

2016

Annual Drinking Water Quality Report



City of Eustis
P.O. Drawer 68
Eustis, FL 32727

City of Eustis

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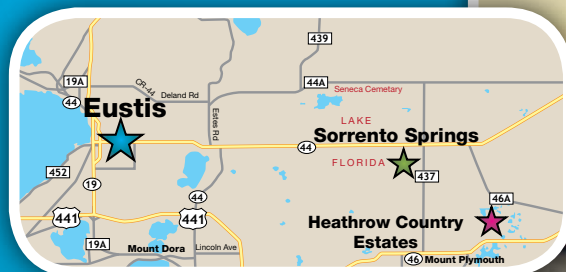
For More Information About Your Water

Please remember that we are always available to assist you, should you ever have any questions or concerns about your water. We encourage your feedback regarding any information in this report. After all, well-informed customers are our best allies. You may contact Brandon Pennington, Eustis Water Department Supervisor, at (352) 357-5618. We will be happy to assist you.

The Eustis City Commission meets regularly and their agendas may contain items pertaining to water treatment, water quality and other water related issues. We encourage you to be an active and involved partner in our decision-making process. Meeting dates and agendas can be obtained from the City Clerk's office Monday - Friday 8 a.m. to 5 p.m., the City's website (www.eustis.org) or by calling (352) 483-5430.

En Español

Este informe contiene informacion muy importante. Traduscalo o prequentele a alguien que lo entienda bien.



2016 Annual Drinking Water Quality Report

Our Drinking Water Is Regulated

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2016. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to your homes and businesses. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

Source of Drinking Water

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:

- 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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

All Drinking Water May Contain Contaminants

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. In order to ensure that tap water is safe to drink, the U.S. 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

Where Do We Get Our Drinking Water

Your water starts with a safe and reliable groundwater source called the Floridan Aquifer. Your water utility pumps this water from nine wells into aerators to remove hydrogen sulfide, a naturally occurring compound commonly found in Florida water. Next, the water is treated with chlorine (disinfectant purposes), fluoridated (dental health purposes), and then stored in ground storage tanks. From there the water is pumped to the elevated tanks and/or distribution system for use by you, the consumer.

Sorrento Springs customers receive water from the Eustis Eastern Water Treatment Plant. This water resource is also from the Floridan Aquifer. The water is pumped from two wells into an aerator to remove hydrogen sulfide and is chlorinated for disinfection purposes. Then, it is stored in a ground storage tank and pumped out into the system for your use.

Heathrow Country Estates water is pumped from two wells that draw from the Floridan Aquifer. The water is aerated to remove hydrogen sulfide, a naturally occurring compound. Chlorine is injected for disinfection purposes and then the water is stored in a ground storage tank before being pumped out to the customers.

Source Water Assessment

In 2016, the Department of Environmental Protection performed a Source Water Assessment on our systems. This assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are six potential sources of contamination identified for the City of Eustis system with a low to moderate susceptibility level. The Eustis Eastern system has seven potential sources of contamination identified with low susceptibility levels. The Heathrow Country Estates system has 1 potential source of contamination identified with a low susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program Web site at www.dep.state.fl.us/swapp or they can be obtained from The City of Eustis Water Department by calling (352) 357-5618.

Lead in Home Plumbing

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. We are 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 www.epa.gov/lead.

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken. The test results table shows the results if our monitoring period of January 1st to December 31st, 2016.

Definitions:

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

pCi/L (picocuries per liter): A measure of radioactivity.

TON (Threshold Odor Number): A measure of odor in water.

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

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

IDSE (Initial Distribution System Evaluation): An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

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

Primary Regulated Contaminants		City of Eustis			Eustis Eastern (Sorrento Springs)			Heathrow Country Estates (Redtail)					
Radioactive Contaminants													
Contaminant and unit of measurement	MCL Violation (Yes/No)	Date of Sampling	Level Detected	Range of Results	Date of Sampling	Level Detected	Range of Results	Date of Sampling	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha Emitters (pCi/L)	No	01/2015	2.5	NA	NA	NA	NA	NA	NA	NA	0	15	Erosion of natural deposits
Radium 228 (pCi/L)	No	01/2015	1	NA	NA	NA	NA	NA	NA	NA	0	5	Erosion of natural deposits

Inorganic Contaminants													
Contaminant and unit of measurement	MCL Violation (Yes/No)	Date of Sampling	Level Detected	Range of Results	Date of Sampling	Level Detected	Range of Results	Date of Sampling	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Antimony (ppb)	No	4,10/2014	2.1	ND-2.1	10/2015	1.7	NA	NA	NA	NA	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	No	4,10/2014	3.6	0.98-3.6	10/2015	2.2	NA	10/2015	1.3	NA	NA	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	No	4,10/2014	0.016	0.0042-0.016	10/2015	0.0080	NA	10/2015	0.0085	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	No	4,10/2014	0.14	ND-0.14	NA	NA	NA	NA	NA	NA	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Chromium (ppb)	No	4,10/2014	4.6	1.6-4.6	10/2015	2.4	NA	10/2015	4.2	NA	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	No	1-12/2016	0.8	0.06-0.8	NA	NA	NA	10/2015	0.12	NA	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories; water additive that promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Lead [point of entry] (ppb)	No	4,10/2014	0.46	ND-0.46	NA	NA	NA	NA	NA	NA	NA	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nickel (ppb)	No	4,10/2014	1.3	0.96-1.3	10/2015	1.2	NA	10/2015	1.6	NA	NA	100	Pollution from mining and refining operations; natural occurrence in soil
Nitrate [as Nitrogen] (ppm)	No	01/2016	3.0	0.02-3.0	1/2016	0.19	NA	1/2016	0.02	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	No	4,10/2014	4.4	1.5-4.4	10/2015	6.3	NA	10/2015	1.3	NA	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	No	4,10/2014	14	8.6-14	10/2015	6.5	NA	10/2015	16	NA	NA	160	Salt water intrusion, leaching from soil

Synthetic Organic Contaminants including Pesticides and Herbicides													
Contaminant and unit of measurement	MCL Violation (Yes/No)	Date of Sampling	Level Detected	Range of Results	Date of Sampling	Level Detected	Range of Results	Date of Sampling	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Dalapon (ppb)	No	NA	NA	NA	NA	NA	NA	1/2015	0.49	NA	200	200	Runoff from herbicide used on rights of way

Stage 2 Disinfectants and Disinfection By-Products													
Contaminant and unit of measurement	MCL Violation (Yes/No)	Date of Sampling	Level Detected	Range of Results	Date of Sampling	Level Detected	Range of Results	Date of Sampling	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Chlorine (ppm)	No	1-12/2016	1.0	0.4 - 1.8	1-12/2016	1.0	0.4-1.4	1-12/2016	1.0	0.5-1.7	[4]	[4.0]	Water additive used to control microbes
Haloacetic Acids (five) [HAA5] (ppb)	No	1,4/2016	8.9	1.43-8.9	1/2016	4.16	NA	8/2016	18.6	NA	NA	60	By-product of drinking water disinfection
THM [Total trihalomethanes] (ppb)	No	1,4/2016	24.9	6.1-24.9	10/2016	17.0	NA	8/2016	50.8	NA	NA	80	By-product of drinking water disinfection

Lead and Copper *													
Contaminant and unit of measurement	MCL Violation (Yes/No)	Date of Sampling	90th Percentile Result	Sites Exceeding the AL	Date of Sampling	90th Percentile Result	Sites Exceeding the AL	Date of Sampling	90th Percentile Result	Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper [tap water] (ppm)	No	7/2014	0.2	0	9/2015	0.017	0	9/2015	0.087	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead [tap water] (ppb)	No	7/2014	1.4	0	9/2015	0.29	0	9/2015	1.0	1	0	15	Corrosion of household plumbing systems, erosion of natural deposits

* Tap water samples were collected from sites throughout the community.

Secondary Contaminants													
Contaminant and unit of measurement	MCL Violation (Yes/No)	Date of Sampling	Highest Result	Range of Results	Date of Sampling	Highest Result	Range of Results	Date of Sampling	Highest Result	Range of Results	MCLG	SMCL	Likely Source of Contamination
Odor (TON)	Yes	10/2014 - 1/2015	8.0	1.0 - 8.0	NA	NA	NA	10/2015	4	1-4	NA	3	Naturally occurring organics