

PUBLIC PARTICIPATION OPPORTUNITIES

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

**CITY OF CONROE
JASON MILLER
936-522-3870**

DATE: Monday - Thursday

TIME: 7:00am-5:30pm

LOCATION: Public Works Service Center

PHONE NUMBER: (936) 522-3870



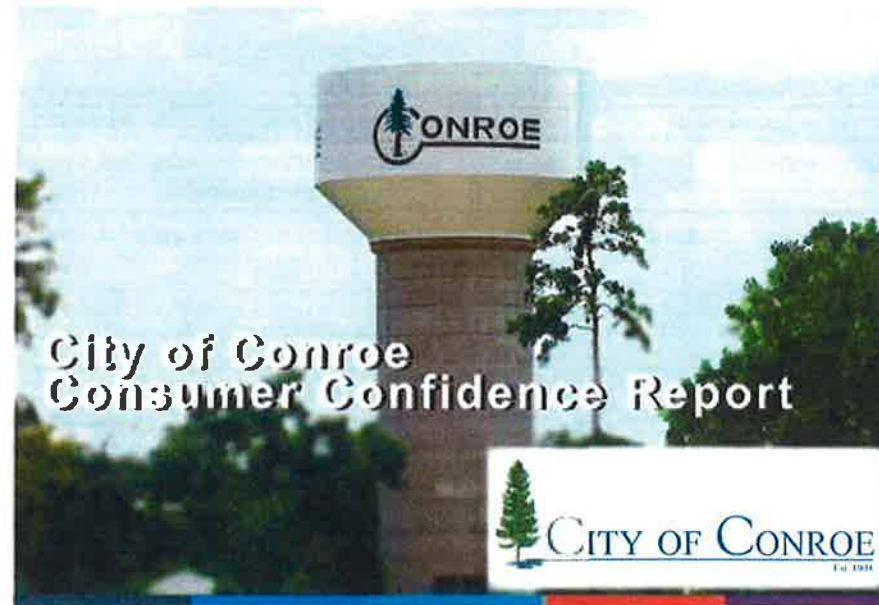
En Español

Este informe incluye la información importante sobre el agua potable. Si tiene preguntas o comentarios sobre est informe en español, favor del llamar at (936)522-3013 para hablar con una persona bilingüe en español.



P.O. Box 3066, Conroe, TX 77305

2017 Water Quality



This report is a summary of the quality of the water we provide 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 attached pages. We hope this information helps you become more knowledgeable about what is in your drinking water.

“ Our Drinking Water Meets or Exceeds all Federal (EPA) Drinking Water Requirements. ”

Water Sources

MICROBIAL CONTAMINANTS

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

INORGANIC CONTAMINANTS

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 & HERBACIDES

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

ORGANIC CHEMICAL CONTAMINANTS

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

Can be naturally occurring or be the result of oil and gas production and mining activities.

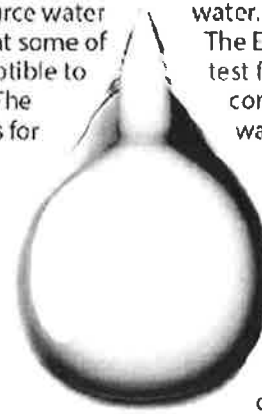


Special Notice for the Elderly, Infants, Cancer Patients, People with HIV/AIDS or other Immune Problems:

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immune compromised 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 Safe Drinking Water Hotline at (800) 426-4791.

“Where do we get our drinking water?”

The source of drinking water used by City of Conroe is Ground 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 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 Jason Miller. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.



“What is in my drinking water?”

This report contains all of the federally regulated or monitored contaminants which have been found in your drinking water.

The EPA requires water systems to test for up to 97 contaminants. The constituents detected in your water are listed in the attached tables.

Secondary Constituents:

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondary constituents are not required to be reported in this document but may greatly affect the appearance and taste of your water.

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 and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).



2017 Regulated Contaminants Detected

LEAD AND COPPER

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	99 th Percentile	# sites Over AL	Units	Violation	Source of Contaminant
Copper	2017	1.3	1.3	0.43	1	ppm	N	Erosion of natural deposits, leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2017	0	15	4.7	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.

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>

INORGANIC CONTAMINANTS

Year or Range	Contaminant	Highest Level	Range of Levels Detected	MCL	MCLG	Unit of Measure	Source of Contaminant
2017	Barium	0.174	0.084-0.174	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2017	Fluoride	0.29	0.12-0.29	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2017	Nitrate (measured as Nitrogen)	0.04	0.01-0.04	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

Nitrate Advisory: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

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	Source of Contaminant
0	5% of monthly samples are positive.	1.0	0	0	N	Naturally present in the environment

MAXIMUM RESIDUAL DISINFECTION LEVEL

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2017	Chlorine Residual	1.05	.50	1.70	4	4	ppm	Disinfectant used to control microbes.

2017 Regulated Contaminants Detected

ORGANIC CONTAMINANTS

This evaluation is sampling required by the EPA to determine the range of total trihalomethane and haloacetic acid in the system for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. PA also requires the data to be reported here.

Year	Contaminant	Highest Level	Range of Levels Detected	MCL	Unit of Measure	Source of Disinfectant
2017	Total Trihalomethanes	11-6	36-116	80	ppb	By-product of drinking water chlorination.
2017	Haloacetic Acid (HAAS)	4	25-60	60	ppb	By-product of drinking water chlorination.

RADIOACTIVE CONTAMINANTS



The MCL for beta particles is 4mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

Year or Range	Contaminant	Highest Single Sample	Range of Levels Detected	MCLG	MCL	Units	Violation	Source of Contaminant
2017	Beta/photon emitters	10.9	8.3-10.9	0	50	pCi/L	None	Decay of natural and man-made deposits.
2017	Combined Radium 226/228	1.07	0-1.07	0	5	pCi/L	None	Erosion of natural deposits.
2017	Gross alpha excluding radon and uranium	6.1	3.0-8.1	0	15	pCi/L	None	Erosion of natural deposits.

2017 Watering Regulations

For the latest update to the Drought Contingency Plan, please go to www.cityofconroe.org

*Tear off cover and place on your refrigerator as a helpful reminder not to over water!

Watering Activity	Year Round Twice a Week Watering Program	Stage 1 Drought Contingency Plan	Stage 2 Drought Contingency Plan	Stage 3 Drought Contingency Plan	
<p>Watering with an irrigation system and/or hose-end sprinkler.</p> <p>Any customer responsible for premises that use water supplied by the city in violation of the Defined Watering Program shall be subject to additional surcharge on the water bill.</p> <p>First violation observed in any calendar year will result in a warning. Only one warning will be given per calendar year. Additional violations will be subject to a surcharge on the water bill.</p> <p>2nd violation \$50 3rd violation \$100 4th violation \$200</p>	<p>Mandatory implementation of twice a week watering program for irrigation systems and/or hose-end sprinklers.</p> <p>The operation of landscape irrigation systems is limited to the hours between 5:00 p.m. and 8:00 a.m. of the following day during any two such periods in a given week.</p>	<p>Voluntary implementation of a once a week watering program for irrigation systems and/or hose-end sprinklers.</p> <p>Odd number addresses: Wednesday 8:00 p.m. through Thursday 8:00 a.m. Even number addresses: Thursday 8:00 p.m. through Friday 8:00 a.m.</p>	<p>Stage 1 restrictions are now mandatory.</p> <p>Any customer responsible for premises that use water supplied by the city in violation of stage 2 or 3 water use restrictions shall be subject to additional surcharge on the water bill.</p> <p>First violation observed in any calendar year will result in a warning. Only one warning will be given per calendar year. Additional violations will be subject to a surcharge on the water bill.</p> <p>2nd violation \$100 3rd violation \$200 4th violation \$300</p>	<p>Irrigation of landscape areas is absolutely prohibited.</p> <p>2nd violation \$200 3rd violation \$300 4th violation \$400</p>	<p>In Conroe, during the summer months approximately 50% of the irrigation water is wasted.</p> <p>A great looking lawn only needs to be watered twice a week!</p> 
<p>Handheld hose with nozzle, drip irrigation and soaker hose.</p> <p>Water to wash motor vehicle, motorbike, boat, trailer, airplane or other vehicle.</p>	<p>Allowed any time and any day of the week.</p>	<p>Allowed any time and any day of the week.</p>	<p>Allowed only between the hours of 8:00 p.m. and 8:00 a.m.</p>	<p>Allowed only between the hours of 8:00 p.m. and 8:00 a.m.</p>	<p>St. Augustine Grass "trained" by twice a week watering grows deep roots for sustainability during a drought.</p>
<p>Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools or Jacuzzi-type pools.</p>	<p>Allowed any time and any day of the week.</p>	<p>Allowed any time and any day of the week.</p>	<p>Allowed only between the hours of 8:00 p.m. and 8:00 a.m.</p>	<p>This activity is absolutely prohibited.</p>	
<p>Operation of any ornamental fountain or pond for aesthetics.</p>	<p>Allowed any time and any day of the week.</p>	<p>Allowed any time and any day of the week.</p>	<p>is prohibited except to support aquatic life.</p>	<p>This activity is absolutely prohibited.</p>	<p>St. Augustine Grass watered daily produces shallow roots that will not sustain the grass during a drought.</p>

See the inside back cover for more! ➡

*Tear off cover and place on your refrigerator as a helpful reminder not to over water!

Drought Proofing Your Landscape

Mulch All Planted Areas

Mulch keeps soil moist and slows evaporation from the soil, allows water to infiltrate the soil efficiently; moderates the soil temperature; and breaks down into nutrients for the plants. Maintain a 2 to 4 inch mulch layer in all planted beds and containers.

Irrigate Efficiently

If your irrigation system is not working properly, no matter how much you water, the landscape suffers and water is wasted. Check for pipe and valve leaks (indicated by greener, faster growing grass), breaks, clogged heads, broken or misaligned sprinkler heads, misting versus spraying due to too much pressure, water spraying onto hard surfaces and runoff into the street.

Judge Irrigation Requirements in the Morning

High afternoon summer temperatures cause plants to wilt, be off color, drop leaves and/or shrink even if there is significant moisture in the soil. Once the sun sets, the lawn and plants look normal; if in the morning the lawn and plants look like water is required, irrigation is justified. If in doubt, use a long screwdriver to test for moisture in the soil. Push the screwdriver into the soil (the screwdriver will push easily into moist soil and will not push easily into dry soil).

Year Round Defined Watering Program

The City of Conroe has a mandatory twice a week watering program for irrigation systems and/or hose-end sprinklers. For information on this program, go to the City of Conroe website www.cityofconroe.org.

Add Compost to Lawn

In the Spring, add 1/4" of compost to lawn area. Compost saves water by reducing evaporation and at the same time enriches the soil.

Mow at Higher Setting

Adjust the height setting on your mower up one or two notches. Taller grass will create shade which will reduce evaporation of water from the soil and protect the roots from excessive heat.

Do not Fertilize

Plant growth naturally slows down and/or plants go dormant during a lengthy drought. Do not encourage new growth by fertilizing.

Perform the Catch Can Test

A catch can test is used to determine how long to run an irrigation system or hose-end sprinkler and how well the water is distributed over the landscape. The root zone (where water and nutrient absorbing roots grow) is typically 6 inches deep in clay soil and 8 to 10 inches in sandy soil. Usually 1 inch of water will fill this root

zone but in many cases irrigation systems apply water faster than the ground can absorb. During a summer drought with high temperatures, the water requirement may be higher. Each type of sprinkler (spray, rotors, multi-stream rotor, drip) applies water at different rates therefore a catch can test is essential to determine the run time (time each station should run) and efficiency of the system.

To determine the run time of your irrigation system:

1. Place 5 to 9 catch cans (tuna or cat food cans work great) in each irrigation zone or station.

2. Run each zone for 3 minutes to determine how much water is applied in each zone by measuring the amount of water in each catch can.

3. If there is 1/4 inch of water in each catch can after running for 3 minutes, to apply 1 inch of water set the runtime for 12 minutes or follow the 'Soak and Cycle Irrigation Method.' This is just an example, your measurements could vary greatly.

4. If the water levels in the catch cans are equal or near equal, your irrigation system is distributing water evenly. If the water level in each catch can vary greatly, go

through the 'Irrigation Checkup' to improve distribution of water in that zone.

5. Test each zone. Water application and distribution can vary by zone.

Use Soak and Cycle Irrigation Method

Some irrigation systems apply water faster than the ground will absorb 1 inch of the water. This is especially true in lawn areas. Mulched areas absorb water more efficiently. To avoid water running off the landscape into the street, you may need to run these stations several short

times instead of one long time. Use soak and cycle method by:

1. Determining how long to run each zone (see 'Catch Can Test').

2. Watering these areas in 2 or 3 short cycles or 4 cycles if on a slope instead of 1 long cycle.

3. Wait 20 to 30 minutes between cycles.

Most irrigation controllers have a way to set different start times. If you have trouble programming your controller, visit the irrigation controller company's website or contact their customer service for instructions for soak and cycle. Some newer controllers have a soak and cycle setting, so this may be a good time to upgrade your irrigation controller.




YEAR IN REVIEW
WATER USE IN 2017

In 2017, Conroe's total water usage was 3.70 billion gallons of water.

The state's goal is 140 gallons per person per day each year. Last year during the lowest winter water use month of February, an average of 101 gallons of water used per person per day in Conroe. In July there was an average of 150 gallons of water used per person per day.

When comparing summer usage to winter usage, the results show that roughly 39% of all our water consumption during July was for outdoor purposes only.

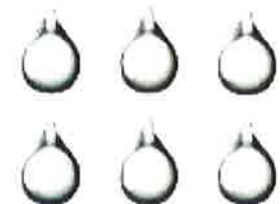
Seasonal Water Use - Comparison

25 Gallons of Water = 

February
101
gallons per person
per day



July
150
gallons per person
per day



Total Water Usage In the water loss audit submitted to the Texas Water Development Board for the time period of January 2017, our system lost an estimated 152,095,029 gallons of water. If you have any questions about the water loss audit please call (936) 522-3870.

Annual Drinking Water Quality Report
2017 Consumer Confidence Report
Definitions & Abbreviations

Definitions:

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no know or expected health risk. MCLG'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 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 contaminates.
Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.
Action level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
<u>Abbreviations:</u>
NTU - Nephelometric Turbidity Units
MFL - million fibers per liter (a measure of asbestos)
pCi/L - picocuries per liter (a measure of radioactivity)
ppm - parts per million, or milligrams per liter (mg/L)
ppb -parts per billion, or micrograms per liter (ug/L)
ppt - parts per trillion, or nanograms per liter
ppq -parts per quadrillion, or picograms