



2018

Montgomery Trace Water System – PWS ID# 1700638

# WATER QUALITY REPORT

## About Us

Mid-South Synergy Water Resources is a wholly owned subsidiary of Mid-South Synergy. Our mission is to provide high quality drinking water for our customers. Mid-South Synergy Water Resources received its first water Certificate of Convenience (CCN) in January 1999. Since that time, Mid-South Synergy Water Resources has acquired several water systems located within Montgomery County. We provide water to the following subdivisions, either partially or in entirety:

- Crown Oaks
- Old Kentucky Farms
- Hills of Montgomery
- Stillwater Estates
- Crown Ranch
- Stillwater Estates
- Oaklawn Estates
- Montgomery Trace
- Ridgelake Shores
- Lake Forest Lodge South
- Woodcreek Estates
- Grand Lake Estates
- Highland Ranch
- Lake Forest Lodge
- Woodforest
- Sunset Ranch

In addition, we provide water to the Montgomery ISD Lake Creek High School and Lone Star Elementary campuses.

All our water systems are located between the city of Conroe to the east, FM 1774 to the west, State Highway 105 to the north, and FM 1488 to the south. Currently, all systems are operated separately. Our goal is to make the transition from an individual water system approach to a regional approach.

## Water Sources

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.

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. 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>

## **Where Do We Get Our Drinking Water?**

Our drinking water is obtained from GROUND and SURFACE water sources. Our GROUND water comes from the following Aquifers: JASPER and EVANGELINE. Our SURFACE water comes from the San Jacinto River Authority's Surface Water Plant located on Lake Conroe.

The Texas Commission on Environmental Quality (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 Confident Report. For more information on source water assessments and protection efforts at our system, contact a member service representative at 936.825.5100. You may also refer to the Source Water Assessment Viewer at the following URL: <https://www.tceq.texas.gov/gis/swaview>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww2.tceq.texas.gov/DWW/>

## **2018 Water Loss**

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2018, our system lost an estimated 5.12 gallons per connection per day.

## **About This Report**

This report 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.

## **Violations**

No violations for the year the report covers.

## **En Español**

Este documento incluye información importante sobre el agua potable. Si tiene preguntas ó comentarios sobre éste informe en español, favor de llamar al tel. 936.825.5100 para hablar con una persona en español.

## 2018 Water Quality Test Results

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Haloacetic Acids (HAA5)</b>	2018	12	0 – 18.2	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

The value in the Highest Level or Average Detected row is the highest average of all HAA5 sample results collected at a location over a year.

<b>Total Trihalomethanes (TTHM)</b>	2018	32	0 – 55.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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The value in the Highest Level or Average Detected row is the highest average of all TTHM sample results collected at a location over a year.

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation	Source in Drinking Water
<b>Chlorine residual, free</b>	2018	1.44	0.20 – 2.20	4	4	ppm	N	Water additive used to control microbes.

Inorganic Contaminants	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Arsenic</b>	2018	7.5	0 – 7.5	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

<b>Barium</b>	2018	0.24	0.175 - 0.24	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Fluoride</b>	2018	0.28	0.15 - 0.28	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and
<b>Nitrate [measured as Nitrogen]</b>	2018	0.15	0 - 0.15	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Selenium</b>	2018	3.7	0 - 3.7	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

<b>Radioactive Contaminants</b>	<b>Collection Date</b>	<b>Highest Level or Average Detected</b>	<b>Range of Individual Samples</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Beta/photon emitters</b>	2018	9.4	5.6 - 9.4	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.

<b>Combined Radium 226/228</b>	2018	2.22	1.01 - 2.22	0	5	pCi/L	N	Erosion of natural deposits.
<b>Gross alpha excluding radon and uranium</b>	2018	7	0 - 7	0	15	pCi/L	N	Erosion of natural deposits.

<b>Uranium</b>	2018	2.5	0 – 2.5	0	30	ug/l	N	Erosion of natural deposits.
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<b>Volatile Organic Contaminants</b>	<b>Collection Date</b>	<b>Highest Level or Average Detected</b>	<b>Range of Individual Samples</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Ethylbenzene</b>	2018	0.7	0 – 0.7	700	700	ppb	N	Discharge from petroleum refineries.
<b>Xylenes</b>	2018	0.0059	0 – 0.0059	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.

<b>Lead and Copper</b>	<b>Collection Date</b>	<b>MCLG</b>	<b>Action Level (AL)</b>	<b>90th Percentile</b>	<b># Sites Over AL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Copper</b>	08/02/2016	1.3	1.3	0.284	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
<b>Lead</b>	08/02/2016	0	15	2	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

<b>Secondary and Other Constituents (not regulated)</b>	<b>Collection Date</b>	<b>Highest Level or Average Detected</b>	<b>Range of Individual Samples</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Calcium</b>	2018	61.7	54.3 – 61.7	NA	NA	ppm	N	NA

<b>Iron</b>	2018	0.64	0.034 – 0.64	NA	NA	ppm	N	NA
<b>Magnesium</b>	2018	19.8	4.0 – 19.8	NA	NA	ppm	N	NA
<b>Manganese</b>	2018	0.0312	0.0141 – 0.0312	NA	NA	ppm	N	NA
<b>Nickel</b>	2018	0.0019	0.0012 – 0.0019	NA	NA	ppm	N	NA
<b>Sodium</b>	2018	69.8	55.7 – 69.8	NA	NA	ppm	N	NA
<b>Total Dissolved Solids</b>	2018	410	235 - 410	NA	NA	ppm	N	NA
<b>Total Hardness as CaCO3</b>	2018	236	159 - 236	NA	NA	ppm	N	NA



# Consumer Confidence Report Data for PWS ID No. 1700822 (SJRA Lake Conroe Surface Water Plant)

## Source Water Assessment Information

The source of drinking water for the SJRA Surface Water Treatment Plant is Lake Conroe. The Lake Conroe watershed may 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. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.

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. 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.

A source water assessment for the Lake Conroe water source is currently being conducted by the TCEQ and should be provided to us this year. The report will describe the susceptibility and types of contaminants that may come into contact with your drinking water source based on human activities and natural conditions. The information in this assessment will allow us to focus our source water protection strategies. Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW> Our source water name is "INTAKE1- DAM SITE RD".

## Turbidity

Texas Administrative Code (TAC) Title 30, Part 1, Chapter 290, Subchapter F, Rule §290.111 – Surface Water Treatment requires continuous monitoring of effluent turbidity level. Turbidity values are a direct measure of water quality for membrane treatment of surface water. The most likely source of contamination of turbidity is soil runoff.

Maximum allowable turbidity values for membrane plants:

- Must never exceed 0.3 Nephelometric Turbidity Units (NTU) in two consecutive 15-minute readings;
- Must be 0.15 NTU or less in at least 95% of samples tested each month

Monthly maximum turbidity measurements follow. There were no violations noted for the reporting period.

2018 Delivery Month	Maximum Turbidity Reading (NTU)	Minimum Turbidity Reading (NTU)	Average Turbidity Value (NTU)	Combined Filter Effluent 95 % Value (NTU)
January	0.05	0.03	0.03	0.04

February	0.05	0.03	0.03	0.04
March	0.04	0.02	0.03	0.04
April	0.05	0.03	0.04	0.04
May	0.05	0.03	0.04	0.04
June	0.05	0.03	0.04	0.04
July	0.05	0.03	0.04	0.05
August	0.06	0.03	0.04	0.05
September	0.05	0.03	0.04	0.05
October	0.05	0.03	0.04	0.04
November	0.04	0.02	0.03	0.04
December	0.04	0.03	0.03	0.04

### **Total Organic Carbon**

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set.

### ***Cryptosporidium* Monitoring**

TCEQ is in the process of determining a bin classification for the surface water treatment facilities. The classification process is not yet complete, however the Consumer Confidence Report rules require reporting results of any *cryptosporidium* detections. There were no *cryptosporidium* detections during the reporting period.

### **Additional Information regarding SJRA’s Consumer Confidence Report**

For additional information or questions, please contact:

SJRA GRP Division  
11998 Pine Valley Drive  
Conroe, Texas 77304

(936) 588- 1662

## Definitions and Abbreviations

The following tables contain scientific terms and measures, some of which may require explanation.

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Action Level Goal (ALG):** 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.

**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.

**Maximum Contaminant Level Goal or MCLG:** 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.

**Maximum residual disinfectant level or MRDL:** 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.

**Maximum residual disinfectant level goal or MRDLG:** 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)

**mrem:** millirems per year (a measure of radiation absorbed by the body)

**NA:** not applicable.

**NTU** nephelometric turbidity units (a measure of turbidity)

**pCi/L** picocuries per liter (a measure of radioactivity)

**ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

**ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

**Ppq:** parts per quadrillion, or picograms per liter (pg/L)