

2007 Annual Drinking Water Report



The Midwest City Public Works Administration is pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the water quality 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 insuring the quality of your drinking water.

For More Information

Here are some helpful numbers if you have questions regarding your water quality, billing, service or if you have a water emergency.

Water Quality Questions: (405) 739-1397

Billing/Customer Service: (405) 739-1252
(405) 739-1254

Water Emergency: (405) 739-1397
After Hours (5pm - 8am): (405) 739-1383

Español: Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo o hable con alguien que lo entienda bien.

The City of Midwest City

Public Works Administration

Information on Your Drinking Water

2007 CONSUMER CONFIDENCE REPORT

Special Information For People With Health Concerns

All Drinking Water May Contain Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Understanding Contaminants

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hot-line (800-426-4791)

The following types of contaminants may be present in raw (untreated) water.

Microbial Contaminants; such as viruses and bacteria that 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 stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicides; these may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff, and septic systems.

Radioactive Contaminants; which can be naturally occurring or can be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 from infections. These people should seek advice about drinking water from their health care providers.

EPA/Centers For Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's

Safe Water Drinking Hotline: 1(800) 426-4791

Definitions

Non-Detects (ND) - laboratory analysis that the constituent is not present.

Parts Per Million (ppm) or Milligrams Per Liter (mg/L) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts Per Billion (ppb) or Micrograms Per Liter (ug/L) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000,000.

Parts Per Trillion (ppt) or Nanograms Per Liter (nanograms/L) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts Per Quadrillion (ppq) or Picograms Per Liter (picograms/L) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries Per Liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems Per Year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers Per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - (mandatory language) A treatment is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - (mandatory language) The maximum allowed is 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) - (mandatory language) The goal is 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.

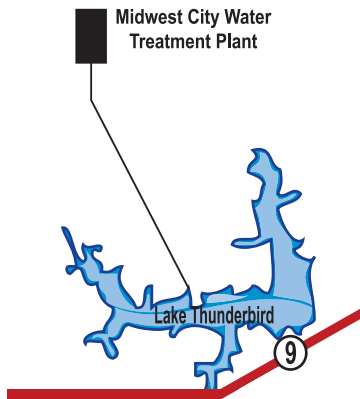


Midwest City Water Quality Summary 2007

The City of Midwest City routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2007 (unless otherwise stated). 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 1-800-426-4791.

Substance	Units	MCLG	MCL	Water Treatment Plant	Wells	Violation	Major Sources in Drinking Water
Inorganic Contaminants							
Lead	ppb	0	AL = 15	90th Percentile 2007		No	Corrosion of household plumbing systems; erosion of natural deposits
				3.22			
				# of Samples Exceeding AL			
				0			
Copper	ppm	0	AL = 1.3	90th Percentile 2007		No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
				0.129			
				# of Samples Exceeding AL			
				0			
Fluoride	ppm	4	4	Avg. Level Detected in 2007		No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
				0.91	0.40		
				Range Detected in 2007			
				0.1 - 1.26			
Nitrate + Nitrite [measured as Nitrogen]	ppm	10	10	Avg. Level Detected in 2007		No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
				0.17			
				Range Detected in 2007			
				0.1 - 0.69			
Barium	ug/L	2000	2000	Avg. Level Detected 2006		No	Discharge from drilling waste; discharge from metal refineries; erosion of natural deposits
				415.92			
				Range Detected in 2006			
				257-490			
Chromium	ug/L	100	100	Avg. Level Detected 2006		No	Discharge from steel and pulp mills; erosion of natural deposits
				1.08			
				Range Detected in 2006			
				ND - 14			
Arsenic	ug/L	0	10	Avg. Level Detected in 2007		No	Runoff from orchards; Erosion of natural deposits; Runoff from glass and electronic production wastes.
				2.60			
				Range Detected in 2007			
				ND - 2.6			
Radiological Contaminants							
Beta/proton emitters	pCi/L	0	50	Avg. Level Detected 2002**		No	Decay of natural and man-made deposits
				3.293			
				Range Detected in 2002**			
				3.083 - 3.502			
Alpha emitters	pCi/L	0	15	Avg. Level Detected in 2006		No	Erosion of natural deposits
				3.880			
				Range Detected in 2006			
				0 - 5.6			
Combined Radium (226 & 228)	pCi/L	0	5	Avg. Level Detected in 2006		No	Decay of natural and man-made deposits
				0.533			
				Range Detected in 2006			
				0.1 - 3.7			
Combined Uranium	ug/L	0	30	Avg. Level Detected 2005**		No	Erosion of natural deposits
				0.854			
				Range Detected in 2005**			
				ND - 3.99			
Disinfection By-Products							
Total Trihalomethanes (TTHMs)	ppb	0	80 (RAA)	Range Detected in 2007*		No	By-Product of drinking water chlorination * Quarterly Average
				1.1 - 271.5			
				Running Annual Average (RAA)			
				58			
Haloacetic Acids (HAA5)	ppb	0	60 (RAA)	Range Detected in 2007*		No	By-Product of drinking water chlorination * Quarterly Average
				1 - 177			
				Running Annual Average (RAA)			
				31			
Chlorite	ug/L	800	1000	Range Detected in 2007*		No	By-Product of drinking water chlorination * Quarterly Average
				16 - 154			
				Running Annual Average (RAA)			
				145			
Precursor Removal Total Organic Carbon (TOC)	TT	NA	TT = Ratio must be greater than or equal to 1.00 for compliance	Average of the Monthly Ratios of TOC		No	Naturally occurring
				1.00	Not Required***		
				Monthly Ratio = % TOC removed divided			
				by TOC removed			
Microbiological Contaminants							
Total Coliform	% negative samples/month	100%	95%	100.00%	100.00%	No	Naturally present in the environment
Fecal Coliform	% negative samples/month	100%	100%	100.00%	100.00%	No	Human and animal fecal waste
Turbidity	NTU % <0.3	100%	< 0.3 NTU in more than 95% of samples	Monthly Lowest % < 0.3 NTU		No	Soil runoff
				97.9%			
				Highest Single Reading 2007			
				0.43			
** The state allows us to monitor for some contaminants less than once per year because the concentrations do not change frequently. Some of our data, though representative, are more than one year old.							
*** TOC Removal is not required for ground water							

Where Does Your Water Come From?

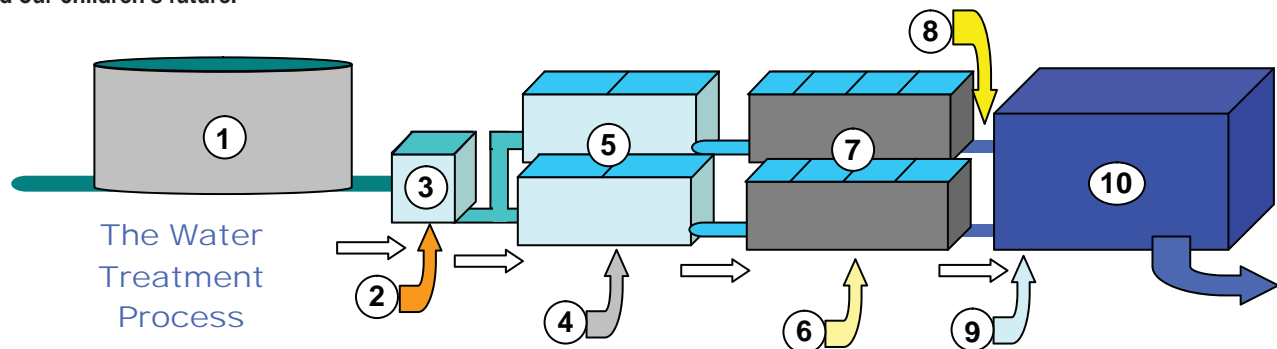


Midwest City's water supply comes from two sources: Lake Thunderbird and the Garber-Wellington aquifer. Most of Midwest City's water supply comes from Lake Thunderbird which is operated by the Central Oklahoma Master Conservatory District (COMCD). Lake Thunderbird was constructed in 1962 for flood control, recreation and as a water supply for Midwest City, Del City and Norman. COMCD pumps the water to the Midwest City Water Treatment Plant through a 19 mile long pipeline.

Midwest City's Water Treatment Plant was originally built in 1966 and could treat 6 million gallons per day (MGD). The plant was expanded in 1985 to its present capacity of 13 MGD. The plant operates 24 hours a day, 7 days a week to provide water to the residents of Midwest City. All employees at the Water Treatment Plant are required to undergo hours of approved training to obtain licenses from ODEQ. The operators, lab and maintenance personnel of Midwest City are some of the most experienced and highly trained personnel in the state. The Treatment plant and its employees are regularly nominated for awards from the Oklahoma Water Pollution Control Association (OWPCA) for superior performance and dedication.

The City of Midwest City operates 22 active water wells that act as supplemental water supply for times of high water demand. Half of these wells pump into a pumping station that once served as Midwest City's main supply. The other half of these wells pump directly into the distribution system. Midwest City maintains a reserve water supply made up of water towers and holding tanks of just under 10 million gallons. Coupled with emergency electric generators at the Water Treatment Plant, Midwest City is able to deliver water continuously even during power outages and disaster.

We work continually to provide high quality water to every tap. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. We ask that all of our customers help us conserve and protect our water resources, which impact our present lifestyle and our children's future.



1. Regulating Tank - Raw water pumped from Thunderbird is held in elevated storage tanks to provide gravity flow through the plant.

2. Coagulation - Chemicals are added to the water which causes very fine pesticides to clump together.

3. Flash Mix - Motors mix the chemicals and water together to ensure an even distribution throughout.

4. Stabilization and Supplemental Treatment - Chemicals are added to the water to prevent corrosion of the distribution piping.

Chemicals can also be added to control taste and odor or to aid in the coagulation, flocculation and sedimentation processes.

5. Flocculation and Sedimentation - Midwest City uses up-flow clarifiers which combine the flocculation (gathering together of small particles) and sedimentation processes.

6. Pre-Disinfection - Chlorine Dioxide is added to the water to oxidize and disinfect materials and microbes in the water.

7. Filtration - Water is passed through special filters made of sand, gravel and coal. These

filters remove the small particles that were not removed during the sedimentation process.

8. Final Disinfection - Chlorine is added to the water to kill any microorganisms, including disease causing bacteria. Chlorine gas leaves a residual which protects the water as it flows through the distribution system.

9. Fluoridation - A small amount of Fluoride is added to help prevent cavities in children.

10. Storage and Pumping - Finished water is held in holding tanks at the treatment plant until it is pumped into the distribution system for delivery to your tap.

You can use and enjoy water every minute of the day, confident that the safety and quality of your water is ensured.