Lake wales

Water Quality Report 2010

Prepared By The City Of Lake Wales Utilities Department

Lake Wales Water Supply Is Dependable

We're pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a dependable supply of drinking water. Our water source consists of seven wells that draw from the Floridian aquifer at a depth of over 1000 feet. Our water treatment process is one of aeration to remove volatile contaminants and disinfection with chlorine.

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose 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 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 include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or results from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm-water runoff and residential uses.

(D) Organic Chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also come from gas stations, urban storm-water runoff and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

The City of Lake Wales routinely monitors for constituents in your drinking water according to Federal and State laws. The enclosed tables show the results of our monitoring for the period January 1st to December 31st, 2010 and include test results in earlier years for contaminants sampled less often than annually. For contaminants not required to be tested for in 2010, test results are for the most recent testing done in accordance with the regulations.

In order to ensure that tap water is safe to drink, the **Environmental Protection Agency (EPA)** prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. **Maximum Contaminant Levels** are very stringent. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effects. More information about contaminants and potential health effects can be obtained by calling the **Environmental Protection Agency'' Safe Drinking Water Hotline at 1-800-426-4791.**

In the following table you may find many terms and abbreviations you may not be familiar with. To help you better understand these terms we've provided the following definitions.

Not Detected (ND)- not detected and indicates that the substance was not found by laboratory analysis.

N/A-not applicable

Parts per billion (ppb) or Micrograms per liter- one part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/l) –one part by weight of analyte to 1 million parts by weight of the water sample.

pCi/L – picocuries per liter (a measure of radioactivity in water).

Action Level-the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Maximum Contaminant Level-the "Maximum Allowed" (MCL) is 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-the "Goal" (MCLG) is 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.

Maximum Residual Disinfectant Level or MRDL - 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.

Maximum Residual Disinfectant Level Goal or MRDLG - The level of a drinking water disinfectant below, which there is no known or expected risk to health. MRDLGs to not reflect the benefits of the use of disinfectants to control microbial contaminants.

Test Results Lake Wales Florida # **6532234**

**Results in the Level Detected column for Radiological and Inorganic contaminants are the highest detected level at any sampling point.

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected **	Range of Results	MCLG	MCL	Likely source of contamination
Radioactive Contaminants							
Alpha (pCi/L)	1/08- 12/08	N	3.89	2.65 – 3.89	0	15	Erosion of natural deposits.
Radium 226 + Radium 228 or combined Radium (pCi/L)	1/08- 12/08	N	1.2	0.9- 1.2	0	5	Erosion of natural deposits.
Uranium (µg/L)	1/08- 12/08	N	0.93	ND – 0.93	0	30	Erosion of natural deposits.
Inorganic Contaminants							
Barium (ppm)	1/08-12/08	N	0.02	0.02 (3 sites)	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	1/08-12/08	N	0.26	0.21 - 0.26	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm

Nitrate (as Nitrogen) (ppm)	1/10-12/10	N	0.86	0.10 -0.86	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium (ppm)	1/08-12/08	N	7.62	4.36-7.62	N/A	160	Salt water intrusion, leaching from soil.

TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters

Chlorine: Level Detected is the 2010 monthly average for residual Chlorine; Range of Results is the range of 2010 monthly Chlorine residual level results (lowest to highest) at the individual sampling sites.-
HAA5/TTHMs: Level Detected is the 2010quarterly (or running annual) average: Range of Results is the 2010 range of results (lowest to highest) at the individual sampling sites**.**

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	1/10-12/10	N	1.5	0.4-2.5	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	1/10-12/10	N	14.6	6.3 – 21.8	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	1/10-12/10	N	45	2.3-101	N/A	MCL = 80	By-product of drinking water disinfection

Contaminant and Unit of Measurement	Date of samplings (mo./yr.)	Action Level Exceeded Y/N	Number of sampling sites exceeding the AL	90th Percentile Result	MCLG	AL (Action Level)	Likely source of contamination
Lead and Copper (Tap Water)							
Copper (tap water) (ppm)	6/10-9/10	N	0	0.29	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (tap water) ppb	6/10-9/10	N	1	2.4	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

We sampled for 86+ contaminants and only the above were detected.

In 2010 the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 38 petroleum storage tanks *identified as potential sources of contamination for this system with a moderate susceptibility level of risk. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at* ***www.dep.state.fl.us/swapp*** *or they can be obtained from* **Holly Britt, Chief Water Operator, at 863-678-4182 ext. 249**.

Petroleum Storage tank: An above ground or bellow ground tank designed to contain regulated substances such as, motor fuels, residual oils, waste oils, lubricants, petroleum solvents and petroleum based substances.
Susceptibility Level: Based on each of the following factors: Known health effects; Leaching potential (mobility); Protection provided by the underlying geologic materials, and operating practices and design of the potential source. Each of these factors were evaluated and given a score and assessed as posing a low, moderate, or high concern to the source water, based upon the score outcome.

The EPA has determined that your water is safe for most people at the MCL level. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer who are undergoing chemotherapy, persons who have undergone

organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency and the Center for Disease Control guidelines are appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants. These guidelines are available from the Safe Drinking Water Hotline (800-426-4791).

- 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 Lake Wales 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 at (800)426-4791** or at http://www.epa.gov/safewater/lead.For questions concerning this report: Please contact Holly Britt, Chief Water Operator, at 863-678-4182 ext. 249.
- **Learn how to:** Read your water meter, detect if you have a leak, conserve water or what the current water restrictions are, by calling Customer Service at 863-678-4196 or visit us on the internet at www.cityoflakewales.com.
- **SWFWMD:** You may also call the Southwest Florida Water Management District at 1-800-423-1476 or their web site at www.swfwmd.state.fl.us for general information on how to save water or specific water restrictions that apply to you.
- **Florida's DEP** has conducted a Source Water Assessment (SWA) for all public water systems in Florida. These assessments are to identify and assess any potential sources of contamination in the vicinity of your water supply. A SWA report for this system is available at the DEP SWAPP website: www.dep.state.fl.us/swapp.
- **Commission Meetings:** Attend any of our regularly scheduled Commission meetings. They are held on the first and third Tuesday of each month in the Commission Chambers located at 201 West Central Avenue 7:30 p.m.

We at the City of Lake Wales work around the clock to provide top quality water to every tap. Thank you for allowing us to continue providing your families with clean, quality water this past year. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.