

2017

WATER

QUALITY

REPORT

Our Mission

The City of Nacogdoches Water Utilities Department is committed “to provide the citizens of the City of Nacogdoches the highest quality of an uninterrupted water supply in a safe, secure and economical manner both now and in the future.” Over the years we have dedicated ourselves to producing drinking water that meets or exceeds state and federal drinking water standards. We continually strive to adopt new and improved methods of delivering the best quality drinking water to you and committed to set the standards of excellence in operations and maintenance.

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

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.

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono (936) 564-5046

Community Participation

For more information concerning this report please contact The Water Utilities Manager at 936-564-5046

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 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 before treatment includes:

microbes, inorganic contaminants, pesticides and herbicides, radioactive contaminants, and organic chemical contaminants.

SPECIAL HEALTH INFORMATION

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. EPA/Centers for Disease Control and Prevention (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>

Where Do We Get Our Drinking Water?

Our drinking water is obtained from Ground and Surface Water sources. It comes from WILCOX-CARRIZO aquifer and LAKE NACOGDOCHES: 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 detection of these contaminants may be found in this Consumer Confident Report. The information contained in the assessment will allow us to focus on source water protection strategies. For more information on source water assessments and protection efforts at our system, please contact us at 936-564-5046.

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 Environmental Protection Agency’s Safe Drinking Water Hotline (800-426-4791).

Secondary Constituents

Many constituents (such as calcium, sodium, or iron), that can cause taste, color, and odor problems 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

may greatly affect the appearance and taste of your water.

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 detection 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 Bart Allen, Water Utilities Manager

Water Security:

Water security is a shared responsibility involving water suppliers, wastewater utilities, government, law enforcement and citizens. We can all be involved in Homeland Security by playing an important role in protecting our critical water resources.

Problem:

Local drinking water and wastewater systems may be targets for terrorists and other would-be criminals wishing to disrupt and cause harm to your community water supplies or wastewater facilities.

Challenge:

Water utilities are often located in isolated areas. Drinking water sources and wastewater collection systems may cover large areas that are difficult to secure and patrol.

Solution:

Residents can be educated to notice and report any suspicious activity, in and around local water utilities. Interested and dedicated citizens are essential to increase the security eyes and ears in your community.

Homeland Security-What Can You Do?

Form and operate a citizens watch network within your community to communicate regularly with law enforcement, and your public water and wastewater operations department. Communication is the key to a safer community!

- Be informed
- Be prepared
- Be involved

When Reporting an Incident

- State the nature of the incident
- Identify yourself and your location
- Identify location of the activity
- Describe any vehicle (color, make, model license number)
- Describe the participants (how many, sex, race, hair, clothing, height, etc.)



WATER SMART

Water You Save Might be Just Your Own.

We all know the saying, "if you don't like the weather in Texas, wait a while, it'll change." From the earliest natives to the settlers that followed, Texans quickly learned that seasonal droughts and erratic weather are just part of living in this region. That's why being smart with water use has been and still is a Texas tradition. Now, more than ever. As our numbers grow, we've got to pull together and make the best of our water supply. Conserving water is easy, and the right thing to do. Working together with your local water utility,

and other businesses, Texas is educating people on how to effectively conserve our precious water resources. The website listed below is full of tips on how to conserve water, both indoors and outdoors. So remember, don't be waterless. **Water less and be Water Smart!**

For more information on water conservation call your local water utility (936) 564-5046 or go to www.watersmart.org

Contacts:

Texas Commission on Environmental Quality
Region 10, Beaumont: (409) 898-3838
Texas Commission on Environmental Quality
Austin, Texas (512) 239-1000

Local Emergency Response: 911

Total Trihalomethanes (TTHM)			
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.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MCL Average	1/1/2017 4/1/2017	3/31/2017 6/30/2017	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

Fecal Coliform REPORTED MONTHLY TEST FOUND NO FECAL COLIFORM BACTERIA

Total Coliform					
Total coliform bacteria are used as indicator of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption.					
Year	Contaminant	MCL	Highest Monthly # of positive samples	Unit of measure	Source of Contaminant
2017	Total Coliform Bacteria	5% of monthly samples	0	presence	Naturally occurring in the environment

Lead and Copper					
Year	Constituent (Unit of Measure)	The 90th Percentile	# of Sites Exceeding Action Level	Action Level	Source of Contaminant
2017	Lead (ppb)	0.00146	0	0.015	Corrosion of household plumbing systems; erosion of natural deposits
2017	Copper (ppm)	0.286	0	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Recommended Additional Health Information for Lead

"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 hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking and 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 and Other Not Regulated Constituents (No associated health effects)

Year	Constituent (Unit of Measure)	Average Level	Minimum Level	Maximum Level	Secondary Limit	Source of Constituent
2017	Aluminum (ppm)	0.25	0.25	0.25	0.2	Abundant naturally occurring element
2017	Bicarbonate (ppm)	81.65	22.3	141	NA	Corrosion of carbonate rocks such as limestone
2017	Chloride (ppm)	7.265	1.93	12.6	300	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2017	Copper (ppm)	0.0897	<0.005	0.532	1	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2017	Hardness as Ca/Mg ppm	17.26	1.31	33.2	NA	Naturally occurring calcium and magnesium
2017	Iron (ppm)	0	0.0	0.0	0.3	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2017	Lead (ppm)	0.00125	<0.0005	0.0094	NA	Corrosion of household plumbing systems; erosion of natural deposits
2017	Manganese (ppm)	0.0016	0.0016	0.0016	0.05	Abundant naturally occurring element.
2017	Nickel (ppm)	0	0	0	NA	Erosion of Natural deposits
2011	pH (units)	8.2	7.8	8.6	>7.0	Measure of corrosivity of water
2017	Sodium (ppm)	16.9	16.9	16.9	NA	Erosion of natural deposits; Byproduct of oil field activity
2017	Sulfate (ppm)	20.12	3.94	36.3	300	Naturally occurring; common industrial byproduct; byproduct of oil field activity
2017	Total Alkalinity as CaCO3 (ppm)	<20	<20	<20	NA	Naturally occurring soluble mineral salts
2017	Total Dissolved Solids (ppm)	139	96	182	1000	Total dissolved mineral constituents in water
2017	Zinc (ppm)	0.05	0.05	0.05	5	Moderately abundant naturally occurring element; used in the metal industry

ABOUT YOUR WATER SYSTEM

The Water Utilities Department treats approximately 7.5 million gallons of water each and every day from Lake Nacogdoches and our ground water supply. In the hot summer months peak

water usage can reach as much as 14 million gallons. With the expansion of the new Surface Water Treatment Plant, the city will have the capability of producing 28 million gallons of drinking water a day. This expansion will serve the citizens greatly now and in the future, a milestone in the commitment the City of Nacogdoches has made in providing quality, innovative services that set the standards in professionalism and excellence. As new challenges, water standards, and safety emerge, the city will be vigilant in maintaining our objective of providing quality drinking water at an affordable price.

Water loss for our system was less than 19.29%

Contact Us for More Information

Questions or concerns about water Quality: (936) 564-5046

To request information on water conservation or a speaker for your group: (936) 564-5046

Questions about your water bill: (936) 559-2593

Water and Sewer After Hours Emergency: (936) 559-2900

To request water / sewer line locates: (936) 564-5046

Public notice of TTHM Violation quarter 1, 2, 2017/DBP2/03 can be viewed at <https://www.ci.nacogdoches.tx.us>

Inorganics

Year	Constituent (Unit of Measure)	Highest Level	Minimum Maximum Level	MCL	MCLG	Source of Contaminant
2017	Barium (ppm)	0.044	0.044 0.044	2	2	Discharge of drilling wastes; Discharge from metal refineries; erosion of natural deposits
2017	Flouride (ppm)	0.586	0.161	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
2017	Nitrate (ppm) measured as Nitrogen	0.181	0.0134	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2017	Combined Radium	1.5	1.5	5	0	Erosion of natural deposits

Maximum Residual Disinfectant Level

Year	Disinfectant (Unit of Measure)	Average Level	Minimum Maximum Level	MRDL	MRDLG	Source of Chemical
2017	Chloramines (ppm)	3.45	2.1 4.7	4	<4.0	Disinfectant to control microbes

Disinfection By-Products

Year	Contaminant (Unit of Measure)	Highest/ Levels	Minimum Maximum Level	MCL	MCLG	Source of Contaminant
2017	Total Haloacetic Acids (ppb)	26	8.9 39.5	60	0	By-product of drinking water chlorination
2017	Total Trihalomethanes (ppb)	97	13.9 39.8	80	0	By-product of drinking water chlorination

Total Organic Carbon

Year	Contaminant (Unit of Measure)	Average Level	Minimum Maximum Level	MCL	MCLG	Source of Contaminant
2017	Source Water (ppm)	2.67	2.0 3.9	n/a	n/a	Naturally present in the environment

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts

Year	Contaminant (Unit of Measure)	Average Levels	Minimum Maximum Level	MCL	MCLG	Source of Contaminant
2008	Total Haloacetic Acids (ppb)	12	2.6 15	n/a	0	By-product of drinking water chlorination
2010	Total Trihalomethanes (ppb)	38	15.7 45	n/a	0	By-product of drinking water chlorination

Unregulated Contaminants

Year	Constituent (Unit of Measure)	Average Levels	Minimum Maximum Level	MCL	MCLG	Source of Contaminant
2017	Chloroform (ppb)	15.65	5.98 27.9	n/a	n/a	Byproduct of water disinfection
2017	Bromodichloromethane (ppb)	12.25	3.03 11.9	n/a	n/a	Byproduct of water disinfection
2017	Dibromochloromethane (ppb)	2.25	1.08 4.89	n/a	n/a	Byproduct of water disinfection

Turbidity

Year	Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Limits	Units	Source of Contaminant
2017	Turbidity	0.08	100%	0.3	NTU	Soil Runoff

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites.

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)	10/1/2016	9/18/2017	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.

Definitions

Maximum Contaminant Level (MCL)

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

Maximum Containment Level Goal (MCGL)

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

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

Action Level – The concentration of a Contaminant, which, if exceeded, triggers Treatment or other requirements which a water system must follow.

NTU – Nephelometric Turbidity Units

ppm – parts per million or milligrams per Liter (mg/l)

ppb – parts per billion, or micrograms per Liter (mg/l)

MFL – million fibers per Liter (a measure of asbestos)