

NW HARRIS COUNTY M.U.D. NO. 21

2021 Drinking Water Quality Report

OUR DRINKING WATER IS SAFE

The Texas Commission on Environmental Quality (TCEQ) has assessed our system and determined that our water is safe to drink. The analysis was made by using the data in the attached tables. Your water meets federal standards set forth by the United States Environmental Protection Agency (USEPA), there may not be health based benefits to purchasing bottled water or point of use devices.

En Español

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

Where do we get our drinking water?

Our drinking water is obtained from ground water and surface water sources. The ground water comes 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. 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 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 at our system contact Natalia Espitia at 281-353-9809.

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).

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).

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, 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 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; and
- **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. Some of our drinking water is delivered by wells from underground aquifers that are protected from many of the sources of contamination described and some of our water is provided from surface water sources by the North Harris County Water Authority.

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. EPA website: www.epa.gov/safewater

Public input concerning your water system may be made at regularly scheduled meetings on the third Monday of each month at noon at 6330 West Loop South, Suite 150, Bellaire, Texas 77401. You may contact Natalia Espitia with h2o innovation at 281-353-9809 with any questions or concerns 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.

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

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.

Northwest Harris County Municipal Utility District No. 21 TX1011744 2021 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
2021	Barium	0.109	0.109 - 0.109	2	2	ppm	Discharge of drilling wastes.
2021	Fluoride	0.21	0.21 - 0.21	4.0	4	ppm	Erosion of natural deposits.
2021	Nitrate	1.01	0.08 - 1.01	10	10	ppm	Runoff from fertilizer use.
2016	Nitrite	0.58	0.58 - 0.58	1	1	ppm	Erosion of natural deposits.
2021	Cyanide	140	140 - 140	200	200	ppb	Discharge from plastic and fertilizer factories.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Total Trihalomethanes (TTHM)	18.2	8.2 - 18.2	80	n/a	ppb	By-product of drinking water chlorination.
2021	Haloacetic Acids (HAA5)	21.8	11.6 - 21.8	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.

Disinfectant Residual							
Year	Constituent	Average of All Sampling Points	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Chlorine Disinfectant	3.31	0.50 - 4.10	4	0	ppm	Disinfectant used to control microbes.

**The chlorine disinfectant maximum contaminant level (MCL) of 4.0 mg/L is a running annual average. Although some of the disinfectant sample result levels were occasionally over 4.0 mg/L, the running annual average was always below 4.0 mg/L and the District was never in violation.

Lead and Copper						
Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	Units of Measure	Source of Constituent
2021	Lead	5.07	0	15	ppb	Corrosion of household plumbing system.
2021	Copper	0.293	0	1.3	ppm	Erosion of natural deposits. Leaching from wood preservatives.

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
2021	Atrazine	0.27	0.27 - 0.27	3	3	ppb	Runoff from herbicides used on row crops.
2020	Simazine	0.18	0.18 - 0.18	4	4	ppb	Runoff from herbicides used on row crops.

Unregulated Contaminants**				
Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2021	Dichloroacetic Acid	12.66	9.2 - 16.7	ppb
2021	Trichloroacetic Acid	2.7	2.3 - 3.4	ppb
2021	Bromochloroacetic Acid	1.7	1.6 - 1.9	ppb
2021	Chloroform	9.82	5.9 - 15.8	ppb
2021	Bromodichloromethane	1.72	1.5 - 2.4	ppb
2020	Monochloroacetic Acid	3.6	3.6 - 3.6	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.

During 2021, Northwest Harris County M.U.D. No. 21 purchases surface water from the North Harris County Regional Water Authority. The following water quality information was provided by the North Harris County Regional Water Authority:

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	0.64 - 0.64	3	3	ppb	Runoff from herbicides used on row crops.

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	0.0539	0.0539 - 0.0539	2	2	ppm	Erosion of natural deposits.
2021	Nitrate	0.39	0.39 - 0.39	10	10	ppm	Erosion of natural deposits.
2020	Fluoride	0.11	0.11 - 0.11	10	10	ppm	Erosion of natural deposits.

Unregulated Contaminants**					
Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure	
2021	Chloroform	17	17 - 17	ppb	
2016	Bromochloroacetic Acid	3.2	3.2 - 3.2	ppb	
2016	Dichloroacetic Acid	19.4	19.4 - 19.4	ppb	
2016	Monochloroacetic Acid	10.5	10.5 - 10.5	ppb	
2016	Trichloroacetic Acid	4.8	4.8 - 4.8	ppb	
2021	Bromodichloromethane	2.4	2.4 - 2.4	ppb	

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Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Total Trihalomethanes (TTHM)	48.2	48.2 - 48.2	80	n/a	ppb	By-product of drinking water chlorination.
2021	Haloacetic Acids (HAA5)	51	51 - 51	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

Turbidity**						
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	Monthly Limits	Units of Measure	Source of Constituent
2021	Turbidity	0.22	0.06 - 0.22	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.

During 2021, Northwest Harris County M.U.D. No. 21 received water from Northwest Harris County M.U.D. No. 23. TX1011746 - The following water quality information was provided by

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	0.24	0.1 - 0.24	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
2021	Simazine	0.07	0 - 0.07	4	4	ppb	Herbicide runoff.
2021	Benzene	0.8	0 - 0.8	5	0	ppb	Discharge from factories.
2021	Xylenes	0.0006	0 - 0.0006	10	10	ppm	Discharge from petroleum factories.

Radioactive Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Measure	Source of Constituent
2021	Combined Radium 226/228	1.5	1.5 - 1.5	5	0	pCi/L	Erosion of natural deposits.

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	0.064	0.064 - 0.064	2	2	ppm	Discharge of drilling wastes.
2020	Fluoride	0.12	0.12 - 0.12	4.0	4	ppm	Erosion of natural deposits.
2021	Nitrate	1.2	1.2 - 1.2	10	10	ppm	Runoff from fertilizer use.
2015	Nitrite	0.01	0.01 - 0.01	1	1	ppm	Erosion of natural deposits.
2017	Arsenic	0.0032	0.0032 - 0.0032	10	0	ppb	Erosion of natural deposits
2020	Cyanide	60	60 - 60	200	200	ppb	Discharge from steel/fertilizer factories

Organic Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Total Trihalomethanes (TTHM)	20.2	20.2 - 20.2	80	n/a	ppb	By-product of drinking water chlorination.
2021	Haloacetic Acids (HAA5)	17	16.8 - 17	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
2020	Trichloroacetic Acid	2.6	2.6 - 2.6	ppb
2020	Bromochloroacetic Acid	3.0	3.0 - 3.0	ppb
2020	Chloroform	10.6	9.7 - 11.5	ppb
2020	Bromodichloromethane	2.6	1.4 - 3.8	ppb
2019	Monochloroacetic Acid	2.1	2.1-2.1	ppb
2020	Dichloroacetic Acid	11.9	11.9 - 11.9	ppb
2020	Dibromochloromethane	1.0	1.0 - 1.0	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.