City of San Angelo

Department of Water Utilities

2019 Consumer Confidence Report

(Year 2018 Data)

WHY HAVE I RECEIVED THIS REPORT?

In 1996, Congress amended the Safe Drinking Water Act to include a requirement that water utilities annually notify customers about their drinking water quality. This report is produced annually by the Department of Water Utilities to provide information about the San Angelo water system, source water, levels of minerals and any detected contaminants, and to ensure compliance with applicable TCEQ rules and regulations. We hope this report will also help answer any questions you may have about our water system and quality. The Department of Water Utilities is part of your city government. If you have questions about this report, you may contact us by telephone or mail:

Department of Water Utilities
301 W. Beauregard
San Angelo, Texas 76903
325.657.4209 - http://www.cosatx.us

If you would like the opportunity to participate in decisions that may affect the quality of our water, you may attend a regularly scheduled City Council Meeting at the McNeese Convention Center on the first and third Tuesday of the month.

San Angelo Water System Facts

	2016	2017	2018
Total Year Pumpage (Billion Gallons)	4.08	4.19	4.39
Daily Treatment Capacity (Million Gallons)	42	42	42
Maximum Daily Usage (Million Gallons)	18.0	19.0	19.9
Average Daily Usage (Million Gallons)	11	11	12
Average Person Usage (Gallons Daily)	111	114	119
Distribution System (Miles)	685	663	667
Service Connections (Water Meters)	35,540	35,858	34,907
Population	100,450	100,700	100,119

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en Español, favor de llamar al telefono (325) 657-4209.

WHERE DOES OUR WATER COME FROM?

San Angelo currently has six surface water sources: Twin Buttes Reservoir, O.C. Fisher Lake, Lake Nasworthy, O.H. Ivie Reservoir, E.V. Spence Reservoir, and the South Concho River. San Angelo currently gets its source water from O.H. Ivie Reservoir or the South Concho River, which is fed by Twin Buttes and Lake Nasworthy. O.H. Ivie Reservoir is typically the primary source. However, on occasion the South Concho River is used as the primary source. Occasionally, the two source waters are blended.

In 2014, the Hickory Aquifer groundwater became available as an additional water source. A water treatment plant, which includes ion exchange and pressure filtration to remove radium and iron from the Hickory groundwater, has been completed and is currently being used as an additional water source. The treated groundwater is blended with surface water. Hickory water wells have an average 18 pCi/L of radium. The groundwater treatment plant will remove approximately 90-95 percent of the radium resulting in about 1 pCi/L in the finished water. This water is then blended with surface water, which will reduce the radium content even more, most likely below 1 pCi/L. The TCEQ regulatory limit is currently 5 pCi/L.

The Hickory Aquifer water also has a much lower mineral and organic content than the city's surface water sources. Utilizing this water will result in a lower overall total mineral content of the finished water. The lower levels of organic material in the water will also help reduce the formation of trihalomethanes (THMs) during the disinfection process.

HOW IS OUR WATER USED?

Residential	72%
Commercial	15%
Institutional	8%
Industrial	5%

SPECIAL HEALTH INFORMATION

The following information is not meant to alarm or scare you. It is meant to make you aware. The exact wording shown below is required by state regulations.

"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; those 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 provider. Additional guidelines on

appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791."
TTHMs (Total Trihalomethanes). Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

2018 - 2019 CAPITAL PROJECTS

- Rehabilitation of water and sewer mains along Bell Street as part of a 10 year Street Program, $12M.
- Rehabilitation of water and sewer mains along College Hills Blvd. as part of a 10 year Street Program, $3M.
- Drilling of approximately 7 additional wells in the Hickory Aquifer and expanding the water treatment facility.
- Design of Martin Luther King and Randolph Street water line replacement of 6,700’ of 18” water main.
- Design of Lake Nasworthy sewer trunk main approximately 3.5 miles (total project estimate $32M).

DON'T POUR IT DOWN THE DRAIN - FATS, OILS, GREASE, SOLIDS

These materials are generated during food preparation. They don't mix well with water. When flushed, these materials can build up and block the entire sewer pipeline and cause raw sewage overflows into your home, lawn, streets, parks and rivers. Never pour fats, oil, grease or food scraps into your sink, garbage disposal or toilet. It is best to place as much of these type wastes as you can into your garbage.

FLUSHING FIRE HYDRANTS

The Texas Commission on Environmental Quality (TCEQ) requires mandatory flushing of dead-end water mains every month. If San Angelo fails to do so, it can result in a regulatory violation being imposed by the TCEQ. As water sits stagnant in water mains, whether due to dead-end mains or low water usage due to the success of our conservation program, water tends to lose disinfectant residual and may become turbid or discolored. Therefore, you may see water utility personnel flushing fire hydrants throughout the year. This is a required practice and helps ensure the highest quality of water delivered to your tap.

WATER CONSERVATION TIPS

- Toilet leaks can be silent! Be sure to test your toilet for leaks at least once a year.
  - Put food coloring in your toilet tank. If it seeps into the bowl without flushing, there is a leak. Fix it and start saving gallons.
  - If your toilet flapper doesn’t close properly after flushing, replace it.
- One drip every second can add up to five gallons per day! Check your faucets and showerheads for leaks. It’s simple, inexpensive, and you can save 140 gallons per week.

- We're more likely to notice leaky faucets indoors, but don't forget to check outdoor faucets, pipes and hoses.
- Sprinklers should spray large drops close to the ground, rather than a fog or mist, which can be blown away by wind.
- When watering your lawn, do not allow your water to run off property to a gutter, street, alley, or drainage for a distance of more than 150 feet.

RAINWATER HARVESTING AND XERISCAPE

The City of San Angelo, as well as the State of Texas, encourage the use of rainwater to help supplement water needs, especially during current drought conditions. We encourage you to look for potential areas on your roof or property where you could capture rainwater. Rainwater can be collected off most any type roof. Metal roofs provide for the cleanest rainwater and are best if you intend to use the water as a potable source. Unscented regular bleach is often used to disinfect water prior to drinking. You should always have your water thoroughly tested if you intend to use it for drinking water to ensure it is safe. Wood and composite shingle roofs provide a less pure water than metal roofs, so water from these roof types is typically used for watering trees, gardens, yards, and foundations. Many homes have existing gutters and downspouts that currently discharge to the ground. These are excellent examples of where a 50-1000 gallon water tank can be installed. A roof will normally capture 0.6 gallons of rainwater per square foot of roof surface area. Below is an example of what a typical size home could expect to capture with normal rainfall levels in our area:

House Size – 30' x 60' = 1800 sq. ft.
1800 x 0.6 = 1080 gallons of water per inch of rain
Normal rainfall in San Angelo is 20" per year, so 1080 x 20 = 21,600 gallons per year

We encourage the public to consider rainwater harvesting projects as part of a long term solution to the water shortage we are currently experiencing in our area.

Another method of reducing water use is the practice of xeriscaping. Xeriscaping is when grass lawns and shrubs are partially or totally replaced with rock, groundcover, desert plant, or low water use shrubs. Xeriscaping a lawn is probably the best way to conserve large amounts of water.

CURRENT DROUGHT LEVEL AS OF THIS PRINTING – STANDARD CONSERVATION

- Watering your lawn is allowed no more than twice every seven days with total applications not exceeding one inch per week.
- Watering is prohibited from noon to 6 p.m., when evaporation rates are highest.
- Golf course greens may be watered daily except during prohibited watering hours.

- Drip irrigation and hand watering are allowed on any day, so long as the total amount of water used does not exceed 1 inch per week. Drip irrigation may occur at any time of day. Hand watering is prohibited from noon to 6 p.m.
- Water may not run more than 150 feet down any gutter, street, alley or ditch.

WATER LOSS IN THE SYSTEM

The TCEQ requires that San Angelo report water loss each year. In the water loss audit submitted to the Texas Water Development Board for the previous calendar year, our system lost an estimated 12.89% of treated water. Water loss can result from broken water mains and leaks in the distribution system, routine and non-routine hydrant flushing, and required steps in the production of treated water. If you have any questions about the water loss audit please call the Water Utilities Department at 325-657-4209.

A WORD ABOUT LEAD AND COPPER

If present, elevated levels of lead can cause serious health problems, especially for young children and pregnant women. Lead in drinking water comes primarily from materials used in home plumbing, fixtures and service lines. This water supply is responsible for providing water with acceptable low levels of lead, however cannot control the variety of materials used in plumbing components. When your water has been sitting for several days, you can minimize the potential for elevated levels of lead by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. All public schools should thoroughly flush their water lines following an extended break. 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.

CHLORAMINE DISINFECTION

San Angelo uses a mixture of chlorine gas and liquid ammonium sulfate for disinfection. When combined, chloramine is formed. Chloramine is primarily composed of monochloramine, with much lesser levels of dichloramine and trichloramine. Surface water sources, such as O.H. Ivie and the South Concho River, typically contain dissolved organic compounds that react with free chlorine during disinfection to form unwanted by-products called trihalomethanes (THMs). To reduce the production of THMs, liquid ammonium sulfate is added at the time of chlorination so it will combine with the chlorine to form chloramines. This is done specifically to reduce and control the production of THMs. As chloramine moves through the distribution system and provides disinfection of the water, it partially decays and releases ammonia. Over time, the ammonia can cause unwanted side effects such as nitrification and biofilm. Periodically the disinfectant must be changed back from chloramines to free chlorine to help control nitrification and reduce the biofilm. This typically takes about four weeks to accomplish and is usually done during the month of June each year. During this change, chlorine dosage levels at the treatment plant are not increased and are often reduced. Free

chlorine has a much lower threshold of odor than chloramines so the water may smell like it has more chlorine in it when it actually doesn't.

	State and Federal Standards		Levels Measured in San Angelo Water			
Disinfectant Residual	MCLG	MCL	Average Level Detected	Minimum Level Detected	Maximum Level Detected	Possible Source
Chloramines (ppm)	4 MRDLG	4 MRDL	3.54	0.22	5.9	Disinfectant used to control microbes

MCLG (Maximum Contaminant Level Goal) - 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.
MCL (Maximum Contaminant Level) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to maximum contaminant level goals as feasible using the best available treatment technology.
MRDLG (Maximum Residual Disinfectant Level Goal)- 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.
MRDL (Maximum Residual Disinfectant Level) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDL and MRDLG are based on a monthly average. There is no violation to occasionally exceed 4.0 mg/L chlorine residual on a given day.

FACTS ABOUT TRIHALOMETHANES (THMs)

When chlorine is added to source water containing dissolved organics, undesirable by-products are often formed called disinfection byproducts (DBP's). These include trihalomethanes (THMs) and haloacetic acids (HAA5s). DBPs are a common problem with most all surface water treatment plants and can form at the treatment plant and in the distribution system. Warmer water temperature in the summer and longer water residence time in the distribution lines due to conservation measures can enhance the formation of DBPs in our water. Water lines must routinely be flushed to remove stagnant water to prevent the formation of DBPs, especially during periods of elevated conservation. It may appear that water is being unnecessarily wasted by flushing lines, but this must be done to prevent the formation of DBPs. The regulatory limit for THMs is 80 ppb and HAA5s is 60 ppb. San Angelo had no violations for THMs or HAA5s in 2018 (see tables below).

2018 THM Quarterly Testing – Results in ppb – TCEQ Limit is 80 ppb Annual Running Average (RAA)								
Sample Site	First Quarter 2/28/18		Second Quarter 4/24/18		Third Quarter 7/17/18		Fourth Quarter 12/4/18	
	Result	RAA	Result	RAA	Result	RAA	Result	RAA
DBP2-01	52.7	54.4	41.4	47.6	43.9	45.5	46.2	44.4
DBP2-02	52.6	59.4	41.4	49.7	40.7	43.9	48.6	44.8
DBP2-03	64.5	58.3	38.8	47.4	42.2	46.9	48.9	44.7
DBP2-04	63.0	58.2	41.5	48.7	46.8	49.5	50.5	47.3
DBP2-05	59.0	58.9	40.5	48.0	45.0	47.4	44.6	43.7
DBP2-06	62.6	57.7	38.5	46.8	43.1	46.8	51.7	46.3

DBP2-07	62.6	60.0	39.8	49.0	40.5	45.9	47.9	44.0
DBP2-08	56.4	57.4	41.6	48.5	48.8	48.9	50.0	47.6

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer

2018 HAA5 Quarterly Testing – Results in ppb – TCEQ Limit is 60 ppb Annual Running Average (RAA)								
Sample Site	First Quarter 2/28/18		Second Quarter 4/24/18		Third Quarter 7/17/18		Fourth Quarter 12/4/18	
	Result	RAA	Result	RAA	Result	RAA	Result	RAA
DBP2-01	22.1	11.1	20.2	15.6	34.0	27.6	26.2	26.7
DBP2-02	20.0	10.0	23.9	17.0	35.1	28.5	28.2	28.9
DBP2-03	27.2	13.6	21.1	17.4	31.7	27.9	30.6	28.5
DBP2-04	22.3	11.2	22.9	17.0	32.2	27.4	31.8	29.7
DBP2-05	23.9	12.0	22.4	17.2	35.1	29.1	36.6	32.7
DBP2-06	22.8	11.4	23.9	17.7	31.2	27.3	27.9	27.7
DBP2-07	24.1	12.1	22.9	17.5	31.4	27.5	27.7	27.4
DBP2-08	21.7	10.9	24.1	17.5	38.5	30.7	27.3	29.3

Some people who drink Haloacetic acids (HAA's) in excess of the MCL over many years may have an increased risk of getting cancer.

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Tymn Combest, Plant Operations Manager, tymn.combest@cosatx.us.

The sources of drinking water (both tap 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. Contaminants that may be present in source water include: (1) microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; (2) 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; (3) pesticides and herbicides, which might have a variety of sources such as agriculture, urban storm water runoff, and residential uses; (4) organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (5) radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that 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. 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 Safe Drinking Water Hotline at (800) 426-4791. For more information on source water assessments and protection efforts at our system, contact Allison Strube, Director of Water Utilities, 325.657.4209.

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	Likely Source of Contamination
0	5% of monthly samples are positive.	1		0	N	Naturally present in the environment.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2018	30	20-38.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2018	59	38.5-64.4	No goal for the total	80	ppb	N	By-product of drinking water disinfection. Note-Highest Level Detected is as the annual running average.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2018	2	1.7 - 1.7	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production.
Barium	2018	0.2	0.2 - 0.2	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2018	149	149-149	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2018	0.3	0.339 - 0.339	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth.
Nitrate [measured as Nitrogen]	2018	0.436	0.436 - 0.436	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2016	10	5.4 – 5.4	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	11/9/16	7.4	7.4-7.4	0	4	Mrem /year	N	Decay of natural or man-made deposits.
Gross alpha excluding radon and uranium	2016	1	0 – 6	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	11/9/16	1.1	1.1-1.1	0	30	ug/L	N	Erosion of natural deposits.

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

Synthetic Organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrizine	2018	0.1	0.1-0.1	3	3	ppb	N	Runoff from herbicide used on row crops

Lead and Copper

Lead and Copper	Date Sampled	MCLG	Action Level	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2018	1.3	1.3	0.105	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2018	0	15	3.65	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.9 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.

Turbidity is a measure of the clarity of the water. Low turbidity is required to indicate the removal of larger microorganisms.

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.

UNREGULATED CONSTITUENTS

Substance (units)	Year Tested	Average Level Detected	Minimum Level Detected	Maximum Level Detected	Limit	Possible Source
Bicarbonate (ppm)	2018	136	136	136	NA	Erosion of natural deposits
Chloride (ppm)	2018	228	228	228	300	Erosion of natural deposits, natural occurring element, ancient oceanic deposits
pH (units)	2018	8.1	8.1	8.1	> 7.0	Measure of corrosivity of the water
Sulfate (ppm)	2018	242	242	242	300	Erosion of natural deposits, natural occurring
T Alkalinity as $CaCO_3$ (ppm)	2018	136	136	136	NA	Erosion of natural deposits, natural occurring

Total Dissolved Solids (ppm)	2018	873	873	873	1000	Erosion of natural deposits, total dissolved mineral constituents in water
Specific Conductance	2018	1480	1480	1480		Erosion of natural deposits, total dissolved mineral constituents in water

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

Cryptosporidium and E. coli Testing of Raw Surface Water Sources

	O.H. Ivie Reservoir				Concho River at Lone Wolf Dam			
Month/Year	Giardia (Oo) cysts/L	Crypto (Oo) cysts/L	MPN Total Coliform/ 100 mL	E. coli /100ml	Giardia (Oo) cysts/L	Crypto (Oo) cysts/L	MPN Total Coliform/ 100 mL	E. coli /100ml
Jan-17	0	0	11.0	<1.0	0.3	0	307.6	17.9
Feb-16	0	0	1732.5	1.0	0	0	980.4	13.5
Mar-16	0	0	1299.7	<1.0	0	0.1	>2419.6	6.3
Apr-16	0	0	118.7	<1.0	0.4	0	>2419.6	9.7
May-16	0	0	224.7	3.1	0.09	0	>2419.6	104.6
Jun-16	0	0	1986.3	2.0	0	0.5	>2419.6	3.1
Jul-16	0	0	1203.3	<1.0	0	0	>2419.6	5.2
Aug-16	0	0	488.4	<1.0	0	0	>2419.6	21.3
Sep-16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oct-16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dec-16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Although Cryptosporidium, Giardia, and E. coli have been detected in source water, these organisms are destroyed or removed in the treatment process by filtration and disinfection. Results in the table above are for raw, untreated water.

Avg – Regulatory compliance with some MCLs are based on running annual average of monthly samples.
MCLG (Maximum Contaminant Level Goal) - 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.
MCL (Maximum Contaminant Level) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to maximum contaminant level goals as feasible using the best available treatment technology.
MRDLG (Maximum Residual Disinfectant Level Goal) - 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.
MRDL (Maximum Residual Disinfectant Level) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
mrem/year--millirems per year (a measure of radiation absorbed by the body)
NTU--nephelometric turbidity units (a measure of turbidity)
pCi/L--picocuries per liter (a measure of radioactivity)
ppb--parts per billion, or micrograms per liter (µ/L)

ppm--parts per million, or milligrams per liter (mg/L)
ppt--parts per trillion, or nanograms per liter (ng/L)
ppq--parts per quadrillion, or picograms per liter (pg/L)

TT (Treatment technique) -A required process intended to reduce the level of a contaminant in drinking water.
AL (Action Level) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
ALG (Action Level Goal) – 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.
ND - no detection
NA - not applicable
Note: Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

Data presented in this report is from the 2016 calendar year or from the most recent testing performed in accordance with State regulations. The 90th percentile value means 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an "average" value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps. EPA considers 50 pCi/L to be the level of concern for beta particles.

VIOLATIONS

The City of San Angelo received one violation from the TCEQ during this reporting period. During a routine TCEQ field audit conducted on September 17, 2018, an investigator documented that the City of San Angelo:

1. Failed to protect the well with an intruder-resistant fence with a lockable gate, or enclose the well in a locked and ventilated well house, in violation of 30 TAC 290.41(c)(3)(O). **Specifically**, one of the gates to the fence enclosing Well No. 17 (G2260001M) and one of the gates to the fence enclosing Well No. 4 (G2260001D) were not locked. A padlock was present on the gate but the locking bolt was not engaged upon inspection.
2. Failed to provide adequate containment facilities for all liquid chemical storage tanks, in violation of 30 TAC 290.42(f)(1)(E)(ii). **Specifically**, the plug had been removed from the floor drain in the chemical day tank room.
3. Failed to compile and maintain a thorough and up-to-date plant operations manual for operator review and reference, in violation of 30 TAC 290.42(l). **Specifically**, the plant operations manual did not have information for the Surface Water Treatment Plant.

- Document End -