

CONSUMER CONFIDENCE REPORT
on
DRINKING WATER QUALITY
CARROLL WATER DEPARTMENT
2022

We're pleased to present to you this year's annual Drinking Water Quality Report. This Report is designed to inform you about the quality of water and services we deliver to you every day. Our 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.

Water is pumped from underground aquifers through nine wells. The wells range in depth from 149 to 242 feet. They are located adjacent to the Middle Raccoon River within and adjacent to the City. Our water source is the Pleistocene and Dakota Sandstone aquifers. The Pleistocene and Dakota Sandstone aquifers are determined to be not susceptible to contamination because the characteristics of the aquifers and overlying materials prevent easy access of contaminants to the aquifers. The Pleistocene and Dakota Sandstone aquifers are not susceptible to most contaminant sources except through pathways to the aquifers such as abandoned or poorly maintained wells

Water is treated at the Water Treatment Plant to remove objectionable constituents and to ensure safety for use. Treatment includes aeration to oxidize iron, filtration to remove iron and manganese, disinfection to kill bacteria, fluoridation to aid in the prevention of tooth decay and orthophosphate to provide corrosion control treatment.

"We believe that the best way to assure you that your drinking water is safe and dependable is to provide you with accurate information. This Consumer Confidence Report provides information about water quality and the water system. It also illustrates the extent of the testing performed on the water to assure that it is safe when it reaches your tap. I hope all residents will read this Report and not hesitate to contact the Water Department with any questions." Mayor Mark Beardmore.

If you have any questions about this Report or concerning your water utility, please contact Terry Kluver, Water Superintendent, at 792-6753 between 7:00 AM and 4:00 PM, Monday through Friday. We want our valued customers to be informed about their water. If you want to learn more, please participate in any of the regularly scheduled City Council meetings. They are held on the second and fourth Mondays of each month at 5:15 PM.

The Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. The table shows the results of monitoring for the period of January 1, to December 31, 2021. The State requires monitoring for certain constituents less than once per year because the concentration of these constituents is not expected to vary significantly from year to year. The data presented is from the most recent testing completed in accordance with the regulations. Some of the data in the table, though representative of water quality, is more than one year old. It is important to remember that the presence of a constituent in the water does not necessarily indicate that the water poses a health risk.

This report contains important information regarding the water quality in our water system. The source of our water is groundwater. Our water quality testing shows the following results:

CONTAMINANT	MCL – (MCLG)	Compliance		Date	Violation Yes/No	Source
		Type	Value & (Range)			
Lead (ppb)	AL=15 (0)	90 th	4.00 (ND – 16) 1 sample(s) exceeded AL	2020	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90 th	0.594 (0.0293 – 0.906)	2020	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
950 – DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL= 4.0 (MRDLG=4.0)	RAA	2.0 (1.73 – 2.06)	12/31/21	No	Water additive used to control microbes
Total Coliform Bacteria	TT (1T)	RTCR	1 sample(s) positive	12/06/21	No	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water.
Nitrite [as N] (ppm)	1 (1)	SGL	0.260 (ND – 0.260)	2021	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

CONTAMINANT	MCL – (MCLG)	Compliance		Date	Violation Yes/No	Source
		Type	Value & (Range)			
01 – WELLS 9, 12, 14-20 AFTER TREATMENT						
Arsenic (ppb)	10 (0)	SGL	1.60	05/15/2019	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes
Sodium (ppm)	N/A (N/A)	SGL	14.2	05/15/2019	No	Erosion of natural deposits; added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	0.100 (ND – 0.100)	2021	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (ppm)	4 (4)	SGL	1.0 (0.6 – 1.0)	01/31/2021	No	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

CONTAMINANT	MCL – (MCLG)	Compliance		Date	Violation Yes/No	Source
		Type	Value & (Range)			
FOURTH UNREGULATED CONTAMINANT MONITORING RULE (UCMR4)						
Bromochloroacetic Acid (ug/L)	N/A	SGL	1.8 (1.1 – 1.8)	09/14/2020	No	These samples were collected as part of the Environmental Protection Agency (EPA) requirements for the Unregulated Contaminant Monitoring Rule 4 (UCMR4).
Monobromoacetic Acid (ug/L)	N/A	SGL	.39 (ND – .39)	09/14/2020	No	
Dibromoacetic Acid (ug/L)	N/A	SGL	.36 (ND - .36)	09/14/2020	No	
Dichloroacetic Acid (ug/L)	N/A	SGL	4.8 (.32 – 4.8)	09/14/2020	No	
Manganese (ug/L)	N/A	SGL	20 (15 – 20)	09/14/2020	No	
Bromide (ug/L)	N/A	SGL	49 (40 – 49)	03/03/2020	No	
Total Organic Carbon (ug/L)	TT/NA	SGL	1400 (1100 – 1400)	03/03/2020	No	

DEFINITIONS

- 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.
- 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.
- ug/L – micrograms per liter or parts per billion (ppb).
- ppm - parts per million.
- pCi/L - picocuries per liter
- N/A - Not applicable
- ND - Not detected
- RAA - Running Annual Average.
- LRAA - Locational Running Annual Average
- Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Residual Disinfectant Level Goal (MRDLG) - 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.
- Maximum Residual Disinfectant Level (MRDL) – 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.
- SGL – Single Sample Result
- RTCR – Revised Total Coliform Rule
- NTU – Nephelometric Turbidity Units

GENERAL INFORMATION

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 water posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 (800-426-4791).

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 Carroll Water Department 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 at <http://www.epa.gov/safewater/lead>.

SOURCE WATER ASSESSMENT INFORMATION

The Carroll Water Department obtains its water from the Pleistocene and Dakota Sandstone aquifers. The Pleistocene and Dakota Sandstone aquifers were determined to have low susceptibility to contamination because the characteristics of the aquifer and overlying materials provide natural protection from contaminants at the land surface. The Pleistocene and Dakota Sandstone wells will have low susceptibility to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application. A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources and is available from the Carroll Water Department at 712-792-6753.

CONTACT INFORMATION

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we periodically need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We at the Carroll Water Department work to provide 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 at 792-6753, if you have questions.