



***DUNES COMMUNITY DEVELOPMENT DISTRICT***  
**2007**  
**Annual Drinking Water Quality Report**

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 about our water.

The Dunes Community Development District (Dunes CDD) received its water from the City of Palm Coast Utility Department which operates the water treatment and distribution system serving Palm Coast from January 1, 2007 until August 15, 2007. The Dunes CDD started providing you with water from our new reverse osmosis water treatment plant on August 15, 2007 and has continued to do so for the remainder of the year and will continue to do so from now on. Our water source from the City of Palm Coast had been groundwater drawn from the Surficial and the Floridan Aquifer 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. Water from Dunes CDD's new reverse osmosis water treatment plant is groundwater drawn from Floridan Aquifer and is treated through a reverse osmosis treatment process and uses chlorine 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 Palm Coast's thirty-eight 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.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp). The wells currently in use for the Dunes have not yet been evaluated by the Source Water Assessment Program.

If you have any questions about this report or concerns about your water utility, please contact the Dunes CDD office at 386-445-9045. You may also visit the City of Palm Coast website at [www.ci.palm-coast.fl.us](http://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.

## 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 (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.

**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

## 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, 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.**

## 2007 ANNUAL DRINKING WATER QUALITY TEST RESULTS

Dunes CDD and the City of Palm Coast Utility Department routinely monitor 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 monitoring for the period of January 1 to December 31, 2007 for the **Dunes CDD - PWS ID # 2184259**. The Environmental Protection Agency (EPA) requires monitoring of over 80 drinking water contaminants.

Total coliform bacteria: Highest Monthly Number is the highest monthly number of positive samples for systems collecting fewer than 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	1	0	For systems collecting fewer than 40 samples per month: presence of coliform bacteria in more than 1 sample collected during a month.	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
Alpha emitters (pCi/l)	03/07, 06/07, 08/07, 12/07	N	1.4	ND - 1.4	0	15	Erosion of natural deposits
Radium 226 or combined radium (pCi/l)	03/07, 06/07, 08/07, 11/07, 12/07	N	0.8	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; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Selenium (ppb)	02/05, 12/07	N	8	ND - 8	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	02/05, 12/07	N	34.3	32 - 34.3	N/A	160	Salt water intrusion, leaching from soil

<b>Synthetic Organic Contaminants including Pesticides and Herbicides</b>							
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	N	1.1	ND – 1.1	0	6	Discharge from rubber and chemical factories

  

<b>TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Parameters</b>							
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	2.19	0.83 – 3.5	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	08/07	N	19	6 - 32	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	08/07	N	12	3 - 21	N/A	MCL = 80	By-product of drinking water disinfection

  

<b>Lead and Copper (Tap Water)</b>							
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)	07/05	N	0.160	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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).**