

## Source of FPUA's Drinking Water

FPUA obtains water from two sources – groundwater from the Surficial Aquifer, which is about 100 feet below the surface, and the Floridan Aquifer, which is about 1,000 feet below the surface. 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.

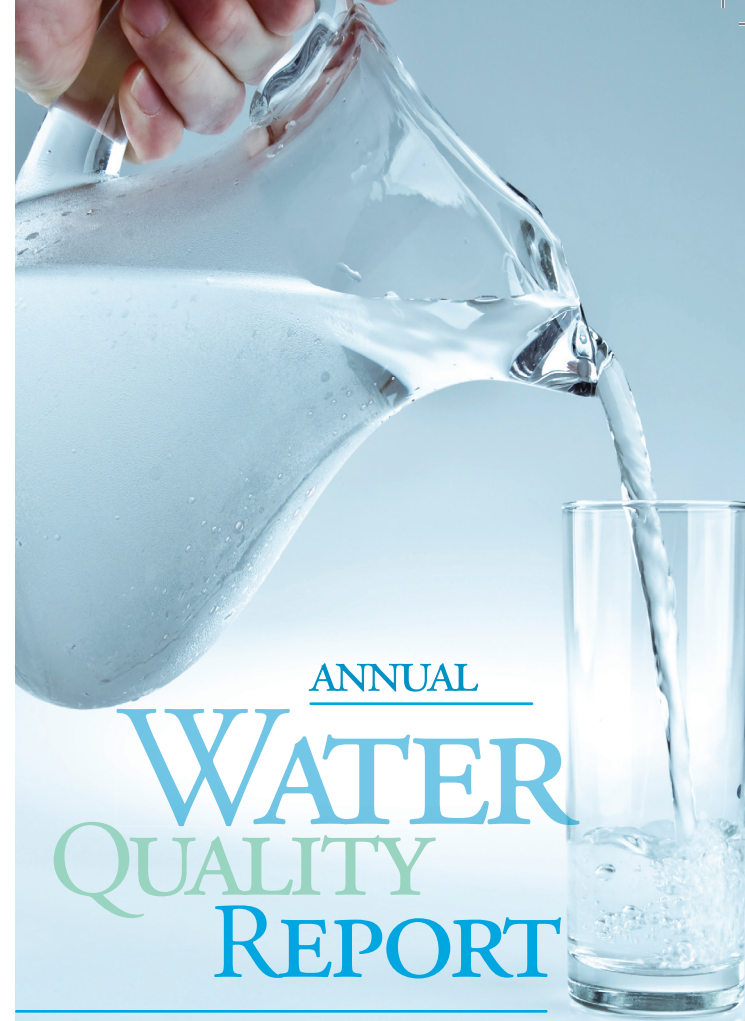
Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. (B) Inorganic contaminants, such as salts and metals, which can be naturally 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.

FPUA's Water Treatment Plant treats the groundwater and removes contaminants by conventional lime softening, aeration, and sand filtration combined with reverse osmosis treatment. The water is chlorinated for disinfection purposes and then fluoridated for dental health reasons. 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. 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 (800) 426-4791.

Fort Pierce Utilities Authority  
206 S. 6th Street  
Fort Pierce, FL 34950

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

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Water testing performed in 2010

Presented By  
Fort Pierce Utilities Authority

PWS ID#: 4560490

## Questions?

For more information about this report, or for any questions relating to your drinking water, please call Customer Service at (772) 466-1600.

For more water conservation tips visit us online at [www.fpu.com](http://www.fpu.com).

Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak. Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year. Turn off the tap when brushing your teeth. Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.

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## Community Participation

You are invited to attend our Board meetings, which are held on the first and third Tuesday of each month at 4:00 p.m. at 100 N. U.S. 1 (City Hall), Fort Pierce, Florida.

## Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.

Turn off the tap when brushing your teeth. Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

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## What's Your Water Footprint?

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 29 potential sources of contamination identified for this system with a low to moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program Web site at [www.dep.state.fl.us/swap](http://www.dep.state.fl.us/swap), or they can be obtained by calling FPUA's Customer Service Department at (772) 466-1600. Additionally, FPUA has built treatment systems as a result of those potential sources of contamination.

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses about 100 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to [www.h2oconserve.org](http://www.h2oconserve.org), or visit [www.waterfootprint.org](http://www.waterfootprint.org) to see how the water footprints of other nations compare.

## Source Water Assessment

We are proud to report that the water provided by Fort Pierce Utilities Authority (FPUA) meets the State of Florida and the United States Environmental Protection Agency's (EPA) regulations. This report is furnished pursuant to the EPA Safe Drinking Water Act (SDWA). Beginning in 1999, all community water systems need to provide customers with an annual report on the quality of their water. FPUA tests for a variety of regulated and unregulated compounds to determine if your drinking water meets the SDWA requirements. Review of the tables contained in this report will show that your drinking water is of excellent quality. The data presented is from 2010 or the most recent testing done in accordance with regulations for sampling that is required less frequently than annually. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, and source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with quality drinking water. Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

## IMMUNO-COMPROMISED INDIVIDUALS

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

## Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

PRIMARY REGULATED CONTAMINANTS							
Inorganic Contaminants							
CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Barium <sup>1</sup> (ppm)	03/07/2008	No	0.007	NA	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride <sup>1</sup> (ppm)	01/2010 to 12/2010	No	RAA 0.8	0.46–1.15	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories; water additive that promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm.
Nitrate [as Nitrogen] <sup>1</sup> (ppm)	05/21/2010	No	0.039	NA	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrite [as Nitrogen] <sup>1</sup> (ppm)	05/21/2010	No	0.0022U	NA	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium <sup>1</sup> (ppm)	03/07/2008	No	41	NA	NA	160	Salt water intrusion; leaching from soil.
Thallium <sup>1</sup> (ppb)	03/07/2008	No	1.1	NA	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories.
Stage 1 Disinfectants and Disinfection By-Products							
CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR [MRDLG]	MCL OR [MRDL]	LIKELY SOURCE OF CONTAMINATION
TTHM [Total trihalomethanes] <sup>2</sup> (ppb)	08/02/2010	No	17	13.0–17.0	NA	60	By-product of drinking water chlorination.
Haloacetic Acids (five) [HAA5] <sup>2</sup> (ppb)	08/02/2010	No	22	18.0–22.0	NA	80	By-product of drinking water chlorination.
Chloramines <sup>2</sup> (ppm)	01/1/2010 to 12/31/2010	No	3.1	0.6–5.0	[4]	[4.0]	Water additive used to control microbes.
Lead and Copper (Tap water samples were collected from sites throughout the community)							
CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	AL EXCEEDANCE (YES/NO)	90TH PERCENTILE RESULT	NO. OF SAMPLING SITES EXCEEDING THE AL	MCLG	AL (ACTION LEVEL)	LIKELY SOURCE OF CONTAMINATION
Copper [tap water] <sup>3</sup> (ppm)	01/2010 to 06/2010	No	0.17	0	1.3	1.3	Corrosion of household plumbing systems.
Copper [tap water] <sup>3</sup> (ppm)	07/2010 to 12/2010	No	0.19	0	1.3	1.3	Corrosion of household plumbing systems.
Lead [tap water] <sup>3</sup> (ppb)	01/2010 to 06/2010	No	0.0022	1	0.015	0.015	Corrosion of household plumbing systems.
Lead [tap water] <sup>3</sup> (ppb)	07/2010 to 12/2010	No	0.0032	0	0.015	0.015	Corrosion of household plumbing systems.

PRIMARY REGULATED CONTAMINANTS							
Microbiological Contaminants							
CONTAMINANT AND UNIT OF MEASUREMENT	DATE OF SAMPLING (MO./YR.)	MCL VIOLATION (YES/NO)	HIGHEST MONTHLY NUMBER	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION	
Total Coliform Bacteria <sup>4</sup> (colony forming units)	01/01/2010 to 12/31/2010	No	2		1.3	Naturally present in the environment.	

<sup>1</sup> Results in the Level Detected column for Inorganic Contaminants are the highest level detected at any sampling point except for RAA.

<sup>2</sup> For bromate, chloramines, or chlorine, the level detected is the highest Running Annual Average (RAA), computed quarterly, of monthly averages of all samples collected. For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitored quarterly or is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations, including Initial Distribution System Evaluation (IDSE) results as well as Stage 1 compliance results. Initial Distribution System Evaluation (IDSE): An important part of the Stage 2 Disinfection Byproduct Rule (DBPR). The IDSE is the one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

<sup>3</sup> There were two sampling events for Lead and Copper in 2010: January to June and July to December. The two sampling events were required by DEP as FPUA has been upgraded from a Medium Water System to a Large Water System.

<sup>4</sup> On July 21, 2010 two samples from the distribution system tested positive for Total Coliform. Continued testing in compliance with the Ground Water Rule (GWR) revealed these samples to be negative for E.Coli contamination. In compliance with the Ground Water Rule (GWR), resamples of the positive sites and representative samples of the well water were simultaneously taken to determine the source of the contamination. All repeat and well water samples tested negative for Total Coliform. FPUA was not in violation of the GWR and contamination was determined to be sampler error. Health Effects - Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

## Definitions

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

**Contaminant:** Any substance or matter whether physical, chemical, biological, or radiological.

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**MRDL (Maximum Residual Disinfectant Level):** Maximum Residual Disinfectant Level.

**MRDLG (Maximum Residual Disinfectant Level Goal):** Maximum Residual Disinfectant Level Guide.

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**pCi/L (Picouries per Liter):** A measure of radioactivity in water.

**ppb:** One part by weight of analyte to 1 billion parts by weight of water sample.

**ppm:** One part by weight of analyte to 1 million parts by weight of the water sample.



## Information on the Internet

The U.S. EPA Office of Water ([www.epa.gov/watrhme](http://www.epa.gov/watrhme)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health.



### Why do I get this report each year?

Community water system operators are required by federal law to provide their customers with an annual water quality report. The report helps people make informed choices about the water they drink. It lets people know what contaminants, if any, are in their drinking water and how these contaminants may affect their health.

### How much water is used during a typical shower?

The Federal Energy Policy Act set a nationwide regulation that limits showerheads to a maximum flow of 2.5 gallons per minute (GPM). Showerheads made before 1980 are rated at 5 GPM. Since the average shower is estimated to last 8.2 minutes, the old showerheads use 41 gallons of water while the newer, low-flow showerheads use only about 21 gallons.

## Lead in Home Plumbing

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. We are 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

“THOUSANDS HAVE LIVED WITHOUT LOVE, NOT ONE WITHOUT WATER.”  
—W.H. Auden