

HARRIS COUNTY MUNICIPAL UTILITY DISTRICT No. 186

2010 Drinking Water Quality Report

Public Water Supply No. 1012214

EPA Safe Drinking Water Hotline (800 426-4791)

Water Quality Information (281 861-6215)

OUR DRINKING WATER IS REGULATED

Providing safe and reliable drinking water is the highest priority of Harris County Municipal Utility District No. 186. This report is a summary of the quality of the water we provide our customers. We hope this information helps you become more knowledgeable about what's in our drinking water.

The analysis was made using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached water quality tables. Our water system purchases water from the West Harris County Regional Water Authority (WHCRWA) and blends the water with MUD 186 groundwater. Their water quality information is also provided. **All**

constituents are below the regulatory standards.

If you have any questions regarding this report, please call the District's operator, H₂O Consulting at 281 861-6215.

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 provider. Additional guidelines on appropriate means to lessen the risk of

infection by *Cryptosporidium* are available from the **SAFE DRINKING WATER HOTLINE (800 426-4791)**

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 **Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791)** or the **EPA's website at www.epa.gov/safewater**.

***En Español:** Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. (281 861-6215) para hablar con una persona bilingüe en español.*

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 concerns. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

DEFINITIONS

Maximum Contaminant Level (MCL) - 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.

Maximum Contaminant Level Goal (MCLG) - 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.

Maximum Residual Disinfectant Level (MRDL) - The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of 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.

Avg - Regulatory compliance with some MCL's are based on running annual average of monthly samples.

ppm - milligrams per liter (mg/L) or parts per million—or one ounce in 7,350 gallons of water. **ppb** -micrograms per liter (ug/L) or parts per billion—or one ounce in 7,350,000 gallons of water; **ppt**- parts per trillion or nanograms per liter; **ppq**—parts per quadrillion, or picograms per liter.

pCi/L - picocuries per liter; a measure of radioactivity; **NTU**—Nephelometric Turbidity Units; **MFL**—million fibers per liter.

Public Participation Opportunities

Harris County MUD No. 186

Date: 3rd Tuesday of Each Month
or as otherwise posted.

Time: Noon

Location: 1301 McKinney

Phone No: 281 861-6215

SOURCES OF DRINKING WATER

The sources of drinking water (both tap water 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 naturally-occurring or be the result of oil and gas production and mining activities.

Where Do We Get Our Drinking Water ?

Our drinking water is obtained from a combination of water sources and is blended at our water plant. A Source Water Susceptibility Assessment for your drinking water sources is currently being updated by the Texas Commission on Environmental Quality (TCEQ). 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 this assessment will allow us to focus our source water protection strategies. Some of this source water information is available on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>. For more information on source water assessments and protection efforts at our system, please contact us at 281 861-6215.

Inorganic Contaminants

Year	Contaminant	Highest Level	Range of Levels	Violation	MCL	MCLG	Unit of Measure	Source of Contaminant
2010	Barium	0.0535	0.0535 -0.0535	No	2	2	ppm	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries.
2008	Fluoride	0.74	0.74 - 0.74	No	4	4	ppm	Erosion of natural deposits.
2010	Nitrate	0.76	0.76 -0.76	No	10	10	ppm	Erosion of natural deposits.
2009	Gross beta emitters	4.1	4.1 -4.1	No	50	0	pCi/L	Decay of natural and man made deposits.
2009	Gross Alpha	3.4	3.4 -3.4	No	15	0	pCi/L	Erosion of natural deposits.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Min Level	Max Level	Violation	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2010	Chloramine Residual	2.86	0.57	4.0	No	4	4	ppm	Disinfectant used to control microbes .

Disinfection Byproducts

Year	Contaminant	Highest Level	Range of Levels	Violation	MCL	Unit of Measure	Source of Contaminant
2010	Total Haloacetic Acids	20.3	20.1 -20.3	No	60	ppb	Byproduct of drinking water disinfection.
2010	Total Trihalomethanes	21.2	20.6 - 21.2	No	80	ppb	Byproduct of drinking water disinfection.

Lead & Copper - Regulated at the Customer's Tap

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	Unit of Measure	Source of Contaminant
2009	Copper	0.335	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2009	Lead	1.6	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.

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. Harris County MUD No. 186 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 water 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 www.epa.gov/safewater/lead.

Synthetic Organic Contaminants

Year	Contaminant	Highest Level	Range of Levels	Violation	MCL	MCLG	Unit of Measure	Source of Contaminant
2010	Atrazine	0.6	0.17 - 0.6	No	3	3	ppb	Herbicide runoff
2010	Simazine	0.18	0.0 - 0.18	No	4	4	ppb	Herbicide runoff

Harris County MUD No. 186 - Coliform Bacteria

Year	Contaminant	Highest No. of Positive Samples	Violation	MCL	MCLG	Source of Contaminant
2010	Total Coliform Bacteria	1	No	1 positive monthly sample	0	Naturally present in the environment.

Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms; therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. In October 2010 one of the four routine monthly bacteriological samples tested positive for coliform. The TCEQ required multiple repeat sampling in the same area and at all three of our water sources and all samples were negative for coliform.

Secondary and Other Not Regulated Constituents

(No associated adverse health effects)

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2010	Aluminum	0.0313	0.0313	0.0313	0.05	ppm	Abundant naturally occurring element.
2008	Bicarbonate	94	94	94	N/A	ppm	Dissolving of carbonate rocks such as limestone.
2010	Calcium	37.7	37.7	37.7	N/A	ppm	Abundant naturally occurring element.
2008	Chloride	35	35	35	300	ppm	Abundant naturally occurring element; used in water purification.
2010	Magnesium	3.13	3.13	3.13	N/A	ppm	Abundant naturally occurring element.
2010	Manganese	0.0069	0.0069	0.0069	0.05	ppm	Abundant naturally occurring element.
2010	Nickel	0.0021	0.0021	0.0021	N/A	ppm	Erosion of natural deposits
2008	ph	7.5	7.5	7.5	>7.0	units	Measure of corrosivity of water.
2010	Sodium	29.7	29.7	29.7	N/A	ppm	Erosion of natural deposits.
2008	Sulfate	70	70	70	300	ppm	Naturally occurring.
2008	Total Alkalinity as CaCO ₃	77	77	77	N/A	ppm	Naturally occurring soluble mineral salts.
2008	Total Dissolved Solids	246	246	246	1000	ppm	Total dissolved mineral constituents in water.

WEST HARRIS COUNTY REGIONAL WATER AUTHORITY

Water Quality Tables

WHCRWA provided over 80% of the water to Harris County MUD 186 during 2010.
WHCRWA's water quality information is listed on the next two pages.

Inorganic Contaminants

Year	Contaminant	Compliant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2006	Barium	Yes	0.057	0.057	0.057	2	2	ppm	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries.
2006	Fluoride	Yes	0.63	0.63	0.63	4	4	ppm	Erosion of natural deposits.
2006	Nitrate	Yes	0.54	0.54	0.54	10	10	ppm	Erosion of natural deposits.

Organic Contaminants

Year or Range	Contaminant	Compliant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2005 to 2009	Simazene	Yes	0.02	0	0.14	4	4	ppb	Herbicide runoff
2005 to 2009	Atrazine	Yes	0.09	0	0.71	3	3	ppb	Runoff from herbicide used on row crops.
2005 to 2009	Heptachlor	Yes	0.28	0	40	400	0	ppt	Residue of banned termiticide.
2005 to 2009	Benzo(a)pyrene (PAH)	Yes	0.21	0	30	200	0	ppt	Leaching from linings of water storage tanks and distribution lines.

Disinfection Byproducts

Year	Contaminant	Compliant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2010	Total Haloacetic Acids	Yes	16.3	16.3	16.3	60	ppb	Byproduct of drinking water disinfection.
2010	Total Trihalomethanes	Yes	28.5	28.5	28.5	80	ppb	Byproduct of drinking water disinfection.

WEST HARRIS COUNTY REGIONAL WATER AUTHORITY
Water Quality Tables (Continued)

Unregulated Contaminants

Year	Contaminant	Compliant	Avg	Min Level	Max Level	MCL	Unit of Measure	Source of Contaminant
2010	Chloroform	Yes	13.8	13.8	13.8	100	ppb	Byproduct of drinking water disinfection.
2010	Dibromochloromethane	Yes	4.7	4.7	4.7	100	ppb	Byproduct of drinking water disinfection.
2010	Bromodichloromethane	Yes	10.0	10.0	10.0	100	ppb	Byproduct of drinking water disinfection.

Chloroform, bromodichloromethane and dibromochloromethane are disinfection byproducts.

Secondary and Other Not Regulated Constituents

(No associated adverse health effects)

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2006	Aluminum	0.038	0.038	0.038	0.05	ppm	Abundant naturally occurring element.
2006	Calcium	35.2	35.2	35.2	N/A	ppm	Abundant naturally occurring element.
2006	Chloride	35	35	35	300	ppm	Abundant naturally occurring element; used in water purification.
2006	Magnesium	3.2	3.2	3.2	N/A	ppm	Abundant naturally occurring element.
2006	Manganese	0.0159	0.0159	0.0159	0.05	ppm	Abundant naturally occurring element.
2006	Nickel	0.002	0.002	0.002	N/A	ppm	Erosion of natural deposits
2006	ph	7.4	7.4	7.4	>7.0	units	Measure of corrosivity of water.
2006	Sodium	43	43	43	N/A	ppm	Erosion of natural deposits.
2006	Sulfate	65	65	65	300	ppm	Naturally occurring.
2006	Total Alkalinity as CaCO ₃	83	83	83	N/A	ppm	Naturally occurring soluble mineral salts.
2006	Total Dissolved Solids	262	262	262	1000	ppm	Total dissolved mineral constituents in water.
2006	Total Hardness as CaCO ₃	101	101	101	N/A	ppm	Naturally occurring calcium