

2019 WATER QUALITY REPORT

**CONSUMER
CONFIDENCE REPORT
UTILITIES
DEPARTMENT**
City of Midland, Texas
Issued July 1, 2020



CONTACT US

Customer Service/Billing

432-685-7320

8 a.m. - 5 p.m. Monday - Friday

After-Hours 432-685-7340

cs@midlandtexas.gov

Utilities Department

Midland City Hall

300 N. Loraine Street, 5th floor

Midland, TX 79707

www.midlandtexas.gov/utilities

The Utilities Department is part of the City of Midland, Texas.

Council meetings are open to the public and are typically held on the second and fourth Tuesday of every month. Meetings begin at 10 a.m. in the Council Chamber located at City Hall (300 N. Loraine).

See the City Council meetings dates at:

www.midlandtexas.com/Calendar

Other Resources

Environmental Protection Agency

www.epa.gov

Texas Commission on Environmental Quality

www.tceq.texas.gov

Texas Water Development Board

www.twdb.texas.gov

American Water Works Association

www.awwa.org

Want to know more about water?



The City of Midland Utilities Department has employees who volunteer to talk at career day presentations, school, work or community events. Employees talk about a typical work day, education training requirements and what students need to focus on in studies to have a career with the Utilities Department.

If you are interested in a school, community group presentation or tour of our facilities, email: cmoose@midlandtexas.gov

HISTORY

In the early 1920's, a one million gallon reservoir was built on east Wall Street and five wells were drilled. This field was used until the late 1920's, when Cole Park was purchased and used until 1968. Rosedale wells were drilled in the early 1940's and were used until the late 1960's. Wadley Well Field (Hogan Park) was started in the early 1940's, with water being pumped from fifteen wells until the early 1960's.

Beginning in the early 1950's, McMillen Well Field was developed and used until depleted in the mid 1960's. This field is currently shut down due to concerns with perchlorate, but can pump up to 4.5 million gallons per day. Two 5-million ground storage tanks and a 1 million gallon Elevated Storage Tower were constructed in the early 1950's. During the late 1950's, a 1 million gallon reservoir was added at Shell and Midland Drive.

In the late 1950's, Paul Davis Well Field was started. This field included a 2.5 million gallon ground storage tank, and a pump station. Later, another 2.5 million gallon ground storage tank was added and a total of 42 wells have been drilled. Paul Davis is maintained for peaking and as a backup supply.

The City of Midland is also a customer of the Colorado River Municipal Water District.

In 1965, the City purchased the T-Bar Ranch as a future water supply. Through a public-public partnership, the City of Midland and Midland County Freshwater Supply District No. 1 built the T-Bar pipeline and well field in 2012. This groundwater supply can be used to supplement our surface water supplies and provide Midland's needs through 2060 and beyond.



WHERE DO WE GET OUR DRINKING WATER

Midland's drinking water comes from the Ogallala and Edwards-Trinity Plateau aquifers in Martin County (Paul Davis System), purchased groundwater from Midland County FWSD 1, provided from the Pecos Aquifer in Loving and Winkler Counties (T-Bar), purchased 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.

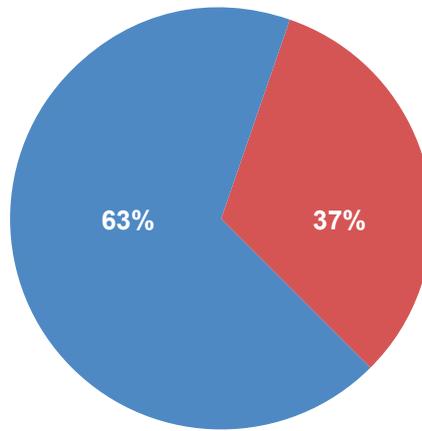
The sampling requirements for the City of Midland's water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact:

Cory Moose
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



2019 WATER USE:



This notice is to inform you that the City of Midland water system is experiencing a water loss of 6.97 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.

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 second in 32 years = 1 ppb
1 inch in 16,000 miles = 1 ppb

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/>

WHAT IS A CONTAMINANT

Put simply, a contaminant in water is anything other than hydrogen or oxygen. We know water's formula, H²O means two hydrogen atoms and one oxygen atom make up one water molecule. The presence of a contaminant in water does not mean that there is a health risk, it simply means that there is something else in the water besides the essential elements that make up water.

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 Cory Moose, Assistant Utilities Director, at 432-685-7260

SPECIAL NOTICE

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* 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 are responsible for providing high quality drinking water, but 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>.

INFORMATION ABOUT YOUR DRINKING WATER

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

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

EN ESPAÑOL

Este reporte incluye informacion importante sobre el agua para tomar. Si tiene preguntas o discusiones sobre este reporte, 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.

2019 REGULATED CONTAMINANTS DETECTED

Coliform Bacteria	Maximum Contaminant Level Goal	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	3.2%	NA	0	NO

Likely Source of Contamination:

Naturally present in the environment

Lead and Copper	Date Sample	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation
Copper	2019	1.3	1.3	.357	1	ppm	NO
Lead	2019	0	15	2.7	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.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation
Haloacetic Acids (HAA5)	2019	28	0 - 42.2	No goal for the total	60	ppb	NO
Total Trihalomethanes (TTHM)	2019	60	0 - 96.4	No goal for the total	80	ppb	NO

* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year.

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
Arsenic	2019	8	3 - 10.9	0	10	ppb	NO
Barium	2019	0.16	0.16 - 0.16	2	2	ppm	NO
Cyanide	2019	136	136 - 136	200	200	ppb	NO
Fluoride	2019	0.4	0.39 - 0.39	4	4.0	ppm	NO
Nitrate [measured as Nitrogen]	2019	1	0.584 - 1.31	10	10	ppm	NO
Selenium	2019	10	7.4 - 7.4	50	50	ppb	NO

2019 REGULATED CONTAMINANTS DETECTED

* While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which 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.

Likely Source of Contamination:

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.

Cyanide: Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.

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.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation
Beta/photon emitters	11/15/2017	31	31 - 31	0	50	pCi/L*	NO
Uranium	11/15/2017	26.8	26.8 - 26.8	0	30	ug/L	NO

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Likely Source of Contamination:

Beta/photon emitters: Decay of natural and man-made deposits.

Uranium: Erosion of natural deposits.

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL Avg	MRDLG Avg	Units	Violation
Chloramine	2019	2.89	0.00 - 8.18	4	4	ppm	NO

Source in Drinking Water:

Water additive to control microbes.

Turbidity	Level Detected	Limit (Treatment Technique)	Violation
Highest single measurement	0.55 NTU	1 NTU	NO
Lowest monthly % meeting limit	98%	0.3 NTU	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 system and disinfectants.

Total Organic Carbon:

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.

ABBREVIATIONS

Maximum Containment Level (MCL)

The highest permissible level of a contaminant in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Containment Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLG's 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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 MCL's 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

ppb

Parts per billion, micrograms per liter (µg/l), or one ounce in 7,350,000

ppt

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

na

Not applicable

HOW TO READ YOUR WATER QUALITY REPORT

The table below is a sample Water Quality Report. Callouts explain the following elements:

- Collection Date:** The year or years tests were conducted.
- Highest Level Detected:** Below this level, a contaminant has no known or expected health risks.
- MCLG:** Highest amount of a contaminant EPA allows in drinking water.
- MCL:** Highest amount of a contaminant EPA allows in drinking water.
- Units:** Parts per million - one ppm equals to one teaspoon in 1,302 gallons.
- Violation:** NO
- Range of Levels Detected:** The amount from lowest to highest of a contaminant detected in Midland's drinking water.
- Units (ppb):** Parts per billion - one ppb equals to one teaspoon in 1,302,000 gallons.
- Disinfection By-Products:** How a contaminant ends up in Midland's drinking water.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation
Haloacetic Acids (HAA5)	2018	29	0 - 35.2	No goal for the total	60	ppm	NO
Total Trihalomethanes (TTHM)	2018	72	0 - 116	No goal for the total	80	ppb	NO

* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year.

Likely Source of Contamination:

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

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

FREQUENTLY ASKED QUESTIONS

WHAT IS THE HARDNESS OF MIDLAND'S WATER IN GRAINS PER GALLON?

The City's water hardness ranges from 400-600 parts per million, which can be calculated by dividing that by 17.12 which will give you the grains per gallon.

WHAT IS AVERAGE CHLORINE RESIDUAL IN OUR DISTRIBUTION SYSTEM

The TCEQ requires a chlorine residual within the operating range of .5-4.0 ppm for Midland's water distribution system

WHY DO I HAVE DISCOLORED WATER COMING FROM MY FAUCET?

You may have discolored water coming from your faucet due to excessive iron or manganese coming from the main water supply line, possible water main repairs in your area, or possible water valve maintenance in your area. Please contact Water & Wastewater at 432-685-7270 to report the issue if you notice discolored water coming out of your faucet.

WHAT DOES THE TERM "CITY SIDE" OF THE SEWER LINE MEAN?

When plumbers reference the "city side" of a sewer line, it is actually called a sewer tap. It extends from the resident/business property line to the point at which it makes contact with the main sewer supply line in alley/street. The sewer line from your property line to your house is your private service line.

WHY DOES MIDLAND HAVE WATER RESTRICTIONS?

Midland is currently contracted to use surface water sources owned by the Colorado River Municipal Water District. These sources are depleting due to the drought and evaporation. The addition of groundwater from T-Bar and Clearwater Ranches has secured many decades of more water for Midlanders, but the drought necessitates that we be good stewards of these sources.

WHY DO I HAVE LOW WATER PRESSURE?

You may have low water pressure due to a cut off at meter not being completely open, a faulty water meter, a possible crimp in the service line, a water main leak in your area, isolated water valves on main water supply lines (not open), or restricted water supply through your water softener due to a clog. Please call 432-685-7270 to report low water pressure in your area.

CAN I USE A SPRINKLER SYSTEM, SOAKER HOSE, DRIP SYSTEM, ETC.?

Any method of watering is allowed during your established watering time.

DEFEND MIDLAND DRAINS

TRASH IT

**DISPOSE
RESPONSIBLY**

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.



FATS, OILS AND GREASE

These items will harden in your pipes or the City 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. 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, facial 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.



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 our sewer line. These items should be thrown away in the trash.



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 that 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.

YOUR INVESTMENT IN CLEAN WATER

With every turn of the faucet or flush of the toilet is a complex life cycle. Clean water requires massive infrastructure investments and a commitment to safety, quality and environmental protection.

WHERE WE INVEST:



890 miles of water main



4 pump stations



6 elevated storage tanks



53,143 Gallons average water use per person per year



8,000 ft of waters lines repaired or replaced 2019



4,000+ billion gallons of waste-water collected and treated



4,511 fire hydrants



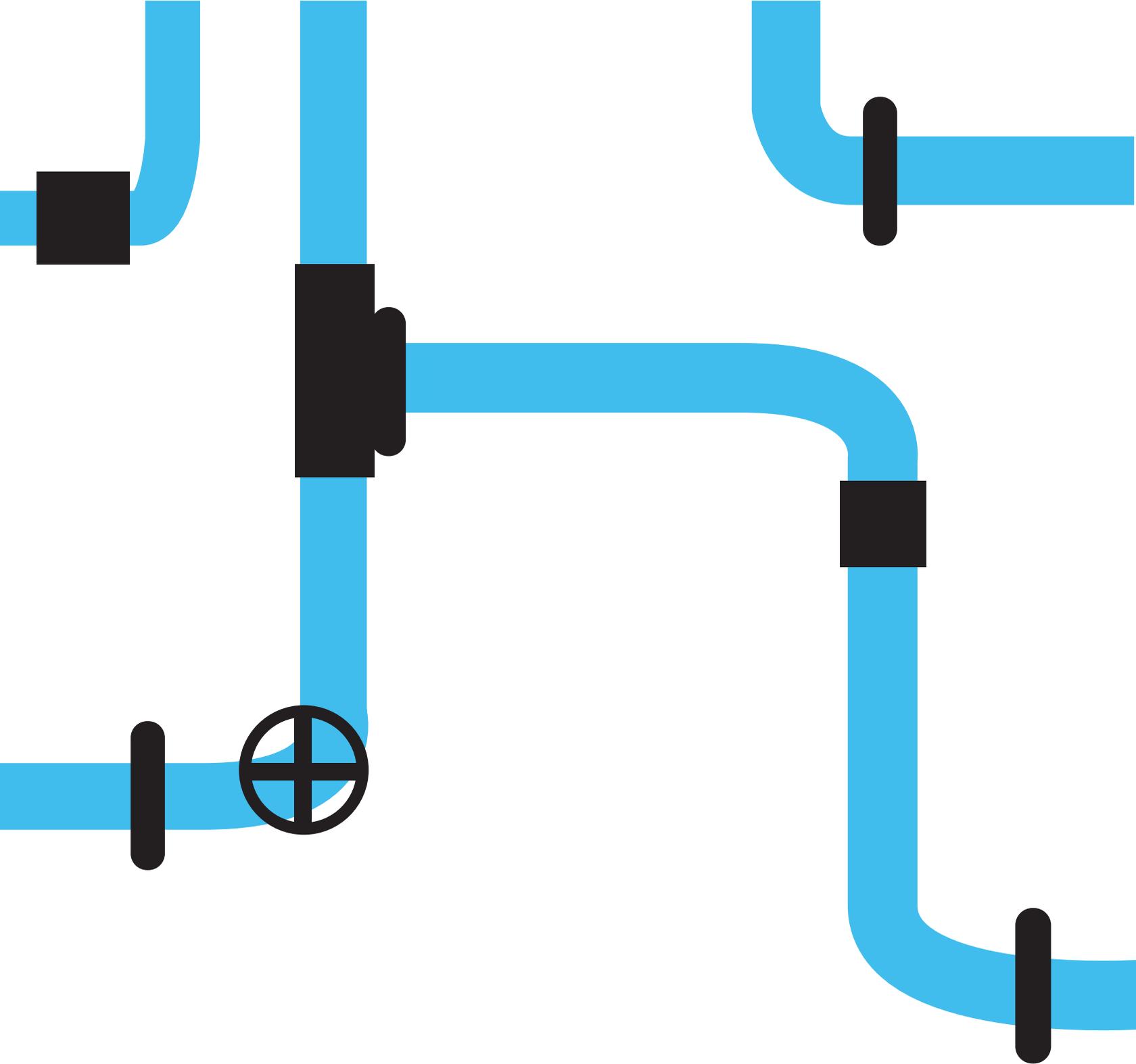
50,134 water meters



over 7 billion gallons of treated water distributed



225+ contaminants tested



LEARN MORE AT [MIDLANDTEXAS.GOV](https://www.midlandtexas.gov)

