

Definitions continued:

- 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.
- 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 (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.
- 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 (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 (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.
- l) Locational Running Annual Average (LRAA) - the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

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 any 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.

Per FDEP drinking water monitoring requirements, the following contaminants are sampled by City Staff every 3 years: Primary inorganics and secondaries, radioactive contaminants, lead and copper, and volatile and synthetic organics.

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 City will continue with its efforts to provide you with the water quality data required by rule. This data can be accessed at https://sanfordfl.gov/government/public-works-utilities/water_and_sewer/.

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 comes 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 want to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure are available from the Safe Drinking Water Hotline or at <https://www.epa.gov/safewater/lead>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS, dialysis 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 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.

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 407.688.5100, Monday through Thursday, between the hours of 7:00 am and 5:30 pm, or Friday between the hours of 8:00 am and 1:00 pm. City Hall and the Utility Department are closed on observed holidays.

The City of Sanford Commission Regular Meetings offer opportunities for public participation including decisions about drinking water. Commission meetings are typically on the 2nd and 4th Monday of every month at City Hall, 300 N. Park Avenue, 7:00 pm. There are no 4th Monday meetings for the months of July, November and December. Please check the City's website for the Commission meeting schedule.



CITY OF
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CITY OF
SANFORD
FLORIDA

2023
ANNUAL WATER
QUALITY REPORT
(JANUARY-DECEMBER 2022 DATA)



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 fundamental goal is to provide you with a safe and dependable supply of drinking water. We are committed to ensuring the quality of your water and strive to continually improve the water treatment process and protect our water resources.

We have learned through our monitoring and testing that some constituents have been detected. The Environmental Protection Agency (EPA) has determined that your water is safe for most people (see Immuno-Compromised People section on back) at these levels.

Our water source is produced by seventeen (17) groundwater wells that draw water from the Floridan Aquifer. We have thirteen (13) wells that supply our Main Water Plant, and four (4) wells that supply our Auxiliary Water Plant. Our water is chlorinated for disinfection purposes (inactivate bacteria) and then fluoridated for dental health protection. Polyphosphate is added for corrosion control.

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.

Annually, the Florida Department of Environmental Protection (FDEP) performs a Source Water Assessment & Protection Program (SWAPP) on our system. The assessment is conducted to provide information about potential sources of contamination in the vicinity of our wells. There are 12 potential sources of contamination for this system with low to moderate susceptibility level(s). The assessment results are available on the FDEP's SWAPP website at <https://prodapps.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. This report is based on results of our monitoring for the period of January 1st to December 31st 2022.

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 one billion parts by weight of the water sample.

CITY OF SANFORD – PWS 3590205 – WATER QUALITY TEST RESULTS TABLE

RADIOACTIVE CONTAMINANTS – WATER PLANT 1

Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Level Detected	Range of results	MCLG	MCL	Likely source of Contamination
Alpha emitters (pCi/L)	04/08/20	N	3.79	–	0	15	Erosion of natural deposits.

INORGANIC CONTAMINANTS

Barium (ppm)	04/13/20	N	0.019	0.010 – 0.019	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	04/13/20	N	0.74	0.65 – 0.74	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)	06/08/22	N	0.30	0.061 – 0.30	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium (ppm)	04/13/20	N	38.2	19.5 – 38.2	N/A	160	Salt water intrusion, leaching from soil.

STAGE 1 DISINFECTION/DISINFECTION BY-PRODUCT (D/DBP) PARAMETERS

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling	MCL or MRDL Violation Y/N	Level Detected	Range of results	MCLG or MRDLG	MCL or MRDL	Likely source of Contamination
Chlorine (ppm)	01/03/22 – 12/14/22	N	1.3	0.3 – 2.4	MRDLG = 4	MRDL = 4	Water additive used to control microbes.

STAGE 2 DISINFECTION/DISINFECTION BY-PRODUCT (D/DBP) PARAMETERS

Contaminant and Unit of Measurement	Dates of sampling	MCLL Violation Y/N	Level Detected	Range of results	MCLG	MCL	Likely source of Contamination
HAA5 – (Haloacetic Acids Five) (ppb)	03/17/22 – 11/28/22	N	20.23 (highest LRAA)	13.73 – 21.19	N/A	60	By-product of drinking water disinfection.
TTHM - (Total trihalomethanes) (ppb)	03/17/22 – 11/28/22	N	72.92 (highest LRAA)	46.39 – 87.44	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	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely source of Contamination
Copper (ppm)	07/06/20 - 09/29/20	N	0.33	0	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (ppb)	07/06/20 - 09/29/20	N	0.71	0	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits.

SECONDARY CONTAMINANTS

Contaminant and Unit of Measurement	Dates of sampling	MCL Violation Y/N	Level Detected	Range of results	MCLG	MCL	Likely source of Contamination
Odor (threshold odor number)	04/20/20 - 06/09/20	Y	4	–	–	3	Naturally occurring organics.

MICROBIOLOGICAL CONTAMINANTS

<i>E. coli</i> (at the ground water source)	04/25/22	N	Positive	–	0	0	Human or fecal waste
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Odor Exceedance Notice: In 2020, one of the City's water plants exceeded the MCL for odor (secondary contaminant). Secondary contaminants are not considered to have major health effects.

Bacteriological Notice: E. coli Detection: On April 2022, the City detected a fecal indicator, *E. coli* in one of its wells. The City took the well immediately offline and remains offline pending some well work. *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. **Monitoring requirement not met:** On December 2022, the City was required to collect and test 80 total coliform water samples from locations throughout the City monthly. There was a lab error with 5 samples tested for this period. This incident caused a monitoring public notification. *Coliforms* are bacteria, which are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Disinfection By-Products (DBPs) Notice: Site exceedance: City of Sanford did not incur any MCL violation in 2022 for total trihalomethane (TTHM). This notice is due to a couple of sampling sites, which had TTHM exceedances in April 2022. *Some people who drink water-containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.* **Monitoring requirement not met:** City of Sanford is required to sample during the week specified on the DBPs sampling plan. City staff collected samples during the 1st quarter 2022 as required; however, due to lab error and by approval from FDEP, City staff re-sampled outside the designated week causing a monitoring public notification. **The results of the re-samples were all accepted by the FDEP and were all below the MCL.**