Average = 0.0431 ppm	0 ppm	0.080 ppm	By-product of drinking water disinfection	Disinfection Byproducts are tested for quarterly; compliance with the MCLs are based on annual running averages.
Haloacetic Acids	November 2015	No	Average = 0.030 ppm	0 ppm	0.060 ppm	By-product of drinking water disinfection	Disinfection Byproduct samples are taken at a location representing the maximum residence time of the water in the distribution system.
Chlorine	December 2015	No	Highest annual average = 0.7 ppm Range = 0.5-0.9 ppm	MRDLG = 4 ppm	MRDL = 4 ppm	Water additive used to control microbes	Chlorine levels are tested daily; Chlorine samples are taken at the same time and at the same place as Total Coliform samples.
Synthetic Organic Compound	November 2014	No	0		Varies per contaminant	Industrial or agricultural activities	Testing is required twice during each 3-year compliance period.
Inorganic Chemicals	August 2011	No	0		Varies per contaminant	Those found in nature such as metals and salts	Testing is done every nine years, a change from yearly (reduced monitoring granted as testing has shown inorganic chemicals not to be a threat in our system).
Volatile Organic	May 2015	No	Negligible to 0		Varies per contaminant	Industrial by-products and cleaning solvents	Testing remains yearly for VOCs because of the potential effects to human health.
Total Organic Carbon	December 2015	No	Average = 2.04 ppm Range = 1.53-2.30 ppm		Average less than 4.0 ppm	Naturally present from surface run-off, plants or other living or dead organisms—leaves, soils, etc.	An indicator of the levels of DBP precursor compounds in the source water.

Additionally, we have a 16 million gallon raw water reservoir for optimum delivery of untreated water to our treatment plant. The City of Warrenton has 109.5 miles of potable water pipe in our treated water distribution and transmission systems and 5.4 miles of raw water delivery pipe from our four dams and the treatment plant.

Key to test results abbreviations

Non-Detects (ND)—laboratory analysis indicates that the constituent is not present.

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.

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 trillion (ppt) or nanograms per liter (nanograms/l)—one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or picograms per liter (picograms/l)—one part per quadrillion corresponds to one minute in 2,000,000,000,000 years, or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/l)—picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr)—measure of radiation absorbed by the body.

Million fibers per liter (MFL)—million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU)—nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Variations & Exemptions (V&E)—state or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level—the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT)—a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level—the “maximum allowed” (MCL) is 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 Contaminant Level Goal—the “goal” (MCLG) is 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.

A complete table of all contaminants we test for showing the MCLG, MCL and likely source of contamination may be obtained from our office.

Microbiological contaminants:

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.

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 the household should be identified and removed, replaced or reduced.

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 Warrenton 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 at 1-800-426-4791 or www.epa.gov/safewater/lead**.

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.

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Special notes:

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s **Safe Drinking Water Hotline at 1-800-426-4791**.

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 at 1-800-426-4791**.

We want our valued customers to be informed about their drinking water. If you have any questions about this report or concerning your water, please contact Terry Ager at 503-861-0914.

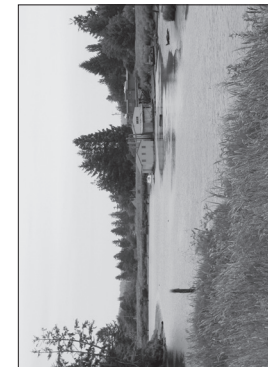
VALUED CUSTOMER

Making a difference through excellence of service



CITY OF WARRENTON

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