Make Every Drop Count!

Your City's Goal: Great-tasting, Safe Drinking Water

Palm Coast enjoys some of the best water around – thanks to an excellent groundwater source, state-of-the-art facilities, and a Public Works Department/Utility Division committed to delivering healthy, tasty drinking water. The City's water comes from the confined surficial aquifer and the deeper Floridan Aquifer. This fresh groundwater is treated for optimum drinking and household use.

Water treated at the City's three facilities—a conventional lime-softening plant and two nano-filtration (or low-pressure, reverse osmosis) plants—is mixed to provide consistent, high-quality water city-wide. In addition to removing contaminants, the City softens the water to make it easier on skin and hair and to decrease the amount of soap needed for washing.

That level of treatment has a major payoff! Palm Coast meets all requirements of the federal Safe Drinking Water Act and regularly wins awards for its top-notch water treatment operation. In 2012, the City won the Florida Department of Environmental Protection's Plant Excellence Award for Northeast Florida – a coveted prize earned by Palm Coast in 20 of the past 30 years. Fred Greiner, Chief Operator at Water Treatment Plant 2, was named 2012 Operator of the Year by the Southeast Desalting Association. Additionally, the City received the Conservation Award from the Florida Section of the American Water Works Association for implementing a new cutting-edge process that saves water and reduces discharge.

The City's goal is to produce great-tasting, safe drinking water while also conserving our precious water supply. Construction will start this summer on a lime-softening/ultrafiltration plant at Water Treatment Plant 2 as the City moves toward Zero Liquid Discharge, lessening impacts on the environment and meeting new state requirements.

Palm Coast's dedicated Utility staff knows the public's safety is in their hands, and they take that responsibility seriously. Plant operators are very knowledgeable, with most holding the highest level of certification. Crews work around the clock, 365 days a year. The City strives to make every drop count for the residents of Palm Coast!

Save Water and Money

Water is a precious resource, and we all need to conserve where we can. As a bonus, using less water means your utility bill will go down! Here are some valuable tips:

Check for Leaks — Read your water meter before and after a one-hour period when no water is being used. (Remember to wait for the hot water heater and ice maker to refill and for the regeneration of water softeners.) If the readings are different after the one-hour period, you have a leak. Also, monitor your bill for unusually high use.

Turn It Off — Turn off the water as you brush your teeth, wash your face, shave, wash dishes or clean house.

Right-size — For washing machines with variable settings for water volume, select the minimum amount required per load. Otherwise, wash only full loads.

Catch the Rain — Harvest rainwater by collecting water from your roof to irrigate your garden.

Native Landscaping — Select native-Florida trees and shrubs that need less watering when landscaping.

'Mulch' Easier — Spread a layer of organic mulch around plants to help them retain moisture.

Double Duty — Wash your car or pets on the lawn, and you'll water your lawn at the same time!

Conserve Our Precious Water

The City's water conservation ordinance aligns with restrictions issued by the St. Johns River Water Management District. Water your lawn only if it needs it; less water is needed when it rains and in fall and winter. Irrigation with City-supplied water is allowed only between midnight and 10 a.m., according to this schedule:

March–November (Daylight Savings Time)

- Odd numbered addresses & no addresses Wednesday and Saturday
- Even numbered addresses: Thursday and Sunday
- Nonresidential: Tuesday and Friday

November–March (Eastern Standard Time)

- Odd numbered addresses: Saturday
- Even numbered addresses: Sunday
- Non-residential: Tuesday

For users of private irrigation wells, watering is allowed on your designated days anytime except between 10 a.m. and 4 p.m. Irrigation ordinance details are available on the City website: **palmcoastgov.com**. Search for "watering."

Online Utility Billing – Let's keep Palm Coast green with online paperless billing! Save paper, stamps, envelopes and time by managing your utility bill online. You can view present and past bills, make payments each month or pay monthly via automatic deduction from a credit card, checking or savings account. Go to **www.palmcoastgov.com** for details.

Make Every DROP Count!

2012 City of Palm Coast Water Quality Report

What Can We Expect to Find in Our 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 to you. It also provides important information about your water and how it relates to your health. The information in this report is based primarily on 2012 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 Division operates the water treatment and distribution system serving Palm Coast. Our water source is groundwater drawn through forty-seven wells 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, forced draft aeration, corrosion control and chloramination for disinfection purposes at three different facilities. The Florida Department of Environmental Protection (DEP) has completed a Source Water Assessment for the Palm Coast watershed. The State has determined that five of our forty-seven wells have a low to moderate susceptibility to contamination based on their proximity to the seven potential sources of contamination that were last evaluated in 2012. For additional information, please visit the DEP website at **www.DEP.state.fl.us/swapp.**

The following information will assist you in making adjustments to 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 Representative at 386-986-2360**. You may also visit the **City of Palm Coast website at www.palmcoastgov.com** 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.

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.*

2012 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, 2012 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 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	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (Positive Samples)	08/12	N	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 and inorganic contaminants 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.

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
Alpha emitters (pCi/l)	01/09, 04/09, 08/09	N	2.2	ND – 2.2	0	15	Erosion of natural deposits
Radium 226 or combined radium (pCi/l)	01/09, 04/09, 08/09, 05/11, 08/11, 10/11	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
Arsenic (ppb)	05/11	N	0.32	ND – 0.32	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	05/11	N	0.0043	0.0016 – 0.0043	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	05/11	N	0.090	ND – 0.090	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.
Lead (point of entry) (ppb)	05/11	N	0.058	ND – 0.058	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nickel (ppb)	05/11	N	0.35	ND – 0.35	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil.
Selenium (ppb)	05/11	N	1.9	ND – 1.9	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	05/11	N	34	17 – 34	N/A	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectant and Disinfection By-Product

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 (MCL 60 ppb), and/or TTHM (MCL 80 ppb). Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chloramines (ppm)	01/12 – 12/12	N	3.6	1.0 – 4.7	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes
Chlorine (ppm)	03/12, 06/12, 07/12, 10/12	N	2.7	1.0 – 4.3	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	08/12	N	23.72	16.34 – 27.80	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	08/12	N	23.75	20.78 – 28.37	N/A	MCL = 80	By-product of drinking water disinfection

Periodically throughout the year the distribution system is maintained by conversion of Chloramine to Free Chlorine disinfection for additional microbiological control

Stage 2 Disinfectant and Disinfection By-Product

Systems that took their annual sample(s) in the third quarter of 2012 and all of whose results were below the MCL can calculate compliance with the MCL under 40 CFR 141.620(d)(2) based on those results. Such systems shall report the highest LRAA as the level detected and the range of individual sample results as the range of results.

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Haloacetic Acids (five) (HAA5) (ppb)	11/12	N	23.02	10.07 – 23.02	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	11/12	N	16.60	11.26 – 16.60	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 Exceeded Y/N	90th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	08/10	N	0.16	0 of 32	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/10	N	1.75	0 of 32	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 Palm Coast 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.**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer under-going 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).