The City of Clatskanie is pleased to present to you this year's Annual Water Quality Report. The report is designed to inform customers about the water quality and services provided by the City. The City's constant goal is to provide customers with a safe and dependable supply of drinking water. The City wants the public to understand the efforts made to continually improve the water treatment process and protect the water resources. The City is committed to ensuring the quality of the drinking water supply.

The City of Clatskanie is pleased to report that the drinking water is safe and meets ***all*** federal and state requirements.

The City's primary water source is West Creek. The back-up source is Roaring Creek. Both watersheds provide high quality surface water.

The West Creek reservoir and dam system is located in Section 24 of Township 7 North, Range 5 West of the Willamette Meridian in Columbia County, approximately three miles Southwesterly of downtown Clatskanie. The location of the reservoir and dam system is at approximately 46 Degrees 04 Minutes North Latitude and 123 Degrees 14 Minutes 30 Seconds West Longitude.

The Roaring Creek reservoir and dam system is located in Section 18 of Township 7 North, Range 4 West of the Willamette Meridian, Columbia County, approximately one and three-quarter miles from downtown Clatskanie. The reservoir and dam system is at approximately 46 Degrees 05 Minutes North Latitude and 123 Degrees 12 Minutes West Longitude.

If you have any questions about this report or other questions concerning the water utility, please contact **Dan Smith, Water Plant Operator at (503) 741-0799.** The City wants its customers to be informed about the drinking water quality. If you want to learn more about the water department operation or the City in general, please attend any of the City's regularly scheduled Council meetings. The meetings are held on the first Wednesday of each month in the council room at City Hall. Meeting time is 7:30 PM.

The City routinely monitors for constituents in the drinking water supply according to Federal and State laws. The table shows constituents detected in the drinking water supply for the City's monitoring period of January 1st to December 31st, 2021. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk. Some of the monitoring is not performed on an annual basis. See the notes following the table that indicate monitoring intervals that are not annual and the last time the monitoring was performed.

Also included at the end of this report is a summary of the City's Source Water Assessment Report. A complete copy of the report may be obtained from Clatskanie City Hall and on the City's website- cityofclatskanie.com

In this table and throughout this report, the customer may find terms and abbreviations they might not be familiar with. As an aid in understanding these terms, the City has provided the following definitions:

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

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.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Turbidity	No	1 reading above 0.3 NTU 0.40 NTU Highest 0.40 NTU	NTU	NA	95% of monthly readings equal to or less than 0.3 NTU and any individual reading less than 1.0 NTU	Soil runoff, inefficient filter operation, improper coagulant dosage.
2. Total organic carbon (TOC)	No	1.42	mg/L	NA	NA	Naturally present in the environment.
Inorganic Contaminants						
3. Nitrate West Creek Supply Roaring Creek Supply	 No No	 298 273	 ppb ppb	0	10000	Erosion of natural deposits, runoff from fertilizer use, leaching from septic tanks and sewage.
4. Asbestos		0.398	mF/L		7 mF/L	Asbestos – corrosion of cement pipe
Inorganic Contaminants						
5. Chlorine	No	1.22	Ppm	NA	4.0	Water additive used to control microbes.
6. Copper	No	62 (90th Percent-tile). No test sites exceed AL.	Ppb.	1300	AL=1300	Corrosion of household plumbing systems.
7. Lead	No	7 (90th Percent-tile). No test sites exceed AL.	Ppb.	0	AL=15	Corrosion of household plumbing systems.
Volatile Organic Contaminants						
8. TTHM (Total Trihalomethanes) West Creek Supply	No	30	ppb	0	80	By-product of drinking water disinfection by chlorine.
10.HAA5 (Haloacetic acids) West Creek Supply	No	23	ppb	0	60	By-product of drinking water disinfection by chlorine

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.

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 years or one penny in $10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter; a measure of the radioactivity in water.

Millirems per year (mrem/yr) - millirems per year; a measure of radiation absorbed by the body.

Billion Fibers per Liter (BFL) - billion fibers per liter; a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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

Variances & 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 that, if exceeded, triggers treatment or other requirements that 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.

Microbiological Contaminants:

(1) Turbidity. 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. Proper filter operation is the treatment technique used to reduce turbidity in drinking water. 1 turbidity reading for 2021 was over 0.3 NTU. The highest reading was 0.40 NTU on July 27, 2021.

(2) Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

(3) Nitrates. Infants below the age of six months who drink water containing nitrate in excess of the MCL, could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Inorganic Contaminants:

(4) Asbestos. Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps. The monitoring for asbestos was last performed in 2011. Regulations require the City to perform the monitoring every nine years. The next tests will be performed in 2028.

(5) Chlorine. Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort. The highest reading was 1.22 ppm on April 24th, 2021.

(6) Copper monitoring from corrosion of household plumbing from treated water is required every three years. The last monitoring was performed in 2021. The results of this monitoring are presented in the table. The next monitoring will be performed in 2024.

(7) 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. See other comments regarding lead following this section.

Presence of lead in the raw water source is monitored every nine years. The next monitoring will be performed in 2024. Lead monitoring due to corrosion of household plumbing from treated water is required every three years. The last monitoring was performed in 2021. The results of this monitoring are presented in the table. The next monitoring will be performed in 2024.

Volatile Organic Contaminants:

(8,9) Trihalomethanes and Haloacetic acids Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. Trihalomethanes and Haloacetic acids are required to be monitored every year. The last monitoring was performed in 2021. The next monitoring will be performed in 2022.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. 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. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

The City is proud that the drinking water supply meets or exceeds all Federal and State requirements. The City has learned through monitoring and testing that some constituents have been detected. The EPA has determined that the drinking water IS SAFE at these levels.

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.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Please call City Hall if you have questions.

The City of Clatskanie works hard to provide top quality water to every tap. The City asks that all customers help us protect our water sources, which are the heart of our community

City of Clatskanie

Annual Drinking Water Quality Report

January 1, 2021
through
December 31, 2021