

City of Daytona Beach

2010 Annual Drinking Water Quality Report

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 safe and 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 drinking water comes from a series of 26 deep wells (>200 ft. deep) that tap into the Floridan Aquifer. This is a vast underground resource that stretches southward from South Carolina to include all of Volusia County and a large part of the state of Florida. Although this water is very high in quality it does contain dissolved minerals and natural organics. We treat this water at the Ralph Brennan Plant through ozonation, softening, filtration, and chloramine disinfection processes. An inhibitor is added to reduce corrosion of your household plumbing. The naturally occurring fluoride content is supplemented at a level recommended by the American Dental Health Association.

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 twenty-nine potential sources of contamination identified for this system with Low to Moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained from James C. Thurrott, Manager of Treatment Operations at (386) 671-8820 or (386) 671-8821.

The City of Daytona Beach routinely monitors for over 80 primary and secondary contaminants in your drinking water according to Federal and State laws, rules, and regulations. The primary contaminants include inorganic compounds (mostly metals), volatile compounds, pesticides, PCBs, and radionuclides. Secondary contaminants include compounds associated with the aesthetic quality of water. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2010. Those contaminants listed in the tables are the only contaminants detected in your drinking water.

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

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 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.

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

“N/A” means not applicable.

“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.

Picocurie per liter (pCi/L) - measure of the radioactivity in water.

Primary Contaminants

Microbiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	1/10-12/10	N	3.0%	0		Naturally present in the environment

Important Information: The 3.0% represents the highest monthly percentage, which occurred during the month of October and November. The Total Coliform Rule requires water systems to meet a strict 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 tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio.

Radioactive Contaminants

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
Radium 226 (pCi/L)	06/11/08	N	0.1	0.1	0	5	Erosion of natural deposits

Inorganic Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCL G	MC L	Likely Source of Contamination
Fluoride (ppm)	04/01/10	N	0.69	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth when at optimal levels of 0.7-1.3
Nitrate (ppm)	04/01/10	N	0.11	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	04/01/10	N	37	N/A	N/A	160	Salt water intrusion, leaching from soil
Beryllium(ppb)	04/01/10	N	0.8	N/A	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Nickel (ppb)	04/01/10	N	1.4	N/A	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil

Stage 1 Disinfectants and Disinfection By-Products

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
Bromate (ppb)	1/10-12/10	N	6	ND	N/A	MCL = 10	By-product of drinking water disinfection
Chloramines and Chlorine (ppm)	1/10-12/10	N	3.7	0.8-7.9	N/A	MRDL = 4	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	1/10-12/10	N	30.3	18.5-40.7	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	1/10-12/10	N	66.8	50.6-71.9	N/A	MCL =80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	6/08-8/08	N	0.08	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6/08-8/08	N	4	1	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Note: 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. City of Daytona Beach 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>.

Additional Information:

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 stormwater 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 stormwater 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 stormwater 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

We at the City of Daytona Beach 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 or concerns about the information provided, please feel free to call any of the numbers listed.

For More Information:

Volusia County Health Department – call the Environmental Health Engineering Section, (386) 274-0692

This Report, Water Treatment, or Group Presentations and Group Plant tours – call the Daytona Beach Utilities Department, (386) 671-8820, (386) 671-8821, (386) or (386) 671-8801.

Attend the City Commission Meetings – held the first and third Wednesday of each month at 6:00 PM Commission Chambers, Daytona Beach City Hall, 301 South Ridgewood Avenue.

Visit the Daytona Beach website at: <http://www.ci.Daytona-Beach.Fl.us/>

To report Water Line Breaks and Emergencies – call (386) 671-8815 (all hours)

Just a reminder:

Water Wisely!

Landscape Irrigation in Volusia County is limited to 4:00 p.m. to 10:00 a.m.
Once per week Eastern Standard Time

ODD Number addresses: Saturday
EVEN: Number Addresses: Sunday

Twice per week. Daylight Savings Time

ODD Number addresses: Wednesday and Saturday
EVEN: Number Addresses: Thursday and Sunday
Applies to private wells, lakes and ponds and city water.

Utilities Department
P.O. Box 2451
Daytona Beach, Fl 32115

Customer Address