

A dynamic, high-speed photograph of water splashing, creating a sense of movement and freshness. The water is clear and bright blue, with many droplets and ripples visible. The background is a soft, light blue gradient.

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019



Presented By

SJW TX for Rust Ranch Water Supply

A Message From the General Manager

We are excited to provide you with our 2019 Consumer Confidence Report (CCR). The annual water quality report covers all testing performed between January 1 and December 31, 2019. Our team has worked diligently analyzing data and compiling this report for your review. The focus of our vision - to serve customers, communities, employees, shareholders, and the environment at world-class levels - binds us together to provide exceptional water quality.

As you review the data in the Test Results section, keep in mind that many substances are detected at levels that vary throughout the year and at different locations. As a reminder, just because a substance is detected does not mean the water is unhealthy. Natural waters, including the sources used by SJWTX, contain a wide range of natural substances; in fact, some of the minerals detected are essential for good health.

The water source is one of the primary factors that affect the levels of these substances detected. SJWTX supplies both groundwater and surface water to our customers. Your system relies on groundwater. Generally, groundwater is harder and contains more natural minerals than surface water. On the other hand, surface water typically contains small levels of natural organic substances and requires treatment by filtration. Regardless of the source, regulations require that we disinfect the water with chlorine and maintain a minimum level of chlorine residual throughout the distribution system.

Our Mission Continues

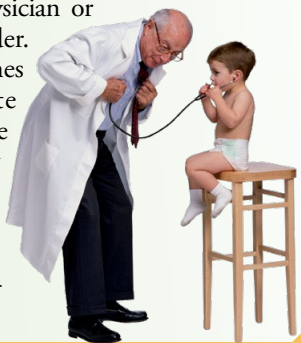
Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education, while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

“We remain vigilant in delivering the best-quality drinking water”

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. 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 Safe Drinking Water Hotline at (800) 426-4791.



Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process.

Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- Conducting tests and inspections on water and evaluating the results;
- Maintaining optimal water chemistry;
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels;
- Documenting and reporting test results and system operations to regulatory agencies; and
- Serving our community through customer support, education, and outreach.

So the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please contact Laura Gloria, Water Quality Specialist, at (830) 312-4600.

Contaminates in Source Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.



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 can acquire naturally occurring minerals, in some cases radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

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 our business office, (830)312-4600. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

What Are PPCPs?

When cleaning out your medicine cabinet, what do you do with your expired pills? Many people flush them down the toilet or toss them into the trash. Although this seems convenient, these actions could threaten our water supply.

Recent studies are generating a growing concern over pharmaceuticals and personal care products (PPCPs) entering water supplies. PPCPs include human and veterinary drugs (prescription or over the counter) and consumer products, such as cosmetics, fragrances, lotions, sunscreens, and housecleaning products. From 2006 to 2010, the number of U.S. prescriptions increased 12 percent to a record 3.7 billion, while nonprescription drug purchases held steady at around 3.3 billion. Many of these drugs and personal care products do not biodegrade and may persist in the environment for years.

The best and most cost-effective way to ensure safe water at the tap is to keep our source waters clean. Never flush unused medications down the toilet or sink. Instead, check to see if the pharmacy where you made your purchase accepts medications for disposal, or contact your local health department for information on proper disposal methods and drop-off locations. You can also go online (<https://goo.gl/aZPgeB>) to find more information about disposal locations in your area.

Lead in Home Plumbing

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 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 two 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.



Information on the Internet

The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention (www.cdc.gov) websites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. TCEQ has a website (<https://goo.gl/vNHNJN>) that provides complete and current information on water issues in Texas, including valuable information about our watershed.

Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board during the year covered by this report, our system lost an estimated 879,235 gallons of water. If you have any questions about the water loss audit, please call (830) 312-4600.

Safeguard Your Drinking Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources, or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use U.S. EPA's Adopt Your Watershed to locate groups in your community.

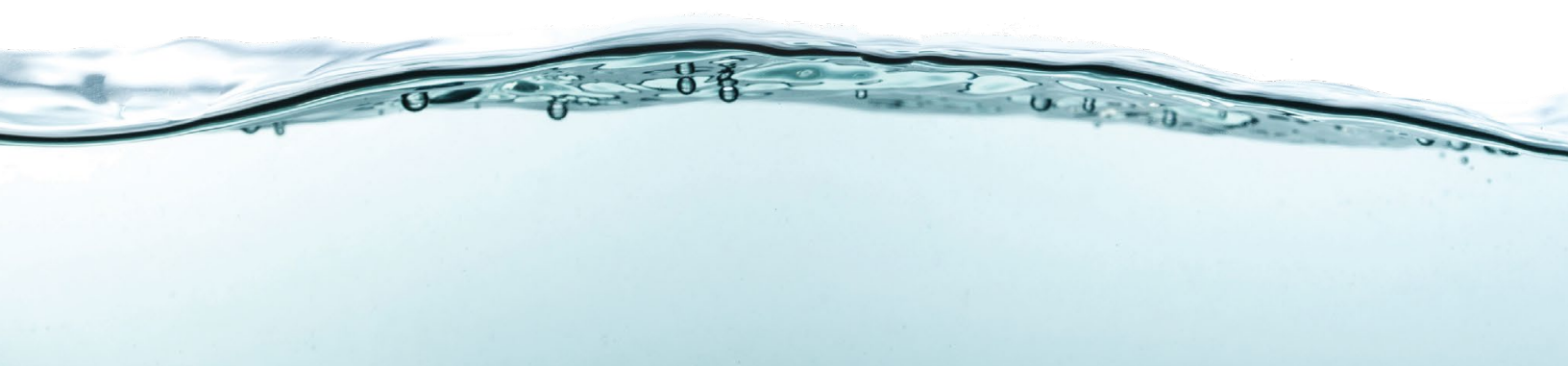
Organize a storm drain stenciling project with others in your neighborhood. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Where Does My Water Come From?

Rust Ranch Water Supply provides groundwater from the Trinity Aquifer.

SOURCE NAME / LOCATION	SOURCE WATER	TYPE OF WATER	REPORT STATUS	TCEQ SOURCE ID
Rust Ranch Road	Trinity Aquifer	Groundwater	Active	G0160019A G0160019B G0160019C

Further details about sources and source water assessments are available at Drinking Water Watch at <https://dww2.tceq.texas.gov/DWW/>.



Source Water Assessment

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 detections of these contaminants will be found in this CCR. For more information on source water assessments and protection efforts at our system, contact Laura Gloria, Water Quality Specialist, at (830) 312-4600.

SYSTEM SUSCEPTIBILITY SUMMARY

ASBESTOS	CYANIDE	METALS	MICROBIAL	MINERALS	RADIOCHEMICAL	SYNTHETIC ORGANIC CHEMICALS	DISINFECTION BYPRODUCT	VOLATILE ORGANIC CHEMICALS	DRINKING WATER CONTAMINANT CANDIDATE	OTHER
----	MEDIUM	HIGH	MEDIUM	HIGH	----	HIGH	MEDIUM	HIGH	HIGH	----

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set.

Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

Other Table Information Worth Noting

If there was a violation, you will see a detailed description of the event in this report.

The Range column displays the lowest and highest sample readings. If the lowest sample reading and the highest sample reading are the same, that means that only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is a 0, that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	HIGHEST AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2019	2	2	0.0296	0.0296–0.0296	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2019	[4]	[4]	1.33 ¹	0.49–2.1	No	Water additive used to control microbes
Combined Radium (pCi/L)	2015	5	0	3.3	3.3–3.3	No	Erosion of natural deposits
Fluoride (ppm)	2019	4	4	0.52	0.52–0.52	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Gross Alpha [excluding Radon and Uranium] (pCi/L)	2015	15	0	3.3	3.3–3.3	No	Erosion of natural deposits
Nitrate (ppm)	2019	10	10	0.91	0.91–0.91	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2016	50	50	3.7	3.7–3.7	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [Total Trihalomethanes] (ppb)	2018	80	NA	1.2 ²	1.2–1.2	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2017	1.3	1.3	0.156	0/5	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2017	15	0	0.9	0/5	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SCL	MCLG	HIGHEST AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2019	300	NA	15	15–15	No	Runoff/leaching from natural deposits
Fluoride (ppm)	2019	2.0	NA	0.52	0.52–0.52	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Sulfate (ppm)	2019	300	NA	121	121–121	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids [TDS] (ppm)	2019	1,000	NA	502	502–502	No	Runoff/leaching from natural deposits
Zinc (ppm)	2019	5	NA	0.0535	0.0535–0.0535	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES ³

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	HIGHEST AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Dibromochloromethane (ppb)	2018	1.2	1.2–1.2	Disinfection by-product
Nickel (ppm)	2019	0.0022	0.0022–0.0022	Erosion of natural deposits; Discharge from metal refineries; Runoff from waste, batteries, and paints
Sodium (ppm)	2019	9.02	9.02–9.02	Erosion of natural deposits

OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	HIGHEST AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bicarbonate (ppm)	2019	315	315–315	Erosion of natural deposits
Calcium (ppm)	2019	92.5	92.5–92.5	Erosion of natural deposits
Diluted Conductance (µS/cm)	2019	853	853–853	Erosion of natural deposits
Gross Alpha [including Radon and Uranium] (pCi/L)	2015	3.3	3.3–3.3	Erosion of natural deposits
Magnesium (ppm)	2019	32	32–32	Erosion of natural deposits
Potassium (ppm)	2019	2	2–2	Erosion of natural deposits
Total Alkalinity [as CaCO ₃] (ppm)	2019	258	258–258	Erosion of natural deposits
Total Hardness (ppm)	2019	363	363–363	Erosion of natural deposits

¹ Average

² Highest Location Running Annual Average (LRAA)

³ Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist U.S. EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90 percent of our lead and copper detections.

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

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 were found.

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 *Escherichia coli* (*E. coli*) maximum contaminant level (MCL) violation has occurred and/or why total coliform bacteria were found on multiple occasions.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

SCL (Secondary Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.