

2009 Annual Drinking Water Quality Report

The City of Holly Hill

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is ground water drawn from the Floridan Aquifer. Our treatment process consists of aeration, lime softening, filtration with sand filters and chloramination for disinfection purposes. Fluoride is added for dental health purposes and a phosphate-based inhibitor is added to control corrosion.

SWAPP: Source Water Assessment and protection program. In 2009 the Florida 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 6 potential sources of contamination identified for this system with a low to moderate susceptibility rating. Results are available on the FDEP website at www.dep.state.fl.us/swapp

This report shows our water quality results and what they mean.

The Holly Hill Water Treatment Plant routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our most recent testing for the period of January 1st to December 31st 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.

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 storm water 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 storm water 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 storm water runoff, and septic systems.
- (E) **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 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 1-800-426-4791.

Important information for you to know – Health Advisory

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

In the tables below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Initial Distribution System Evaluation (IDSE): 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 (TTHMs) and haloacetic acids (HAA5s). Water systems will use results from the IDSE, in conjunction with their stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for stage 2 DBPR

Maximum Contaminant Level or 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.

Maximum Contaminant Level Goal or 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.

Maximum Residual Disinfectant Level or 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.

Maximum Residual Disinfectant Level Goal or MRDLG: The level of 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.

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

Not Applicable – (N/A): Does not apply

“ND” means not detected and indicates that the substance was not found by laboratory analysis.

Parts per million (ppm) or Milligrams per liter (mg/l) – one part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion (ppb) or Micrograms per liter (µg/l) – one part by weight of analyte to 1 billion parts by weight of the water sample.

TEST RESULTS TABLES

| Contaminant and Unit of Measurement | Dates of sampling (mo./ yr.) | MCL Violation y/n | Level Detected | Range of Results | MCLG | MCL | Likely Source of Contamination |
|-------------------------------------|------------------------------|-------------------|----------------|------------------|------|-----|---|
| Inorganic Contaminants | | | | | | | |
| Barium (ppm) | 6/10/08 12/2/08 | No | 0.0059 | 0.0052 0.0059 | 2 | 2 | Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits |
| Cyanide (ppb) | 6/10/08 12/2/08 | No | 0.0080 | 3.0 8.0 | 200 | 200 | Discharge from steel/metal factories; Discharge from plastic and fertilizer factories |
| Fluoride (ppm) | 1/1/09 12/30/09 | No | 1.06 | 0.96 1.06 | 4 | 4.0 | Erosion of natural deposits; discharge from fertilizer and aluminum factories, Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm. |
| Mercury (inorganic, ppb) | 6/10/08 12/2/08 | No | 0.030 | ND 0.030 | 2 | 2 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland |
| Nitrate (as nitrogen),(ppm) | 3/17/09 3/26/09 | No | 0.392 | 0.072 0.392 | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits |
| Nitrite (as Nitrogen), (ppm) | 3/17/09 3/26/09 | No | .013 | ND .013 | 1 | 1 | Runoff from fertilizer use; leaching from septic tanks, sewage erosion of natural deposits |
| Sodium (ppm) | 6/10/08 12/2/08 | No | 21 | 20-21 | N/A | 160 | Salt water intrusion, Leaching from soil |

Stage 1 Disinfectant and Disinfection By-Products

For the following contaminants and disinfection residuals monitored under stage 1 D/DBP regulations, the level detected is the highest annual average of the quarterly averages: Chloramines, Chlorine, Haloacetic Acid, and TTHM. Range of results is the (lowest to highest) at the individual sampling sites, including IDSE results.

| Disinfectant or Contaminant and Unit of Measurement | Dates of sampling (mo. /yr.) | MCL Violation Y/N | Level Detected | Range of Results | MCLG or MRDLG | MCL or MRDL | Likely Source of Contamination |
|---|------------------------------|-------------------|----------------|------------------|---------------|-------------|---|
| HAA5 (Total Haloacetic Acids) (ppb) | 01/09 Through 12/09 | No | 39.7 | 32.9-37.6 | N/A | 60 | By-product of drinking water disinfection |
| TTHM(Total Trihalomethanes) (ppb) | 01/09 Through 12/09 | No | 43.1 | 27.7-46.5 | N/A | 80 | By-product of drinking water disinfection |
| Chloramines and Chlorine (ppm) | 01/09 Through 12/09 | No | 3.32 | 2.42-3.90 | MRDLG 4.0 | MRDL 4.0 | Water additive used to control microbes |

Lead and Copper (Tap Water)

| Contaminant and Unit of Measurement | Dates of sampling (mo. /yr.) | AL Violation Y/N | 90 th Percentile Results | No. of sampling sites exceeding the AL | MCLG | AL (Action Level) | Likely Source of Contamination |
|-------------------------------------|------------------------------|------------------|-------------------------------------|--|------|-------------------|--|
| Copper (tap water) (ppm) | 09/08 | No | 0.14 | None | 1.3 | 1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead (tap water) (ppb) | 09/08 | No | 9.1 | 1 | 0 | 15 | Corrosion of household plumbing systems, erosion of natural deposits |

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, The City of Holly Hill 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 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 <http://www.epa.gov/safewater/lead>**.

Secondary Contaminants

| | | | | | | | |
|---------------------|------|-----|----|---------|----|----|----------------------------|
| Color (Color Units) | 2009 | Yes | 17 | 12 - 17 | 10 | 15 | Natural occurring organics |
|---------------------|------|-----|----|---------|----|----|----------------------------|

Our water system is in violation of the MCL for color. New treatment techniques are being evaluated. Color has no adverse health effects.

Microbiological Contaminants

| Contaminant and unit of measurement | Dates of sampling (mo./yr.) | MCL Violation Y/N | MCLG | Highest Monthly Number | MCL | Likely Source of Contamination |
|-------------------------------------|-----------------------------|-------------------|------|------------------------|---|--------------------------------------|
| Total Coliform Bacteria | 2009 | NO | 0 | 1 | For systems collecting fewer than 40 samples per month: presence of coliform bacteria in 1 sample collected during a month. | Naturally present in the environment |

Total Coliform rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found special follow- up test are done to determine if harmful bacteria are present in the water supply. Repeat samples were taken from the same area up stream and down stream and the water tap the original positive sample was taken from for two consecutive days and all sample analysis came back from the laboratory absent for Total Coliform Bacteria.

We at the City of Holly Hill would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to insuring the quality of your water. If you have any questions about this report or concerning your water utility, please contact, Robert Kasprack Chief Operator, Water Treatment Plant at 386-248-9463. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on alternate Tuesdays at 7:00 PM at City Hall.

Household Hazards

Help protect the drinking water in your home from contamination

CROSS-CONNECTION AND BACKFLOW PREVENTION: Over half the nation's cross-connections involve unprotected garden hoses. In cities across the United States, persons have died from drinking out of a garden hose. One such death was caused by a man spraying his yard with a poison to get rid of bugs by connecting his garden hose to a spraying device. Unknown to him, during the spraying a drop in pressure occurred in the main water system, causing the poisoned water to backflow into to hose...enough to kill him when he took a drink from the garden hose after spraying. ***He had contaminated his own water system.***

What is a cross-connection?

Any connection between your drinking water and an unapproved source of water that can combine the two. With a cross-connection, your drinking water can become contaminated when a backflow condition occurs.

So ? What is backflow?

Backflow is when the water in your pipes (the pipes after the water meter) goes backward (the opposite direction from its normal flow). With the direction of the flow reversed, due to a change in pressures backflow can allow contaminants to enter your home

There are two situations that can cause the water to go backward (backflow):

Backpressure - the pressure in your pipes is greater than the pressure coming in from the water main system.

Backsiphonage - is a negative pressure in one of the pipes.

To protect the water system, two types of backflow prevention devices are required for all customers whose premises present a potential hazard to the main water system:

External- protects the water main system from cross-connection with the water on the customer's premises.

Internal- protect the customer from potentially hazardous cross-connections in his or hers own system.

Without a backflow prevention device between your hose and hose bibb (spigot or outside faucet), the contents of the hose and anything it is connected to can backflow into the piping system and contaminate your drinking water. **However this can be avoided by the use of proper protection devices.** Each spigot at your home should have a hose- bibb vacuum breaker installed. This is a simple, inexpensive device, which can be purchased at any plumbing or hardware store. Installation is as easy as attaching your garden hose to a spigot.

If you have any questions please call the Public Works Department (386) 248-9463.

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