



What Can I Expect to Find in My Drinking 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:

- 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 that 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.**

How This Report Shows Our Water Quality Results and What They Mean

This report shows our water quality results and what they mean. It also provides important information about your water and how it relates to your health. The information in this report is based primarily on 2007 facts and figures. However, the U.S. Environmental Protection Agency (EPA) does not require us to perform all tests every year. When necessary, some data was obtained from prior years. As directed by the agencies that regulate our industry, only values from these tests that exceeded specified criteria are included. We will notify you immediately if there is any reason for concern.

The City of Palm Coast Utility Department operates the water treatment and distribution system serving Palm Coast. Our water source is groundwater drawn from the Surficial and the Floridan Aquifers and is treated through a complex multi-step water treatment process that includes lime softening, filtration, membrane softening, corrosion control and chloramination for disinfection purposes. The Florida Department of Environmental Protection (DEP) has completed a Source Water Assessment for the Palm Coast watershed. The State has determined that four of our forty wells have a low to moderate susceptibility to contamination based on their proximity to potential sources of contamination. For additional information, please visit the DEP website at www.dept.state.fl.us/swapp.



The following information will assist you in making adjustments for your water softener, washer or dishwasher.

Total Hardness: 100ppm = 5.8 grains/gal.
Calcium Hardness: 80ppm = 4.7 grains/gal.

If you have any questions about this report or concerns about your water utility, please contact your **City of Palm Coast Utility Department Representative at 386-986-2360**. You may also visit the **City of Palm Coast website at www.ci.palm-coast.fl.us** or call the **EPA Safe Drinking Water Hotline at 1-800-426-4791**. We want our valued customers to be informed about their water utility. If you would like to learn more, please call us for information about the next opportunity for public participation in decisions about your drinking water.

A Message from the Utility Director



Water Plant No. 3

Call it foreboding, call it cliché. In the coming years you will be hearing a great deal more information about Florida's struggle with maintaining enough water to meet growing demands. For generations people have come to believe that they can count on limitless water for drinking, bathing, swimming and nourishing foliage. Our water, however, is no longer an unlimited, inexpensive public resource like air, but must be treated instead like oil. Every resident must use water more efficiently to ensure that we all continue to have an adequate supply.

Palm Coast's seemingly endless supply of water is indeed limited. The City is participating with other local governments to develop alternative water supplies to address long term needs. We continue to implement a robust water conservation program, expand water reuse and explore ways to further protect water resources for our community. A future option may be to partner with neighboring Florida government agencies to build a desalinization plant along the coastline, a structure that will remove salt and chemicals from ocean water for potable water.

Palm Coast's new Water Plant #3, scheduled to open in Spring 2008, will have a build-out capacity of 9 million gallons of water per day. The additional potable water supply will assist in meeting anticipated future demands within our city limits.

Please remember that limiting daily **use**, advancing opportunities for **reuse** and avoiding **abuse** will help safeguard our City's water supply.

Limiting Use and Avoiding Abuse

Limit Use

2007 marked the second consecutive year of below average rainfall in Palm Coast, water that should have ultimately recharged our well fields. With 2008's unpredictable conditions, the City is asking residents to irrigate only when necessary and to observe the present Irrigation Ordinance:

- Odd numbered addresses may water on Wednesdays and Saturdays.
- Even numbered addresses may water on Thursdays and Sundays.
- Customers may water only between the hours of 2:00 a.m. and 8:00 a.m.
- Irrigation of new landscaping is allowed with no restriction on the first 30 days and every other day for the next 30 days. Irrigation and car washing is allowed at any time if residents use a hand-held hose equipped with an automatic shut-off valve.

Avoid Abuse

Please do your part to make a positive contribution to our City's water conservation efforts. You CAN make a difference. Avoid abusing water and:

- Never pour water down the drain when there may be another use for it.
- Irrigate plants and lawns only when needed.
- Water lawns in the mornings to avoid evaporation.
- Repair leaking faucets.
- Sweep driveways and sidewalks.
- Wash full loads of laundry and dishes.
- Use a shut-off nozzle on your garden hose.
- Place a bucket in the shower to capture excess water to use for plant irrigation.
- Add compost to your soil to improve its water-holding capacity.
- Check for and repair leaky hose connections and sprinkler valves.
- Take shorter showers.
- Avoid flushing toilets unnecessarily.
- Store drinking water in your refrigerator rather than letting tap water run.
- Plant native and/or drought-tolerant grasses, ground cover and shrubs.

Advancing Opportunities for Reuse

The City of Palm Coast implements treatment operations that support reusing water to solve supply challenges facing our community. Water from our sewage treatment plant would have at one time been flushed away. Currently, the Utility Department safely and reliably captures and treats wastewater for commercial irrigation purposes. With the recent expansion of the City's Water Treatment Plant, reuse capacity was upgraded to treat up to 6.83 MGD per day, representing 100% reuse ability.

In 2007 installation of purple reuse water pipes were noticeable across the city, directing reuse irrigation to golf courses, commercial and residential development in certain areas. Palm Coast will continue to treat and distribute volumes of reuse water as the infrastructure is installed and consumers link to the service.

Within the next few years, a new Wastewater Treatment Plant will be built and activated on the west side of US1. This plant will provide reuse irrigation for consumers living and working along US1.



How Do I Read This?



It's easy. The table shows the results of our water quality analyses. The column marked "Level Detected" shows the highest results from the last time tests were performed. "Likely Sources" shows where this substance usually originates. Descriptions below explain other important details. In this table 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.

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 (ug/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.

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

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.

N/A: Means not applicable.

2007 ANNUAL DRINKING WATER QUALITY TEST RESULTS

The City of Palm Coast Utility Department 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 monitoring for the period of January 1 to December 31, 2007 for the **City of Palm Coast - PWS ID # 2180863**. The Environmental Protection Agency (EPA) requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table below are the only contaminants detected in your drinking water.

Total coliform bacteria: Highest Monthly Percentage/Number is the highest monthly percentage of positive samples for systems collecting at least 40 samples per month.

Microbiological Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage/Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	01/07-12/07	N	07/07 4 of 94 = 4.3 %	0	For systems collecting at least 40 samples per month: presence of coliform bacteria in 5% of monthly samples.	Naturally present in the environment

Results in the Level Detected column for radiological contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides are the highest detected level at any sampling point. Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Radiological 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 or combined radium (pCi/l)	03/07, 06/07, 08/07 + 11/07	N	0.6	ND - 0.6	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	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	02/05	N	0.0053	0.0043 - 0.0053	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	02/05 + 04/05	N	1.3	0.36 - 1.3	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	02/05	N	0.12	ND - 0.12	4	4	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.
Selenium (ppb)	02/05	N	1.6	ND - 1.6	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	02/05	N	32	N/A	N/A	160	Salt water intrusion, leaching from soil

Synthetic Organic Contaminants Including Pesticides and Herbicides

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
Di(2-ethylhexyl) phthalate (ppb)	03/07, 06/07, 08/07 + 11/07	N	1.1	ND - 1.1	0	6	Discharge from rubber and chemical factories

TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters

For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the average of the individual sampling sites. Chloramines, Haloacetic Acids, and/or TTHM (MCL 80 ppb). Range of Results is the range of results (lowest to highest) at the individual sampling sites.

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
Chloramines (ppm)	01/07 - 12/07	N	3.8	0.7 - 5.4	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	08/07	N	19.2	6.3 - 32.0	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	08/07	N	12.1	3.2 - 21	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)	08/07	N	0.097	0 of 30	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/07	N	1.9	0 of 30	0	15	Corrosion of household plumbing systems, erosion of natural deposits

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. **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 (1-800-426-4791).**