

ANNUAL

WATER  
QUALITY  
REPORT

*Water testing performed in 2009*



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This report was prepared by:  
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## Continuing Our Commitment

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, 2009. (Data obtained before January 1, 2009, and presented in this report, are from the most recent testing done in accordance with the laws, rules, and regulations.) We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users. Please note that if you live west of Hwy. 27, you are on the West Water System, and if you live east of Hwy. 27, you are on the East Water System.

For more information about this report, or for any questions relating to your drinking water, please call Bob Reed, Operations Supervisor, at (352) 241-0178.

## Community Participation

You are invited to participate in our council meetings and voice your concerns about our water utility. We meet on the second and fourth Tuesday of each month at 7 p.m. at City Hall, 685 W. Montrose Street, Clermont, FL.

## Where Does My Water Come From?

Our drinking water originates from one of the largest sources of freshwater in the country: the Floridan Aquifer. The aquifer lies deep below much of Florida and is replenished mainly by rainwater filtering through hundreds of feet of rock and sand. This ground water is typically of high quality, requiring only disinfection with chlorine prior to distribution to our customers.

## 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. 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.

## What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at [www.epa.gov/safewater/crossconnection.html](http://www.epa.gov/safewater/crossconnection.html).

## 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](http://www.epa.gov/safewater/lead).

## 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 [www.epa.gov/safewater/hotline/](http://www.epa.gov/safewater/hotline/).

## Source Water Assessment

In 2009 the 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 17 potential sources of contamination identified for both systems with high to low susceptibility levels. Potential sources of contamination identified include underground petroleum storage tanks (moderate to high), delineated area (moderate), and wastewater treatment plants (low). The assessment results are available on the FDEP Source Water Assessment and Protection Program Web site at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp) or they can be obtained from Bob Reed at (352) 241-0178.

## Arsenic in Water

While your drinking water meets the U.S. EPA's standard for arsenic, it does contain low levels of arsenic. The U.S. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects, such as skin damage and circulatory problems.

## Information on the Internet

The U.S. EPA Office of Water ([www.epa.gov/watrhome](http://www.epa.gov/watrhome)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health.

## Sampling Results

The table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

### PRIMARY REGULATED CONTAMINANTS

Radiological Contaminants										
		City of Clermont-East			City of Clermont-West					
CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED <sup>1</sup>	RANGE OF RESULTS <sup>1</sup>	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED <sup>1</sup>	RANGE OF RESULTS <sup>1</sup>	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Alpha Emitters (pCi/L)	No	01/08	4.4	ND-4.4	01/08	1.9	1.3-1.9	0	15	Erosion of natural deposits
Radium 226 + 228 [Combined Radium] (pCi/L)	No	01/08	ND	NA	01/08	1.4	0.9-1.4	0	5	Erosion of natural deposits
Inorganic Contaminants										
Antimony (ppb)	No	01/08	1.5	ND-1.5	01/08	ND	NA	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	No	01/08	5.3	2.8-5.3	01/08	1.1	ND-1.1	NA	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	No	01/08	0.0152	0.006-0.0152	01/08	0.0105	0.0065-0.0105	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	No	01/08	6.7	4.7-6.7	01/08	11.5	7.4-11.5	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	No	01/08	0.264	ND-0.264	01/08	ND	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
Nickel (ppb)	No	01/08	1.3	ND-1.3	01/08	1.1	ND-1.1	NA	100	Pollution from mining and refining operations; natural occurrence in soil
Nitrate [as Nitrogen] (ppm)	No	06/09	4.82	1.46-4.82	06/09	ND	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	No	02/09	2.51	2.51-40.75	01/08	ND	NA	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits;

**Stage 1 Disinfectants and Disinfection By-Products**

CONTAMINANT AND UNIT OF MEASUREMENT	MCL VIOLATION (YES/NO)	City of Clermont-East			City of Clermont-West			MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
		DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED <sup>2</sup>	RANGE OF RESULTS <sup>2</sup>	DATE OF SAMPLING (MO./YR.)	LEVEL DETECTED <sup>2</sup>	RANGE OF RESULTS <sup>2</sup>			
<b>Chlorine</b> (ppm)	No	2009 (monthly)	1.75	0.4–3.3	2009 (monthly)	1.6	0.5–3.1	[4]	[4.0]	Water additive used to control microbes
<b>Haloacetic Acids (five) [HAA5]</b> (ppb)	No	2009 (quarterly)	3.05	ND–7.1	2009 (quarterly)	19.2	ND–63.7	NA	60	By-product of drinking water disinfection
<b>TTHM [Total trihalomethanes]</b> (ppb)	No	2009 (quarterly)	13.52	3.14–21.5	2009 (quarterly)	28.56	9.2–81.4	NA	80	By-product of drinking water disinfection

**Lead and Copper (Tap water samples were collected from sites throughout the community)**

CONTAMINANT AND UNIT OF MEASUREMENT	AL EXCEEDANCE (YES/NO)	City of Clermont-East			City of Clermont-West			MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
		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			
<b>Copper [tap water]</b> (ppm)	No	06/09	0.0865	0	09/08	0.808	1	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead [tap water]</b> (ppb)	No	06/09	ND	0	09/08	3.9	2	0	15	Corrosion of household plumbing systems; erosion of natural deposits

<sup>1</sup>Results in the Level Detected column for radiological and inorganic 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.

<sup>2</sup>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 By-products 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).