City of Big Sandy

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publicworks@bigsandytx.gov

2017 Water Quality Report - PWS #2300001

June 25, 2018

As part of our commitment to providing quality drinking water, we have prepared this Water Quality Report (also known as the consumer confidence report) for our customers and the Texas Commission on Environmental Quality (TCEQ). This report contains drinking water data from the 2017 calendar year (Jan 1. 2017 - Dec. 31, 2017) and informs you about the quality of your drinking water.

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono 903.636.4343.

Water Source

The City of Big Sandy uses groundwater from three wells that draw from the Carrizo-Wilcox Aquifer, which is a major aquifer extending from the Louisiana border to the border of Mexico in a wide band adjacent to and northwest of the Gulf Coast Aquifer.

Water Storage

The City of Big Sandy has the following water storage capacity:

- One (1) elevated tank built in 1935, capacity 50,000 gallons
- One (1) elevated tank built in 1989, capacity 200,000 gallons
- One (1) ground storage tank built in 2005, capacity 87,000 gallons
- One (1) ground storage tank built in 2015, capacity 100,000 gallons

The safe limit on water demand is 330,000 gallons per day. If this amount is exceeded, then a water conservation plan is put into effect.

Water Distribution

The City of Big Sandy water distribution system consists of five (5) high-lift service pumps and miles of 2" through 8" size water lines. The City of Big Sandy water lines are a combination of PVC, galvanized, asbestos cement, and cast iron. Service lines from the water main to the customers consist of PVC, copper and galvanized pipe.

Disinfectant

The only treatment the city is required to do is the addition of chlorine. We are required to maintain at least a 0.2 ppm (parts per million) free chlorine residual at the furthermost point of our system.

Total Pumpage

The total gallons pumped in 2017 was 72,000,000. The city has about 720 customer connections.

Certification

Water systems must employ persons with state certifications. The City of Big Sandy has one state-certified operator: Public Works Director Scott Rogers, who has a "C" License.

Public Works Telephone Number:	City Hall	903.636.4343
After Hours Emergency Telephone Number:	Police Dept.	903.636.4200

For more information about this report, or for any questions relating to your drinking water, please email the Public Works Dept. at publicworks@bigsandytx.gov. If you have any health concerns related to the information in this report, we encourage you to contact your health care provider.

Information about your Drinking Water

SUBSTANCES EXPECTED IN DRINKING WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

- Microbial contaminants: such as viruses and bacteria, 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 runoff, industrial, or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides: 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: can be naturally-occurring or be the result of oil and gas production and mining.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) 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. For more information on taste, odor, or color of drinking water, please the Public Works Department at publicworks@bigsandytx.gov.

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.

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. The 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 (1-800-426-4791).

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.

ABBREVIATIONS & DEFINITIONS OF TERMS

Abbreviation	Term	Definition
AL	**Action Level**	The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement for a system.
ALG	**Action Level Goal**	The level of a contaminant in drinking water below which there is no known or expected risk to health., ALG's allow for a margin of safety.
AVG	**Average**	Regulatory compliance with some MCL's are based on running annual average of monthly samples.
MCL	**Maximum Contaminant Level**	The highest level of a contaminant that is allowed in drinking water.
MCLG	**Maximum Contaminant Level Goal**	The level of a contaminant in drinking water below which there is no known or expected risk to health. Allows for a margin of safety.
MFL	**Million Fibers per Liter**	A measure of asbestos.
MRDLG	**Maximum Residual Disinfectant Level Goal**	The level of a drinking water disinfectant below which there is no known or expected risk to health. Does not reflect use of disinfectants to control microbial contaminants.
MRDL	**Maximum Residual Disinfectant Level**	The highest level of a disinfectant allowed in drinking water.
MREM/year	**Millirems per Year**	A measure of radiation absorbed by the body.
NA	**Not Applicable**	Not applicable.
ND	**Not Detectable**	Not detectable at testing limits.
NTU	**Nephelometric Turbidity Units**	A measure of turbidity.
pCi/L	**Picecuries per Liter**	A measure of radioactivity.
ppb	**Parts per Billion**	Micorgrams per liter (ug/l)
ppm	**Parts per Million**	Milligrams per liter (mg/l)
ppq	**Parts per Quadrillion**	Picogams per liter (pg/l)
ppt	**Parts per Trillion**	Nanograms per liter (ng/l)
TT	**Treatment Technique**	A required process intended to reduce the level of a contaminant in drinking water.

INFORMATION ABOUT SOURCE WATER

TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report.

For more information on source water assessments and protection efforts at our system, please email us at publicworks@bigsandytx.gov.

2017 WATER QUALITY RESULTS

Part 1: Regulated Detected Contaminants:

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2017	1.3	1.3	0.54	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2017	0	15	1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.
The City of Big Sandy is on a reduced sampling schedule for lead and copper, due to our compliance history. The results listed above are distribution samples taken from the customersô tap. Lead and copper has not been detected in water leaving the water treatment facilities. The source of lead and copper is corrosion of household plumbing systems.								

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2017	3	2.5 - 2.5	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes	2017	9	8.84 - 8.84	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

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

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2017	1.16	1.13 - 1.2	1.80	4.0	Mg/L	N	Water additive used to control microbes.

Inorganic Contaminants - Secondary Constituents	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	10/26/2015	0.1200	0.077 - 0.12	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	10/26/2015	0.2730	0.268 - 0.273	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2017	0.0279	0.0279 -0.0279	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	10/26/2015	1.2000	0 - 1.20	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Organic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
None	2017			0	0	pCi/L	N	Erosion of natural deposits.

Coliform	Year	Constituent	Highest Monthly % of Positive Samples	MCL	MCLG	Units of Measure	Source of Contaminant
	2017	Total Coliform Bacteria	0%	*	0	Presence	Naturally present in the environment
	2017	Fecal Coliform Bacteria	ND	*	0	Presence	Naturally present in the environment

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. All samples taken were negative and did not indicate the presence of coliform bacteria. *Presence of coliform in 5% or more of the monthly samples.

E. Coli	The City of Big Sandy testing of ground water detected no levels of *Cryptosporidium Giardia lamblia* and *Escherichia coli* (*E. coli*) commonly found in ground water. Required levels of inactivation are achieved through disinfection and filtration; however these treatment methods cannot guarantee 100 percent removal nor can the testing methods determine if the organisms are alive and capable of causing diarrhea, cramps and fever. We utilize excellent treatment methods of removal and inactivation at the water treatment plants.

2017 Water Quality Results

Part 2: Unregulated Detected Contaminants:

Year	Constituent	Average	Range	Source of Contaminant
2017	None	N/A		

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfection by-products. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Unregulated contaminants are those for which 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 regulation is warranted.

In 2017, there were no unregulated detected contaminants in the Big Sandy water supply.

Violations

Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2010	01/10/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2011	01/10/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2013	01/10/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2014	01/10/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2015	01/10/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	07/01/2016	01/10/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
LEAD CONSUMER NOTICE (LCR)	09/29/2017	11/13/2017	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

BIG SANDY'S SOURCES OF DRINKING WATER AND DISTRIBUTION SYSTEM

Big Sandy uses ground water from three wells that draw from the Carrizo-Wilcox Aquifer. A source water assessment has been completed by the Texas Commission on Environmental Quality (TCEQ) for all the water sources and the report is available to review by calling us at 903.636.4343 or emailing us publicworks@bigsandytx.gov.

The City of Big Sandy is focused on source water protection activities since some of our sources are susceptible to contaminants. The water sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this report. For more information on source water assessments and protection efforts please contact us at 903.636.4343.

To monitor water quality in local rivers, streams, and reservoirs, the City of Big Sandy has a Watershed Management Program. We work closely with the Sabine River Authority, Northeast Texas Municipal Water District, Texas Railroad Commission, Texas Commission on Environmental Quality (TCEQ), Texas Parks and Wildlife Commission, American Water Works Association, Texas Water Utilities Association and local industries to monitor and maintain a high level of water quality.

The City of Big Sandy did not experience any water shortages during 2017. The City continued its water conservation plan of asking all residents to follow the year-round watering schedule: if your physical street address ends in an odd number (1, 3, 5, etc.), water on Wednesday, Friday, and Sunday. If your physical street address ends in an even number (2, 4, 6, etc.), water on Tuesday, Thursday and Saturday.

The City of Big Sandy was not required to submit a water loss audit this year but is scheduled to submit their next water loss audit May 1, 2021 reporting for the 2020 calendar year.

STORM WATER POLLUTION PREVENTION PROGRAM

Watersheds may be susceptible to contamination resulting from flood, erosion, and pollution; also referred to as storm water runoff. The City of Big Sandy has incorporated a program to help manage Storm Water Pollution.

Storm water pollution is being reduced from the monitoring and modification of the City's operations through good municipal housekeeping. Our program also works to control construction runoff resulting in less sediment, the number one pollutant in our watersheds.

Finally, one of the most important parts of this program is the education and involvement of the public and citizens of Big Sandy regarding watersheds and storm water pollution.

GUIDELINES TO HELP PREVENT STORM WATER POLLUTION

1. Use fertilizers sparingly
2. Sweep up driveways, sidewalks, and gutters
3. Never dump, blow, sweep, or wash anything down storm drains
4. Don't leave bare spots in your yard
5. Compost wastes
6. Use less toxic pesticides, follow labels, and learn how to prevent pest problems
7. Direct downspouts away from paved surfaces; consider a rain garden to capture runoff
8. Take your car to the car wash instead of washing it in the driveway
9. Check your car for leaks and recycle your motor oil
10. Pick up after your pet

CONCLUSION

Thank you for reading through the City of Big Sandy Water Quality Report for 2017. Under the direction of Scott Rogers, Public Works Director, the water department and the service we provide to you is continually improving. We welcome your comments and suggestions.

If you have additional questions, the quickest way to get them answered is by e-mail at the addresses listed below.

City of Big Sandy Water Department			
Public Works Director	Scott Rogers	903.636.4343	publicworks@bigsandytx.gov
PW Maintenance	Duane Mize	903.636.4343	publicworks@bigsandytx.gov
PW Maintenance	Kerry Muray	903.636.4343	publicworks@bigsandytx.gov
PW Maintenance	Joe Pope	903.636.4343	publicworks@bigsandytx.gov
Utility Clerk/Billing	Deb Giles	903.636.4343	clerk@bigsandytx.gov
City Secretary	Laura Rex	903.636.4343	cityofbigsandy@yahoo.com

City of Big Sandy Elected Officials			
Mayor	Sonny Parsons	903.714.4333	sonnyparsons@juno.com
Mayor Pro Tem	Mike Baggett	903.720.5577	mbaggett0122@gmail.com
Councilmember	Cindy Bauter	940.882.5177	cbauter@bigsandytx.gov
Councilmember	Don Cochran	903.636.9163	
Councilmember	Becky Desborough		bdesborough@bigsandytx.gov
Councilmember	Rex Rozell	903.636.2214	rrozell@bigsandytx.gov