

## Substances That Could be in 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:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- 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.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- 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.
- 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 (800) 426-4791.

Fort Pierce Utilities Authority  
206 S. 6<sup>th</sup> Street  
Fort Pierce, FL 34950

## Source Water Assessment

In 2015, the Florida Department of Environmental Protection (FDEP) 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 9 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 website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp) 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.

## Important Health Information

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. The 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>.

## Water Source and Treatment

FPUA obtains water from two groundwater sources, the Surficial Aquifer and the Floridan Aquifer. The Surficial Aquifer is approximately 100 feet below the surface. The Floridan Aquifer is approximately 1000 feet below the surface. Water is pumped from these aquifers to FPUA's Henry Gahn Water Treatment Plant and treated to remove contaminants.

Water obtained from the Surficial Aquifer is treated by conventional lime softening, aeration and sand filtration. Water obtained from the Floridan Aquifer is treated by reverse osmosis. After treatment the water is chlorinated for disinfection purposes and the two waters are blended before storage. Fluoride is also added to our water to aid in dental health.

## 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. FPUA 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:

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

## Quality First

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 2015 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, 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. Additionally, please note that we encourage community participation and invite you 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. Contact FPUA by calling (772)-466-1600.

## PARA LOS CLIENTES HISPANOS

Este es un reporte importante sobre la calidad de su agua. Si usted no cuenta con alguien que pueda traducirle este reporte, llame el Departamento de Servicio al Cliente de Fort Pierce Utilities Authority al (772) 466-1600 y con mucho gusto le asistiremos.

## 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.

### Inorganic Contaminants<sup>1</sup>

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
Antimony (ppb)	1/22/2014	N	1.3	0.55 - 1.3	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Barium (ppm)	1/22/2014	N	0.0038	0.0036 - 0.0038	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	1/2015 - 12/2015	N	0.85	0.62 - 1.1	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium (ppm)	1/22/2014	N	41.8	41.4 - 41.8	N/A	160	Salt water intrusion: leaching from soil

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

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) <sup>2</sup>	1/2015 - 12/2015	N	3.3	0.6 - 4.7	4	4.0	Water additive used to control microbes

### Stage 2 Disinfectant/Disinfection By-Product (D/DBP) Parameters

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
Total Trihalomethanes (TTHM; ppb) <sup>3</sup>	1/2015 - 12/2015	N	39.4	24.9 - 59.5	N/A	80	By-product of drinking water chlorination
Haloacetic Acids Five (HAA5; ppb) <sup>3</sup>	1/2015 - 12/2015	N	24.0	16.1 - 29.8	N/A	60	By-product of drinking water chlorination

### Lead and Copper (Tap Water)<sup>4</sup>

Contaminant and Unit of Measurement	Dates of Sampling (year)	AL Violation Y/N	90th % Results 1st Per	90th % Results 2nd Per	Num. Sites Exceeding AL	AL	Likely Source of Contamination
Copper (tap water; ppm)	2015	N	0.081	0.086	0	1.3	Corrosion of household plumbing systems
Lead (tap water; ppb)	2015	N	1.3	1.3	0	15	Corrosion of household plumbing systems

1 Results in the Level Detected column for Inorganic Contaminants are the highest average detected at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency, except for RAA.

2 For Chloramines the level detected is the highest Running Annual Average (RAA), computed quarterly, of the monthly averages of all samples collected.

3 For Haloacetic Acids (HAA5) and Total Trihalomethanes (TTHM), the level detected is the highest Locational Running Annual Average (LRAA), computed quarterly of all samples collected. Range of Results for Haloacetic Acids (HAA5) and Total Trihalomethanes (TTHM) is the range of individual sample results during 2015.

4 There were two sampling events for Lead and Copper in 2015: 1st Period was January-June, and the 2nd Period was July-December.

**EPA Unregulated Contaminant Monitoring Rule:** Fort Pierce Utilities Authority has been monitoring for unregulated contaminants (UCs) as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. If you would like more information on the EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Contaminant and Unit of Measurement	Dates of Sampling	Average Level Detected	Range of Results	Likely Source of Contamination
Perfluoroheptanoic acid (ppb)	10/2014 & 4/2015	0.0042	0.0038 - 0.0045	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluorohexanesulfonic acid (ppb)	10/2014 & 4/2015	0.013	0.012 - 0.0138	Manmade chemical; used in products to make them stain, grease, heat and water resistant
Perfluorooctanesulfonic acid (ppb)	10/2014 & 4/2015	0.020	0.019 - 0.021	Surfactant or emulsifier; used in fire-fighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient for insect bait traps; US manufacture of PFOS phased out in 2002; however, PFOS still generated incidentally
Perfluorooctanoic acid (ppb)	10/2014 & 4/2015	0.008	0.0070 - 0.0100	Prefluorinated aliphatic carboxylic acid; used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films
Chromium (ppb)	10/2014 & 4/2015	0.28	0.16 - 0.38	See Hexavalent Chromium for use and source information. Though the amount measured when analyzing for "total chromium" is the sum of chromium in all of its valence states, the MCL for EPA's current total chromium regulation was determined based upon the health effects of chromium-6
Molybdenum (ppb)	10/2014 & 4/2015	0.44	ND - 0.49	Naturally-occurring element found in ores and present in plants, animals, and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium (ppb)	10/2014 & 4/2015	404	358 - 428	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium (ppb)	10/2014 & 4/2015	1.02	0.94 - 1.1	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
1,4-Dioxane (p-Dioxane) (ppb)	10/2014 & 4/2015	0.033	ND - 0.036	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics, and shampoos
Hexavalent Chromium (ppb)	10/2014 & 4/2015	0.083	0.056 - 0.12	Naturally-occurring element; used in making steel and other alloys; Chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Chlorate (ppb)	10/2014 & 4/2015	560	511 - 592	Agricultural defoliant or desiccant; disinfection byproduct; and used in the production of chlorine dioxide

## Definitions

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

**Locational Running Annual Average (LRAA):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

**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.

**Maximum Residual Disinfectant Level (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 (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.

**NA:** Not applicable

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

**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.

**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.

**Running Annual Average (RAA):** The average of all samples collected from all sample locations within a calendar year.