

City of Oklahoma City Drinking Water Quality Report 2023



INFORME DE CALIDAD DEL AGUA



The City of
OKLAHOMA CITY
Utilities Department



Published June 2024

Service is our mission

Reliable, treated drinking water is vital to a thriving community. It contributes to public health and safety, protects citizens from waterborne illness, supports agriculture and economic prosperity, and is essential to our everyday lives.

As the state's largest regional water provider, the Oklahoma City Water Utilities Trust (OCWUT) treats and delivers an average of 100 million gallons of fresh drinking water every day to more than 1.4 million people in 18 different communities in Central Oklahoma.

More than 800 dedicated employees with the Oklahoma City Utilities Department work to ensure our customers receive the highest-quality drinking water each time they open their tap. Part of that work includes keeping you informed about the quality of the drinking water we deliver; where it comes from, how it is treated, and how we ensure it meets the State and Federal regulatory guidelines for safety.

We provide this Drinking Water Quality Report (aka Consumer Confidence Report) on an annual basis as part of our commitment to upholding the regulatory guidelines of the U.S. Environmental Protection Agency (EPA) and Oklahoma Department of Environmental Quality (ODEQ).

Our employees take great pride in what we do. From testing and treating our water at the source and in our plants, to working tirelessly to maintain the more than 4,000 miles of pipe

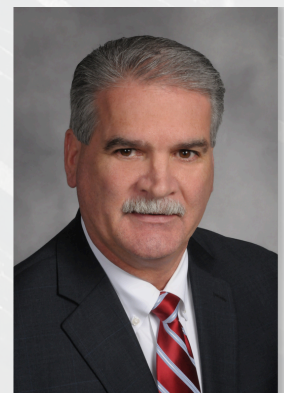
that make up our water distribution system, we remain dedicated to providing our customers with the best water possible through best practices in water management and operations.

To help build system resiliency, we are currently working toward the completion of a 10-year, \$3.3 billion infrastructure improvement plan, which includes \$900 million for the new 72-inch second Atoka pipeline, as well as treatment plant improvements and a system interconnect project to build redundancy throughout our treated water distribution system.

Such investment is one reason we continually receive exceptional marks from not only our customers, but investment services Standard & Poor's and Moody's, who reaffirmed our AAA/Aaa ratings earlier this year.

If you have questions about this report or would like to know more about our treatment process, please contact our Environmental Laboratory at (405) 297-3056.

Chris Browning
OCWUT Manager



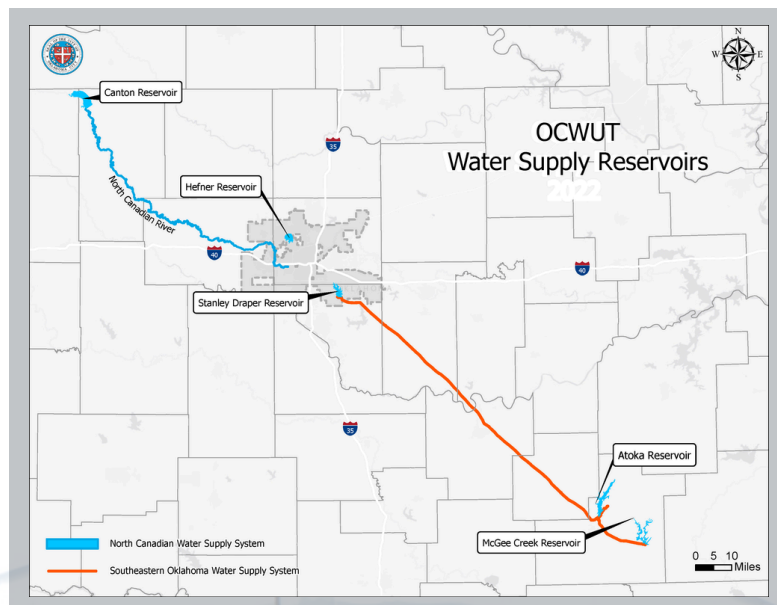
From the Source

Oklahoma City's water system started in 1889 when our city was little more than a bustling makeshift town on the prairie. More than 100 years later, and thanks to the ongoing commitment of visionary leaders who understood the need to expand our supply for future generations, Oklahoma City's supply is set to stand the test of time.

Our drinking water is sourced from five surface reservoirs along a 250-mile span between northwest and southeast Oklahoma. Reservoirs include the Canton Reservoir in northwest Oklahoma, McGee Creek and Atoka Reservoir in the southeast, and the Hefner and Stanley Draper Reservoirs in Oklahoma City.

Raw water accumulates in reservoirs from spring and summer rains. As it travels over the ground, it picks up naturally-occurring minerals found in rocks and soil, plus pesticides or herbicides used in farming, and bacteria from human or animal activity before reaching our reservoirs.

Water from Canton flows into the North Canadian River and is diverted to the Hefner reservoir for treatment. Water from southeast Oklahoma travels through the 100-mile Atoka pipeline constructed in 1962 and empties into the Stanley Draper Reservoir for treatment at the Draper Treatment Plant.



SOURCE WATER CONTAMINANTS:

The EPA regulates the amount of contaminants in water provided by public water systems to ensure tap water is safe to drink. Some contaminants may cause questions related to color, taste or odor, but are not necessarily reasons for health concerns.

- **Viruses and bacteria** from wastewater treatment plants, septic systems, agricultural livestock and wildlife.
- **Inorganic contaminants** such as salts and metals, which can be naturally occurring or result from stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, or farming.
- **Pesticides or herbicides** that may come from agriculture, urban stormwater or residential use.
- **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or the result of oil and gas production or mining.

OCMUT has an agreement to deliver water from the City of Edmond to serve residents in The Falls neighborhood (NE 150th/E 33rd Street and N Post Road). To see a copy of their report, visit edmondok.com.



People with Health Concerns

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, and some elderly and infants can be particularly at risk of infections. These people should seek advice about drinking water from their healthcare providers. The EPA and Centers for Disease Control guidelines on appropriate ways to lessen the risk of infection by *Cryptosporidium* (an intestinal parasite that can be fatal in some immune-compromised persons) and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.



Meeting the Test



From the source to your home, Oklahoma City's water quality operators go to great lengths to deliver clean, great-tasting tap water seven days a week, twenty-four hours per day. It's a responsibility we take seriously.

Oklahoma City's water is treated continuously at our two water treatment plants, Hefner and Draper. Raw water is pulled from the Hefner and Draper reservoirs, where it is filtered to remove harmful bacteria and contaminants. It is then disinfected using a small amount of chlorine and ammonia before being pushed out into our distribution system. Fluoride is also added to help prevent tooth decay as part of our participation in the U.S. Community Fluoridation Program.

Operators run quality control tests throughout the process to ensure treatment accuracy. Environmental chemists with the City's water quality laboratory conduct weekly tests at each plant and pull monthly tests from 260 state-approved sample sites located throughout the distribution system. Data is reported monthly to the Oklahoma Department of Environmental Quality (ODEQ). Staff work closely with the ODEQ and EPA to ensure water regulatory and safety guidelines are met as part of the Safe Drinking Water Act of 1974.

2023 By the Numbers



40 Billion
Gallons of water treated



203,000
Drinking water samples collected



0
Drinking water violations



Habla español?

Esta información sobre su servicio de agua es importante. Visite nuestra página web o hable con alguien que lo pueda ayudar a traducir.

Mandatory Lead Information

There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups, especially pregnant people, infants (both formula-fed and breastfed), and young children. Some of the health effects to infants and children include decreases in IQ and attention span. Lead exposure can also result in new or worsened learning and behavior problems. The children of persons who are exposed to lead before or during pregnancy may be at increased risk of these harmful health effects. Adults have increased risks of heart disease, high blood pressure, or kidney or nervous system problems. Contact your health provider for more information about your risks.



Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Oklahoma City 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 the 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 www.epa.gov/safewater/lead.

Revised Lead and Copper Rule: In 2023, the Oklahoma City Water Utilities Trust launched a pilot program to inventory a select number of water service lines in our distribution system as part of new mandatory guidelines related to the EPA's Revised Lead and Copper Rule. The rule requires service lines (both public and private) be inventoried. The inventory will be published in October 2024.

For more information, visit okc.gov/utilities.

How to Read Your Water Quality Report

The year(s) tests were conducted.		Below this level a contaminant has no known or expected health risks.		Highest amount of a contaminant EPA allows in drinking water.			How a contaminant ends up in Oklahoma City's drinking water.	
Year Sampled	Contaminant	Highest Average	Range of Levels	MCLG	MCL	Units	Violation	Possible Source(s) of Contaminant
2023	Substance 1	0.05	0.02-0.11	2	4	ppm	N	Discharge of drilling wastes or metal refineries; erosion of natural deposits.
2023	Substance 2	2.4	0-3.4	No goal for the total.	60	ppb	N	By-product of drinking water disinfection.

The amount from lowest to highest of a contaminant detected in Oklahoma City's drinking water.

Parts per billion—one ppb equals to one teaspoon in 1,302,000 gallons.

Parts per million—one ppm equals to one teaspoon in 1,302 gallons.

What is a contaminant?

Put simply, a contaminant in water is anything other than hydrogen or oxygen, or H₂O, the two hydrogen atoms and one oxygen atom that make up one water molecule. Contaminants do not mean there is a health risk. They simply mean there is something else in the water besides the elements that make up the water.

Oklahoma City Utilities - Water Quality Summary 2023

DETECTED CONTAMINANTS	UNITS	IDEAL GOAL (EPA'S MCLG)	HIGHEST LEVEL ALLOWED (EPA'S MCL)	HEFNER WTP PWS ID 1020902	DRAPER WTP PWS ID 1020902B	COMPLIANCE	MAJOR SOURCES IN DRINKING WATER
Inorganic Compounds							
Fluoride ¹	ppm	4	4	Average level detected in most recent testing - 2022		YES	Added during treatment for dental health or dissolved from natural deposits
				0.57	0.58		
Lead	ppb	0	AL = 15	Most recent systemwide distribution testing		All Sites < AL YES	Corrosion of household plumbing; erosion of natural deposits
				August 2023 - 90th Percentile = <1.00			
Barium	ppm	2	2	Highest level, most recent testing - 2022		YES	Discharge of Drilling Wastes; discharge from metal refineries; erosion of natural deposits
				0.043	0.092		
Copper	ppm	0	AL = 1.3	Most recent systemwide distribution testing		All Sites < AL YES	Corrosion of household plumbing; erosion of natural deposits
				August 2023 - 90th Percentile = 0.184			
Arsenic	ppb	0	10	Highest level, most recent testing - 2022		YES	Erosion of natural deposits; runoff from orchards; runoff from electronics and glass production wastes
				< 5	< 5		
Nitrate-Nitrite ²	ppm	10	10	Highest level, most recent testing - 2023		YES	Runoff from fertilizer; leaching from septic tanks, sewage or erosion of natural deposits
				0.371	0.015		
Radiological							
Gross Alpha	pCi/L	0	15	Highest level, most recent testing - 2023		YES	Decay of natural and man-made deposits
Gross Beta	pCi/L	0	50	<1.22	2.14		
Radium 226	pCi/L	0	5	6.17	4.56		
Radium 228	pCi/L	0	5	< 1.00	0.58		
Uranium	ppb	0	30	2.49	1.15		
				< 1.0	< 1.0		
Disinfection By-Products Stage 2 Rule Monitoring ³							
Total Trihalomethanes ⁴	ppb	0	80 (LRAA)	Most recent systemwide distribution testing 2023		YES	By-product of drinking water disinfection
				Highest Locational Running Annual Average (LRAA)			
				12716 NE 36th St (Draper) - 71.74			
				Range Detected: 12.14 - 71.74			
				Highest quarterly average (LRAA)			
				30.46	71.74		
				Range detected			
				4.85 - 36.79	49.84 - 82.91		
Haloacetic Acids ⁴	ppb	0	60 (LRAA)	Most recent systemwide distribution testing 2023		YES	By-product of drinking water disinfection
				Highest Locational Running Annual Average (LRAA)			
				15200 NW 36th St - 42.03			
				Range Detected: 2.48 - 42.03			
				Highest quarterly average (LRAA)			
				9.64	42.03		
				Range detected			
				0.00 - 26.52	5.12 - 43.26		
Bromate ⁵	ppb	0	10 (RAA)	Highest quarterly average (RAA) - 2.56		YES	By-product of disinfection by ozone Only Hefner Plant uses Ozone
				Range detected < 2.00 - 3.48			
Precursor Removal							
Total Organic Carbon ⁶ (TOC)			TT = Ratio must be greater than or equal to 1.00 for compliance	Average of monthly ratios		YES	Naturally occurring
				1.801	0.382		
				Monthly Ratio = (% TOC removed) divided by (% TOC removal required)			
Disinfection Residual							
Chloramines as Chlorine ⁷	ppm	NA	MRDL	Average readings		YES	Water additive used to control microbes
			4.0	3.64	3.47		
			Range detected	3.49 - 3.79	3.22 - 3.72		
Microbiological							
Coliform Bacteria	CFUs % positive	0	Presence of Coliform bacteria in <5% of samples	2023 System-wide distribution testing Month having the highest % positive - October October had 2 positive samples in 241 samples - 0.83% 3 positive Coliform results in 2901 samples 0.103 % occurrence		YES	Naturally present in the environment
Clarity							
Turbidity ⁸	NTU % > 0.3	NA	TT = > 0.3 NTU in not more than 5% of samples	Lowest monthly % of samples with < 0.3 NTU		YES	Lime and/or calcium carbonate particles from softening efforts; soil runoff
				100.0%	100.0%		
				Highest single reading			
				0.26	0.24		
Long Term 2 Enhanced Surface Water Treatment Rule							
Cryptosporidium ⁹	cysts/L	0	NA	Most recent testing 2016-2017. Source water averages are <0.075 cysts/L, which is considered low risk category.		YES	Storm runoff, agricultural runoff and leaking sewage systems
Detected UCMR4 Analytes (2018-2020) ¹⁰							
Manganese	ppb	NA	NA	Average readings		NA	Naturally-occurring element; used in steel production, fertilizer, batteries and fireworks; drinking water and waste water treatment chemical; essential nutrient.
				2.37	< 0.400		
				Range detected			
				< 0.400 - 4.32	< 0.400		
Germanium	ppb	NA	NA	Average readings		NA	Naturally-occurring element; a byproduct of zinc ore processing; used in infrared optics, fiber-optic systems, electronics and solar applications.
				0.130	< 0.300		
				Range detected			
				< 0.300 - 0.519	< 0.300		
Regulated HAA5 ¹¹	ppb	NA	NA	Highest locational average		NA	By-product of drinking water disinfection
				7.81	44.96		
				Range detected			
				3.29 - 11.16	20.75 - 64.57		
HAA6Br ¹²	ppb	NA	NA	Highest locational average		NA	By-product of drinking water disinfection
				9.85	9.16		
				Range detected			
				3.28 - 14.49	5.75 - 10.29		
HAA9 ¹³	ppb	NA	NA	Highest locational average		NA	By-product of drinking water disinfection
				12.75	52.56		
				Range detected			
				4.88 - 17.90	26.29 - 69.50		

Definitions and Abbreviations used in the Water Quality Summary

EPA – US Environmental Protection Agency

MCL – Maximum Contaminant Level is the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG – Maximum Contaminant Level Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow a margin of safety.

MRDL – Maximum Residual Disinfectant Level is the highest level of a disinfectant allowed in drinking water based on an annual average and does not apply to individual samples. There is convincing evidence that addition of a disinfectant is necessary to control microbial contaminants. Compliance with the MRDL is calculated as a Running Annual Average (RAA).

MRDLG – Maximum Residual Disinfectant Level Goal is 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 contamination.

ODEQ – Oklahoma Department of Environmental Quality

RAA – Running Annual Average is the average of the last 12 months or last 4 quarters that the facility is in operation. Disinfectants and disinfection by-products monitored in this way are Total Trihalomethanes, Haloacetic Acids, Bromate and Chloramines.

LRAA – Locational Running Annual Average is the average of the last 12 months or last 4 quarters for each identified monitoring location in the distribution system. This differs from past requirements, which determined compliance by calculating the RAA of samples from all monitoring locations across the distribution system. Total Trihalomethanes and Haloacetic Acids are monitored in this way.

AL – Action Level

TT – Treatment Technique - a required process intended to reduce the level of a contaminant in drinking water.

NTU – Nephelometric Turbidity Units (a measure of clarity)

pCi/L – picocuries per liter (a measure of radioactivity)

ppm – parts per million or milligrams per liter (mg/L)

ppb – part per billion or micrograms per liter (µg/L)

CFU – Colony Forming Units

< - less than, > - greater than

Footnotes Monitoring Frequency Note:

The state has set forth enforceable regulations on how often contaminants must be monitored and tested. Some of our data, though representative, is more than one year old.

ODEQ monitors and tests the following Inorganic Compounds and Radiological Compounds for Oklahoma City Utilities: Barium, Arsenic, Gross Alpha, Gross Beta, Radium 226 + 228 and Uranium.

Required Sampling Frequency:

Every 9 years - Fluoride, Barium and Arsenic

Every 6 years – Radionuclides

1. Fluoride: Monitored every 12 hours at each Water Treatment Plant. The highest single reading for 2023 at each plant was below the MCL and considered a safe level.

Draper – Highest single reading = 0.94 ppm. Average fluoride concentration for 2023 = 0.69 ppm

Hefner – Highest single reading = 1.64 ppm. Average fluoride concentration for 2023 = 0.69 ppm

2. Nitrate-Nitrite: Measured as the sum of Nitrate-N and Nitrite-N.

3. Disinfection By-Products Stage 2 Rule Monitoring: U.S. water utilities are required to continuously improve the quality of water delivered to customers. The US Environmental Protection Agency and the Oklahoma Department of Environmental Quality enforce drinking water laws and develop long-range improvement activities. In 2009, Oklahoma City collected information on how THMs and HAAs change in the water system and is working with EPA and DEQ to decrease the numbers.

4. Total Trihalomethanes and Haloacetic Acids: The MCL is based on the RAA; therefore, the MCL does not apply to individual samples that are allowed to be higher than the MCL.

5. Bromate: The MCL is based on the RAA; therefore, the MCL does not apply to individual samples that are allowed to be higher than the MCL. Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.

6. Total Organic Carbon: Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. These by-products include Trihalomethanes (THMs) and Haloacetic Acids (HAAs). Drinking water containing these by-products in excess of the MCL (Maximum Contaminant Level) may lead to adverse health effects. TOC compliance is based on the percent TOC removed, not the total amount present. The starting TOC at the Draper Treatment facility is low; therefore, the potential for formation of THMs and HAAs due to TOC is low. The THM and HAA values for the Draper Treatment facility are below the LRAA MCL, which is currently considered a safe level for these disinfection by-products. Draper Treatment facility uses an alternative method (SUVA analysis) for meeting TOC removal criteria.

7. Chlorine: Compliance with the 4.0 mg/L MRDL is based upon an annual average; therefore, the MRDL does not apply to individual samples that are allowed to be higher than the MRDL.

8. Turbidity: Turbidity is a measure of the cloudiness or clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

9. Cryptosporidium: Cryptosporidium is a microbial pathogen found in surface water throughout the United States.

Cryptosporidium is part of the Long Term 2 Enhanced Surface Water Treatment Rule and testing was required for a consecutive 24 months. Our testing was completed in December of 2017. Source water averages are <0.075 cysts/L, which are considered low-risk category.

10. UCMR4: EPA uses the Unregulated Contaminant Monitoring (UCM) program to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Every five years EPA reviews the list of contaminants, largely based on the Contaminant Candidate List. The SDWA Amendments of 1996 provide for:

- Monitoring no more than 30 contaminants every five years
- Monitoring only a representative sample of public water systems serving less than 10,000 people
- Storing analytical results in a National Contaminant Occurrence Database (NCOD).
-

The fourth UCMR was published in 2016 and required monitoring between 2018 and 2020.

11. Regulated HAA5: Haloacetic Acids – Were included in the program to gain a better understanding of co-occurrence with currently unregulated disinfection byproducts. HAA5 includes dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid.

12. HAA6Br: includes bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, tribromoacetic acid.

13. HAA9: includes bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, trichloroacetic acid.

Oklahoma City Water Utilities Trust

Our Mission

We are committed to providing water, wastewater, and trash collection services throughout Central Oklahoma to safeguard public health and the environment, support public safety, and enable economic prosperity.

About OCWUT

The Oklahoma City Water Utilities Trust (OCWUT) oversees and approves policies for water, wastewater, and trash collection for customers served by the City of Oklahoma City. The public is welcome to attend OCWUT meetings, which are held two times monthly at 2 p.m. inside City Council Chambers located inside City Hall at 210 North Walker Ave. Live web streams of the meetings are available to watch on the City's Youtube channel @cityofokc. Meeting agendas, minutes, and a full meeting schedule are available on the City of Oklahoma City website, okc.gov.

Use Water Wisely



Save water AND money on your next water bill with these simple tips:

- Fix leaky toilets and faucets.
- Turn off the water when brushing your teeth.
- Use a bucket and sponge while washing your car.
- Use native and adapted plants in your landscape.
- Perform a sprinkler check-up to make sure you aren't wasting water or have undetected breaks.
- Top your garden with mulch to help keep the soil moist.

For more water-saving information, and to sign up for our Water Conservation emails and workshops, visit squeezeeverydrop.com.

CONTACT US



To report **water or sewer emergencies** or outages 24/7, call (405) 297-2833.

For account billing and service:

Visit okcutilities.com or download the My OKC Utilities app on your smartphone for 24/7 account access. Or, call our Customer Service Center at (405) 297-2833, M-F, 8 a.m.-5 p.m.

To report taste or odor issues, or request a water quality test, call (405) 297-3056.

For general non-account related Utilities questions, call (405) 297-2422.