

Health Effects

Lead. 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 Sanford Utility 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 you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epagov/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.

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 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 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, 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.

The City will continue with its efforts to provide you with the water quality data required by rule. This data can be accessed at www.sanfordfl.gov.

The City of Sanford works around the clock to provide top quality water to every tap. 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. If you have any questions about this report or concerning your water utility, please contact the City of Sanford Utility Department at 407.688.5105, between the hours of 8:00 am and 5:00 pm, Monday–Friday.

The City of Sanford Commission Meetings offer opportunities for public participation including decisions about drinking water. Commission meetings are on the second and fourth Monday of every month at City Hall, 300 N. Park Avenue, 7:00 pm.



2010 ANNUAL WATER QUALITY REPORT

City of Sanford
Utility Department

The City of Sanford is pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the water quality 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.

We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe for most people (see Immuno-Compromised Persons section on back) at these levels.

Our water source is produced by nineteen (19) groundwater wells that draw water from the Floridan Aquifer. We have thirteen (13) wells that supply our Main Water Plant, and six (6) wells that supply our Auxiliary Water Plant. Our water is chlorinated for disinfection purposes and then fluoridated for dental health protection.

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose 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.

In 2009, 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 22 potential sources of contamination identified for this system with moderate to high susceptibility level(s). The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp/.

The City of Sanford 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 results of our monitoring for the period of January 1st to December 31st, 2009. Data obtained before January 1st, 2009, and presented in this report are from the

most recent testing done in accordance with the laws, rules, and regulations. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data (i.e. Lead and Copper), though representative, are more than one year old.

To help you better understand the Test Results Table, we've provided the following definitions:

- a) 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.
- b) Parts per million (ppm) or Milligrams per liter (mg/l) - one part by weight of analyte to one million parts by weight of the water sample.
- c) Picocurie per liter (pCi/L) - measure of radioactivity in water.
- d) Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- e) Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.
- f) 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.
- g) Maximum Contaminant Level Goal (MSLG) - 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.
- h) (ND) - Means not detected and indicates that the substance was not found by laboratory analysis.
- i) N/A - Not Applicable
- j) 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.
- k) 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. MCLs are set at very stringent levels.

City of Sanford Utility Department • 2010 CCR TEST RESULTS TABLE

MICROBIOLOGICAL CONTAMINANTS							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Highest Monthly Percentage Number		MCLG	MCL	Likely source of Contamination
Total Coliform Bacteria	01/05/09 12/16/09	N	1.4		0	Presence in 5% of monthly samples	Naturally present in the environment.
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Total Number of Positive Samples for the Year		MCLG	MCL	Likely source of Contamination
Fecal coliform and E.coli	01/05/09 -12/16/09	N	1		0	A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E.coli positive	Human and animal fecal waste.
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Level Detected	Range of results	MCLG	MCL	Likely source of Contamination
RADIOLOGICAL CONTAMINANTS							
Radium-226 (pCi/L)	06/11/08	N	0.5	0.4 - 0.5	0	5	Erosion of natural deposits
INORGANIC CONTAMINANTS							
Barium (ppm)	06/11/08	N	0.017	0.0097 - 0.017	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	06/11/08	N	0.65	0.62 - 0.65	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 – 1.2 ppm.
Nitrate (as Nitrogen) (ppm)	04/22/09	N	0.079	0.016-0.079	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium (ppm)	06/11/08	N	30	21 – 30	N/A	160	Salt water intrusion, leaching from soil.
TTHMs AND STAGE 1 DISINFECTION/DISINFECTION BY-PRODUCT (D/DBP) PARAMETERS							
Chlorine (ppm)	01/05/09 -12/16/09	N	1.1	0.2 – 2.7	4	4	Water additive used to control microbes.
HAA5 - (Haloacetic Acids Five) (ppb)	01/13/09 -11/05/09	N	11.8 (highest annual average)	4.4 – 20.0	N/A	60	By-product of drinking water disinfection.
TTHM - (Total trihalomethanes) (ppb)	01/13/09 -11/05/09	N	56.4 (highest annual average)	12.0 – 140.0	N/A	80	By-product of drinking water disinfection.
LEAD AND COPPER (TAP WATER)							
Contaminant and Unit of Measurement	Dates of sampling	AL Violation Y/N	90 th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely source of Contamination
Copper (ppm)	10/15/07	N	0.43	1	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb)	10/15/07	N	2.1	1	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.