

Quality First

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

This report is a summary of the quality of the water we provide to our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the following pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Where do we get our drinking water?

Water Sources: Carrizo Wilcox / Sabine River

Locations: Gregg and Rusk County

Types: Both Groundwater and Surface Water

The 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 are based on this susceptibility and previous sample data. Any detection of these contaminants may be found in this report. For more information on source water. Some of this source water information assessment information will be available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>.

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, avore de llamar al tel (903) 657-6551 para hablar con una persona bilingüe en español.

For any questions regarding this report please contact Matt Linthicum at (903) 657-6551.

Important Health Information

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. Cryptosporidium is a tiny intestinal parasite found naturally in the environment. It is spread by human and animal waste. If ingested, cryptosporidium may cause cryptosporidiosis, an abdominal infection (symptoms include nausea, diarrhea, and abdominal cramps). Some of the ways cryptosporidium may cause cryptosporidium can be spread include drinking water, contaminated water, eating contaminated food that is raw or undercooked, exposure to the feces of animals or infected individuals (i.e. changing diapers without washing hands afterwards), or exposure to contaminated surfaces. Not everyone exposed to the organism becomes ill. During 2009, Henderson tested for cryptosporidium in its source water (Sabine River). Cryptosporidium has not been found in the source water (Sabine River). Henderson works to protect from contamination and optimizes the treatment process. 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 U.S. EPA's Safe Drinking Water Hotline (800) 426-4791 or visit <http://water.epa.gov/drink/hotline>.

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>.

EPA Wants You To Know:

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 may come from 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, 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.

2018 Sampling Results for Contaminants in Drinking Water for Henderson

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The following information lists all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

REGULATED CONTAMINANTS

Contaminant	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
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INORGANIC CONTAMINANTS

Barium	2018	0.062	0.062 - 0.062	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Flouride	2018	0.1	0.0511 - 0.0511	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)	2018	0.0524	0 - 0.0524	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite (measured as Nitrogen)	09/14/2017	0.215	0.17 - 0.215	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

RADIOACTIVE CONTAMINANTS

Combined Radium 226/228	04/17/2017	1.5	1.5 - 1.5	0	5	pCi/L	N	Erosion of natural deposits
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SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES AND HERBICIDES

Heptachlor Epoxide	2018	40	0 - 40	0	200	ppt	N	Breakdown of heptachlor
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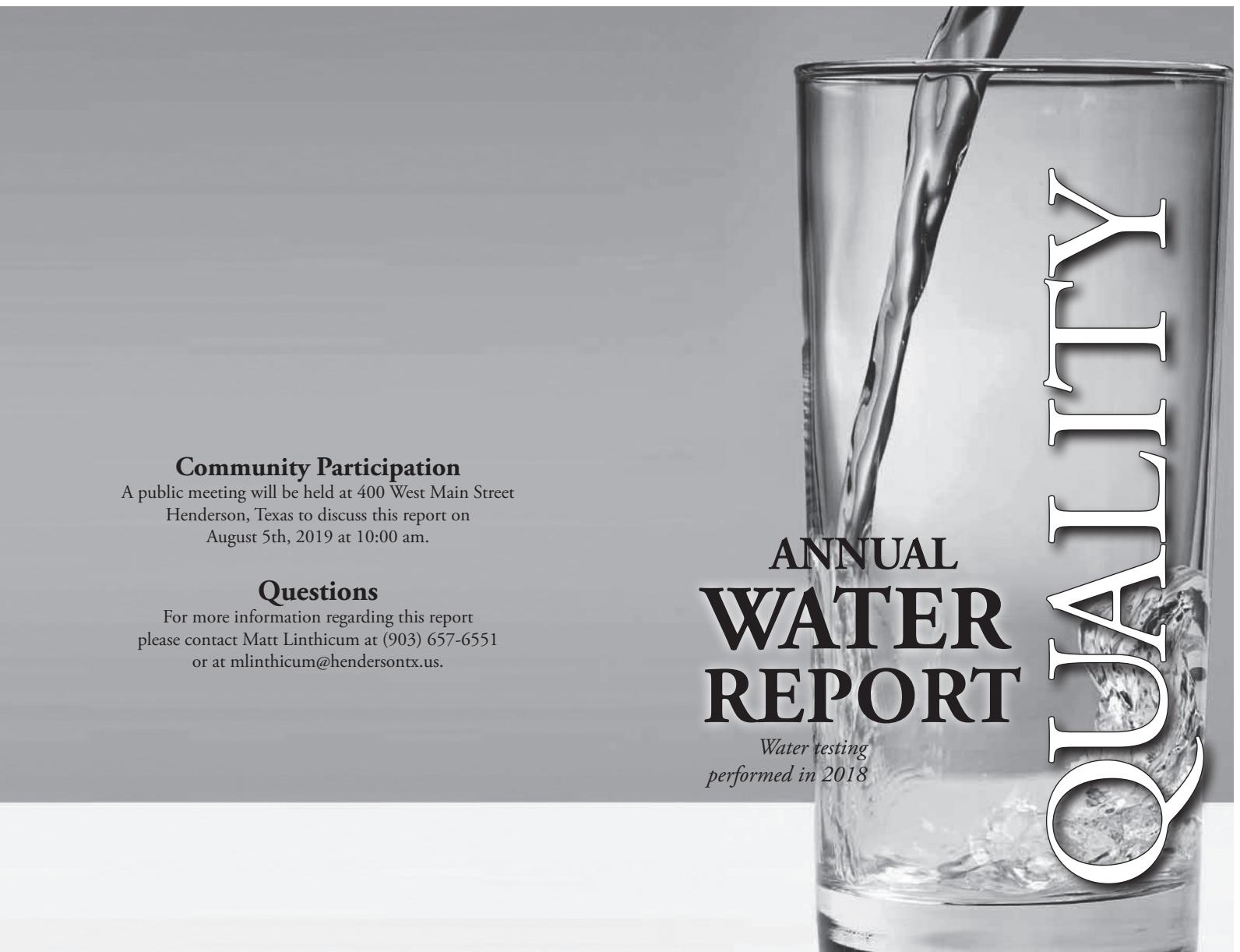
VOLATILE ORGANIC CONTAMINANTS

XYLEMES	2018	0.00076	0 - 0.00076	10	10	PPM	N	Discharge from petroleum factories; Discharge from chemical factories.
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MONITOR GWR TRIGGERED/ADDITIONAL MAJOR

Violation Type	Violation Begin				Violation End			
Monitoring	03/01/2018				03/31/2018			

Explanation: One of our regularly sampled distribution sites tested positive for E. Coli. The same location, as well as all sources that could have possibly been supplying that location were immediately sampled the following day, and all samples showed to be free of E. Coli. Because our resamples weren't labeled a specific way, TCEQ rejected those samples and required us to sample again several months later, and they required us to distribute a public notice linked to the violation.



In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2018, our system lost an estimate 137,441,553 gallons of water (approximately 13.59% of total created water). If you have any questions about this water loss audit, please call (903) 657-6551



Presented By
City of Henderson

400 W. Main St., Henderson TX 75652-3099
(903) 657-5246 • www.hendersontx.us

Public Water System Identification Number 2010001

MAXIMUM RESIDUAL DISINFECTANT LEVEL

Systems must complete and submit disinfection data on the Surface Water Monthly Operations Report (SWMOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels.

Disinfectant	Year Sampled	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation	Potential Source of Contamination
Chloramine	2018	1.47	0.5 - 3.4	3.4	<4.0	ppm	N	Water additive used to control microbes

DISINFECTION BYPRODUCTS

Contaminant	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Unit	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2018	23	3.3 - 41.6	No goal	60	ppb	N	Byproduct of drinking water disinfection.
Total Trihalomethanes (TTHMs)	2018	35	2.34 - 59.2	No goal	80	ppb	N	Byproduct of drinking water disinfection.

UNREGULATED CONTAMINANTS

Bromoform, chloroform, dichlorobromomethane, and dibromochloromethane are disinfectant byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Contaminant	Year Sampled	Average Level	Minimum Level	Maximum Level	Unit of Measure	Potential Source of Contamination	
Chloroform	2012-2017	16.60	1.0	161	ppb	Byproduct of drinking water disinfection.	
Bromoform	2012-2017	1.51	0.98	17.90	ppb	Byproduct of drinking water disinfection.	
Bromodichloromethane	2012-2017	11.00	0.00	55.42	ppb	Byproduct of drinking water disinfection.	
Dibromochloromethane	2012-2017	5.88	0.00	30.03	ppb	Byproduct of drinking water disinfection.	

UNREGULATED CONTAMINANT MONITORING RULE 2 (UCMR2)

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether further regulation is warranted. Any unregulated contaminants detected are reported in the flowing table. For additional information and data visit <http://www.epa.gov/safewater/ucmr2/index.html>, or call the Safe Drinking Water Hotline at (800)426-4791.

Contaminant	Year Sampled	Average Level	Minimum Level	Maximum Level	Unit of Measure	Potential Source of Contamination	
Chloroform	2017	12.1	0	43.7	ppb	Byproduct of drinking water disinfection.	
Bromoform	2017	0.1	0	1.44	ppb	Byproduct of drinking water disinfection.	
Bromodichloromethane	2017	7.05	0	28.1	ppb	Byproduct of drinking water disinfection.	
Dibromochloromethane	2017	2.93	0	13	ppb	Byproduct of drinking water disinfection.	

LEAD AND COPPER

Contaminant	Date Sampled	MCLG	Action Level	90th Percentile	# Sites Over AL	Units	Violation	Potential Source of Contamination
Copper	07/18/2017	1.3	1.3	0.212	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	07/18/2017	0	15	3.07	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

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 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>."

ASBESTOS

Some people who drink water containing asbestos well in excess of the maximum contaminant level (MCL) for many years may have an increased risk of developing benign intestinal polyps.

Year Sampled	Average Level	Minimum Level	Maximum Level	MCL Limit	Unit of Measure	Potential Source of Contamination	
2013	<0.185	<0.185	<0.185	7	MFL	Decay of asbestos cement water mains; and erosion of natural deposits.	

TURBIDITY

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 system and disinfectants.

Contaminant	Year Sampled	Highest Single Measurement	Lowest monthly % of Samples Meeting Limits	Turbidity Limit	Unit of Measure	Potential Source of Contamination	
Turbidity	2018	0.24 NTU	100%	0.3	NTU	Soil Runoff	

TOTAL ORGANIC CARBON

The City of Henderson met and/or exceeded all TOC removal requirements for 2018.

TOTAL COLIFORM

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms, 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.

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive Samples	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	1*	1	0	N	Naturally present in the environment

*Explanation Statement: The initial Coliform sample came back positive. The same sample location as well as two residences that were upstream and downstream of the same location and all entry points that were active at the time were sampled the next day and they all came back negative.

SECONDARY AND OTHER CONSTITUENTS NOT REGULATED (NO ASSOCIATED ADVERSE HEALTH EFFECTS)

Constituent	Year Sampled	Number of Samples	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Potential Source of Contamination
Aluminum	2017	7	0.059	0.019	0.14	0.2	ppm	Abundant naturally occurring element.
Bicarbonate	2017	18	92.9	25	238	N/A	ppm	Corrosion of carbonate rocks such as limestone.
Calcium	2017	7	3.76	1.34	10.8	N/A	ppm	Abundant naturally occurring element.
Chloride	2017	7	13.9	5.71	40.3	N/A	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
Copper	2017	38	0.089	0.00022	0.575	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Iron	2017	3	0.3	0.3	0.3	0.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities
Lead	2017	38	1.816	0.546	5.47	N/A	ppm	Corrosion of household plumbing systems; erosion of natural deposits.
Magnesium	2017	7	0.86	0.219	3.41	N/A	ppm	Abundant naturally occurring element.
Manganese	2017	7	0.018	0.012	0.037	0.05	ppm	Abundant naturally occurring element.
pH	2011	5	8.1	7.7	8.1	N/A	units	Measure of corrosivity of water.
Sodium	2017	7	90.08	112	88	N/A	ppm	Erosion of natural deposits; byproduct of oil field activity.
Sulfate	2017	7	17	38	5	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
Total Alkalinity as CaCO ₃	2017	20	89.6	238	25	N/A	ppm	Naturally occurring soluble mineral salts.
Total Dissolved Solids	2017	7	235	281	177	1000	ppm	Total dissolved mineral constituents in water.
Total Hardness as Magnesium	2016	1	53	53	53	N/A	ppm	Naturally occurring calcium.
Zinc	2017	7	0	0	0	5	ppm	Moderately abundant naturally occurring elements used in the metal industry.

Definitions and Abbreviations

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Contaminant Level or MCL: 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 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.

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.

MFL: million fibers per liter (a measure of asbestos)