

D & M Water Supply Corporation

2016 Water Quality Report

Consumer Confidence Report
PWS ID Number: TX1740010

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.

For more information regarding this report contact: General Manager Robert Shumate at 936-559-9900.

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono (936)559-9900.

Where do we get our drinking water? The sources of drinking water used by D & M WSC are Ground Water and Surface Water. Ground Water comes from the Wilcox-Carrizo Aquifer. Surface Water comes from Lake Nacogdoches and is purchased from the City of 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 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 Robert Shumate, General Manager 936-559-9900. For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:

<https://gisweb.tceq.texas.gov/swav/Controller/index.jsp?wtrsrc=>. Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww2.tceq.texas.gov/DWW/JSP/WaterSystem>. Water loss for our water system was less than 16.7 % for 2016.

SOURCES 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.

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.

Contaminants 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 might have 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.

In order to ensure that tap water is safe to drink, the 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. 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. D & M Water Supply is 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 (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

PUBLIC PARTICIPATION OPPORTUNITIES

The public may attend Board of Director meetings. The next meeting is: July 20, 2017 at 6:30 p.m. Normally meetings are the 3rd Thursday of each month. For a current schedule and meeting notices please visit <http://www.dmwater.org/board-meetings> or call 936-559-9900. If you are interested in serving as a director please contact us for details.

Definitions									
Avg = Average – Regulatory compliance with some MCLs are based on running annual average of monthly samples	MFL = million fibers per liter (a measure of asbestos)	na – not applicable.			mrem = millirems per year (a measure of radiation absorbed by the body)	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 which a water system must follow.	ppm = parts per million or milligrams per liter (mg/L)	ppb = parts per billion or micrograms per liter (ug/L)			pCi/L = picocuries per liter (a measure of radioactivity)	NTU = nephelometric turbidity units (a measure of turbidity)			
MCL = Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.	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.			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.			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.		
Source Water Name				Type of Water					
1 - Alazan		Alazan Plant		Groundwater		Active	Wilcox-Carrizo Aquifer		
3 - Press Rd		Press Rd Plant		Groundwater		Active	Wilcox-Carrizo Aquifer		
4 - Press Rd Remote		Press Rd Plant		Groundwater		Active	Wilcox-Carrizo Aquifer		
5 – Gravel Ridge		Gravel Ridge Plant		Groundwater		Active	Wilcox-Carrizo Aquifer		
7 - New Douglass		Douglass Plant		Groundwater		Active	Wilcox-Carrizo Aquifer		
City of Nacogdoches		CC from TX 1740003 CTY		Surface Water/Groundwater		Active	Lake Nacogdoches and Wilcox-Carrizo Aquifer		
Lead and Copper Testing is done at the customer's taps. Testing is done every 3 years.									
Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination	
Copper	2016	1.3	1.3	0.398	1	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.	
Lead	2016	0	15	1.81	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.	
Disinfectants and Disinfection By-Products	Date	Highest Level	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination	
Haloacetic Acids (HAA5)	2016	53.2	15.5 – 53.2	na	60	ppb	N	By-product of drinking water disinfection.	
Total Trihalomethanes (TTHM)	2016	72.9	26.4 – 72.9	na	80	ppb	N	By-product of drinking water disinfection.	
Inorganic Contaminants	Date	Average Level	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination	
Barium	2014 - 2016	0.0413	0.0175 – 0.0702	2	2	ppm	N	Discharge of drilling wastes and metal refineries; Erosion of natural deposits.	
Chromium	2014 - 2016	0.000957	<0.00039 – 0.0033	0.1	0.1	ppm	N	Discharge from steel and pulp mills; Erosion of natural deposits.	
Fluoride	2014 - 2016	0.17475	0.0685 – 0.32	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	
Nitrate	2016	0.0205	0.0185 – 0.033	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	
Radioactive Contaminants	Date	Highest Level	Range of Levels	MCLG	MCL	Units	Violation	Likely Source of Contamination	
Beta/photon emitters	2016	4.4	Non-detect. – 4.4	0	50	pCi/L*	N	Decay of natural and man-made deposits.	
*EPA considers 50 pCi/L to be the level of concern for beta particles.									
Combined Radium 226/228	2014 - 2016	1.5	1.0 – 1.5	0	5	pCi/L	N	Erosion of natural deposits.	
Maximum Residual Disinfectant Level									
Disinfectant	Date	Average Level	Minimum Level	Maximum Level	MRDL	Violation	MRDLG	Unit of Measure	Likely Sources
Free Chlorine	2016	1.53	0.2	3.8	4.0	N	<4.0	ppm	Disinfectant used to control microbes.
Fecal Coliform & E. coli REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM OR E. COLI BACTERIA.									
Total Coliform REPORTED MONTHLY TESTS FOUND NO TOTAL COLIFORM BACTERIA.									
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.									

Secondary and Unregulated Constituents: 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.						
Substance	Date	Average Level	Range of Levels	Units	Limit	Likely Source of Contamination
Aluminum	2014 - 2016	0.00738	0.0052 – 0.0124	ppm	0.2	Abundant naturally occurring element.
Bicarbonate	2014 - 2016	205.375	56 - 390	ppm	na	Corrosion of carbonate rocks such as limestone.
Calcium	2014 - 2016	2.1675	0.59 – 4.13	ppm	na	Abundant naturally occurring element.
Chloride	2014 - 2016	14.8125	9.65 - 19	ppm	300	Abundant naturally occurring element.
Magnesium	2014 - 2016	1.1935	0.157 – 2.55	ppm	na	Abundant naturally occurring element.
Manganese	2014 - 2016	0.01064	0.00234 – 0.028	ppm	0.05	Naturally occurring element; runoff from landfills, compost, brush or silage piles, or chemicals such as gasoline.
Potassium	2014 - 2016	2.2212	0.925 – 3.48	ppm	na	Abundant naturally occurring element.
Sodium	2014 - 2016	110.6	47.2 - 191	ppm	na	Abundant naturally occurring element. Run-off from road salt, fertilizers, industry waste, or sewage.
Sulfate	2014 - 2016	43.8	10.5 – 69.3	ppm	na	Abundant naturally occurring element.
Alkalinity, Total	2014 - 2016	208.625	56 - 403	ppm	na	Alkalinity is the capacity of water to neutralize acids.
Hardness CaCO ₃ (Calcium/Magnesium)	2014 - 2016	10.1625	1.47 – 20.8	ppm	na	Hardness is a measure of the amount of calcium and magnesium in the water. Guide: Soft 0-17; Slightly hard 17-60; Moderately hard 60-120; Hard 120-180; Very hard >180.
Total Dissolved Solids (TDS)	2014 - 2016	338	186 - 551	ppm	1000	Inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonates, chlorides, and sulfates) and some small amounts of organic matter that are dissolved in water.

Purchased Water Source		Type of Water		Status	Location			
From the City of Nacogdoches 1740003 CTY https://www.ci.nacogdoches.tx.us/DocumentCenter/View/825		Surface Water/Groundwater		Active	Lake Nacogdoches and Wilcox-Carrizo Aquifer			
Water Quality Test Results 2016 Regulated Contaminants City of Nacogdoches for more information concerning this report please contact The Water Utilities Manager at (936) 564-5046.								
Inorganic Contaminants	Date	Highest Level	Minimum Level	Maximum Level	MCL	MCLG	Units	Likely Sources
Arsenic	2016	0.0007	0.0007		10	0	ppb	Erosion of natural deposits.
Barium	2016	0.0465	0.045 – 0.048		2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Cyanide	2016	<0.005	<0.005		200	200	ppm	Discharge from plastic and fertilizer factories; discharge from steel/metal factories.
Fluoride	2016	0.512	0.512		4	4	ppm	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate measured as Nitrogen	2016	0.142	0.0295		10	10	ppm	Runoff from fertilizer use/ leaching from septic tanks, sewage; erosion of natural deposits.
Combined Radium	2011	1	1		5	0	pCi/L	Erosion of natural deposits.

Maximum Residual Disinfectant Level								
Disinfectant	Date	Average Level	Minimum Level	Maximum Level	MRD	MRDL	Units	Likely Sources
Chloramines	2016	3.33	1.4 – 4.9		4	<4.0	ppm	Disinfectant to control microbes.

Disinfection By-Products	Date	Average Levels	Minimum Level	Maximum Level	MCL	MCLG	Units	Likely Sources
Total Haloacetic Acids	2016	17.5	12.1 – 20.3		60	0	ppb	By-product of drinking water chlorination.
*Total Trihalomethanes	2016	107.9	17.0 – 256.0		80	0	ppb	By-product of drinking water chlorination.

*Violation of TTHM MCL public notice may be viewed at <https://www.ci.nacogdoches.tx.us/DocumentCenter/View/1673>
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	7/1/2016 10/1/2016	9/30/16 12/31/2016	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.

Total Coliform					
Substance	Date	MCL	Highest Monthly # of positive samples	Unit of Measure	Likely Sources
Total Coliform Bacteria	2016	5% of monthly samples	0	presence	Naturally occurring in the environment

Fecal Coliform REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.

Lead and Copper	Date	The 90 th Percentile	# of Sites Exceeding Action Level	Action Level	Likely Sources
Lead (ppb)	2016	0.00217	0	0.015	Corrosion of household plumbing systems; erosion of natural Deposits.
Copper (ppm)	2016	0.147	0	1.3	Corrosion of household plumbing systems; erosion of natural deposits: leaching from wood preservatives.

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)	1/1/2014	12/31/2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of our drinking water during the period indicated.

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.

Substance	Date	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Limits	Units	Likely Sources
Turbidity	2016	0.11	100% of readings were at or below 0.3	0.3	NTU	Soil Runoff.

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Substance	Date	Average Levels	Range of Levels	Units	Likely Sources
Chloroform	2016	42.62	5.24 – 196	ppb	By-product of drinking water chlorination.
Bromodichlorethane	2016	11.83	2.97 – 48.6	ppb	By-product of drinking water chlorination.
Dibromochloromethane	2016	3.07	1.29 – 12.2	ppb	By-product of drinking water chlorination.

Secondary and Other Unregulated Constituents (No associated health effects)

Substance	Date	Average Levels	Range of Levels	Units	Likely Sources
Aluminum	2016	0.093	0.056 – 0.013	ppm	Abundant naturally occurring element
Bicarbonate	2016	20	20.0 – 20.0	ppm	Corrosion of carbonate rocks such as limestone
Chloride	2016	9.47	9.47 – 9.47	ppm	Abundant naturally occurring element; used in water purification; by-product of oil field activity.
Copper	2016	0.002	0.0018 – 0.0029	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Hardness as Ca/Mg	2016	17.26	1.31 – 33.2	ppm	Naturally occurring calcium and magnesium.
Iron	2016	0	0.0 – 0.0	ppm	Erosion of natural deposits iron or steel water delivery
Lead	2016	0.0005	0.00049 – 0.00051	ppm	Corrosion of household plumbing systems; erosion of natural deposits.
Manganese	2016	0.0009	0.0004 -0.00014	ppm	Abundant naturally occurring element.
Nickel	2016	0.0008	0.0004 – 0.00012	ppm	Erosion of natural deposits.
pH	2016	8.2	7.8 -8.6	units	Measure of corrosiveness of water.
Sodium	2016	44.5	16.1 – 72.8	ppm	Erosion of natural deposits; by-product of oil field Activity.
Sulfate	2016	34.5	34.5 – 34.5	ppm	Naturally occurring; common industrial by-product; by-product of oil field.
Total Alkalinity as CaCO ₃	2016	<20	<20 – <20	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2016	115	115 – 115	ppm	Total dissolved mineral constituents in water.
Zinc	2016	0.0088	0.0066 – 0.011	ppm	Moderately abundant naturally occurring element.

Boil Water Notices... May be issued in the event of low distribution pressure, water outages, microbiological samples found to contain E. coli or fecal coliform organisms, failure to maintain adequate chlorine residuals, or other conditions which indicate that the potability of the drinking water supply has been compromised. To ensure destruction of all harmful bacteria and other microbes, water for drinking, cooking, and making ice should be boiled and cooled prior to consumption. The water should be brought to a vigorous rolling boil and then boiled for two minutes. In lieu of boiling, you may purchase bottled water or obtain water from some other suitable source. Once the boil water notification is no longer in effect, customers will be notified in a manner similar to the original notice. Notices are issued by D & M WSC through our website <http://dmwater.org/>. To receive Alerts at your email address and/or by text messaging sign up for Alerts at <http://dmwater.org/alerts>. We also use an automated call system to send messages to the phone number of record for service areas affected. Please keep your contact information updated by visiting <http://dmwater.org/customer-service>. Frequently Boil Water Notices are designated for an isolated area of our water system please review the areas included in the public notice announcement.

ATTENTION: SEWER SERVICE CUSTOMERS - Help protect your environment and keep your drain lines flowing. Do not pour GREASE or CHEMICALS down your drain lines. Grease (fat, oil, butter, margarine) of any type does not dissolve in water and will cause a buildup and stop the flow of waste from draining properly. Various chemicals work against approved treatments to the sewer system and are most often hazardous to the environment.

NOTE: Bills are due the 10th of each month. To avoid a late fee and disconnection notice all payments must be received by the due date.

For your convenience Utility Payments may be made by:

- On-line <http://www.dmwater.org/> or automated pay by phone 1-855-981-2714 (3% convenience fee applies)
- Mail to PO Box 9, Douglass, TX 75943 (Please allow 7-10 days for processing)
- In person at 111 Buck Alley, Douglass, TX 75943
- Save time and money sign up for automatic bank draft 936-559-9900 or download the form at http://dmwater.org/documents/305/Bank_Draft_Form.pdf
- At Commercial Bank of Texas (CBTx) local branch offices (Please allow 3-5 days for processing)

About VFD donations: D & M WSC offers each customer the opportunity to make a voluntary contribution to the local voluntary fire department(s) (VFD's).

- The \$1.00 contribution amount is listed as a separate item on your monthly statement.
- These voluntary contributions will be sent to the following VFD's: Douglass VFD, Lake Nacogdoches VFD and South Nacogdoches VFD. Your donation will go to the VFD that serves the address on your water bill.
- This voluntary contribution may be deductible under the Federal Income Tax Law.
- Customers have the right to deduct the \$1.00 VFD contribution from the bill or may choose to donate a different amount (please specify amount with payment).
- For a complete copy of the Corporation's Voluntary Contribution Policy, please make request at the Corporation's office at 111 Buck Alley, Douglass, Texas 75943, by phone 936-559-9900, Corporation's Web Page dmwater.org, or by FAX 936-559-0112.

Contacts: D & M Water Supply: (936) 559-9900 www.dmwater.org
Texas Commission on Environmental Quality Region 10, Beaumont: (409) 898-3838
Source Water Assessment <https://gisweb.tceq.texas.gov/swav/Controller/index.jsp?wtrsrc=>
Texas Commission on Environmental Quality Austin: (512) 239-1000
Drinking Water Watch <http://dww2.tceq.texas.gov/DWW/>
Environmental Protection Agency Safe Drinking Water Hotline: (800) 426-4791
<http://water.epa.gov/drink/hotline/> additional information at <http://www.epa.gov/safewater/lead>
Conservation Tips: www.watersmart.org.
Local Emergency Response: 911