



CITY OF ABILENE

WATER UTILITIES DEPARTMENT

SAVEABILENEWATER.COM

2020 ANNUAL & WATER QUALITY REPORTS



MESSAGE FROM THE DIRECTOR OF WATER UTILITIES

Abilene is a large city and continues to grow each year. Along with many new residential housing developments experiencing high levels of construction activity, Abilene's downtown area and surrounding neighborhoods are also experiencing vibrant infill development. The strong demand for new water taps that Water

Utilities receives daily is a good indicator of this growth. Rest assured the Water Utilities Department is working hard to keep pace with the demands of our growing City while maintaining a high level of quality customer service.

In close coordination with several engineering consultant firms over the past year, Water Utilities has completed three master planning documents that evaluate risks and identify cost-effective solutions to ensure the City's Water Distribution System, the Wastewater Collection System, and the Water Treatment Plants continue to produce no less than our current high standard of water and wastewater service over the next 20 to 30 years. Specifically, these master plans recommend a combined list of Capital Improvement Projects valued at over \$500,000,000, to be completed over this timeframe. These projects address rehabilitation or replacement of existing but aging infrastructure, existing and/or projected capacity issues, and water plant rehabilitation and expansion. All of the projects are designed to meet projected water needs and meeting or exceeding regulatory water quality standards. The challenge before us now is developing a prioritized project schedule and an affordable financial plan to accomplish those needed improvements. City Administration and staff will be presenting capital improvement plans to the City Council during the budgeting process for its consideration and approval.

The Meter Replacement Project has been a topic of interest for the past couple of years. The City's contractor began replacing aging water meters in late 2019. Currently the project is about 95% complete with over 41,000 old water meters having been replaced with state of the art smart water meters. All billing districts are now being read using the telemetry system. The customer portal is in development for rollout to the public in early summer 2021. This will allow our customers to access their individual metered consumption, reported on an hourly basis, to learn more about their water use. Customers can use the information to find ways to lower their bill, conserve water, and to activate various notification tools including water consumption limits and indicated private system leaks.

The Water Utilities Department will continue to provide a high level of customer service to its citizen customers. We are working hard to find affordable solutions to Abilene's growing population and aging water utilities infrastructure issues. We all depend on reliable water and wastewater infrastructure for quality of life of both present and future generations.

Type of Contaminant	Year or Range	Contaminant (Unit of measure)	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Source of Contaminant
Inorganic Contaminants	2020	Arsenic (ppb)	< 1.0	< 1.0	10	0	N	Erosion of natural deposits
	2020	Barium (ppm)	0.140	0.12-0.14	2	2	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
	2020	Cyanide (ppb)	109	58.6-109	200	200	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
	2020	Fluoride (ppm)	0.81	0.747-0.81	4	4.0	N	Erosion of natural deposits; water additive for strong teeth; discharge from fertilizer and aluminum factories
	2020	Nitrate (ppm)	1	0.104-1.04	10.00	10	N	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks or sewage
	2020	Selenium (ppb)	< 5.0	< 5.0	50.0	50	N	Erosion from natural deposits; discharge from petroleum refineries
Radioactive Contaminants	2020	Uranium	<0.0010	<0.0010	0	0.03	N	Erosion of natural deposits; Decay of natural and man made deposits
	2020	Gross Alpha	<3.0	<3.0	0	15	N	Erosion of natural deposits; Decay of natural and man made deposits
	2020	Gross Beta	6.6	6.6	N/A	N/A	N	Erosion of natural deposits; Decay of natural and man made deposits
	2020	Radium 228 (pCi/L)	< 1.0	< 1.0	0	5	N	Erosion of natural deposits; Decay of natural and man made deposits
	2017	Uranium (ug/L)	2.3	0-2.3	0	30	N	Erosion of natural deposits; Decay of natural and man made deposits
Disinfection Byproducts	2020	Total Haloacetic Acids (ppb)	29.6	11-29.6	No goal for the total	60	N	Byproduct of drinking water disinfection
	2020	Total Trihalomethanes (ppb)	48.4	14.9-48.4	No goal for the total	80	N	Byproduct of drinking water disinfection
	2020	Chlorite (ppm)	0.57	<0.01-0.57	0.8	1	N	Byproduct of drinking water disinfection
Unregulated Contaminants	2020	Chloroform (ppb)	1.45	<1.0-1.45	N/A	N/A	N/A	Byproduct of drinking water disinfection
	2020	Bromoform (ppb)	4.55	1.12-4.55	N/A	N/A	N/A	Byproduct of drinking water disinfection
	2020	Bromodichloromethane (ppb)	13.4	3.68-13.4	N/A	N/A	N/A	Byproduct of drinking water disinfection
	2020	Dibromochloromethane (ppb)	31.5	9.30-31.5	N/A	N/A	N/A	Byproduct of drinking water disinfection

DEFINITIONS AND ABBREVIATIONS:

Action Level (AL)—The concentration of a substance, which, if exceeded, triggers treatment or other requirements which a water system must follow

J—Analyte detected below the quantitation limit but above the decimal limit

Maximum Contaminant Level (MCL)—The highest level of a substance that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using best available treatment technology.

Maximum Contaminant Level Goal (MCLG)—The level of a substance 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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MFL—Million fibers per liter (a measure of asbestos)

N/A—Not applicable

ND—Analyte not detected in a sample

NTU—Nephelometric turbidity units. Unit of measure of the turbidity (cloudiness) of the water

pCi/L—Picocuries per Liter (a measure of radioactivity)

ppb—parts per billion or micrograms per liter (µg/L). One ounce in 7,350,000 gallons of water.

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Treatment Technique (TT)—A required process intended to reduce the level of a substance in drinking water.

Type of Treatment	Year or Range	Disinfectant Used	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Source of Contaminant
MRDL	2020	Chloramines (ppm)	2.8	1	4.5	4.0	4.0	Disinfectant used to control microbes
Type of Contaminant	Year or Range	MCGL	The 90th Percentile	Number of sites Exceeding Action Level	Action Level	Violation		Source of Contaminant
Lead (ppb)	2020	0	0	0	15	No Violation		Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	2020	1.3	0.360	0	1.3	No Violation		Corrosion of household plumbing systems; erosion of natural deposits
Type of Contaminant	Year or Range	Highest Single Level Detected	Lowest Monthly % of Samples Meeting Limits	Limit (Treatment Technique)	Lowest Monthly % meeting limit	Violation		Source of Contaminant
Turbidity (NTU)	2020	0.23	100.00%	1	0.3	No Violation		Soil runoff
Type of Contaminant	Year or Range	Contaminant Source	Average Level	Minimum Level	Maximum Level	Unit of Measure		Source of Contaminant
Total Organic Carbon	2020	Source Water	5.96	3.60	8.06	ppm		Naturally present in environment
Total Organic Carbon	2020	Drinking Water	3.35	1.80	4.20	ppm		Naturally present in environment
Type of contaminant	Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MFL		Source of Contaminant
Asbestos	2012	Asbestos	ND	ND	ND	7		Construction Materials
Type of contaminant	Year or Range	Contaminant	Highest Monthly % of Positive Samples	MCL	Unit of Measure	Violation		Source of Contaminant
Total Coliform	2020	Total Coliform Bacteria	0	*	Presence	No Monitoring Violation		Naturally present in environment

* Presence of Coliform bacteria in 5% or more of the monthly samples.

Organic Contaminants — none detected

Fecal Coliform — not detected

Real Water Loss — 3.80%

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Type of Contaminant	Year or Range	Contaminant (Unit of Measure)	Average Level	Minimum Level	Maximum Level	Secondary Limit	Source of Contaminant
Secondary and Other Constituents not Regulated	2020	Aluminum (ppm)	0.0316	<0.005	0.058	0.05	Naturally present in environment
	2020	Bicarbonate (ppm)	116	102	142	na	Corrosion of carbonate rocks such as limestone
	2020	Calcium (ppm)	66.9	50.2	100	na	Naturally present in environment
	2020	Chloride (ppm)	148	113	217	300	Naturally present in environment.
	2020	Copper (ppm)	<0.001	<0.001	0.0016	1.0	Corrosion of household plumbing, erosion from natural deposits; leaching from wood preservatives
	2020	Magnesium (ppm)	25.4	15.6	44.9	na	Naturally present in environment
	2020	Manganese (ppm)	0.0081	<0.001	0.017	0.05	Naturally present in environment
	2020	Nickel (ppm)	0.0017	<0.001	0.0039	na	Erosion of natural deposits.
	2020	Sodium (ppm)	89.5	72.4	122	na	Erosion of natural deposits; byproduct of oil field activity
	2020	Sulfate (ppm)	123	75.9	216	300	Naturally occurring; common industrial byproduct; byproduct of oil field activity
	2020	Total Alkalinity as CaCO ₃ (ppm)	119	102	149	na	Naturally occurring soluble mineral salts
	2020	Total Dissolved Solids (ppm)	544	409	810	1000	Total dissolved mineral constituents in water
	2020	Total Hardness as CaCO ₃ (ppm)	272	190	435	na	Naturally occurring calcium
	2020	Conductivity (uhmos/cm)	971	752	1400	na	Naturally present in environment
	2020	Potassium (mg/L)	8.07	7.96	8.24	na	Naturally present in environment
2020	Lead (mg/L)	<0.001	<0.001	<0.001	15	Corrosion of household plumbing, erosion from natural deposits; leaching from wood preservatives	
2020	Atrazine (ppb)	<0.1	<0.1	0.1	3	Agricultural run-off	

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Unregulated Contaminants Monitoring Rule 4 (UCMR 4)

The UCMR program was developed in coordination with the Contaminant Candidate List (CCL). The CCL is a list of contaminants that are not regulated by the National Primary Drinking Water Regulations, are known or anticipated to occur at public water systems and may warrant regulation under the Safe Drinking Water Act. Data collected through UCMR are stored in the National Contaminant Occurrence Database (NCOD) to support analysis and review of contaminant occurrence, to guide the CCL selection process and to support the Administrator's determination of whether to regulate a contaminant in the interest of protecting public health.

Contaminant	Year or Range	Level			MCL	MCLG	Unit of Measure	Source of Contamination
		Average	Minimum	Maximum				
Manganese	2020	14.25	4.4	31.4	N/A	N/A	ug/L	Naturally present in environment.
Bromide	2020	0.622	0.367	0.862	N/A	N/A	ug/L	Naturally present in environment.
Total Organic Carbon	2020	5.65	5.01	6.33	N/A	N/A	mg/L	Naturally present in environment.
Monochloroacetic acid	2020	6.11	4.72	7.82	N/A	N/A	ug/L	Byproduct of drinking water disinfection
Monobromoacetic acid	2020	0.79	<0.5	1.21	N/A	N/A	ug/L	Byproduct of drinking water disinfection
Dichloroacetic acid	2020	1.34	0.3	2.45	N/A	N/A	ug/L	Byproduct of drinking water disinfection
Trichloroacetic acid	2020	12.54	5.86	17.4	N/A	N/A	ug/L	Byproduct of drinking water disinfection
Chlorodibromoacetic acid	2020	2.25	1.46	3.23	N/A	N/A	ug/L	Byproduct of drinking water disinfection
Bromochloro acetic acid	2020	1.23	<0.3	2.04	N/A	N/A	ug/L	Byproduct of drinking water disinfection
Bromodichloroacetic acid	2020	1.07	<2.00	9.45	N/A	N/A	ug/L	Byproduct of drinking water disinfection
Dibromoacetic acid	2020	1.93	<2.00	5.5	N/A	N/A	ug/L	Byproduct of drinking water disinfection
Tribromoacetic acid	2020	0.24	<0.5	0.96	N/A	N/A	ug/L	Byproduct of drinking water disinfection

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JANUARY-DECEMBER 2020 WATER QUALITY REPORT

Through vigilant oversight, the City of Abilene Water Utilities Department is dedicated to providing high-quality, safe water. It begins with the city's reservoirs, which provide good-quality raw water. Along the water's journey into customers' homes and businesses, trained, certified operators consistently work to meet stringent water quality standards. Water is analyzed in all stages of production - from the city's creeks and lakes, at treatment plants, and into the distribution system - ensuring that it is safe to drink. We are proud to report that our drinking water meets or exceeds all United States Environmental Protection Agency (EPA) and TCEQ drinking water requirements.

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent EPA-required tests. We hope this information helps you become more knowledgeable about what is in your drinking water.

If you would like more information about Abilene's water quality, water assessments and protection efforts, please call the City of Abilene's Environmental Laboratory at (325) 676-6041.

En Español: Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. (325) 676-6381 - para hablar con una persona bilingüe en español.

A Source Water Susceptibility Assessment for your drinking water sources is currently being updated by the TCEQ. This information describes the susceptibility and types of constituents that may come into contact with your drinking water based on human activities and natural conditions. The information contained in the assessment will allow us to focus our source water protection strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at <https://dww2.tceq.texas.gov/DWW/>

CONTAMINANTS AND CONSTITUENTS

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As the 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.

Contaminants that may be present in source water:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage 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 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.

All drinking water may contain contaminants. When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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 (800) 426-4791.

CONTAMINANTS AND CONSTITUENTS (CONTINUED)

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 by the EPA. These constituents are not causes for health concern.

Lead can be harmful. 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. This water supply 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 two 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 testing, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

WHERE DOES OUR WATER COME FROM?

Abilene's water comes from surface water sources.

- Lake Fort Phantom Hill in North Abilene
- Hubbard Creek Lake between Albany and Breckenridge
- Lake O.H. Ivie near Ballinger
- Lake Abilene (reserve source of water)
- Lake Kirby in South Abilene, reserved for landscape irrigation

WATER QUALITY REPORT

SPECIAL NOTICE FOR ELDERLY, INFANTS, CANCER PATIENTS, PEOPLE WITH HIV/AIDS OR OTHER IMMUNE PROBLEMS:

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly or Immuno-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800) 426-4791.

PUBLIC PARTICIPATION OPPORTUNITIES

The City of Abilene Water Utilities Department is governed by the Abilene City Council, which meets on the second and fourth Thursdays of each month at 8:30 a.m. in City Council Chambers, City Hall, 555 Walnut. You may also contact the Department Director at (325) 676-6416.

City of Abilene Water Utilities Department

555 Walnut St., P.O. Box 60

Abilene, TX 79604

325-676-6417

VISIT OUR WEBSITE

to learn more about water conservation in Abilene, including the Stage we are currently in and watering restrictions it requires.

WWW.SAVEABILENEWATER.COM

WWW.PONDERTHESQUANDER.COM

Keep Abilene Flowing



SAVEABILENEWATER.COM