annual Water Quality Report

Continuing Our Commitment

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2010. Over the years, we have dedicated ourselves to delivering drinking water that meets all state and federal drinking water standards. Garland Water Utilities is a municipal water distribution and wastewater collection utility, owned by the City of Garland. Your City of Garland Water Utility stores purchased water and delivers it to you on demand, tests the water to ensure quality, maintains the infrastructure (pipes and pumps) required to deliver water and remove wastewater, and treats and tests wastewater prior to releasing it back into the water source or selling it. Wholesale treated water is purchased from the North Texas Municipal Water District (NTMWD) and delivered to our ground and elevated storage tanks. From there, the water is delivered to customers through the City's distribution system.

For more information about this report, or for any questions relating to your drinking water, please call 972-205-3285. Additional information can also be obtained from our website at www.garlandwater.com.

Community Participation

Garland Water Utilities is part of the City government. The Garland City Council meets the first and third Tuesday of each month beginning at 7 p.m. in the City Hall Council Chamber, 200 North Fifth Street. Meetings are broadcast live on CGTV, the city government access channel on cable television.

Español Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. 972-205-3213 para hablar con una persona bilingüe en español.

GARLAND water utilities City of Garland, Texas

Important Health Information

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 the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include: Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 which may also come from gas stations, urban storm water runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

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 our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at 800-426-4791.

Where Does My Water Come From?

The North Texas Municipal Water District (NTMWD) uses surface water from five sources; Lavon Lake, Jim Chapman Lake (formerly known as Cooper Lake), Lake Texoma, Lake Tawakoni and the East Fork Raw Water Supply, commonly known as the "Wetland," with Lavon Lake being the primary raw water source. NTMWD conducts daily tests on both the raw water in Lake Lavon and the treated water they deliver to the City of Garland. The treated water is stored in eight ground storage tanks, two elevated storage tanks and 1,110 miles of pipe network owned and operated by the City of Garland Water Utilities. A centralized water control system and customer call center with on-call maintenance provides service delivery 24 hours a day, 7 days a week, 365 days a year, bringing an abundant supply of safe, high quality, potable water to all of our customers.

Source Water Assessment

The Texas Commission on Environmental Quality (TCEQ) has completed a Source Water Susceptibility Report for all drinking water systems that own their sources. This report describes the susceptibility and types of constituents that may come into contact with the drinking water source based on human activities and natural conditions. NTMWD received the assessment report. For more information on source water assessments and protection efforts at our system, call 972-205-3285 to inquire about obtaining a copy of this assessment.

Cryptosporidium in Water

Our water supplier, North Texas Municipal Water District has tested the lake water and treated water for the presence of cryptosporidium for several years. It has been absent in all of the samples tested.

Cryptosporidium is a protozoan that is so small it can be seen only with a microscope. It affects the digestive tract of humans and animals. At this time, there is no specific drug therapy proven to be effective, but people with healthy immune systems will usually recover within two weeks. Symptoms of infection include nausea, diarrhea and abdominal cramps. However, immuno-compromised people are at a greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precaution to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

What are the City Ordinances regarding lawn irrigation?

The City's water conservation plan prohibits:

- Watering a lawn or landscape between the hours of 10 a.m. and 6 p.m., except for hand watering or using soaker hoses;
- Watering impervious surfaces (such as sidewalks or streets) or watering to the extent that there is overflow on a street or drainage area;
- Watering during any form of precipitation (including snow);
- Operating a lawn or landscape irrigation system that has broken or missing heads, or has not been properly maintained in such a way as to prevent waste of water.

Lead/Copper Reporting

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. The City of Garland Water Department 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 to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

How can I conserve water?

Water conservation is critical for meeting the state's long-term water needs. Here are ways to conserve water and reduce water bills:

- Dripping faucets waste water. Fix leaky faucets and toilets promptly.
- Turn off the faucet while you brush your teeth or shave; save about 4 gallons a day.
- Take short - 5 minute showers.
- Make sure your washing machine or dishwasher is full before you start it.
- Water your lawn early in the morning or late at night, and only when you need to.
- Wash your car at a commercial car wash that recycles water.
- Don't wash sidewalks and driveways -- sweep them with a broom instead.
- To check for hidden leaks, turn off all taps and water-using appliances. Then check your water meter after 15 minutes. If it's still moving, you have a leak.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of those substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Violation	Typical Source
Atrazine (ppb)	2010	3	3	0.1	0.1 - 0.24	No	Runoff from herbicide used on row crops
Simazine (ppb)	2010	4	4	0.07	0.07-0.08	No	
Barium (ppm)	2010	2	2	0.04	0.03 - 0.08	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines (ppm)	2010	[4]	[4]	3.21	0.5 - 3.9	No	Water additive used to control microbes
Chlorine Dioxide (ppm)	2010	800	800	0.00	0.00	No	Water additive used to control microbes
Chlorite (ppm)	2010	1	NA	0.33	0.01 - 0.75	No	By-product of drinking water disinfection
Fluoride (ppm)	2010	4	4	0.58	0.51 - 0.64	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2010	60	NA	18.56	7.3 - 43.1	No	By-product of drinking water disinfection
Nitrate (ppm)	2010	10	10	0.26	0.07 - 0.51	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2010	80	NA	39.34	18.9 - 73.2	No	By-product of drinking water chlorination
Turbidity [1] (NTU)	2010	TT	NA	0.26	0.09 - 0.50	No	Soil runoff
Total Choliform Bacteria	2010	5% positive samples	0	1.7	NA	No	Naturally present in the environment

Tap water samples were collected for lead and copper analysis from sample sites throughout the community.

Substance (Unit of Measure)	Year Sampled	AL	MCLG	Amount Detected (90th%tile)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2010	1.3	1.3	1.0	0/50	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2010	15	0	1.8	0/50	No	Corrosion of household plumbing systems; Erosion of natural deposits

Substance (Unit of Measure)	Year Sampled	Units	Range	Highest Average Sample Point	Typical Source
Gross Beta	2010	mrem/yr	4.4	4.4	Decay of natural and manmade deposits

Unregulated Contaminants

Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the U.S. EPA in determining the occurrence 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 http://www.epa.gov/safewater/ucmr/ucmr2/index.html, or call the Safe Drinking Water Hotline at 800-426-4791.

UNREGULATED SUBSTANCES

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Typical Source
Bromodichloromethane (ppb)	2010	14.24	4.6 – 22.6	By-product of drinking water disinfection
Bromoform (ppb)	2010	1.04	1.0 – 1.4	By-product of drinking water disinfection.
Chloroform (ppb)	2010	17.54	11.9 - 42.0	By-product of drinking water disinfection.
Dibromochloromethane (ppb)	2010	7.34	1.3 – 9.6	By-product of drinking water disinfection

[1] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of disinfectants.

Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.