

Annual Drinking Water Quality Report 2023

Castle Rock Water System

CASTLE ROCK, WASHINGTON – PUBLIC WATER SYSTEM #11800

We are pleased to present to you the **2023** Annual Quality Water Report in accordance with EPA regulations. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our primary water source is **the Cowlitz River. Additionally, there are 4 seasonal and 2 emergency deep water wells.** Because we use both surface water and ground water our susceptibility rating is ranked 'high.' We have completed a source water assessment that provides more information such as potential sources of contamination, which is available from our office.

I am pleased to report that our drinking water is safe and meets Federal and State requirements.

If you have any questions about this report or concerning your water utility, please contact **David Vorse, Public Works Director, at Castle Rock Public Works Department, (360) 274-7478.** We want our valued customers to be informed about their water utility. 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 Castle Rock Senior Center, located at 141 A Street SW in Castle Rock, WA.**

The Castle Rock Water System routinely monitors for analytes in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, **2023.** All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some analytes. It is important to remember that the presence of these analytes does not necessarily pose a health risk.

In the table below you will find many terms and acronyms you might not be familiar with. To help you better understand these terms we have provided the following definitions: (*Analyte* – A substance being identified and measured in a chemical analysis.)

Important Drinking Water Terminology

mg/L	number of milligrams of substance in one liter of water
ppm	parts per million, or milligrams per liter (corresponds to one penny in \$10,000)
ppb	parts per billion, or micrograms per liter (corresponds to one penny in \$10,000,000)
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.
MCL	Maximum Contaminant Level: This highest level of a contaminant that is allowed in drinking water. MCLs are set as close as feasible using the best available treatment technology.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which water systems must follow.
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.
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.
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. It is monitored because it is a good indicator of water quality and assists in the effectiveness of the water filtration system.
NA	not applicable
ND	not detected
NR	monitoring not required, but recommended

Additional information for Lead: 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 Castle Rock 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 or online at <http://water.epa.gov/drink/info/lead/index.cfm>.

Additional information for Arsenic: Your drinking water currently meets EPA's revised drinking water standard for arsenic. However, it does contain low levels of arsenic in the City of Castle Rock seasonal wells, which produces 18.7% of the total water production for the city. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory diseases are due to factors other than exposure to arsenic. EPA's standard balances the current understanding of arsenic's health effects against the costs of removing arsenic from drinking water.

Additional information for Fluoride: Fluoride is added to the drinking water to assist in dental hygiene. A level of .5 ppm - .9 ppm is necessary to be effective.

Information regarding Per- and Poly-fluoroalkyl Substances (PFAS): PFAS are a group of long-lasting chemicals that have been used since the 1940's that are used mainly to repel oil, grease, water, and heat. Scientists are still studying how PFAS affect people's health. Much of what we know comes from toxicity testing in laboratory animals. The City of Castle Rock has tested for these contaminants in the seasonal wells and the surface water treatment plant with concluding results of non-detect (ND).

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 at 1-800-426-4791.

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.

We at the City of Castle Rock work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please call our office if you have questions. This notice has been provided to property owners and tenants supplied with potable water from the Castle Rock Distribution System. The City of Castle Rock is an equal opportunity provider.

2023 TEST RESULTS							
Analytes	Violation Yes/No	Level Detected	Unit Measure	MCLG	MCL	Likely Source of Contamination	Possible Health Effects
Turbidity	No	High .10 Avg. .03 <.3/100%	NTU	No Goal Listed	TT= 1 NTU TT= <.3/95%	Soil runoff	Turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms.
Fluoride	No	.5 – .8 Avg. .6	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Nitrate (as Nitrogen)	No	<.10 – 2.49 Seasonal wells and surface water plant	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months with exposure in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
TTHMs -Total Trihalomethanes	Yes	45.1 * 45.1	ppb	NA	80	Byproduct of drinking water chlorination	Exposure above the MCL over many years has the potential to cause liver, kidney or central nervous system problems and may increase the risk of cancer. This analyte is in violation due to only taking one of the two required samples in the reporting period.
HAA5s -Haloacetic Acids	Yes	15.5 * 15.5	ppb	NA	60	Byproduct of drinking water disinfection	Exposure above the MCL over many years may increase the risk of cancer. This analyte is in violation due to only taking one of the two required samples in the reporting period.
Lead	No	0 of 24 samples >.015 *.002 (90%)	ppm	.015	TT = AL AL is 10% > .015	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children with exposure in excess of the AL could have delays in physical or mental development. Adults with exposure above the MCL over many years could develop kidney problems or high blood pressure.
Copper	No	0 of 24 samples >1.3 in *.710 (90%)	ppm	1.3	TT = AL AL is 10% > 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	Exposure in excess of the AL over many years could suffer liver or kidney damage. People with Wilson's Disease should consult a doctor. Short term exposure can cause gastrointestinal distress
Arsenic	No	<1.0 *<1.0 Surface water	ppb	0	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

*Highest average at any one location

As you can see in this table, we received violations for taking only one of the two required samples for TTHMs and HAA5s. We're proud the samples we did take of your drinking water meets or exceeds all Federal and State requirements. In addition to the few detections we have reported here, we also monitored and conducted tests on more than 2,769 samples for more than 136 analytes and parameters in 2023, many of which had no detections.

2024 RATES	CITY OF CASTLE ROCK'S WATER USE EFFICIENCY PLAN
WATER \$43.88 base fee \$0.0574 per 1 cubic foot 1 cubic foot = 7.48 gallons	Goal: To reduce the city's water loss by 2% annually so that by 2028 the water loss is at 10% or less. To accomplish this goal, the City will take the following actions: Install new meter software to efficiently track flows and leaks by 2019 (completed); and Continue to replace all water mains that were installed prior to 1970 to assist with reducing water loss due to leaks by 2028; and To continue to replace leaky service lines by 2022; and Conduct system wide leak audit by 2018 (completed) and then again in 2022 to track water loss.
	2023 water loss was 11.6%
	Goal: To reduce the average consumption per capita by 1 gallon per day so that the average daily consumption per capita is 104 gallons by 2024 (completed). NEW Goal: Reduce to less than 100 gallons/day/capita. The City will take the following action to accomplish this goal: Provide education information to users (completed 2022); and Use water efficient flower baskets for all hanging flower baskets by 2019 (completed); and Develop education on rainwater reclamation program by 2022; and Develop and initiate a school outreach program on water conservation by 2023.
	SEWER \$37.86 base fee \$0.0993 per 1 cubic foot 1 cubic foot = 7.48 gallons