

# 2017 WATER QUALITY REPORT



CONSUMER  
CONFIDENCE REPORT  
UTILITIES  
DEPARTMENT  
City of Midland, Texas



## WHERE DO WE GET OUR DRINKING WATER?

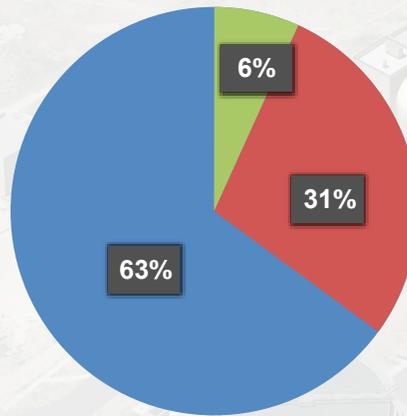
Midland's drinking water comes from the Ogallala and Edwards-Trinity Plateau aquifers in Martin (Paul Davis System), Loving and Winkler Counties (T-Bar), and surface water sources owned and operated by the Colorado River Municipal Water District (CRMWD): Lakes J.B. Thomas, O.H. Ivie, and E.V. Spence.

The TCEQ completed an assessment of the City of Midland's source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for the City of Midland's water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact: **Carl Craigo, P.E.**  
**Assistant Utilities Director at 432-685-7260.**

Further details about sources and source water assessments are available in Drinking Water Watch at the following URL:

<http://dww2.tceq.texas.gov/DWW/>

\*please enter URL as seen above



## 2017 WATER USE:



As required by state law, this notice is to inform you that the City of Midland water system is experiencing a water loss of 6.43 percent. Reasons for water loss include but are not limited to evaporation, system leaks, and meter accuracy.

## OUTDOOR WATERING

The current outdoor watering schedule allows residents and businesses in the City of Midland to water twice per week.

- ***Even numbered addresses may water outdoors on Saturdays and Wednesdays.***
- ***Odd numbered addresses may water outdoors on Fridays and Tuesdays.***

Learn more about our current watering restrictions at [midlandtexas.gov/outdoorwatering](http://midlandtexas.gov/outdoorwatering).

## HOW MUCH IS A DROP? UNDERSTANDING CONCENTRATION LEVELS:

***Here are some parts per million and parts per billion examples from the real world:***

Parts per million:

1 cent in \$10,000 = 1 ppm

1 minute in 2 years = 1 ppm

1 inch in 16 miles = 1 ppm

Parts per billion:

1 cent in \$10,000,000 = 1 ppb

1 minute in 32 years = 1 ppb

1 inch in 16,000 miles = 1 ppb

## PUBLIC PARTICIPATION OPPORTUNITIES

The Midland City Council typically meets on the 2nd and 4th Tuesdays of each month at City Hall, 300 N. Loraine Street, at 10:00 a.m. The Council agenda is posted for public notice at least 72 hours prior to the meetings. To find out whether water issues will be considered at a particular City Council meeting, please call the Utilities Department at 432-685-7260.

## ABOUT THE FOLLOWING PAGES

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants. For a complete list of all contaminants tested and the analytical results, go to: <http://dww2.tceq.texas.gov/DWW/>

**This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.**

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.

**For more information regarding this report, contact Carl Craigo, P.E. Assistant Director of Utilities, at 432-685-7260.**

### SPECIAL NOTICE

**Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791.**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. 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>.

### SECONDARY CONSTITUENTS

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

### EN ESPAÑOL

Este reporte incluye información importante sobre el agua para tomar. Si tiene preguntas o discusiones sobre éste reporte en español, favor de llamar al tel. 432-685-7100 par hablar con una persona bilingue en español.

### SOURCE OF DRINKING WATER

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.

Contaminates 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.

### ARSENIC

The maximum contaminant level (MCL) for arsenic decreased from 0.05 mg/l (50ppb) to 0.010 mg/l (10ppb) effective January 23, 2006. If we violate, you will be notified. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

## 2017 REGULATED CONTAMINANTS DETECTED

**Definitions:** Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety. Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sample	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation
Copper	2016	1.3	1.3	0.26	1	ppm	NO
Lead	2016	0	15	4.2	1	ppb	NO

### Likely Source of Contamination:

**COPPER:** Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

**LEAD:** Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation
Haloacetic Acids (HAA5)	2017	31	0 - 31.3	No goal for the total	60	ppb	NO
Total Trihalomethanes (TTHM)	2017	53	0 - 83.9	No goal for the total	80	ppb	NO

### Likely Source of Contamination:

**Haloacetic Acids (HAA5):** By-product of drinking water disinfection.

**Total Trihalomethanes (TTHM):** By-product of drinking water disinfection.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation
Antimony	2017	0	0	6	6	ppb	NO
Arsenic	2017	22.4	0-22.4	0	10	ppb	YES
Barium	2017	0.17	0.019-0.17	2	2	ppm	NO
Chromium	2017	1.9	1.2-1.9	100	100	ppb	NO
Fluoride	2017	0.751	0-.751	4	4	ppm	NO
Nitrate [measured as Nitrogen]	2017	4	0.692-5.47	10	10	ppm	NO
Selenium	2017	35.8	0-35.8	50	50	ppb	NO

### Likely Source of Contamination:

**Antimony:** Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.

**Arsenic:** Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

**Barium:** Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

**Chromium:** Discharge from steel and pulp mills; Erosion of natural deposits.

**Fluoride:** Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

**Nitrate [measured as Nitrogen]:** Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

**Selenium:** Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

## 2017 REGULATED CONTAMINANTS DETECTED

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation
Beta/photon emitters	2017	31	7.2-31	0	50	pCi/L	NO
Gross alpha excluding radon and uranium	2017	3	0-3	0	15	pCi/L	NO
Uranium	2017	2.7	2.7	0	30	ug/L	NO

### Likely Source of Contamination:

**Radioactive Contaminants:** Decay of natural and man-made deposits.

EPA considers 50 pCi/L to be the level of concern for beta particles. **Gross alpha excluding radon and uranium:** Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL Avg	MRDLG Avg	Units	Violation
Chloramine	2017	3.21	1.27-6.41	4	4	ppm	NO

### Source in Drinking Water:

Water additive to control microbes.

Turbidity	Limit (Treatment Technique)	Level Detected	Violation
Highest single measurement	1 NTU	0.54 NTU	NO
Lowest monthly % meeting limit	0.3 NTU	98%	NO

### Likely Source of Contamination:

**Turbidity:** Soil runoff. **Information Statement:** Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration.

### Total Organic Carbon:

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

### Arsenic

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of cancer

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, Average	01/01/2017	03/31/2017	Water samples from a single location outside the City of Midland's distribution system showed that the amount of this contaminant in the drinking water was shown above its standard (MCL) for the period indicated.

### Public Notification Rule:

The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).

Violation Type	Violation Begin	Violation End	Violation Explanation
Public Notice Rule	07/07/2017	07/27/2017	We failed to adequately notify a single location outside the City of Midland's distribution system, our drinkingwater customer, about a violation of the drinking water regulations.



## 2017 REGULATED CONTAMINANTS DETECTED

### Coliform Bacteria:

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest no. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation
0	5% of monthly samples are positive.	0.7% of samples were positive	A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive.	0	NO

### Likely Source of Contamination:

Coliform Bacteria: Naturally present in the environment

## DEFINITIONS AND ABBREVIATIONS

#### Maximum Contaminant Level (MCL)

The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

#### Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

#### Maximum Residual Disinfectant Level (MRDL)

The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

#### Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

#### Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

#### Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

#### Avg

Regulatory compliance with some MCLs are based on running annual average of Monthly samples

#### NTU

nephelometric turbidity units

#### MFL

million fibers per liter (a measure of asbestos)

#### pCi/L

picocuries per liter (a measure of radioactivity)

#### ppm

parts per million, milligrams per liter (mg/l), or one ounce in 7,350 gallons of water

#### ppb

parts per billion, micrograms per liter (µg/l), or one ounce in 7,350,000 gallons of water

#### ppt

parts per trillion, nanograms per liter, or one ounce in 7,350,000,000 gallons of water

#### na

not applicable

# DEFENDING OUR DRAINS



*The City of Midland works hard to maintain your water and sewer lines, but cannot prevent clogs from causing problems in your own plumbing. Help us help you by not throwing these common items down your drains.*

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## FATS, OILS AND GREASE

These items will harden in your pipes or the City's sewer lines, causing the potential of a sewer backup in your home or neighborhood. Meats, butter, lard, food scraps, sauces, dressings, dairy products and cooking oil all contain fats, oils or grease, and gravy can cause problems, too. Even if you use hot or soapy water, these substances will still begin to solidify in your lines.



## WIPES

Just because baby wipes, bathroom wipes, facials or cosmetic wipes, personal hygiene wipes, disinfecting wipes, dusting or cleaning wipes and toilet bowl scrub pads claim to be flushable, doesn't mean they are. Many of these products are built to be stronger than toilet paper and have plastic fibers that don't break down quickly in water, causing clogs in your sewer line.



## MEDICINE

Medications and even vitamins can end up in water supplies because water treatment processes can't completely remove them. Watch the news for announcements of medicine "take-back" events. Several options to mail medications are also available online. As a last resort, you can dispose of medicines in household trash by mixing them with kitty litter or used coffee grounds and placing the mixture in a sealed plastic bag.



## PERSONAL CARE

Personal care items like floss, cotton swabs and cotton balls do not break down in water and can tangle with other items to block your sewer line. These items should be thrown away in the trash.

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LEARN MORE AT [MIDLANDTEXAS.GOV](http://MIDLANDTEXAS.GOV)