

The City of DeLand is pleased to present the Annual Drinking Water Quality Report. This report is designed to inform our customers of the quality of the drinking water delivered to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. The Safe Drinking Water Act (SDWA) has been the primary regulation to ensure that public health and safety is protected in drinking water supplies throughout the nation.

In 2011, your water department distributed 2.0 billion gallons of water. DeLand's source water comes from 19 deep wells obtaining groundwater from the Floridan Aquifer. The Floridan Aquifer is a lens of water located beneath the bedrock of northeast Florida. Water treatment processes include chlorination, fluoridation, aeration and corrosion control.

The City of DeLand 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, 2011 to December 31, 2011. The data presented in this report is from the most recent testing performed in accordance with regulations.

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

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

90th Percentile - Ninety percent of the values were either less than or equal to the value.

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.

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 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.

Not Detected (ND) - Not detected by laboratory analysis.

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of Samples sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Lead and Copper (Tap Water)							
Copper (tap water) (ppm)	06/2011	N	0.65	1	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead (tap water) (ppb)	06/2011	N	3	1	0	15	Corrosion of household plumbing systems; erosion of natural deposits
Disinfectant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL/AL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Stage 2 Disinfectants and Disinfection By-Products IDSE Study							
TTHM [Total trihalomethanes] (ppb)	10/2008 - 07/2009	N	63	0.64 - 100	Not Applicable	80	By-product of drinking water chlorination
Haloacetic Acids (five) (HAA5) (ppb)	10/2008 - 07/2009	N	26.1	ND - 45.6	Not Applicable	60	By-product of drinking water chlorination
Chlorine (ppm)	10/2008 - 07/2009	N	0.82	0.23 - 2.2	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Disinfectant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL/AL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Arsenic (ppb)	04/2011	N	1.7	ND - 1.7	0	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	04/2011	N	0.037	0.011 - 0.037	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	04/2011	N	0.73	0.7	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 1.3 ppm
Nitrate (as Nitrogen) (ppm)	04/2011	N	0.39	ND - 0.39	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	04/2011	N	24.4	6.5 - 24.4	Not Applicable	160	Salt water intrusion, leaching from soil
Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL/AL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Stage 1 Disinfectants and Disinfection By-Products							
TTHM [Total trihalomethanes] (ppb)	07/2011	N	51.5	12.0 - 96.4	Not Applicable	80	By-product of drinking water chlorination
Haloacetic Acids (five) (HAA5) (ppb)	07/2011	N	22.2	5.3 - 50.4	Not Applicable	60	By-product of drinking water chlorination
Chlorine (ppm)	01/2011 - 12/2011	N	1.06	0.13 - 2.06	MRDLG = 4	MRDL = 4	Water additive to control microbes

Initial Distribution System Evaluation Disinfection By-Products Rule Stage 2 (IDSE) - IDSE is a one-time study conducted by water systems to identify distribution system locations with potentially high concentrations of trihalomethanes (TTHMs) and haloacetic acids (HAA5s).

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 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. We had elevated levels of TTHMs in our IDSE study.

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 DeLand 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 and 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 (800-426-4791) or at www.epa.gov/safewater/lead.

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. All 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 (800-426-4791).

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.