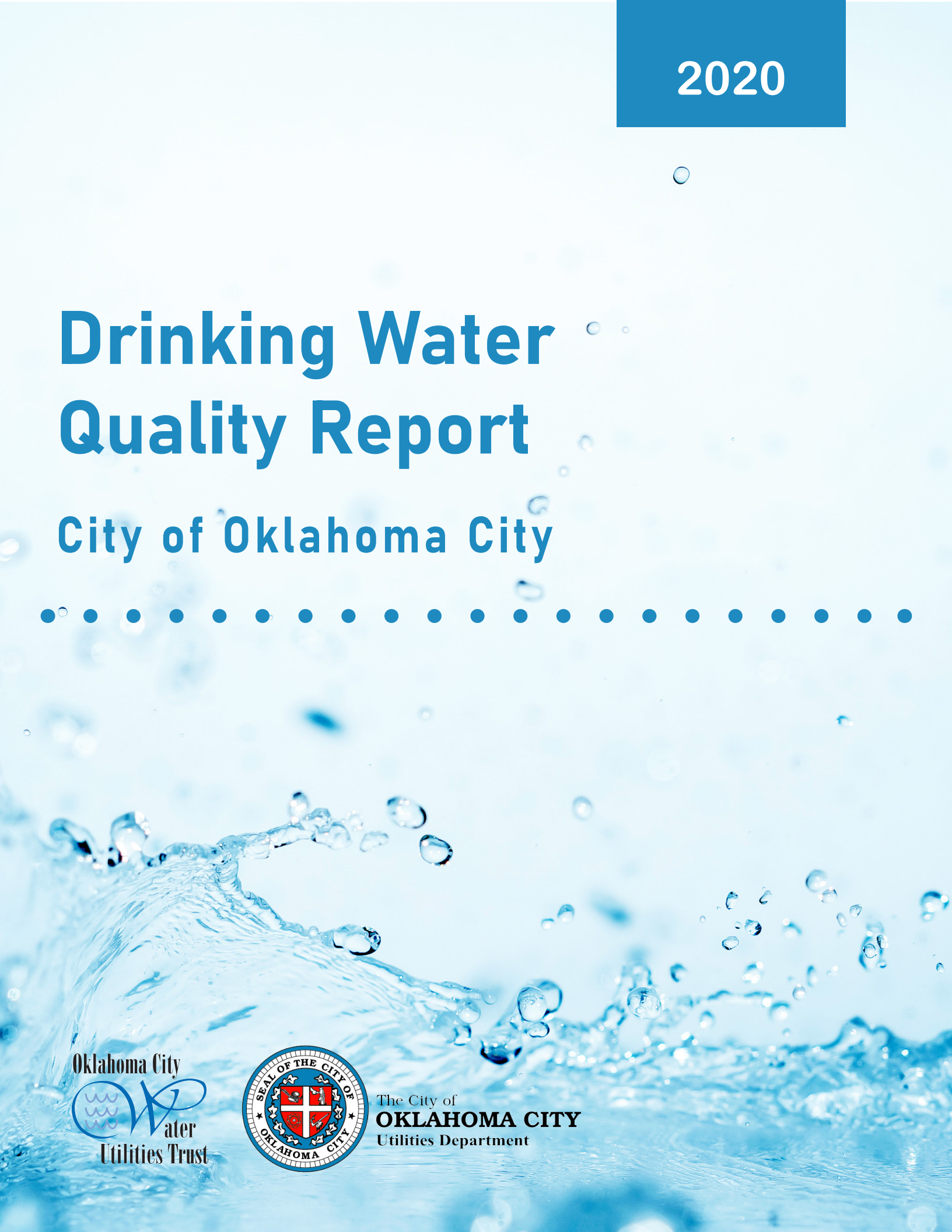
2020

Drinking Water Quality Report

City of Oklahoma City



Oklahoma City Water Utilities Trust

The City of OKLAHOMA CITY Utilities Department

Your Water

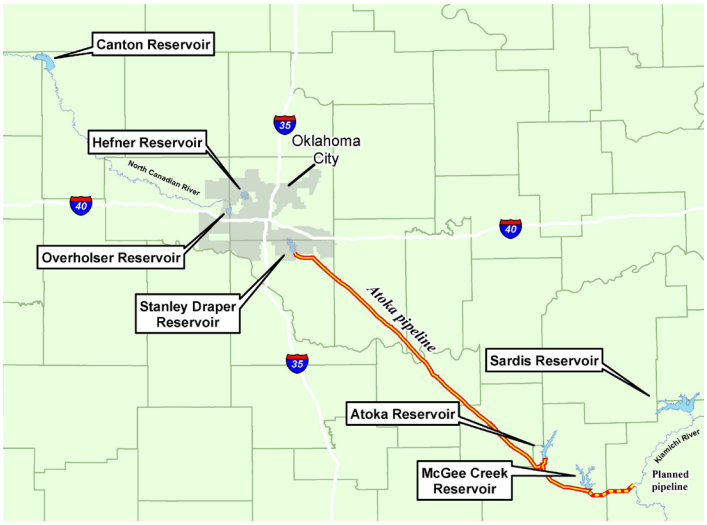
Municipal tap water is the life source of every community. Our dependable water supply contributes to public health, keeps citizens safe from waterborne illness, drives economic prosperity, and is vital for everyday life.

The Utilities Department treats and delivers an average of 100 million gallons of water every day to over 1.4 million customers in 18 different communities.

This Drinking Water Quality Report provides information for water treated and delivered in 2020. The water quality data is summarized in the included table. All Envionmental Protection Agency (EPA) standards for safe drinking water were met.

The Oklahoma City Water Utilities Trust (OCWUT) is the policy-making body for the Utilities Department and strives to provide outstanding water and wastewater services. OCWUT meets at 2 p.m. the first and third Tuesday of each month.

City Council Chambers
200 North Walker Avenue, 3rd Floor
Oklahoma City, Oklahoma 73102



Water Sources

Oklahoma City's drinking water comes from six surface reservoirs along a 250-mile span between northwest and southeast Oklahoma. They include Canton Reservoir in northwest Oklahoma, McGee Creek and Atoka Reservoirs in southeast Oklahoma, and Overholser, Hefner and Stanley Draper Reservoirs in Oklahoma City.

Water from Canton Reservoir flows into the North Canadian River and empties into Overholser and Hefner Reservoirs.

Water from Southeast Oklahoma travels through the 100-mile Atoka pipeline constructed in 1962, and empties into Stanley Draper Reservoir for treatment at the Draper Treatment Plant. A new, 72-inch pipeline is currently under construction, and will ensure the Oklahoma City can meet Central Oklahoma's water needs well into the future.

The OCWUT also has an agreement to deliver water from the City of Edmond to serve a small number of residents. For a copy of their Consumer Confidence Report (CCR), visit edmondok.com.

Water Treatment

At Oklahoma City's two water treatment plants - Draper and Hefner - water is tested continously. Operators also conduct quality assurance and quality control processes to ensure accuracy. Chemists in the water quality laboratory conduct weekly tests from the water treatment plants and monthly tests from 260 water sample sites throughout the city. Staff work closely with the Oklahoma Department of Environmental Quality to ensure water regulatory and safety guidelines are met.

Oklahoma City's team of water quality experts go to great lengths to deliver great-tasting tap water. It's a 24/7, 365-day-a-year responsibility that they take very seriously.

The CCR can also be found online at www.okc.gov/ccr. To receive a copy of this report by mail, call Utilities Customer Service at (405) 297-2833.

Contact Us

24-hour Emergency Dispatch
(405) 297-3334

Customer Service
okcutilities.com
water@okc.gov
(405) 297-2833, 8 a.m. – 5 p.m., Monday to Friday

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Avoid a High Water Bill

- Just one broken sprinkler head can waste over 25 thousand gallons of water over the summer. Find and fix leaks quickly to avoid water waste.
- Sprinkler systems use about 15 to 30 gallons of water every minute. Perform a sprinkler check-up to make sure your system is running efficiently. Visit squeezeeverydrop.com for a free guide to get started.
- Check your toilet for a leak: Put a few drops of food coloring in your toilet tanks. If the color shows up in the bowl after an hour, you have a leak. Usually a new flapper will keep water and money from going down the drain.
- Plant native and adapted plants in your landscape.
- Turn off the water when brushing your teeth.
- Use a bucket and sponge to save water while washing your car.
- Top your garden and flowerbeds with mulch to help keep the soil moist.

For more water-saving tips, a plant database and to sign up for Utilities emails, visit squeezeeverydrop.com.

SqueezeEveryDrop.com

Providing Quality Water

In 2019, the American Water Works Association (AWWA) awarded the Oklahoma City Utilities Department with the Partnership for Safe Water designation for its commitment to continued water quality improvements and system optimization.

The Partnership of Safe Water is an alliance of the AWWA, Association of State Drinking Water Administrators, the U.S. Environmental Protection Agency, the National Association of Water Companies, Association Municipal Water Agencies and the Water Research Foundation.

To earn designation in the Partnership for Safe Water, Utilities must meet stringent criteria after going through a rigorous self-assessment process.

Give a little. Help a lot.

This was a tough year for many of our customers. Help your neighbors by rounding up the amount of your monthly utility bill to the nearest dollar, or making a one-time donation.

Just visit the *Billing* section on okcutilities.com and click on the *H20 Program* tab. Contributions are tax deductible. Donations are administered through the Salvation Army and 100 percent of the contributions are used to assist Oklahoma City utilities customers needing a hand up.

For help paying your bill, call 211 or text 211OK to 898211.

Water Quality

Raw water accumulates in reservoirs from spring and summer rains. As water travels over the ground, it can pick up naturally-occurring minerals found in rocks and soil, contaminates from pesticides, and bacteria from animal or human activity.

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 color, taste or odor problems but are not necessarily causes for health concerns.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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, 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.

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 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**.

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. We 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.

Visit Us Online

Register at okcutilities.com or download the mobile app to conveniently view bills, make payments, and request services related to water and trash collection in Oklahoma City. You can subscribe to automatic bill pay, donate to Help 2 Others (H2O) and check your trash and recycling days.

You can also make a one-time payment on the portal or mobile app without a log in.

Definitions and Abbreviations

Understanding 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 disinfectant 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 2020 at each plant was below the MCL and considered a safe level.

   Draper – Highest single reading = 0.90 ppm. Average fluoride concentration for 2020 = 0.68 ppm
   Hefner – Highest single reading = 0.90 ppm. Average fluoride concentration for 2020 = 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 Utilities - Water Quality Summary 2020

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 - 2020: 0.69	0.68	YES	Added during treatment for dental health or dissolved from natural deposits
Lead	ppb	0	AL = 15	Most recent systemwide distribution testing: August 2020 - 90th Percentile = 0.62		All Sites < AL YES	Corrosion of household plumbing; erosion of natural deposits
Barium	ppm	2	2	Highest level, most recent testing - 2013: 0.052	0.057	YES	Discharge of Drilling Wastes; discharge from metal refineries; erosion of natural deposits
Copper	ppm	0	AL = 1.3	Most recent systemwide distribution testing: August 2020 - 90th Percentile = 0.141		All Sites < AL YES	Corrosion of household plumbing; erosion of natural deposits
Arsenic	ppb	0	10	Highest level, most recent testing - 2013: < 2	< 2	YES	Erosion of natural deposits; runoff from orchards; runoff from electronics and glass production wastes
Nitrate-Nitrite[2]	ppm	10	10	Highest level, most recent testing - 2020: 0.205	0.164	YES	Runoff from fertilizer; leaching from septic tanks, sewage or erosion of natural deposits
Radiological							
				Highest level, most recent testing - 2018			
Gross Alpha	pCi/L	0	15	< 3.00	< 3.00	YES	Decay of natural and man-made deposits
Gross Beta	pCi/L	0	50	6.75 ± 0.56	< 4.00		
Radium 226	pCi/L	0	5	< 1.00	< 1.00		
Radium 228	pCi/L	0	5	< 1.00	< 1.00		
Uranium	ppb	0	30	< 1.0	< 1.0		
Disinfection By-Products Stage 2 Rule Monitoring[3]							
Total Trihalomethanes[4]	ppb	0	80 (LRAA)	Most recent systemwide distribution testing 2019/2020 Highest Locational Running Annual Average (LRAA) 12716 NE 36th St (Draper) - 72.48 Range Detected: 10.03 - 72.48 Highest quarterly average (LRAA)		YES	By-product of drinking water disinfection
				31.43	72.48		
				Range detected			
				8.84 - 36.30	43.60 - 78.65		
Haloacetic Acids[4]	ppb	0	60 (LRAA)	Most recent systemwide distribution testing 2019/2020 Highest Locational Running Annual Average (LRAA) 12716 NE 36th St (Draper) - 49.64 Range Detected: 5.12 - 49.64 Highest quarterly average (LRAA)		YES	By-product of drinking water disinfection
				15.76	49.64		
				Range detected			
				3.11 - 21.58	21.14 - 48.90		
Bromate[5]	ppb	0	10 (RAA)	Highest quarterly average (RAA) - 7.16 Range detected < 2.00 - 54.2		YES	By-product of disinfection by ozone **Only Hefner Plant uses Ozone**
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
				1.735	0.497		
				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	3.65	3.25		
			Range detected	3.07 - 4.21	1.12 - 3.69		
Microbiological							
Coliform Bacteria	CFUs % positive	0	Presence of Coliform bacteria in <5% of samples	2020 System-wide distribution testing Month having the highest % positive - June June had 4 positive samples in 252 samples - 1.59 % 10 positive Coliform results in 2910 samples 0.344 % 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%	99.9%		
				Highest single reading			
				0.24	0.56		
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		