

ANNUAL  
**WATER REPORT**

*Water testing  
performed in 2010*

QUALITY



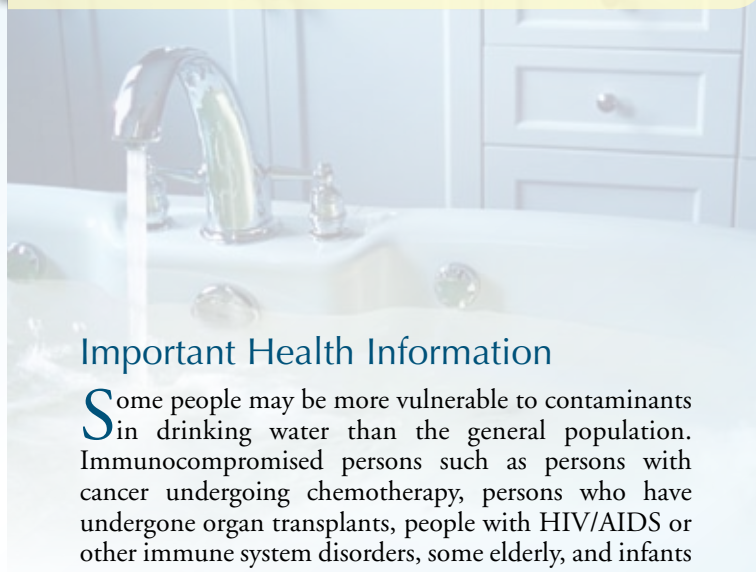
Presented By \_\_\_\_\_  
Coral Springs  
Improvement District

PWS ID#: 4060291

## Quality First Quality

Once again we at Coral Springs Improvement District are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with quality drinking water.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.

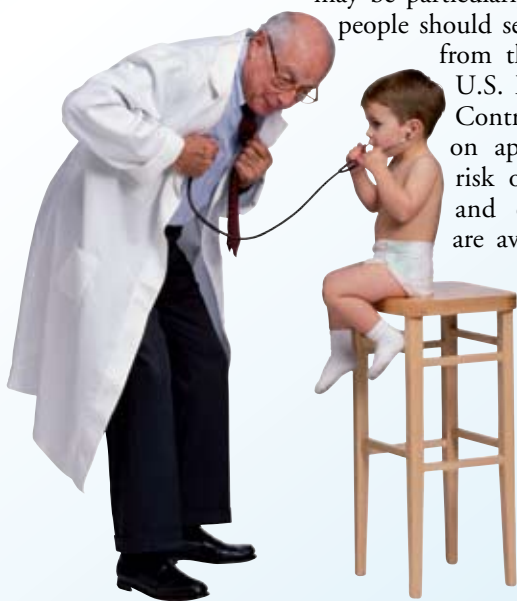


### Important Health Information

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/>.



## Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.



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

## Where Does My Water Come From?

In 2010, Coral Springs Improvement District treated and delivered to the District 1.582 billion gallons of water. The water source for the District is the Biscayne Aquifer, an underground geological formation and a reliable source of high-quality water since the early 1920s. The water is withdrawn and pumped to the District Treatment Plant by 11 “raw water” wells located within the District.

## Questions?

For more information about this report, or for any questions relating to your drinking water, please call Edward Stover, Chief of Water Operations, at 954-796-6665, or e-mail [eds@fladistricts.com](mailto:eds@fladistricts.com). You can also visit our website at [www.fladistricts.com](http://www.fladistricts.com).

# Fact OR Fiction

There is the same amount of water on Earth now as there was when the Earth was formed. *(Fact: The water that comes from your faucet could contain molecules that dinosaurs drank!)*

About half the water treated by public water systems is used for drinking and cooking. *(Fiction: Actually, the amount used for cooking and drinking is less than 1 percent of the total water produced!)*

A person can live about a month without food, but only about a week without water. *(Fact: Dehydration symptoms generally become noticeable after only 2 percent of one's normal water volume has been lost.)*

The first water pipes in the United States were made of cast iron. *(Fiction: The first water pipes were actually made of fire-charred bored logs.)*

The world's first municipal water filtration plant was opened in the United States. *(Fiction: The first plant was actually opened in Paisley, Scotland, in 1832.)*

A person must consume a half-gallon of water daily to live healthily. *(Fact: A person should drink at least 64 ounces, or 8 cups, of water each day.)*

One gallon of gasoline poured into a lake can contaminate approximately 750,000 gallons of water. *(Fact)*

## 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.

## 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 of potential sources of contamination in the vicinity of our wells. According to the assessment, there were five potential sources of contamination identified for this system. One of the sources had a low susceptibility level and the remaining four had a moderate susceptibility. The assessment results are available on the Florida Department of Environmental Protection Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp).

## About Our Violation

Our water system was in violation of federal and state water quality standards for Coliform Bacteria for the test month of September 2010. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. Whenever coliform bacteria is detected in more than 5 percent of our samples, special follow-up tests are done to determine if harmful bacteria are present in the water supply. We did not find any of these bacteria in our subsequent testing. All further testing showed that this problem had been resolved.

## Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an up-flow clarifier after passing over a cascade tray which allows for oxidation of the iron levels that are present in the water. The water then goes through the lime softening process, which removes 75–85 percent of the hardness, a characteristic of water, caused primarily by the salts of calcium and magnesium. A coagulating agent is then added, which allows the small particles to adhere to one another (called floc), making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, fluoride (used to prevent tooth decay) and a corrosion inhibitor (used to protect distribution system pipes) are added before the water is pumped to sanitized, above-ground storage tanks and into your home or business.

## Sampling Results

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 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

#### Microbiological Contaminants

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	HIGHEST MONTHLY PERCENTAGE	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
<b>Total Coliform Bacteria</b> <sup>3</sup> (% positive samples)	September 2010	Yes	10.34%	0	Presence of coliform bacteria in >5% of monthly samples	Naturally present in the environment

#### Radioactive Contaminants<sup>1</sup>

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
<b>Alpha Emitters</b> (pCi/L)	March 2008	No	2.5	NA	0	15	Erosion of natural deposits
<b>Radium 226 + 228 [Combined Radium]</b> (pCi/L)	March 2008	No	0.3	NA	0	5	Erosion of natural deposits

#### Inorganic Contaminants<sup>1</sup>

<b>Barium</b> (ppm)	March 2010	No	0.0054	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
<b>Fluoride</b> (ppm)	March 2010	No	0.40	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
<b>Sodium</b> (ppm)	March 2010	No	38.7	NA	NA	160	Salt water intrusion; leaching from soil

#### Stage 1 Disinfectants and Disinfection By-Products<sup>2</sup>

CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
<b>Chlorine</b> (ppm)	2010 (monthly)	No	1.98	0.4–3.3	[4]	[4.0]	Water additive used to control microbes
<b>Haloacetic Acids (five) [HAA5]</b> <sup>4</sup> (ppb)	2010 (quarterly)	No	RAA=18.2	9.0–23.74	NA	60	By-product of drinking water disinfection
<b>TTHM [Total trihalomethanes]</b> <sup>4</sup> (ppb)	2010 (quarterly)	No	RAA=41	38.4–42.7	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	DATE OF SAMPLING (MO./YR.)	AL EXCEEDANCE (YES/NO)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
<b>Copper [tap water]</b> (ppm)	August 2010	No	0.063	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead [tap water]</b> (ppb)	August 2010	No	5	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

<sup>1</sup>Results in the Level Detected column for radioactive contaminants 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 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.

<sup>3</sup>Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

<sup>4</sup>We failed to complete required sampling for THM's & HAA's for the third quarter of 2010 on time and therefore were in violation of monitoring and reporting requirements. Because we did not take the required number of samples, we could not determine whether the contaminants were present in the drinking water, and therefore could not make an assessment of the health risks during that time. The monitoring period was from July 1, 2010 through September 30, 2010. The sampling periods before and after this time were below the maximum contaminant levels. Our system will strive to meet all future monitoring requirements. Haloacetic acids (five) (HAA5): Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. TTHMs [Total Trihalomethanes]. 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.

## 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.

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

**ppb (parts per billion):**  
One part by weight of analyte to 1 billion parts by weight of the water sample (or micrograms per liter).

**ppm (parts per million):** One part by weight of analyte to 1 million parts by weight of the water sample (or milligrams per liter).

