



Driven to Excellence.

Palm Coast Utility Wins 86 Awards Over the Years!



Providing excellent drinking water has been a top priority in Palm Coast going way back. The Palm Coast Utility Department, which provides both water and wastewater (sewer) service, has always prided itself on having well-run and maintained facilities and a highly trained staff who deliver great service and high-quality water. That level of excellence has been rewarded again and again with 86 regional, state and national awards over the past 40 years.

The tradition continued in 2016 with Palm Coast's "Water Buoys" winning both the state and national championships in the Top Ops water operations competition, and the Wastewater Treatment Plant staff earning the 2016 Plant Operations Excellence Award from the Florida Department of Environmental Protection (FDEP) plus a second-place Safety Award from the Florida Water Environment Association.

"From the early days of ITT and Florida Water Services (which sold the utility to the City in 2003), they always drove us to excellence...to win awards and to keep the plants looking tour-ready, clean, neat, orderly, well-operated," said Jim Hogan, Utility Systems Manager of Water Operations.

The Utility Department, led by Director Richard Adams, is especially proud of awards from its state regulatory agency. Over the years, the Wastewater Treatment Plant and 3 Water Treatment Plants have collectively earned 32 "Plant Operations Excellence Awards" from FDEP, based on operation, maintenance, innovative treatment, pollution prevention, recycling and other criteria.

Utility has also received awards from the American Water Works Association, the Southeast Desalting Association, the American Membrane Technology Association, the Florida Water Environment Association and the Northeast Florida Regional Council. Palm Coast was voted Northeast Florida's "Best Tasting Drinking Water" four times in the past decade. The earliest award on record was in 1977.

Most visible nationally, the "Water Buoys" team has won the American Water Works Association's Top Ops National Championship 6 times since 2006, and the Top Ops State Championship for 10 of the past 12 years. Teams from across the U.S. and Canada answer questions on operational topics such as chemistry, hydrology, water distribution, public health, plant maintenance and safety.

"It's competition, but it's friendly. We exchange experiences, compare treatment processes and go to technical seminars," Hogan said. "It shows our commitment to excellence and producing the best water that we can."

Going forward, the City of Palm Coast will continue to invest in its facilities, its employees and its community. Palm Coast is fortunate to have good source water, and a great deal of planning goes into keeping the infrastructure in top condition. The City is currently building a second Wastewater Treatment Plant, which will open early next year.

It all adds up to award-winning service and some of the best water around!

SAVE WATER. SAVE MONEY.

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

- To check for leaks, read your water meter before and after a 1-hour period when no water is being used. (Remember to wait for the ice maker to refill and for the regeneration of water softeners if used.) If the readings are different after the hour, you have a leak. Also, monitor your bill for unusually high use.
- It takes water to make energy! By reducing energy use by just 10 percent, you could save 600 gallons of a water a year and \$150 in energy bills!
- Turn off the water while you brush your teeth, wash your face, shave, wash dishes or clean the house.
- For washing machines with variable settings for water volume, select the minimum amount required per load. Otherwise wash only full loads.
- Select native-Florida trees and shrubs that need less watering when landscaping.

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.



BEST in H₂O



2016 CITY OF PALM COAST WATER QUALITY REPORT



WHAT CAN WE EXPECT TO FIND IN OUR DRINKING WATER?

HOW THIS REPORT SHOWS OUR WATER QUALITY RESULTS AND WHAT THEY MEAN

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 use.
- 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 system.
- 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.**

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 2016 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 through fifty-nine 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 (FDEP) has completed a Source Water Assessment for the Palm Coast watershed. The State has determined that seventeen of our fifty-nine wells have a low to moderate susceptibility to contamination based on their proximity to the fifteen potential sources of contamination that were last evaluated in 2016. For additional information, please visit the FDEP website at www.DEP.state.fl.us/swapp.

The following information will assist you in making adjustments to your washer, dishwasher or home water softener if you have one:

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.*

2016 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, 2016 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.

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)	10/11, 03/13, 05/13, 08/13	N	1.6	ND - 1.6	0	15	Erosion of natural deposits
Radium 226 or combined radium (pCi/l)	10/11, 03/13, 05/13, 08/13	N	0.4	ND - 0.4	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)	08/14	N	0.0053	0.0030 - 0.0053	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	08/14	N	0.082	ND - 0.082	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.
Nitrate (as Nitrogen) (ppm)	08/16	N	0.12	ND - 0.12	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	08/14	N	4.6	ND - 4.6	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	08/14	N	39	20 - 39	N/A	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectant and Disinfection By-Product

For bromate, chloramines, or chlorine, the level detected is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The range of results is the range of results of all the individual samples collected during the past year.

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)	01/16 - 12/16	N	4.0	0.6 - 5.8	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes
Chlorine (ppm)	02/16-03/16, 06/16-07/16, 09/16-10/16	N	3.0	0.6 - 5.1	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes

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

If during 2016 the system had only annual or triennial results and these results were at or below the MCL, report the highest result 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)	02/16, 5/16	N	12.6	12.38 - 12.6	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	02/16, 5/16	N	17.76	14.37 - 17.76	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)	06/16	N	0.072	0 of 31	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	06/16	N	1.5	0 of 31	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).