2009 Annual Drinking Water Quality Report

WINTER HAVEN

The Chain of Lakes City

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is twenty-two wells that draw water from the Floridan aquifer. This water is aerated to release volatile contaminants, chlorinated for disinfection, and then fluoridated for dental purposes and finally orthopolyphospate is added for inhibiting corrosion and deposition in the distribution network.

If you have any questions about this report or concerning your water utility, or want to obtain a copy of this report, please contact Steven Warder, Chief Water Plant Operator (863) 291-5767. We want our valued customers to be informed about their water utility.

The City Of Winter Haven routinely monitors for contaminants in your drinking water according to Federal and State laws, rules and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1st to December 31st, 2009. Also included are test results in earlier years for contaminants sampled less often than annually. For contaminants not required to be tested for in 2009, test results are for the most recent testing done in accordance with regulations authorized by the state and approved by the United States Environmental Protection Agency (EPA).

As water travels over the land or underground it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's 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.

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.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Contaminants 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, 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 or mining activities.

In the data table you will find many terms you might not be familiar with. To help you better understand these terms we've provided the following key to these terms' abbreviations and definitions:

TERMS Appearing in TABLE		DEFINITION
Action Level	**AL**	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
Not Applicable	**N/A**	Does not apply
Not-Detected	**ND**	Means not detected and indicates that the substance was not found by laboratory analysis.
Parts per million	**ppm**	One part by weight of analyte to one million parts by weight of the water sample.
Parts per billion	**ppb**	One part by weight of analyte to one billion parts by weight of the water sample.
Picocuries per liter	**pCi/L**	- *picocuries per liter* is a measure of the radioactivity in water
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 Levels (MCL)** are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 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 effect.
Maximum Contaminant Level Goal	**MCLG**	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 TABLE RESULTS

** Results in the Level Detected column for radiological contaminants and inorganic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

Contaminant And Unit of Measurement	Dates of Sampling (MO./YR.)	MCL Violation YES/NO	Level Detected **	Range of Results	MCLG	MCL	Likely Source of Contamination
Radiological Contaminants							
Alpha emitters (pCi/l)	1/1/08-12/31/08	N	12.3	1.4-12.3	0	15	Erosion of natural deposits
Radium 226, Rradium 228 or combined Radium (pC/l)	1/1/08-12/31/08	N	4.0	ND – 4.0	0	5	Erosion of natural deposits
. Uranium (µg/L)	1/1/08-12/31/08	N	3.5	ND – 3.5	0	30	Erosion of natural deposits
Inorganic Contaminants							
. Arsenic (ppb)	1/1/08-12/31/08	N	7.7	ND – 7.7	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
. Barium (ppm)	1/1/08-12/31/08	N	0.02	0.01- 0.02	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	1/1/08-12/31/08	N	0.02	ND - 0.02	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	1/1/08-12/31/08	N	2.30	0. 22 - 2.30	4	4	Erosion of natural deposits; water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm.
. Lead (point of entry) (ppb)	01/1/08 – 12/31/08	N	2.6	ND - 2.6	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (ppm)	01/1/09 – 12/31/09	N	0..5	ND – 0.5	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	1/1/08-12/31/08	N	21.5	4.10 To 21.5	N/A	160	Salt water intrusion, leaching from soil

TTHM's and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters							
Contaminant and Unit of Measurement	**Dates of Sampling MO/YR**	**MCL Violation YES / NO**	**Level Detected**	**Range of Results**	**MCLG or MRDLG**	**MCL or MRDL**	**Likely Source of Contamination**
Chlorine: Level Detected is the 2009 monthly average for residual Chlorine; Range of Results is the range of 2009 monthly Chlorine residual level results (lowest to highest) at the individual sampling sites. **TTHMs** and **HAA5s**: Level Detected is the 2009 quarterly (or running annual) average; Range of Results is the range of results (lowest to highest) at the individual sampling sites.							
Chlorine (ppm)	1/1/09-12/31/09	N	2.1	1.7 to 2.4	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes
HAA5 (Haloacetic Acid) (ppb)	1/1/09-12/31/09	N	32.2	7.1 to 87.3	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total Trihalomethanes] (ppb)	1/1/09-12/31/09	N	40.6	15.6 to 71.8	N/A	MCL = 80	By-product of drinking water disinfection

Contaminant And Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation YES / NO	90th Percentile Result	No. Of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Lead and Copper (Tap Water)							
Copper (tap water) (ppm)	1/1/09–12/31/09	N	0.477	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced. 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 Winter Haven 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**.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

Florida's DEP is in the process of conducting Source Water Assessment (SWA), for all public water systems in Florida, to identify and assess any potential sources of contamination in the vicinity of your water supply.
A 5-year ground water travel time around each well, defined by the area from which water will drain to a well pumping at the average daily permitted rate for a five-year period of time, was used to define the assessment area.
In 2009 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 were 38 potential sources of contamination from Petroleum Storage Tanks, Dry Cleaning Facilities, Industrial Wastewater and Waste Cleanup.
A SWA report for this system is available at the DEP SWAPP web site: www.dep.state.fl.us/swapp.

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