

# 2020 Borden County Water System Water Quality Report

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (806) 756-4391.

This is your Water Quality Report of January 1 to December 31, 2020.

## WHY YOU'VE RECEIVED THIS REPORT

This report is produced to provide information about the Borden County Water System including source water, the levels of detected contaminants and compliance with drinking water rules. This report is also produced in order to answer your water quality questions. For more information regarding this report, please contact the Borden County Water System, PWS TX0170010, Ross D. Sharp at (806) 756-4391.

## WHERE YOUR WATER COMES FROM

The BORDEN COUNTY WATER SYSTEM provides ground water to its consumers **from the Ogallala Aquifer located in Dawson County, Texas.**

## SOURCE WATER INFORMATION

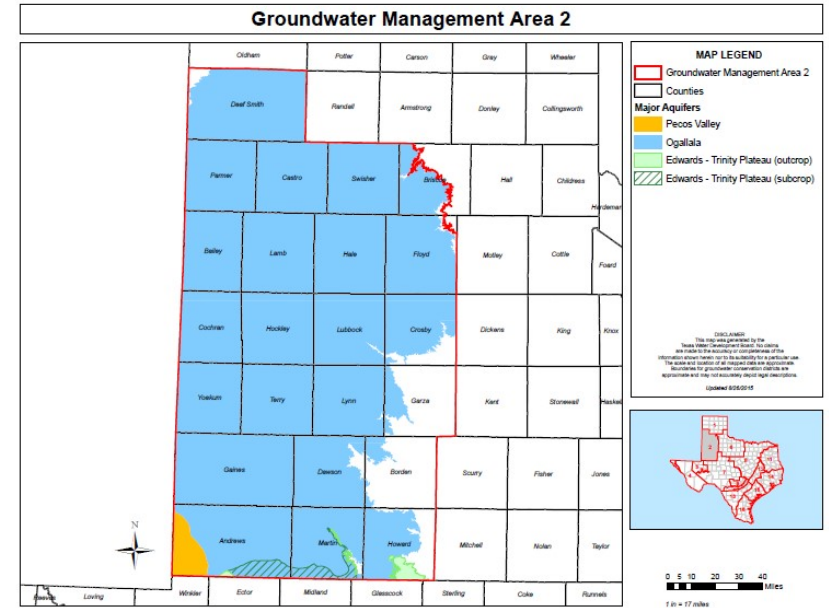
TCEQ completed an assessment of the Borden County Water System's source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for the Borden County Water System is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts call the Borden County Water System at (806) 756-4391.

The Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, 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

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 might have 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and
- Radioactive contaminants, which can be naturally occurring or 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 cause for health concerns. For more information on taste, odor, or color of drinking water please contact the Borden County Water System at (806) 756-4391.



## **ALL DRINKING WATER MAY CONTAIN CONTAMINANTS**

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 U.S. Environmental Protection Agency (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amounts 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.

## **CRYPTOSPORIDIUM**

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 intestinal infection (symptoms include nausea, diarrhea, and abdominal cramps). Some of the ways cryptosporidium can be spread include drinking 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.

## **ARSENIC**

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 health effects against the cost 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.

## **FLUORIDE**

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis).

The drinking water provided by the Borden County Water System has a fluoride concentration of 5.3 mg/L. Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does contain more than 4 mg/L of fluoride, and we're required to notify you when we discover that the fluoride levels in your drinking water exceeded 2 mg/L because of this cosmetic dental problem. For more information, please contact the Borden County Water System at (806) 756-4391. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

*Special notice for the elderly, infants, cancer patients, and people with 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 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 see 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 Safe Drinking Water Hotline at 1-800-426-4791.**

## LEAD AND COPPER

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

*When your water has been setting 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 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.

If you are concerned about lead in your drinking 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 U.S. EPA Safe Drinking Water Hotline at 1-800-426-4791 or visit <http://www.epa.gov/safewater/lead>.

## WATER LOSS

In the water loss audit submitted to the Texas Water Development Board (TWDB) for the period of January 1 to December 31, 2020, the Borden County Water System lost an estimated 4.76% of the system input volume. If you have questions concerning the water loss audit, please contact the Borden County Water System at (806) 756-4391.

## A REMINDER TO CONSERVE WATER

Most of us take for granted we will always have enough water. Unfortunately, our area experiences periods of drought. We encourage consumers to continue to conserve water as we strive to provide a high quality of water to Borden County. For Conservation tips and ideas, click on a link listed below.

<https://www.texaswatersmart.com> <https://www.takecareoftexas.org/conservation-tips/conserve-our-water>

## DEFINITIONS

**AL or Action Level** is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**ALG or Action Level Goal** is 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** is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria were found.

**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.

**MCL or Maximum Contaminant Level** is 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 or Maximum Contaminant Level Goal** is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for margin of safety.

**MRDL or Maximum Residual Disinfectant Level** is 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 or Maximum Residual Disinfectant Level Goal** is 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 or Million Fibers Per Liter** is a measure of asbestos.

**mrem or millirems per year** is a measure of radiation absorbed by the body.

**NA** is not applicable.

**NTU or Nephelometric Turbidity Units** is a measure of turbidity.

**pCi/L or picocuries per liter** is a measure of radioactivity

**ppb: parts per billion**, or micrograms per liter (ug/L)

**ppm: parts per million**, or miligrams per liter (mg/L)

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

**ppt: parts per trillion**, or nanograms per liter (ng/L)

**Treatment Technique or TT** is a required process intended to reduce the level of a contaminant in drinking water.

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Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2020	1.3	1.3	0.093	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	07/01/2019	3.2	3.2 - 3.2	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	07/01/2019	14.5	14.5 – 14.5	No goal for the total	80	ppb	N	By-product of drinking water disinfection
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely source of Contamination
Arsenic	2020	13	10 – 15.4	0	10	ppb	Y	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	01/10/2019	0.032	0.032 - 0.032	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	01/10/2019	1.7	1.7 - 1.7	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2020	5.3	5.11 – 5.54	4	4.0	ppm	Y	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2020	2	1.67 – 1.67	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite [measured as Nitrogen]	01/10/2019	0.114	0.114 – 0.114	1	1	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	01/10/2019	9.5	9.5 – 9.5	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	04/04/2019	11.1	11.1 - 11.1	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.								
Uranium	04/04/2019	10.4	10.4 - 10.4	0	30	ug/l	N	Erosion of natural deposits
Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation	Source in Drinking Water
Chlorine Free	2020	1.13	0.4 – 1.4	4	4	ppm	N	Water additive used to control microbes.

## VIOLATIONS

### ARSENIC VIOLATIONS

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE	07/01/2020	09/30/2020	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	10/01/2020	12/31/2020	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

### FLUORIDE VIOLATIONS

Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of teeth, and occurs only in developing

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE	01/01/2020	03/31/2020	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	04/01/2020	06/30/2020	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	07/01/2020	09/30/2020	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	10/01/2020	12/31/2020	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

### REVISED TOTAL COLIFORM RULE (RTCR) VIOLATIONS

The Revised Total Coliform Rule (RTCR) seeks to prevent waterborne diseases caused by E. coli. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children,

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE, MAJOR (RTCR)	05/01/2020	05/31/2020	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.