

2008
ANNUAL DRINKING
WATER
QUALITY
REPORT
of the City of Eustis



EUSTiS
Sustainable





Utility Introduction

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2008. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you.

In December 2008, the City of Eustis received two awards for Drinking Water Treatment Plant Excellence from the Florida Department of Environmental Protection. The City has received this award two years running. Drinking water facilities are on the front lines of public health and environmental protection in Florida.

For more information about this report, or for any questions relating to your drinking water, please call Greg Dobbins, Eustis Water Department Supervisor, at (352) 357-5618.

A Message From the Mayor

On behalf of the Eustis City Commission and City Staff, it is my pleasure to report to you, the citizenry, that we have completed another successful year of providing quality drinking water. It comes as no surprise to me, as I witnessed firsthand two years ago during my initial tour of the department, how detailed and concerned are this department's cares for our facilities and the water. As we continue to provide this service to you, please take any steps you can to preserve this precious commodity and honor the mandatory restrictions.

Sincerely,

Scott M. Ales, Mayor/Commissioner

Public Meetings

The Eustis City Commission regularly meets at 6:00 p.m. on the first and third Thursday of each month. Meeting 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. Agendas can be obtained from the City Clerk's office or by calling (352) 483-5430.

Substances That Could Be in 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.

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.

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 (800) 426-4791.

Unregulated Contaminant Monitoring

We have been monitoring for unregulated contaminants (UCs) as part of a study to help the U.S. Environmental Protection Agency (U.S. EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

The City of Eustis monitored for Unregulated Contaminants in January and July, 2008. There were no detections of any contaminants listed.

Lead and Drinking Water

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/safewater/lead.

Source Water Description

Your water starts with a safe and reliable groundwater source called the Floridan Aquifer. Your utility pumps this water from six wells into aerators to remove hydrogen sulfide, a naturally occurring compound commonly found in Florida water. The water is treated with chlorine for disinfection purposes, fluoridated for dental health purposes, and then stored in ground storage tanks. From there, the water is pumped to elevated tanks and the distribution system for use by you, the customer. Construction of the Grand Island Booster Station has been completed. We now see improved fire flows and a more stable pressure during high demands in the Grand Island area.



Sorrento Springs customers receive their 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 2008 the Department of Environmental Protection performed a Source Water Assessment on our systems. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are seven potential sources of contamination identified for the City of Eustis system with moderate to high susceptibility levels. The Eustis Eastern system has four potential sources of contamination identified with low to moderate susceptibility levels. The Heathrow Country Estates system has two potential sources of contamination identified with moderate susceptibility levels. 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.



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.



Testing Results

The City of Eustis routinely monitors for contaminants in your drinking water according to federal and state laws, rules, and regulations. The tables below show only those contaminants that were detected in the water. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2008. Data obtained before January 1, 2008, and presented in this report are from the most recent testing, performed in accordance with laws, rules, and regulations.

PRIMARY REGULATED CONTAMINANTS													
Radiological Contaminants ¹		City of Eustis			Eustis Eastern (Sorrento Springs)			Heathrow Country Estates					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Alpha Emitters (pCi/L)	No	1/2008	4.4	ND–4.4	1/2005	0.7	NA	3,4,7,8 & 10/2005	0.75 (avg)	ND–1.5	0	15	Erosion of natural deposits
Radium 226 (pCi/L)	No	NA	NA	NA	NA	NA	NA	8/2005	0.6	No	0	5	Erosion of natural deposits
Uranium (ppb)	No	NA	NA	NA	NA	NA	NA	8/2005	0.8	NA	0	30	Erosion of natural deposits
Inorganic Contaminants													
Barium (ppm)	No	10/2008	0.019	0.013–0.019	7/2006	0.14	NA	NA	NA	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	No	1–12/2008	0.98	0.24–0.98	7/2006	0.021	NA	7/2006	0.26	NA	4	4.0	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	NA	NA	NA	NA	NA	NA	7/2006	13	NA	NA	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate [as Nitrogen] (ppm)	No	1/2008	0.26	0.046–0.26	1/2008	0.12	NA	1/2008	0.056	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	No	10/2008	12	7.3–12	7/2006	5.5	NA	7/2006	11	NA	NA	160	Salt water intrusion, leaching from soil
Volatile Organic Contaminants													
Toluene (ppm)	No	4,7&10/2008	0.56	ND–0.56	NA	NA	NA	NA	NA	NA	1	1	Discharge from petroleum factories
Xylenes (ppm)	No	7&10/2008	0.90	ND–0.90	NA	NA	NA	NA	NA	NA	10	10	Discharge from petroleum factories; discharge from chemical factories
Stage 1 Disinfectants and Disinfection By-Products²		City of Eustis			Eustis Eastern (Sorrento Springs)			Heathrow Country Estates					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
Chlorine (ppm)	No	1–12/2008	0.9 (avg)	0.4–1.8	1–12/2008	0.9 (avg)	0.6–1.3	1–12/2008	0.7	0.4–1.2	[4]	[4.0]	Water additive used to control microbes
Haloacetic Acids (five) [HAA5] (ppb)	No	7/2008	2.93	1.0–5.3	7/2006	3.2	NA	7/2007	7.2	NA	NA	60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	No	7/2008	16.63	10.0–27.3	7/2006	16.41	NA	7/2007	23.8	NA	NA	80	By-product of drinking water disinfection

Lead and Copper (Tap water samples were collected from sites throughout the community)		City of Eustis			Eustis Eastern (Sorrento Springs)			Heathrow Country Estates					
CONTAMINANT AND UNIT OF MEASUREMENT	AL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	DATE OF SAMPLING (MO./YR.)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	DATE OF SAMPLING (MO./YR.)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
Copper [tap water] (ppm)	No	7/2007	0.21	0	7/2008	0.017	0	7/2007	0.075	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead [tap water] (ppb)	No	NA	NA	NA	NA	NA	NA	7/2007	1.3	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

SECONDARY CONTAMINANTS (HEATHROW COUNTRY ESTATES SAMPLING RESULTS)

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	HIGHEST RESULT	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Iron (ppm)	No	7 & 8/2006	0.32	0.0894–0.32	NA	0.3	Natural occurrence from soil leaching
Odor (TON)	No	7 & 8/2006	4	ND–4	NA	3	Naturally occurring organics

Footnotes:

¹ Results in the Level Detected column for radiological contaminants, inorganic contaminants, 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.

² 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 or is the average of all samples taken during the year if the system monitors less frequently than 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.

Definitions

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

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.

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.

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

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

micrograms per liter).

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

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