

2011 Water Quality Report For Deltona Water

DELTONA WATER QUALITY

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of 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.

SOURCE WATER ASSESSMENTS

The Florida Department of Environmental Protection (DEP) under the Federal Safe Drinking Water Act has created the Source Water Assessment and Protection Program. The program is designed to ensure the safety of drinking water at the source. Contamination of ground water can occur from contaminants such as hazardous chemicals, stormwater runoff, waste disposal sites and underground storage tanks. In 2011 the Department of Environmental Protection updated the Source Water Assessment on our system. The assessment was updated to provide information about any potential sources of contamination in the vicinity of our wells. There are eighteen (18) potential sources of contamination identified for this system all with a moderate susceptibility level and one (1) site with a low susceptibility. 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 Deltona Water at 255 Enterprise Rd Deltona Fl, 32725.

The City of Deltona maintains a HAZMAT Emergency Planning and Response Plan through the Deltona Fire Department. The City continues to monitor these areas every three (3) years to verify that no contamination is occurring. Additionally the City of Deltona currently has a Potable Water Wellfield Protection Ordinance (Sec. 98 Article V) whose sole purpose and intent is to safeguard the public health, safety and welfare by providing for regulation of the storage, handling, use or production of hazardous substances within zones of protection surrounding potable water supply wells, thereby protecting the potable water supply from future contamination.

ABOUT THIS REPORT

This report shows our water quality results and what they mean. Please address any concerns about this report or the quality of your water to Deltona Water at 1-386-575-6800. You may visit the DEP website at www.myflorida.com or the Volusia County Health Department at www.volusiahealth.com. You can also contact the EPA Safe Drinking Water Hotline at 1-800-426-4791. We encourage our valued customers to be informed about their utility. If you want to learn more, attend a City Commission meeting. The Deltona City Commission meets the 1st and 3rd Monday of each month, in the City Hall Commission Chambers located at 2345 Providence Blvd.

Deltona Water 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 1 to December 31, 2011. Data obtained before January 1, 2011, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

In the tables below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Maximum Contaminant Level or 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 or 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.

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

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 do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

"ND" means not detected and indicates that the substance was not found by laboratory analysis

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

Picocurie per liter (pCi/L) – measure of the radioactivity in water.

SOURCE WATER

Our water source is groundwater from the Floridan Aquifer. The treatment conducted includes aeration, chlorination for disinfection and the addition of a corrosion control chemical. Deltona Water also provides water to Stone Island and Enterprise. Deltona Water also provides water to other county locations through system interconnects as needed.

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.

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. Deltona Water 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>.

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 result from urban stormwater 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 stormwater runoff, and residential uses.*
- (D) 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 stormwater runoff, and septic systems.*
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.*

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (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.

VULNERABLE POPULATION

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).

MCL's 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.

The Environmental Protection Agency (EPA) requires monitoring of over 100 drinking water contaminants. Those contaminants listed in the table are the only contaminants detected in your drinking water.

Total Coliform Bacteria: The Highest Monthly Percentage is the highest monthly percentage of positive samples for systems collecting at least 40 samples per month.

Microbiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage/Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (positive samples)	1/11,2/11,3/11,4/11,5/11,6/11,7/11,8/11,9/11,10/11,11/11,12/11	N	1%	0	For systems collecting at least 40 samples per month: presence of coliform bacteria in >5% of monthly samples.	Naturally present in the environment

** Results in the Level Detected column for radioactive contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic 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.

Radioactive Contaminants

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
Alpha emitters (pCi/L)	2/11,3/11,4/11,6/11,7/11	N	3.3	0-3.3	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	2/11,3/11,4/11,6/11,7/11	N	1.1	0-1.1	0	5	Erosion of natural deposits

Inorganic Contaminants

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
Antimony (ppb)	2/11,3/11,4/11,6/11,7/11	N	1.0	0-1.0	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	2/11,3/11,4/11,6/11,7/11	N	2.9	0-2.9	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2/11,3/11,4/11,6/11,7/11	N	.03	0089-.033	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	2/11,3/11,4/11,6/11,7/11	N	0.2	0-0.2	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Fluoride (ppm)	2/11,3/11,4/11,6/11,7/11	N	0.23	0-0.23	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Lead (point of entry) (ppb)	2/11,3/11,4/11,6/11,7/11	N	0.5	0-0.5	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Mercury (inorganic) (ppb)	2/11,3/11,4/11,6/11,7/11	N	0.1	0-0.1	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel (ppb)	2/11,3/11,4/11,6/11,7/11	N	1.6	0-1.6	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	2/11-3/11-4/11-6/11-7/11	N	2.9	0-2.9	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	2/11,3/11,4/11,6/11,7/11	N	2.7	0-2.7	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	2/11-3/11-4/11-6/11-7/11	N	110	8.2-110	N/A	160	Salt water intrusion, leaching from soil
Thallium (ppb)	2/11,3/11,4/11,6/11,7/11	N	0.18	0-0.18	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

Synthetic Organic Contaminants including Pesticides and Herbicides

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
Di(2-ethylhexyl) phthalate (ppb)	2/11-3/11-4/11-6/11-7/11-11/11	N	2.5	ND-2.5	0	6	Discharge from rubber and chemical factories

Stage 1 Disinfectants and Disinfection By-Products

For chlorine, the level detected is the the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitoring quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations, including Initial Distribution System Evaluation (IDSE) results as well as Stage 1 compliance results.

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	1/11,2/11,3/11,4/11,5/11,6/11,7/11,8/11,9/11,10/11,11/11,12/11	N	1.2	0.2-3.2	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	1/11,4/11,7/11,11/11	N	24	0-63	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalo-methanes] (ppb)	1/11,4/11,7/11,11/11	N	79	16-186	NA	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Exceeded (Y/N)	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	7/11,8/11	N	0.43	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	7/11,8/11	N	2	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Secondary Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Result	Range of Results	MCL	Likely Source of Contamination
Total Dissolved Solids (ppm)	2/11-3/11-4/11-6/11-7/11-9/11-10/11-11/12	N	590	16-590	500	Discharge from rubber and chemical factories