

TERRANOVA WEST M.U.D.

2022 Drinking Water Quality Report

This report is an annual summary of the quality of your drinking water. It is required by the Texas Commission on Environmental Quality and is based on the most recent U.S. Environmental Protection Agency required tests.

OUR DRINKING WATER IS SAFE

The Texas Commission on Environmental Quality (TCEQ), has 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 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 and protection efforts at our systems contact Natalia Espitia at: (281) 353-9809.

En Español

Este reporte incluye información importante sobre su agua potable. Para asistencia en español, favor de llamar al telefono: (281) 353-9809

Where do we get our drinking water?

Terranova West MUD provides ground water and surface water sources from the Gulf Coast Aquifers some 500 to 2,000 feet below ground surface. Surface water is provided by the North Harris County Regional Water Authority and is treated water from Lake Houston. Terranova West MUD purchases water from Louetta Road Utility District who provides ground water from the Gulf Coast Aquifers.

Contaminants that may be Present in Source Water

The sources of drinking water (both tap 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, radio-active 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 (1-800-426-4791).

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic system, agricultural livestock operations, and wildlife;
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or 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 can also come from gas stations, urban stormwater 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, the EPA prescribes regulations that limits the amount of certain contaminants in water provided by public water systems. Federal Food and Drug Administration Agency regulations establish limits for contaminants in bottled water that 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 h2o innovation at (281) 353-9809.

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 Immuno-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 (800-426-4791).

Public Participation Opportunities:

Terranova West MUD District Board of Directors meet at 6:00 P.M on the third Thursday of each month at 17623 Moss Point Drive Spring, Texas 77379. You may contact Natalia Espitia, with H₂O Innovation at 281-353-9809 with any concerns or questions you may have.



About the Following Table

The following table contains all of the chemical constituents which have been found in your drinking water for the most recent testing performed in accordance with applicable regulations. USEPA requires water systems to test up to 97 constituents. The constituents detected in your water are listed in the attached table.

DEFINITIONS

Maximum Contaminant Level (MCL) - The highest level of a contaminant 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 known or expected health risk. MCLG's allow for a margin of safety.

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

ppm = parts per million or milligrams per liter (mg/l), one part per million corresponds to one minute in two years or a single penny in \$10,000.

ppb = parts per billion or micrograms per liter (mg/l), one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

pCi/l = pico curies per liter: Measure of radioactivity.

Maximum Residual Disinfectant Level (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 (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk health. MRDLG's do not reflect the benefits of the use of disinfectant to control microbial contaminants.

NTU = Nephelometric turbidity units (a measure of turbidity)

AVG = Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

Terranova West Municipal Utility District TX1011226 2022 Drinking Water Quality Report:

Inorganic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2020	Barium	0.0916	0.0916 - 0.0916	2	2	ppm	Discharge of drilling wastes.
2020	Fluoride	0.20	0.20 - 0.20	4	4	ppm	Discharge from fertilizer and aluminum factories.
2022	Nitrate	0.81	0.81 - 0.81	10	10	ppm	Runoff from fertilizer use.
2020	Arsenic	3.3	3.3 - 3.3	10	0	ppb	Erosion of natural deposits.
2020	Cyanide	90.0	90.0 - 90.0	200	200	ppb	Discharge from steel/metal factories

*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.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MRDL	MRDLG	Units of Measure	Source of Constituent
2022	Total Trihalomethanes (TTHM)	11.1	7.1 - 11.1	80	n/a	ppb	By-product of drinking water chlorination.
2022	Haloacetic Acids (HAA5)	14.7	7.6 - 14.7	60	n/a	ppb	By-product of drinking water chlorination.

*The value in the Highest Level or Average Detected column is the highest average of all HAA5/TTHM sample results collected at a location over a year

Disinfectant Residual							
Year	Constituent	Highest Average	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2022	Chlorine Disinfectant	3.60	0.80 - 5.60	4	0	ppm	Disinfectant used to control microbes.

Unregulated Contaminants**

Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2022	Trichloroacetic Acid	1.72	1.30 - 2.00	ppb
2022	Bromochloroacetic Acid	1.60	1.40 - 1.80	ppb
2022	Chloroform	6.16	5.10 - 8.80	ppb
2022	Bromodichloromethane	1.76	1.20 - 2.30	ppb
2022	Dichloroacetic Acid	8.65	6.30 - 10.70	ppb
2022	Monochloroacetic Acid	2.00	2.00 - 2.00	ppb

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

Lead and Copper

Year	Constituent	MCLG	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	Units of Measure	Source of Constituent
2022	Lead	0	2.43	0	15	ppb	Corrosion of household plumbing system.
2022	Copper	1.3	0.282	0	1.3	ppm	Erosion of natural deposits.

*The 90th percentile of the Lead/ Copper analysis means the top 10% (highest sample results) of all samples collected.

*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>.

Organic Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2022	Atrazine	0.19	0.19 - 0.19	3	3	ppb	Runoff from herbicide used on row crops.
2022	Simazine	0.14	0.14 - 0.14	4	4	ppb	Herbicide runoff.

Coliform Bacteria

Year	Constituent	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 Constituent
2022	Coliform Bacteria	1 Positive monthly sample	3	0	0	N	Naturally present in the environment.

Violations Table: E. coli

Fecal coliform and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose special health risk for infants, young children, and young people with severely compromised immune system.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITOR GWR TRIGGERED/ ADDITIONAL MAJOR	08/19/2022	11/21/2022	We failed to collect follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive samples collected.

Public Notice Mandatory Language can be found in the following page:

Terranova West Municipal Utility District TX1011226
Public Notice Mandatory Language:
Triggered Source Monitoring and Reporting Violation: Groundwater Rule

Terranova West Municipal Utility District, PWS ID: TX1011226 failed to collect the required number of triggered source bacteriological samples for fecal indicator monitoring of the groundwater system during **AUGUST 2022**. This monitoring is required by the Texas Commission on Environmental Quality's "Drinking Water Standards" and the federal "Safe Drinking Water Act," Public Law 95-523.

Triggered source samples are used to monitor water quality and indicate if the water is free of fecal indicator bacteria. Following a positive routine total coliform result in our distribution system, our water system is required to submit one triggered source sample for every active groundwater well source. Failure to collect all required triggered source samples is a violation of the monitoring requirements and we are required to notify you of this violation.

What should I do?

There is nothing you need to do at this time.

What is being done?

The cause of this notification is a result of a positive Total Coliform sample collected by the laboratory contracted by the district. After the positive results were taken, resamples were scheduled but an incident at the laboratory damaged the collected samples causing us to be one sample short from the required amount. As a result of the sampling errors, Terranova West M.U.D has switched laboratories as of October 1st 2022.

For more information, please contact **Natalia Espitia at (281) 353-9809 or 2200 Sciaaca Road, Spring, Texas 77373.**

**Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail. **

During 2022 Terranova West M.U.D. received water from Louetta Road Utility District TX1010536 The following is the water quality information provided by Louetta Road Utility District:

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2022	Total Trihalomethanes (TTHM)	13.4	13.4 - 13.4	80	n/a	ppb	By-product of drinking water chlorination.
2022	Total Haloacetic Acid (HHA5)	10.0	10.0 - 10.0	60	n/a	ppb	By-product of drinking water chlorination.

*The value in the Highest Level or Average Detected column is the highest average of all HAA5/TTHM sample results collected at a location over a year

Unregulated Contaminants**				
Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2022	Trichloroacetic Acid	2.0	2.0 - 2.0	ppb
2022	Dichloroacetic Acid	8.0	8.0 - 8.0	ppb
2022	Bromochloroacetic Acid	2.1	2.1 - 2.1	ppb
2022	Chloroform	10.1	10.1 - 10.1	ppb
2022	Bromodichloromethane	3.3	3.3 - 3.3	ppb
2020	Dibromoacetic Acid	1.0	1.0 - 1.0	ppb

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Inorganic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2019	Barium	0.241	0.241 - 0.241	2	2	ppm	Discharge of drilling wastes.
2021	Fluoride	0.75	0.75 - 0.75	4	4	ppm	Water additive which promotes strong teeth.
2019	Arsenic	2.30	2.30 - 2.30	10	0	ppb	Erosion of natural deposits.
2019	Chromium	11.40	11.40 - 11.40	100	100	ppb	Discharge from steel and pulp mills.
2019	Selenium	5.00	5.00 - 5.00	50	50	ppb	Discharge from petroleum and metal refineries.

*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.

Disinfectant Residual							
Year	Constituent	Highest Average	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2022	Chlorine Disinfectant	3.06	0.50 - 4.50	4	0	ppm	Disinfectant used to control microbes.

During 2022 Terranova West M.U.D. received surface water from the North Harris County Regional Water Authority. The following is a compilation of the water quality information provided by the North Harris County Regional Water Authority:

Inorganic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Barium	0.35	0.0396 - 0.35	2	2	ppm	Discharge of drilling wastes.
2022	Nitrate	0.18	0.18 - 0.18	10	10	ppm	Runoff from fertilizer use.
2021	Fluoride	0.37	0.00 - 0.37	4	4	ppm	Erosion of natural deposits.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Atrazine	0.64	0.00 - 0.64	3	3	ppb	Runoff from herbicides used on row crops.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2022	Total Trihalomethanes (TTHM)	22.0	21.6 - 22.0	80	n/a	ppb	By-product of drinking water chlorination.
2022	Haloacetic Acids (HAA5)	22.0	22.0 - 22.0	60	n/a	ppb	By-product of drinking water chlorination.

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

Unregulated Contaminants**				
Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2022	Chloroform	18.10	18.10 - 18.10	ppb
2022	Bromochloroacetic Acid	2.40	2.40 - 2.40	ppb
2022	Dichloroacetic Acid	15.80	15.80 - 15.80	ppb
2022	Monochloroacetic Acid	2.60	2.60 - 2.60	ppb
2022	Trichloroacetic Acid	3.60	3.60 - 3.60	ppb
2022	Bromodichloromethane	3.50	3.50 - 3.50	ppb

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Turbidity**						
Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Monthly Limits	Units of Measure	Source of Constituent
2021	Turbidity	0.49	0.3 - 0.49	0.3	NTU	Soil runoff.

**Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organism. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

**Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Our water is safe to drink.