

# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020



*Presented By*  
**SJWTX — Rust Ranch  
Water Supply**



## From the General Manager

We are proud to provide you with our 2020 Consumer Confidence Report (CCR). The annual water quality report covers all testing performed between January 1 and December 31, 2020. Our team of professionals has spent countless hours collecting samples, analyzing data, focusing on superior quality water, and striving to live up to our vision, “to serve customers, communities, employees, shareholders, and the environment at world-class levels.” Our Mission, Vision, and Values bind us together to provide life-sustaining water for our customers, community, and each other.

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 unsafe. 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 the substances reflected in this report. SJWTX supplies both groundwater and surface water to our customers. Your system relies entirely 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.

This year your system participated in the Lead and Copper Program. The Lead and Copper Program protects public health by minimizing lead and copper levels in drinking water. This is primarily done by helping customers identify whether they may be at high risk for exposure through sampling. Sampling is conducted every three years, and the number of samples collected is based upon the population within the water system. In 2020, SJWTX collected ten samples throughout your system to test for lead and copper content in your drinking water. Determining the level of exposure helps SJWTX make decisions about updating the system and helps the customers evaluate their plumbing. In the Test Results section, you can see the 90th percentile value of the most recent round of sampling.

## Tip Top Tap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

### Kitchen Sink and Drain

Hand washing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed up water in which bacteria (i.e., pink- and black-colored slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly. Also, flush regularly with hot water.

### Faucets, Screens, and Aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets, and can collect particles like sediment and minerals resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet screen as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and shower heads may be caused by hard water or water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.

### Water Filtration/Treatment Devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time, so regular filter replacement is important. (Remember to replace your refrigerator filter!)

## Quality First

As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.



We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

## QUESTIONS?

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

## Contaminants 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. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that 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.

## 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.

## Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these

diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

How chlorination works:

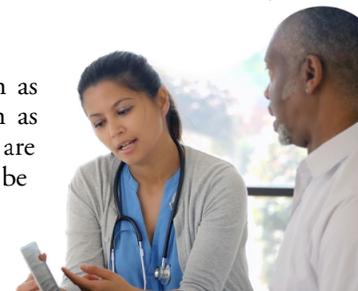
**Potent Germicide Reduction** in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.

**Taste and Odor Reduction** of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and odors from decaying vegetation.

**Biological Growth Elimination** of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.

**Chemical Removal** of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

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## Source Water Assessment

The Texas Commission on Environmental Quality (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 Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Kristen Collier, 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                                 | ----  |

### Where Does My Water Come From?

Rust Ranch Water Supply provides ground water 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 in Drinking Water Watch at the following URL: <https://dww2.tceq.texas.gov/DWW/>.

### Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not themselves pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen and disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at such times. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use, and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

### 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 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



### 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 899,835 gallons of water. If you have any questions about the water loss audit, please call (830) 312-4600.



## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only 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.

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

The state recommends monitoring for certain substances less often 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 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 Highest Amount Detected column).

If there is a 0, that means multiple samples were taken but 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<br>(UNIT OF MEASURE)                    | YEAR<br>SAMPLED | MCL<br>[MRDL] | MCLG<br>[MRDLG] | HIGHEST<br>AMOUNT<br>DETECTED | RANGE<br>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)                                    | 2020            | [4]           | [4]             | 1.5 <sup>1</sup>              | 0.5–2.3           | 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)                                     | 2020            | 10            | 10              | 0.9                           | 0.9–0.9           | 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 <sup>2</sup>              | 1.2–1.2           | No        | By-product of drinking water disinfection  |

## 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% of our lead and copper detections.

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

**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

**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.

**µmho/cm (micromhos per centimeter):** A unit expressing the amount of electrical conductivity of a solution.

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)                | 2020         | 1.3 | 1.3  | 0.137                       | 0/10                        | No        | Erosion of natural deposits; Leaching from wood and preservatives; Corrosion of household plumbing systems |
| Lead (ppb)                  | 2020         | 15  | 0    | 1.9                         | 0/10                        | 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 which 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 <sup>3</sup>

| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | HIGHEST AMOUNT DETECTED | RANGE LOW-HIGH | TYPICAL SOURCE   |
|-----------------------------|--------------|-------------------------|----------------|--|
| Dibromochloromethane (ppb)  | 2018         | 1.2                     | 0–1.2          | 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 UNREGULATED SUBSTANCES <sup>3</sup>

| 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 (µmho/cm)                  | 2019         | 853                     | 853–853        | 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 <sub>3</sub> ] (ppm) | 2019         | 258                     | 258–258        | Erosion of natural deposits |
| Total Hardness (ppm)                           | 2019         | 363                     | 363–363        | Erosion of natural deposits |

<sup>1</sup> The Highest Amount Detected for chlorine is calculated as an average.

<sup>2</sup> The value in the Highest Amount Detected column is the highest average of all samples collected at a location over a year.

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