CEDAR RAPIDS
City of Five Seasons®

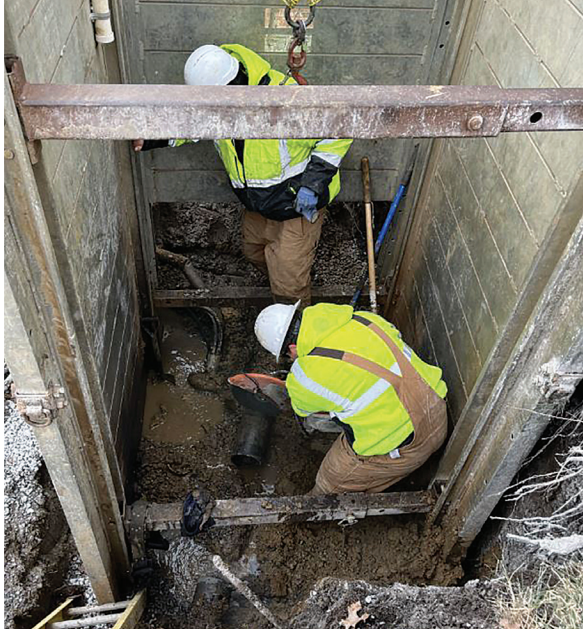
2024
Water Quality Report

Our Commitment to a Sustainable Future

The Cedar Rapids Water Division is dedicated to ensuring our community's long-term sustainability as a vibrant city where people live, work, and play. As part of this commitment, we have invested a total of nearly $146,000,000 over the past decade in system infrastructure, enhancing the treatment and distribution of clean, safe, and great-tasting drinking water. This investment reflects our ongoing efforts to provide high-quality water services today while preparing for the needs of future generations. Through innovation, efficiency, and responsible stewardship of resources, we remain focused on supporting the health and well-being of our community.

CityofCR.com/WaterQuality

Serving the City of Cedar Rapids, the City of Robins, the Glenbrook Cove Subdivision of Marion and the Poweshiek Water Association.

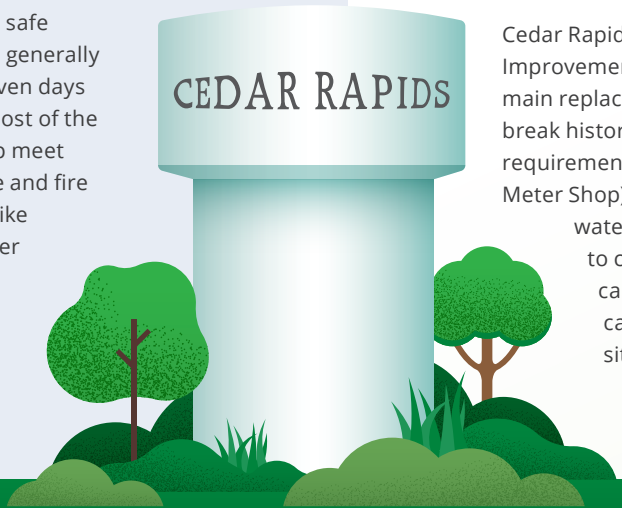


INFRASTRUCTURE IN A CITY OVER 175 YEARS OLD

Water Towers

Distribution storage tanks, commonly called "water towers" are critical to the many homes and businesses in our community; they provide adequate pressure and water storage with reliable and consistent water supply for each neighborhood pressure zone. The elevated structures use gravity to provide system pressure; water pressure can vary up to 10 psi depending on time of day and water level in the tank. During times of lower water use (like overnight), pumps refill the storage tank's water supply so that during times of high-water use (like mornings and evenings) water can be drawn from the tower with steady supply and pressure.

Each storage tank holds millions of gallons of clean and safe drinking water. Pumps generally run 24 hours a day, seven days per week to provide most of the water, while tanks help meet the need of high usage and fire demand. Some tanks like the one located in Bever Park, have pumps to push it to other tanks as needed.



Hydrant Flushing

WHY ARE HYDRANTS FLUSHED?

When a hydrant is flushed, large amounts of water are forced through the water mains at high speeds. Although this process can stir up rust and sediment settled in water mains, it ultimately improves disinfection. During routine flushing, hydrants and valves are tested, making certain they open and close properly, and ensure they are ready to be used in an emergency. In the event of a water main break, the corresponding lines are flushed through area hydrants to remove air from impacted water mains and verify the water is once again clear.

Flushing our city's fire hydrants improves water quality, system reliability, and firefighting readiness. Cedar Rapids proactively flushes hydrants in areas of low water use and dead-end sections of water main. Hydrants are maintained and flushed on a regular basis to ensure proper operation and reliability.

Water Mains

Cedar Rapids proactively replaces aging water mains within Capital Improvement Projects (CIPs) and the Paving for Progress program. Water main replacement is influenced by the line's age and material, applicable break history, potential water quality concerns, and fire mitigation flow requirements. Our distribution team (Water Distribution and Water Meter Shop) is on call all hours of the day and night to respond to water main breaks and repairs, ensuring the public has access to clean and safe drinking water. At times, water main breaks can cause water to cross the roadway. Remember to use caution when driving through a construction site when repairs are underway.

What's in Our Water?

The City of Cedar Rapids obtains its drinking water supply from wells constructed in sand and gravel deposits along the Cedar River. Those deposits form an underground, water-bearing layer called an alluvial aquifer. Because of continuous pumping of the City's wells, most of the water in the aquifer is recharged from the river. The rest of the water is supplied as water percolates up from a deeper bedrock aquifer, or down from the top of the ground. As the wells perform their work, your drinking water benefits from natural filtration through sand in the riverbank. This filtration has proven to be a beneficial pretreatment to water before it reaches the City's conventional lime-softening facilities.

LEAD INVENTORY

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 Cedar Rapids Water Division (CRWD) 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 and cooking. If you are concerned about lead in your water, you may have it tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available by calling the Safe Drinking Water Hotline: **1-800-426-4791** or by visiting **epa.gov/safewater/lead**.

NITRATES

How does nitrate end up in our water?

Nitrate is a dissolved form of nitrogen found in fertilizers and human and animal waste which can leach into groundwater and other water sources. Nitrates occur naturally in some waters. Over time, nitrates can infiltrate aquifers and contaminate groundwater.

Why is this important?

When present at elevated concentrations, nitrates are harmful to human health and have been linked to different types of cancers and thyroid disease. Nitrate levels tend to be higher in the spring and early summer during periods of rain and agricultural activities. Levels of nitrate in the City's drinking water have never violated the legal safety limit of 10 ppm, and the city continuously monitors levels to ensure safety. If levels exceed 10 ppm, the city will notify all users of the potential health risk particularly for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. If you are caring for an infant, ask for advice from your health care provider.

PFAS

Per- and Polyfluoroalkyl substances (PFAS) are also a group of substances that are becoming of increasing concern in drinking water. PFAS have been used in a variety of industries around the globe since the 1940s. When present, the chemicals are very persistent in the environment and in the human body, meaning they don't break down and can accumulate over time. Due to their persistence and wide use over the last several decades, they are now making their way into bodies of water and groundwater sources and becoming a contaminate of concern for the drinking water industry.

While primary human exposure is from several common household items: non-stick surfaces, waterproofing, grease-resistant coatings, stain-resistant coatings, cosmetics, and firefighting foams, we are diligently monitoring our city's water for PFAS levels. This ongoing monitoring is being performed by the CRWD. Monitoring includes sampling of the groundwater source wells and the drinking water supply.

The Environmental Protection Agency (EPA) is performing research and has set Maximum Contaminant Levels for six (6) PFAS specific compounds. The CRWD finished water has not had any detections in its treated drinking water thus far for these compounds. The CRWD took part in the EPA's Unregulated Contaminant Monitoring Rule (UCMR) program's fifth round of sampling in 2023. The program tested for 29 PFAS compounds and this testing will continue quarterly.

For more information on PFAS, visit **CityofCR.com/PFAS or epa.gov/pfas**.

Have Any Questions?

If you have any questions or concerns about our water quality or this report, we invite you to attend our upcoming public meeting.

RESIDENT APPRECIATION DAY

Join the City of Cedar Rapids in celebrating our residents! Come chat with our water team to receive a complimentary reusable water bottle and learn more about your drinking water. *Water bottles are available on a first come, first served basis.*

WHERE: Downtown Farmers' Market
WHEN: Saturday, June 7, 2025
TIME: 7:30 AM–Noon

AT-RISK POPULATIONS

It's important to be aware that some people may be more vulnerable than the general population to contaminants in drinking water. Immuno-compromised persons — those undergoing cancer chemo-therapy or organ transplants, some elderly or infants and people with HIV/AIDS or other immune system disorders — can be particularly at risk from infections.

We ask anyone that may be at risk to seek advice about drinking water from their health care providers. Guidelines from the EPA and Centers for Disease Control on appropriate steps to lessen the risk of infection by microbial contaminants and/or Cryptosporidium are available from the National Safe Drinking Water Hotline at **1-800-426-4791**.

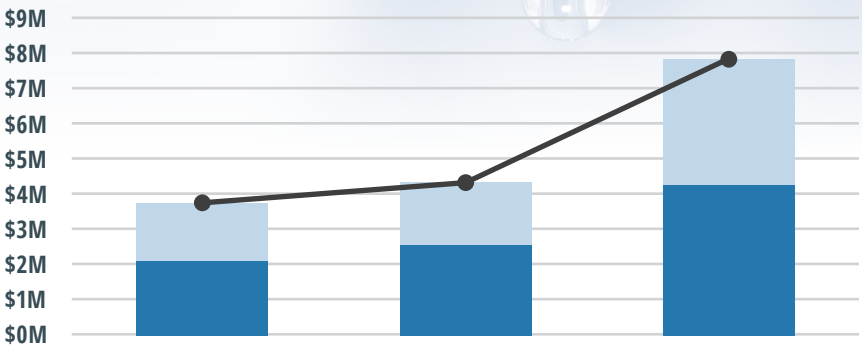
RISING COSTS FOR TREATMENT OPERATIONS

Rapidly rising expenses have become a painful reality for water treatment plants across the United States and the City of Cedar Rapids is no exception. Operations and maintenance costs, aging infrastructure demanding replacement, stocking spare parts, vendor services, and essential treatment elements like lime and chlorine are all showing significant cost increases nationwide.

In the last decade, operations and maintenance (O & M) have climbed dramatically, with much of the incline occurring in the last five years. Aging infrastructure continues to drive the need for equipment replacement and costly maintenance as some of our infrastructure dates back nearly a century, mirroring our J Avenue water treatment plant construction in 1929.

The Cost of Clean Water

2015–2024



	2015	2019	2024
CHEMICALS	$1,644,986.40	$1,880,202.41	$3,722,057.92
O & M	$2,031,274.58	$2,504,071.49	$4,144,476.65
TOTAL	$3,676,260.98	$4,384,273.90	$7,866,534.57

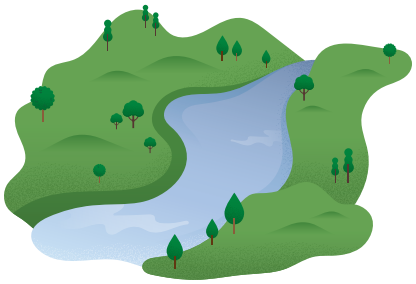
Treatment Plant Maintenance

Extensive training and ongoing diligence has enabled our maintenance team to maintain and overhaul many outdated components. But nothing lasts forever; much of the equipment needed to keep our water treatment plants running has reached their end of useful life and are requiring replacement. Our water division operates around the clock, 365 days per year, 24 hours per day. To avoid service interruptions, an inventory of critical parts must be held to enable the continuation of this essential service. This reality reinforces the ongoing need for further investment in system improvements.

**Images for educational purposes only — not to scale.*

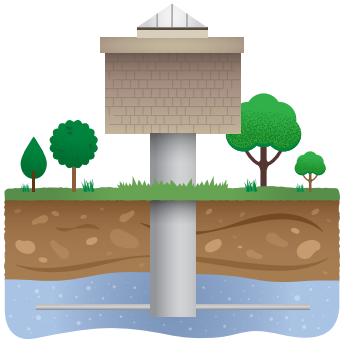
Our Water Treatment Process*

1



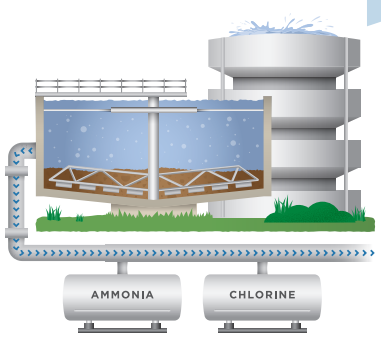
SOURCE WATER

2



COLLECTION WELL PUMPED FROM ALLUVIAL AQUIFER

3



AERATION, SOFTENING & SETTLING, CHLORAMINE DISINFECTION

Treatment Plant Compounds

Water treatment plant compounds are a necessity to keep our city's drinking water safe for consumption. As an example, the cost of chlorine, a critical chemical required by the U.S. Environmental Protection Agency (EPA) to assist in the disinfection process, has increased by 400%, totaling $752,000 to treat 15.037 billion gallons of drinking water in 2024. Chemical compound cost increases have been tied to supply chain disruptions, increased regulatory requirements, and shifts in global demand.

Professional Services

Water treatment plants depend on external skilled resources when unplanned maintenance needs require specific knowledge, workspace, tools, or time constraints. The City hires external vendors for a variety of services, including: oversized equipment repair (like large gearboxes or electric pump motors), which are sent to the vendor shop for repairs; collector well rehabilitation, which must be serviced by Iowa Department of Natural Resources (DNR) certified individuals or entities; and removal and responsible disposal of an inevitable waste byproduct of drinking water treatment that complies with regulations dictated in the EPA Surface Water Rules. The cost of this externally sourced labor has increased 210% from 2015 to 2024.

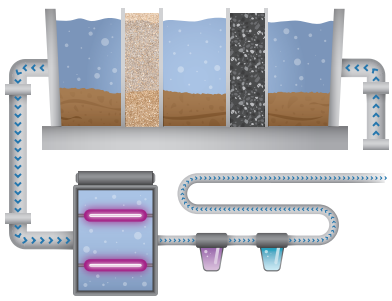
Energy Use and Conservation

The rising cost of utilities, such as electricity, has significantly impacted the operation of water treatment plants, with electric expenses in 2024 being 44% higher than in 2015. These rising costs put pressure on municipalities and utility providers, as energy-intensive processes like pumping and Ultraviolet disinfection require substantial power consumption. Advances in energy-efficient equipment, process optimization, and the integration of renewable energy sources, such as solar, have played a crucial role in reducing overall energy consumption, thereby helping mitigate the pass-through of even steeper increases to the municipality and our customer base.

In Summary

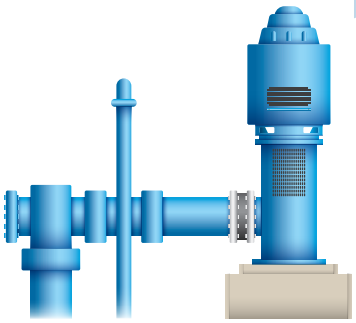
From 2015 to 2024, Cedar Rapids Water Treatment Plants' operations have faced steadily increasing costs due to aging infrastructure, rising professional service fees, and escalating chemical prices. The increase in chlorine costs highlights the financial strain of providing safe, great-tasting water to our community. To manage costs and remain fiscally responsible, plant staff and leadership engage in process improvement and optimizations around chemical usage, strategic planning, collaboration, and investment in cost-saving technologies. These ongoing efforts will continue to be essential in ensuring safe and affordable water treatment for our community.

4



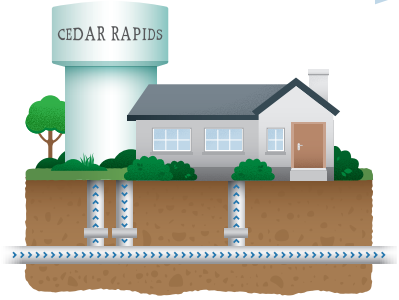
FILTRATION, UV LIGHT, CORROSION INHIBITOR, FLUORIDE ADDITION

5



PUMP STATIONS

6



WATER DISTRIBUTION

Water Quality Findings

This table summarizes required water quality monitoring results for regulated parameters that were detected in the 2024 calendar year. A comprehensive report of all water quality testing is available from the Water Division.

WATER TREATMENT PLANTS - FINISHED WATER

INORGANIC CHEMICALS	UNITS	MCL	MCLG	VIOLATION	J AVE. PLANT RANGE	J AVE. PLANT REPORTED	NW PLANT RANGE	NW PLANT REPORTED	SOURCE OF CHEMICAL
Arsenic	µg/L	10	0	NO	ND - 1.4	1.2	ND - 0.7	0.5	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Nitrate	mg/L	10	10	NO	0.5 - 6.0	6.0	0.0 - 9.0	9.0	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits
Nitrite	mg/L	1	1	NO	ND - 0.1	0.1	ND - 0.1	0.1	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits
Sodium	mg/L	NA	NA	NO	NA	13	NA	13	Erosion of natural deposits; Added to water during treatment process
Fluoride	mg/L	4	4	NO	0.1 - 0.8	0.8	0.1 - 0.8	0.8	Additive promoting strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
ORGANIC CHEMICALS					RANGE	REPORTED	RANGE	REPORTED	
Atrazine	µg/L	3	3	NO	ND - 0.5	0.1	ND - 0.3	0.1	Runoff from herbicide used on row crops
TREATMENT TECHNIQUE INDICATORS					RANGE	REPORTED	RANGE	REPORTED	
Total Organic Carbon	Removal Credits	TT	NA	NO	0.5 - 3.2	1.9	1.6 - 3.5	2.2	Naturally present in the environment
					Running Annual Average TOC Credits must be > 1.0				
Turbidity	NTU	TT	NA	NO	0.02 - 0.50	0.50	0.02 - 3.07	3.07	Soil runoff
	Cannot exceed 1.0 NTU; Monthly < 0.3 NTU 95% of measurements				% > 0.3 NTU		% > 0.3 NTU		
					99.98		99.99		

UNREGULATED AND SECONDARY CHEMICALS

INORGANIC CHEMICALS	UNITS	MCL	MCLG	J AVE. PLANT RANGE	J AVE. PLANT AVG	NW PLANT RANGE	NW PLANT AVG	SOURCE OF CHEMICAL
Chloride	mg/L	NA	250	31.2 - 45.1	37.9	20.0 - 43.4	35.9	Erosion of natural deposits; Runoff
Copper	mg/L	NA	1.0	ND - 0.05	0.002	ND - 0.07	0.010	Corrosion of household plumbing; Erosion of natural deposits
Iron	mg/L	NA	0.3	ND - 0.15	0.07	ND - 0.18	0.08	Corrosion of household plumbing; Erosion of natural deposits
Manganese	µg/L	NA	50	6.9 - 43.3	19.5	ND - 16.8	0.4	Corrosion of household plumbing; Erosion of natural deposits
Sulfate	mg/L	NA	250	25.5 - 71.2	34.1	20.0 - 70.6	35.0	Erosion of natural deposits
Zinc	mg/L	NA	5	0.15 - 0.23	0.19	0.17 - 0.25	0.20	Corrosion of household plumbing; Erosion of natural deposits
ORGANIC CHEMICALS				RANGE	AVG	RANGE	AVG	
Chloroform	µg/L	NA	70	0.9 - 1.8	1.4	1.3 - 2.5	1.8	By-product of drinking water disinfection
Bromodichloromethane	µg/L	NA	0	ND - 0.6	0.4	0.7 - 1.0	0.8	
Bromoacetic Acid	µg/L	NA	NA	NA	ND	ND - 1	0.3	
Dichloroacetic Acid	µg/L	NA	0	NA	2	1 - 2	1.8	
Metolachlor	µg/L	NA	NA	ND - 0.3	0.08	ND - 0.4	0.09	Runoff from fertilizer used on row crops
RADIONUCLIDES				RANGE	REPORTED	RANGE	REPORTED	
Radon	pCi/L	NA	0	47 - 76	71	29 - 60	38	Erosion of natural deposits
Radium 226	pCi/L	5	0	NA	0.08	NA	ND	
Radium 228	pCi/L	5	0	NA	0.6	NA	ND	

DISTRIBUTION SYSTEM MONITORING

LEAD AND COPPER RULE	UNITS	ACTION LEVEL (AL)	MCLG	VIOLATION	RANGE	90TH PERCENTILE	95TH PERCENTILE	SAMPLES EXCEEDING AL	SOURCE OF CHEMICAL
Lead	µg/L	15	0	NO	ND - 24.1	2.6	4.6	1	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	mg/L	1.3	1.3	NO	ND - 0.10	0.071	0.074	0	

REVISED TOTAL COLIFORM RULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total Number of Samples/Month	139	152	140	148	140	134	159	141	132	158	134	131
Number of Positive Coliform Samples/Month	0	0	0	1	0	0	1	0	0	0	0	0
Level 1 Assessment Required	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Meets Monthly MCL of < 5% Positive Coliform/Month	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

INORGANIC CHEMICALS	UNITS	MRDL	MRDLG	VIOLATION	RANGE	REPORTED	SOURCE OF CHEMICAL
Nitrite	mg/L	1	1	No	ND - 0.1	0.1	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits

DISINFECTANT & DISINFECTION BY-PRODUCTS	DISTRIBUTION SYSTEM					
	Units	MRDL	MRDLG	VIOLATION	RANGE	REPORTED	SOURCE OF CHEMICAL
Total Chlorine Residual	mg/L	4	4	NO	1.9 - 3.8	3.2	Water additive used to control microbial growth
	Units	MCL	MCLG	VIOLATION	RANGE	REPORTED	
Total Trihalomethanes (TTHM)	µg/L	80	NA	NO	ND - 3.9	3.1	By-product of drinking water disinfection

**Highest Locational Running Annual Average at Site DB01*

Source Water

Source Water Assessment Information: This water supply obtains its water from the sand and gravel of the Alluvial aquifer of the Cedar River. The Alluvial aquifer was determined to be highly susceptible to contamination because the aquifer characteristics and the overlying materials provide little protection from contamination at the land surface. The Alluvial wells will be highly susceptible to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application. A detailed evaluation of the source water supply was completed by the IDNR, and is available by contacting the public water supply at 319-286-5975. *Information about work being done to help minimize contamination of the source water supply can be found at **CityofCR.com/Watershed**.*

	Arsenic µg/L	Total Coliform cfu/100ml	E.coli cfu/100ml	Lead µg/L	Copper µg/L	Zinc µg/L	Manganese µg/L	Iron µg/L	Sodium mg/L	Nitrate mg/L	Radon pCi/L	TOC mg/L
2020 Annual Average	2.7	2	<1	ND	7.1	0.9	120	289	10.2	3.3	297	1.6
2021 Annual Average	2.7	4	<1	0.01	9.5	3.2	479	310	13.0	2.0	295	1.5
2022 Annual Average	2.2	4	<1	0.01	7.8	3.8	310	410	12.8	3.2	266	2.4
2023 Annual Average	1.5	16	<1	ND	23.4	5.2	252	311	12.9	2.0	286	3.2
2024 Annual Average	1.6	2	<1	0.00	45.4	9.8	283	333	16.4	2.7	263	2.8

ACRONYMS

AVG: Average
ND: Not Detected
MRDL: Maximum Residual Disinfectant Level
NR: Not Regulated
mg/L: Milligrams per liter or parts per million
µg/L: Micrograms per liter or parts per billion
pCi/L: Picocuries per liter
cfu/mL: Colony-forming unit per milliliter
MCL: Maximum Contaminant Level
MCLG: Maximum Contaminant Level Goal
NA: Not Applicable
NTU: Nephelometric Turbidity Unit
MRDLG: Maximum Residual Disinfection Level Goal
HLRAA: Highest Locational Running Annual Average
RAA: Running Annual Average

An important message from the Environmental Protection Agency:

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. That's because as the water we draw from — lakes, rivers, streams, ponds, reservoirs, springs and wells — travels over the surface of the land or through the ground, it picks up naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or from human activity. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791 or visiting the website at www.epa.gov/ogwdw. 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.

Frequently Asked Questions

What is the fluoride concentration, and why is it added?

Fluoride is added during the treatment process to help prevent dental cavities. The optimal concentration is maintained at 0.7 parts per million (ppm) with a range of 0.6-0.9 ppm as recommended by the U.S. Department of Health and Human Services.

My toilet tank and inside of my dishwasher are stained dark brown to black. Is my water safe to drink?

The dark staining is likely due to the corrosion-control chemical added during treatment. Its purpose is to lay a protective coating on the insides of pipes so water never comes in contact with the pipe, thereby reducing the risk of dissolving lead or copper into the drinking water. It has been tested extensively and no health or safety concerns have been identified.

My water throughout the entire house tastes and smells musty or stale.

Sometimes in low-use areas or dead-end main areas, the water does not get circulated as it should. Where this is the case, the distribution crew can be notified to flush hydrants in the area to help bring in fresh water.

The water is discolored yellow or cloudy/milky. Does this mean it is unsafe?

Discoloration of water as light brown or yellow is a result of maintenance and flushing activity. Natural sediment gets stirred up and will clear as it settles. Milky, cloudy, or white water, especially if it clears from the bottom up when put in a glass, is an indication that air has gotten into the plumbing and is not harmful. A thorough flush of two or three cold water taps at the same time for a few minutes can help release the trapped air. Sediment and discoloration will clear as it has time to settle back out. If the discoloration remains, staff can be notified to flush the water mains in the area.

Why is there slimy pink or orange stuff in my water or on a surface near water?

This is a common occurrence, stemming from an airborne organism that collects on moist surfaces and forms growing colonies, usually around drains, toilets, sink fixtures, pet water dishes, showers, and shower curtains. This substance does not pose any additional health risks, given that it is already found in the air we breathe. The best way to reduce the growth of these organisms is to use cleaners that contain bleach.

Why is my household water filter brown?

Due to the age of the Cedar Rapids water system, the Iowa Department of Natural Resources requires the Cedar Rapids Water Division (CRWD) to have a corrosion control process. This is a chemical addition that prevents the leaching of lead, copper, and other metals from water pipes and fixtures.

Zinc-orthophosphate is continuously added in very low doses to form a protective coating on the inside of pipes, service lines, and household plumbing. This coating keeps lead and copper levels low. However, this process can also turn filters brown and cause filters to last a shorter length of time than advertised. CRWD treats water with a softening process, eliminating the need for water softeners. We also meet or exceed all state and federal regulations, which eliminates many of the reasons to use a home filtration system.

What should I expect if my water is shut off due to a water main break?

Water main breaks are often indicated by a lack of water at the tap or water bubbling to the surface of neighborhood streets. This may prompt a water service disruption to your home or business.

Repair crews attempt to reach all homes, businesses, and apartments prior to shutting off water, except in emergencies. Crews leave a door hanger at the property which explains what to do if water is shut off. It generally takes repair crews 8-12 hours to fix a break and restore water service. If air or particles are coming out of your drinking tap, run water for several minutes to flush the line.

If you receive a precautionary boil advisory notice, follow these steps before consuming tap water: **1)** Bring water to a boil, **2)** Let water boil rapidly for at least one minute, **3)** Allow to completely cool before consuming, **4)** Check City website for advisory status updates, or call Water Customer Service at **319-286-5900**.

If precautionary advisories are in place, bacteria testing will be done. In most cases, it takes two days for a bacterial contamination sample to return. If the sample shows no contamination in the water, another information sheet is issued, indicating an All Clear. Information will be posted to the City's website (**CityofCR.com**) if a precautionary boil advisory notice is issued.

How much will it cost me to flush my water lines?

Running all faucets for 30 minutes costs ~$1 to $2.

2024 WATER REPORT SHOWS

100% COMPLIANCE

The Water division achieved 100% compliance with the Iowa Department of Natural Resources' water quality expectations in 2024. This marks the seventh consecutive year the division earned this distinction. Cedar Rapids residents can be proud of the exceptional standards upheld by their Utilities Department every day.

QUESTIONS?

If you have questions or concerns about our water quality or this report, please contact Water Division Customer Service. We are happy to help identify issues and resolve your concerns.

319-286-5900

watermail@cedar-rapids.org

Glossary

Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Arsenic: The EPA recently lowered the arsenic Maximum Contaminant Level (MCL) to 10 ppb. Trace amounts of arsenic are occasionally detected in your drinking water at levels well below this more stringent standard. Arsenic is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Coliform: A bacteria originating in the digestive system of mammals. Its presence in water alerts lab technicians that disease-causing agents may be present.

Colony-forming unit: Where a colony of microbes grow on a petri dish, form one single microbe.

Compliance: Following all rules and regulations defined in the Safe Drinking Water Act and maintaining water quality below MCLs.

Contaminant: One of a variety of natural or man-made physical, chemical, biological or radiological substances whose presence in public water systems may cause adverse health effects to consumers.

Detection: The positive identification of the presence of a particular contaminant. Detection of a contaminant does not necessarily represent a serious health risk to consumers if the concentration is below the MCL.

Disinfection: Killing the larger portion of microorganisms in water, with the probability that the disinfecting agent kills all disease-causing bacteria.

Drought: A period of unusually persistent dry weather that persists long enough to cause serious problems such as crop damage and/or water supply shortages.

Filtration: A treatment process that physically removes particles from water as the water passes through a medium.

Groundwater: The supply of fresh water found beneath the earth's surface, usually in aquifers. Groundwater is often used to supply wells and springs.

Herbicide: A chemical agent used to kill plants, especially weeds. Used widely in agriculture.

Highest Locational Running Annual Average (HLRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Immunocompromised: A physical condition in which the human immune system becomes less capable of warding off illness or infection.

Inorganic: Composed of or involving organisms (or their remains or products) that are not living. Examples of inorganic substances include minerals, rocks and salt.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goals (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.

Maximum Residual Disinfection 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.

Maximum Residual Disinfection Level Goal (MRDLG): The level of 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.

Microbial: A group of microorganisms such as bacteria, protozoa and viruses.

Nephelometric Turbidity Unit (NTU): A unit of measure used to determine the clarity of drinking water.

Organic: Of, pertaining to or derived from living organisms. Organic matter contains carbon, hydrogen and oxygen. Examples include humans, plants and animals.

Particulates: Of or relating to minute separate particles.

Pesticides: Any substance or chemical applied to kill or control pests, including weeds, insects, algae, rodents and other undesirable agents.

Radionuclides: Naturally occurring and human-made radionuclides are present throughout the environment. They are found in varying amounts in soil, water, indoor and outdoor air — and even within our bodies — making exposure inevitable. State and Federal regulations establish safe drinking water maximum contaminant levels for a variety of radionuclides. Monitored contaminants include Gross Alpha Radiation, Radium-226, Radium-228, and Combined Radium radionuclides. The existing treatment process does not reduce or remove these contaminants. Except in extreme circumstances, radiation resulting from the ingestion of radionuclides in drinking water is far lower than radiation resulting from other sources of exposure, like radon found in some basements. Radon is a radionuclide classified as an unregulated contaminant. During the aeration treatment stage, radon can be removed from the water source. Additional information about Radon and aeration is included in this report. The concentration of radionuclides found in our water is well within safe regulatory guidelines.

Radon: Radon is a radioactive gas that you can't see, taste or smell. It is found throughout the United States. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also increase the risk of stomach cancer. Radon can build up to high levels in all types of homes. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can also be released into indoor air from tap water when showering, washing dishes, and performing other household activities. A radon level less than 4 picocuries per liter of air (pCi/L) is considered safe. Between 0.0019 – 0.0070 pCi/L of radon may enter the air from City tap water — far less than radon entering homes through the foundation. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy.

For additional information, call your state radon program (800-838-5992) or the EPA's Radon Hotline (800-767-7236).

Running Annual Average (RAA): An average of sample analytical results for samples taken during the previous four calendar quarters.

Surface water: All water naturally open to the atmosphere and all springs, wells or other collectors that are directly influenced by surface water. Water located close to the earth's surface.

Total Organic Carbon (TOC): Amount of carbon found in an organic compound; used as an indicator of water quality.

Revised Total Coliform Rule (RTCR): Revised compliance rule that aims to increase public health protection through reduction of pathways for contamination; find-fix-document.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Turbidity: Turbidity is a measure of the cloudiness of water. Turbidity is a good indicator of treatment filter performance and is regulated as a Treatment Technique.

Violation: Exceeding the MCL of a contaminant regulated by the federal government; failure to properly monitor or report regulated contaminants would also be considered a violation.