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Northwest Harris County MUD No. 5
406 W. Grand Parkway S., Suite 260
Katy, Texas 77494

NORTHWEST HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 5

2021

ANNUAL DRINKING WATER QUALITY REPORT

This annual Drinking Water Quality Report provides information on your District's drinking water. The United States Environmental Protection Agency (EPA) requires that all drinking water suppliers in the country provide a water quality report to their customers annually.

En Espanol

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono (281) 290-3107.

Public Participation Opportunities

The Board of Directors of the District meet at 5:00 PM on the third Thursday of each month.

You may mail comments to:
Northwest Harris County Municipal Utility District No. 5
Attn: Board of Directors

406 W. Grand Parkway S, Suite 260, Katy, Texas 77494

Or Call: (281) 290-6500

Our Drinking Water Meets All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the following pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

SPECIAL NOTICE

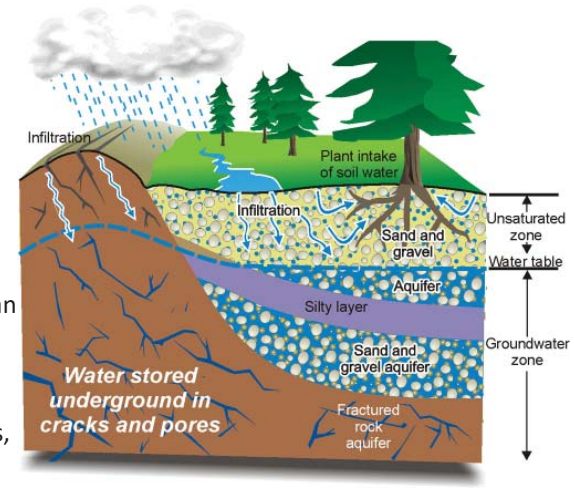
You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer, those who have undergone organ transplants, those who are undergoing 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 providers. 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.

Where Do We Get Our Water?

Our drinking water is obtained from groundwater and surface water sources. Our water comes from the Evangeline and Jasper aquifers. The surface water comes from Lake Houston. A Source Water Susceptibility Assessment for your drinking water sources is currently being updated by the Texas Commison on Environmental Quality and will be provided to us this year. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment will allow us to focus our source water protections strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at http://dww2.tceq.texas.gov/DWW/. For more information on source water assessments and protection efforts at our system, please contact us.

Water Sources

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 before treatment include: microbes, inorganic contaminants, pesticides, herbicides, organic chemical contaminants, and radioactive contaminants.



All Drinking Water May Contain Contaminants

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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).

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document, but they may greatly affect the appearance and taste of your water.

Northwest Harris County Municipal Utility District No. 5 Drinking Water Quality Report Results

PWSID: 1010884

About the Tables

The following tables list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants. All contaminants detected in your water are below state and federal allowed levels. The State of Texas allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

For More Information:

You may call (281)290-3107 to speak to a District representative about your Water Quality Report. You may also call the U.S. Environmental Protections Agency's Safe Drinking Water Hotline at 1(800) 426-4791.

In the water loss audit submitted to the Texas Water Developmemt Board for the time period of January - December 2021, our system lost an estimated 2,352,544 gallons of water. If you have any questions about the water loss audit please call (281) 290-3107.

Drinking Water Definitions and Units Description

NA: Not Applicable
ND: Not Detected
NR: Not Reported
pCi/L: picocuries per liter (a measure of radioactivity)
ppm: parts per million, or milligrams per liter (mg/L)
ppb: parts per billion, or micrograms per liter (ug/L)
MNR: Monitoring not required, but recommended
MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to maximum contaminant level goals 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 health risk. MCLGs allow for a margin of safety.
MRDL: Maximum Residual Disinfection 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 Disinfection 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.
AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
NTU: Nephelometric Turbidity Units (a measure of turbidity)
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 have been found in our water system.
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.

REGULATED INORGANIC CONTAMINANTS

YEAR	Contaminant (Unit of Measure)	Highest Level Detected (Groundwater)	Highest Level Detected (Surface Water)	Range of Detected Levels	Violation	MCL	MCLG	Source of Contaminant
2020-2021	Arsenic (ppb)	3.7	ND	ND - 3.7	No	10	10	Erosion of natural deposits
2020-2021	Barium (ppm)	0.323	0.0539	0.0535 - 0.323	No	2	2	Erosion of natural deposits
2019-2020	Chromium (ppb)	11.4	ND	ND - 11.4	No	100	100	Erosion of natural deposits
2020-2021	Cyanide (ppb)	110	NA	ND - 110	No	200	200	Erosion of natural deposits
2020	Fluoride (ppm)	1.56	0.11	ND - 1.56	No	4	4	Erosion of natural deposits
2021	Nitrate (ppm)	0.76	0.39	ND - 0.76	No	10	10	Erosion of natural deposits
2017-2021	Nitrite (ppm)	0.01	ND	ND - 0.01	No	1	1	Erosion of natural deposits
2020-2021	Selenium (ppb)	7.3	ND	ND - 7.3	No	50	50	Erosion of natural deposits
2017-2020	Beta Emitters (pCi/L)	6.8	ND	ND - 6.8	No	50	0	Erosion of natural and man made deposits
2017-2020	Alpha Emitters (pCi/L)	3.4	ND	ND - 3.4	No	5	0	Erosion of natural deposits

Northwest Harris County Municipal Utility District No. 5 Drinking Water Quality Report Results

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REGULATED ORGANIC CONTAMINANTS

YEAR	Contaminant (Unit of Measure)	Highest Level Detected (Groundwater)	Highest Level Detected (Surface Water)	Range of Detected Levels	Violation	MCL	MCLG	Source of Contaminant
2020-2021	Atrazine (ppb)	0.28	0.64	ND - 0.64	No	3	3	Runoff from herbicide used on row crops
2021	Xylenes (ppb)	0.0042	ND	ND - 0.0042	No	10	10	Discharge from chemical factories
2021	Ethylbenzene (ppb)	0.7	ND	ND - 0.7	No	700	700	Discharge from petroleum refineries
2017	Di(2-ethylhexyl)phthalate (ppb)	ND	0.61	ND - 0.61	No	6	0	Discharge from rubber & chemical factories
2020-2021	Simazine (ppb)	0.20	ND	ND - 0.20	No	4	4	Runoff from herbicide used on row crops

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 occurence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in the following table. For additional information and data, visit https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule, or call the Safe Drinking Water Hotline at (800) 426-4791.

UNREGULATED CONTAMINANTS

YEAR	Contaminant (Unit of Measure)	Highest Level Detected in Groundwater	Highest Level Detected in Surface Water	Range of Detected Levels
2021	Bromodichloromethane (ppb)	1.6	2.4	ND - 1.6
2021	Bromoform (ppb)	2.7	ND	ND - 2.7
2021	Chloroform (ppb)	12	17	ND - 12
2021	Dibromochloromethane (ppb)	3.2	ND	ND - 3.2
2020	1,2,3-Trichloropropane (ppb)	0.06	ND	ND - 0.06
2018-2019	Manganese (ppb)	9.0	NA	1.0 - 9.0
2018-2019	Germanium (ppb)	0.8	NA	ND - 0.8
2018-2019	HAA5 (ppb)	18.61	NA	0.544 - 18.61
2018-2019	HAA6Br (ppb)	19.07	NA	ND - 19.07
2018-2019	HAA9 (ppb)	28.29	NA	0.556 - 28.29

DISINFECTION BY-PRODUCT RESULTS

YEAR	Contaminant (Unit of Measure)	Average Level Detected	Range of detected levels	Violation	MCL	Source of Contaminant
2021	Total Haloacetic Acids (ppb)	7.98	ND - 16.6	No	60	Byproduct of drinking water disinfection
2021	Total Trihalomethanes (ppb)	12.6	ND - 14.5	No	80	Byproduct of drinking water disinfection

LEAD AND COPPER

YEAR	Contaminant (Unit of Measure)	90th Percentile	No. of site exceeding Action Level	Violation	Action Level	Source of Contaminant
2021	Lead (ppb)	ND	0	No	15	Corrosion of household plumbing
2021	Copper (ppm)	0.16	0	No	1.3	Corrosion of household plumbing

Required Additional Health Information for Lead

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.

DISINFECTION RESIDUAL LEVELS

YEAR	Contaminant (Unit of Measure)	Highest Average Level Detected	Range of detected levels	Violation	MRDL	MRDLG	Source of Contaminant
2021	Free Chlorine and Total Chlorine (ppm)	2.76	0.62 - 4.00	No	4	4	Disinfectant used to control microbes

Northwest Harris County Municipal Utility District No. 5 Drinking Water Quality Report Results

PWSID: 1010884

Mandatory Language for Monitoring and Reporting Violation
Chemical Sampling
CHEMICAL MONITORING, ROUTINE MAJOR

The NORTHWEST HARRIS COUNTY MUD 5 water system PWSID: TX1010884 has violated the monitoring and reporting requirements set by Texas Commission on Environmental Quality (TCEQ) in Chapter 30, Section 290, Subchapter F. Public water systems are required to collect and submit chemical samples of water provided to their customers, and report the results of those samples to the TCEQ on a regular basis.

We failed to monitor and/or report the following constituents:
Total Haloacetic Acids (HAA5) & Total Trihalomethanes (TTHM).
This violation occurred in the monitoring period 01/01/2021-03/31/2021.

Results of regular monitoring are an indicator of whether or not your drinking water is safe from chemical contamination. We did not complete all monitoring and/or reporting for chemical constituents, and therefore TCEQ cannot be sure of the safety of your drinking water during that time.

We are taking the following actions to address this issue:
Northwest Harris County MUD 5 (The District) completed the required sampling for HAA5 and TTHM during the time period 01/01/2021-03/31/2021. The District failed to pay the invoice on time for this sampling, which delayed the reporting of these results, and caused TCEQ to issue this violation requiring this public notice. All results of sampling are provided in this report and were within the limits set forth by the TCEQ.

Please share this information with all people who drink this water, especially those who may not have received this notice directly (i.e., 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. If you have questions regarding this matter, you may contact Melissa Kapsen with Municipal District Services at 281-290-6500.

Posted/Delivered by May 28, 2022

VIOLATIONS

Chemical Monitoring - Total Triahlomethanes (TTHM)

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP), Major	01/01/2021	03/03/2021	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.

Chemical Monitoring - Haloacetic Acids (HAA)

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP), Major	01/01/2021	03/03/2021	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.

TURBIDITY

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 organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

YEAR	Contaminant (Unit of Measure)	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Source of Contaminant
2021	Turbidity (NTU)	0.22	100	0.3	Soil runoff