Harris Co. MUD 500 2016 Annual Water Quality Report

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:

- 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 may come from 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturallyoccurring or be the result of oil and gas production and mining activities.

The water source for this water system is surface water from the West Harris County Regional Water Authority whose source is Lake Houston. The TCEQ has completed a Source Water Assessment for all drinking water systems that own their sources. The Water Assessment 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 system(s) from which we purchase our water received the assessment report. For more information on source water assessments and protection efforts at our system, contact the District Operator at 832-467-1599, or toll free at 1-866-467-1599.

Important Information about 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. We are 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 or at http://www.epa.gov/safewater/lead.

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 at 1-800-426-4791.

Special Notice:

Required language for ALL community public water supplies: 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 1-800-426-4791.

Protecting the Water You Drink

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

Public Participation Opportunities

The Board meets regularly each month typically at 11:00 AM on the 1st Wednesday at 3200 Southwest Freeway, Suite 2400, Houston, TX 77027. For more information regarding the date, time and location of the meeting call 832-467-1599 or send your comments to:

Harris Co. MUD 500 P.O. Box 690928 Houston, Texas 77269-0928

Secondary Constituents

Contaminants, such as calcium, sodium or iron, may be found in drinking water and may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns.

This report is a summary of the quality of the water we provide our customers. The analysis was made using data from 2016 EPA required tests (unless noted). The State of Texas allows us to monitor some substances less than annually because the concentration does not change frequently. Although the District samples your water for up to 97 substances we are listing only those substances detected in your water. The District is required by the Federal Safe Drinking Water Act to send the report annually.

Please call the District's Operator, Environmental Development Partners, EDP, at 832-467-1599, or toll free at 1-866-467-1599 if you have any questions regarding this report.



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The Board of Directors of Harris Co. MUD 500 is pleased to give you this report about our drinking water based upon 2016 test results.

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements.

Este reporte incluye informacion importante sobre el agua potable. Para asistancia en enspañol, favor de llamar a District Operator al telefono 832-467-1599.

Harris Co. MUD 500 Public Water System ID TX1013390

Regulated Contaminants

| · togu | Tegulated Contaminants | | | | | | | | |
|--------------------------------------|--------------------------------------|------|------------------------------|--------------------------------|------|-----|------|-----------|---|
| | Contaminant | Year | Highest Level Detected | Range of Levels Detected | MCLG | MCL | Unit | Violation | Likely Source of Contamination |
| ctant | Haloacetic Acids (HAA5) | 2016 | 37.2 | 19.7 / 37.2 | NA | 60 | ppb | No | By-product of drinking water disinfection. |
| Disinfectant By-Products | Total Trihalomethanes (TTHM) | 2016 | 35 | 21.6 / 35 | NA | 80 | ppb | No | By-product of drinking water disinfection. |
| Inorganic Contaminants | Barium | 2016 | 0.0589 | 0.0589 / 0.0589 | 2 | 2 | ppm | No | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Inorganic Contaminan | Nitrate [measured as Nitrogen] | 2016 | 0.78 | 0.18 / 0.78 | 10 | 10 | ppm | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Synthetic Organic Contaminants | Atrazine | 2016 | 0.77 | 0.77 / 0.77 | 3 | 3 | ppb | No | Runoff from herbicide used on row crops. |
| Secondary Contaminants | Calcium | 2016 | 50.1 | 14.8 / 50.1 | NA | NA | ppm | No | Erosion of natural deposits. |
| | Iron | 2016 | 0.01 | 0.01 / 0.01 | NA | NA | ppm | No | Erosion of natural deposits. |
| Se | Hardness | 2016 | 141 | 46.3 / 141 | NA | NA | ppm | No | Erosion of natural deposits. |

The water we conserve today can serve us tomorrow!

The single most effective conservation step that can be taken inside the home is to install water efficient showerheads. They provide great showers, yet use 30% to 70% less water. - Use half as much water by installing water efficient aerators on the bathroom and kitchen sinks. - Laundry accounts for about 14% of home water use. Adjust the water level on your machine to match the size of your load. - Repair leaks immediately! A dripping faucet can waste 2 gallons of water per hour.

Lead and Copper

| Contaminant | Year | MCLG | AL | 90th Percentile | # Sites over AL | Unit | Violation | Likely Source of Contamination |
|-------------|------|------|-----|--------------------|--------------------|------|-----------|--|
| Copper | 2014 | 1.3 | 1.3 | 0.0203 | 0 | ppm | No | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| Lead | 2014 | 0 | 15 | 0 | 0 | ppb | No | Corrosion of household plumbing systems; Erosion of natural deposits. |

Turbidity

| Contaminant | Year | Turbidity Limit | Highest Single Measurement | Lowest % of Samples Meeting Limit | Unit | Violation | Typical Source |
|-------------|------|--------------------|-------------------------------|--|------|-----------|----------------|
| Turbidity | 2016 | 0.3 | 0.17 | 100% | NTU | No | Soil runoff. |

95% or more of the monthly samples must be below the 0.3 NTU limit to be in compliance. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbiological 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.

Disinfectant

| Disinfectant | Year | MRDLG | MRDL | Annual Average | Range of Levels Detected | Unit | Violation | Source of Contaminant |
|----------------|------|-------|------|-------------------|--------------------------------|------|-----------|--|
| Total Chlorine | 2016 | 4 | 4 | 2.52 | 0.60 / 3.90 | ppm | No | Disinfection used to control microbes. |

Definitions - The following tables contain scientific terms and measures, some of which may require explanation.

| ALG | Action Level Goal. 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. |
|-------|--|
| AL | Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| Avg | Regulatory compliance with some MCLs are based on running annual average of monthly samples. |
| 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. |
| MFL | million fibers per liter (a measure of asbestos) |
| NA | not applicable |
| NTU | nephelometric turbidity units (a measure of turbidity) |
| pCi/L | picocuries per liter (a measure of radioactivity) |
| ppb | micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water |
| ppm | milligrams per liter or parts per million - or one ounce in 7,350 gallons of water |