CITY OF HEMPSTEAD
2009 Annual Drinking Water Quality Report
(Consumer Confidence Report)

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 (800) 426-4791.

Public Participation Opportunities

Date: AUGUST 2, 2010 Time: 06:00 P.M.
Location: City Hall, Hempstead Phone No: 979-826-2486

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

Our Drinking Water Is Regulated

by the Texas Commission on Environmental Quality (TCEQ) and they have determined that certain water quality issues exist which prevent our water from meeting all of the requirements as stated in the Federal Drinking Water Standards. Each issue is listed in this report as a violation and we are working closely with the TCEQ to achieve solutions.

WATER SOURCES: 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: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

En Español

Este informe incluye informacion importante sobre el agua potable. Si tiene preguntas o comentorios sobre este informe in espanol, favor de llamar al tel. 979-826-2486 - para hablar con una persona bilingue en espanol.

Where do we get our drinking water?

Our drinking water is obtained from GROUND water sources. It comes from the following Lake/River/Reservoir/Aquifer: EVANGELINE, JASPER. A Source Water Susceptibility Assessment for your drinking water sources(s) is currently being updated by the Texas Commission on Environmental Quality. 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 protection strategies. Some of this source water assessment information will be available later this year 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.

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

About The Following Pages

The pages that follow 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 up to 97 contaminants.

DEFINITIONS

Maximum Contaminant Level (MCL) - The highest permissible level of a contaminant 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 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 to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.
Action Level (AL) -The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ABBREVIATIONS

NTU - Nephelometric Turbidity Units.
MFL - Million Fibers per liter (a measure of asbestos).
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).
ppt - Parts per trillion, or nanograms per liter .
ppq - Parts per quadrillion, or picograms per liter.

Inorganic Contaminants

Year or Range		Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2009		Arsenic	11	8	20	10	0	ppb	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
		* The arsenic value was effective January 23, 2006. In the event of a violation, you will be notified.							
2009	2008	Barium	0.142	0.139	0.144	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2009	2008	Fluoride	0.41	0.32	0.49	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2009		Nitrate	0.02	0.02	0.02	10	10	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
2006		Gross beta emitters	4.8	4.8	4.8	50	0	pCi/L	Decay of natural and man-made deposits.
2006		Gross alpha	2	2	2	15	0	pCi/L	Erosion of natural deposits.

Required additional Health Information for Arsenic

The maximum contaminant level (MCL) for arsenic decreased form 0.05 mg/L (50 ppb) to 0.010 mg/L (10 ppb) effective January 23, 2006. Because The highest reported arsenic level on this report is between 5 ppb and 10 ppb, the following information is required by EPA:

> "While your drinking water meets EPA's standard 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 or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit Of Measure	Source of Cantaminant
2009	Di(2-ethylhexyl)phthalate	0.3	0	0.6	6	0	ppb	Discharge from rubber and chemical factories.

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Sourcre of Contaminant
2009	Chlorine Residual, Free	1.56	0.37	2.3	4.0	<4.0	ppm	Disinfectant used to control microbes

Disinfection Byproducts **NOT REPORTED OR NONE DETECTED**

Unregulated Initial Distribution System Evaluation for Disinfection Byproducts WAIVED OR NOT YET SAMPLED

Recommended 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."

Organic Contaminants

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unite of Measure	Source of Contaminant
2007	Lead	4.8	1	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2007	Copper	0.34	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Unregulated Contaminants

Bromoform, chloroform, dichloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2006	Choloroform	1	1	1	ppb	Byproduct of drinking water disinfection.
2006	Bromoform	5.5	5.5	5.5	ppb	Byproduct of drinking water disinfection.
2006	Bromodichloromethane	2	2	2	ppb	Byproduct of drinking water disinfection.
2006	Dibromochloromethane	5	5	5	ppb	Byproduct of drinking water disinfection.

Turbidity **NOT REQUIRED**

Total Coliform **REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA.**

Fecal Coliform **REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA.**

Secondary and Other Constituents Not Regulated
(No associated adverse health effects)

Year or Range	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Constituent
2009 2008	Bicarbonate	393	357	429	NA	ppm	Corrosion of Carbonate Rocks Such as Limestone.
2009 2008	Calcim	27.1	25.3	28.8	NA	ppm	Abundant Naturally Occurring element.
2009 2008	Chloride	47	39	54	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
2009 2008	Copper	0.012	0.005	0.019	1	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2009 2008	Iron	0.2	0.096	0.303	0.3	ppm	Erosion of natural deposits; iron or steel water delivery equipment or facilities.
2009 2008	Magnesium	5.4	4.8	6	NA	ppm	Abundant naturally occurring element.
2009 2008	Magnganses	0.0089	0.0048	0.013	0.05	ppm	Abundant naturally occurring element.
2009 2008	pH	7.7	7.6	7.8	>7.0	units	Measure of corrositvity of water.
2009 2008	Sodium	128	107	149	NA	ppm	Erosion of natural deposits; byproduct of oil field activity.
2009 2008	Sulfate	7	4	10	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2009 2008	Total Alkalimity as CaC03	323	293	352	NA	ppm	Naturally occurring soluble mineral salts.
2009 2008	Total Dissolved Solids	459	428	489	1000	ppm	Total dissolved mineral constituents in water.
2009 2008	Total Hardness as CaC03	90	83	97	NA	ppm	Naturally occurring calcium.
2009 2008	Zinc	0.031	0.009	0.054	5	ppm	Moderately abundant naturally occurring element; used in the metal industry

VIOLATIONS

Violation Type	Health Effects	Duration	Explanation	Steps to Correct
ENTRY POINT 002: MCL VIOLATION - ARSENIC	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.	01/01/2009 to 03/31/2009	0.011	The Texas Commission on Environment Quality (TCEQ) has notified the City of Hempstead water system that the drinking water being supplied to customers had exceeded the Maximum Contaminant Level (MCL) for ARSENIC. The U.S. Environment Protection Agency (U. S. EPA) has established the MCL for ARSENIC at 0.010 mg/L based on a running annual average (RAA), and has determined that it is a health concern at levels above the MCL. Analysis of drinking water in your community for ARSENIC indicates a level of 0.011 mg/L. This is not an emergency. However, some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. You do not need to use an alternative water supply. However, if you have health concerns, you may want to talk to your doctor to get more information about how this may affect you. The arsenic has been identified in a general location. We are working to correct the problem by limiting the amount of water pumped from the identified location. 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. For further information contact Mayor Wolfe at City Hall at 979-826-2486. Public Water System ID #2370001.

ENTRY POINT 002: MCL VIOLATION - ARSENIC	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.	07/01/2009 to 09/30/2009	0.012	The Texas Commission on Environment Quality (TCEQ) has notified the City of Hempstead water system that the drinking water being supplied to customers had exceeded the Maximum Contaminant Level (MCL) for ARSENIC. The U.S. Environment Protection Agency (U. S. EPA) has established the MCL for ARSENIC at 0.010 mg/L based on a running annual average (RAA), and has determined that it is a health concern at levels above the MCL. Analysis of drinking water in your community for ARSENIC indicates a level of 0.011 to 0.012 mg/L. This is not an emergency. However, some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. You do not need to use an alternative water supply. However, if you have health concerns, you may want to talk to your doctor to get more information about how this may affect you. The arsenic has been identified in a general location. We are working to correct the problem. The problem is occurring primarily at our Well No. 4 located adjacent to Highway 290 at Old Howth Road. The well is situated where arsenic exists in trace amounts in the aquifer formation. We have conferred with our engineer, CH2M Hill, and it is our opinion that the most economical solution for the City is to drill a new well. The new well will be located some distance from the existing well but within proximity of the other facilities on site to avail the City of their use. Water samples will be collected from the pilot hole at the new well to verify that unacceptable concentrations of arsenic are not present in the formation at the new location. The pilot hole would then be reamed and the well installed. We anticipate that the new well will become operational the early part of 2011. 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. For further information contact Mayor Wolfe at City Hall at 979-826-2486. Public Water System ID #2370001.
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PUBLIC NOTIFICATION: FAILURE TO ISSUE OR REPORT PUBLIC NOTIFICATION FOR ARSENIC	Failure to notify consumers of a chemical related violation makes it impossible for consumers to consider alternatives to drinking water that is contaminated or inadequately tested.	10/11/2009 to PRESENT	0.013	The Texas Commission on Environment Quality (TCEQ) has notified the City of Hempstead water system that the drinking water being supplied to customers had exceeded the Maximum Contaminant Level (MCL) for ARSENIC. The U.S. Environment Protection Agency (U. S. EPA) has established the MCL for ARSENIC at 0.010 mg/L based on a running annual average (RAA), and has determined that it is a health concern at levels above the MCL. Analysis of drinking water in your community for ARSENIC indicates a level of 0.011 to 0.012 mg/L. This is not an emergency. However, some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. You do not need to use an alternative water supply. However, some people who drink the water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. You do not need to use an alternative water supply. However, if you have health concerns, you may want to talk to your doctor to get more information about how this may affect you. The arsenic has been identified in a general location. We are working to correct the problem by limiting the amount of water pumped from the identified location. 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. For further information contact Mayor Wolfe at City Hall at 979-826-2486. Public Water System ID #2370001.