

City of Port St. Lucie • Utility Systems Department

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2007 Water Quality Report





Dear Valued Customer,

Port St. Lucie Utility Systems is especially pleased to report that our drinking water continues to meet all Federal and State requirements!

This 2007 Annual Water Quality Report is intended to provide basic information about the quality of our water and the services we deliver to you every day. It includes a brief description of where our water comes from, the treatment processes we use, and it summarizes the results of water quality tests we routinely perform. Except where indicated otherwise, the report is based on the results of testing and monitoring done between January 1, 2007 and December 31, 2007.

We are required by the United States Environmental Protection Agency and the Florida Department of Environmental Protection to include certain information in this report that may contain terms and abbreviations that are unfamiliar to you. We cannot eliminate the use of those terms, but to help you better understand them, we have included a list of "Important Definitions" on page seven.

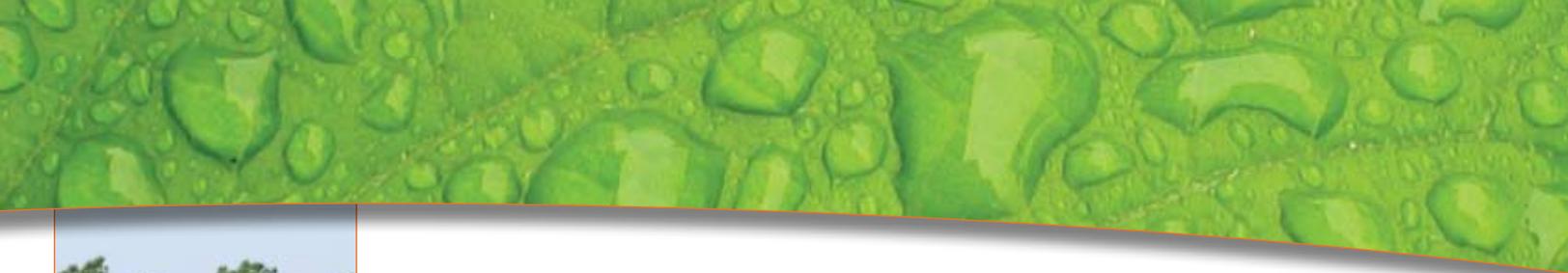
Should you have any questions about this report or your water and wastewater service, please contact us by calling 873-6400.

Jesus A. Merejo
Utility Systems Director



The mission of Port St. Lucie's Utility Systems Department is to:

- Lead the water and wastewater utility industry by relying on innovative operating and maintenance processes, effective management, and strategic planning;
- Protect our natural water resources and enhance the public's awareness of the need to conserve those resources;
- Provide exceptional customer support and service;
- Insure the health, safety, and welfare of this community by providing a safe and dependable supply of drinking water.



Where does our water come from?

Our water supply comes from two independent sources, the shallow aquifer and the deeper Floridan aquifer. Raw water from the shallow aquifer, at a depth of about 100 feet, is treated by our 8.0 million gallon per day lime softening facility. This process is a combination of pH adjustments with lime, coagulation with a polymer, multi-media filtration, and disinfection with chloramines. The deeper Floridan aquifer, at a depth of about 1350 feet, is treated by our 11.15 million gallon per day and our 6.0 million gallon per day reverse osmosis facilities. Both finished waters are blended, pH adjusted, and fluoride is added.

The source of drinking water (both tap water and bottled water) includes 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 human activity.

Contaminants that may be present in the source water include:

Microbiological 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

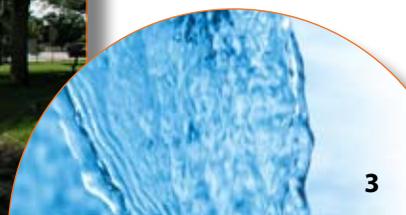
Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

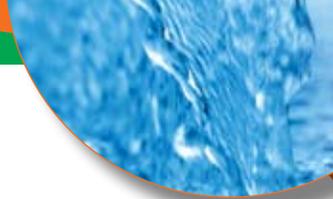
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Water Conservation: Did you know water used for drinking and cooking accounts for less than 2% of a typical residential customer's total water use, but landscape irrigation and other outdoor uses can account for up to 50% of their use?

One of the Utility's continuing responsibilities is to educate the public about the need to conserve our community's natural water resources, but the actual power to conserve water truly rests with our customers. Examples of easy water conservation tips include: repairing dripping and leaking faucets; mulching landscape beds to help retain moisture in the soil; and only running automatic dishwashers when they are fully loaded. More water conservation tips can be found by visiting the City's website at www.cityofpsl.com.





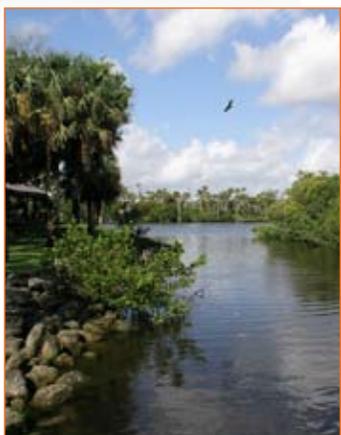
How safe is our water?

In order to ensure that tap water is safe to drink, 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.

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 (800-426-4791).

In addition, in 2006 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 8 potential sources of contamination identified for this system with low to high susceptibility levels. It should be noted that the potential sources of contamination identified by this assessment project are just that: potential sources. All of our facilities are regulated and operate under stringent construction and maintenance requirements designed to protect both human health and the environment. The purpose of conducting the source water assessments is to provide information that will lead to actions to reduce current risks or avoid future problems. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp.



Cross Connections

There are over 63,000 connections to our water distribution system. When connections are properly installed and maintained, the concerns are very minimal. However, unapproved and improper piping changes or connections can adversely affect not only the availability, but also the quality of the water. A cross connection may let polluted water or even chemicals mingle into the water supply system when not properly protected. This not only compromises the water quality but can also affect your health. So, what can you do? Do not make or allow improper connections at your homes. Even that unprotected garden hose lying in the puddle next to the driveway is a cross connection. The unprotected lawn sprinkler system after you have fertilized or sprayed is also a cross connection. When the cross connection is allowed to exist at your home it will affect you and your family first. If you'd like to learn more about helping to protect the quality of our water, call us for further information about ways you can help.

TEST RESULTS TABLE For Prineville Water Treatment Plant

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
Inorganic Contaminants							
Antimony (ppb)	3/05	N	0.084	N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	3/05	N	0.62	N/A	N/A	50	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	3/05	N	0.0035	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Selenium (ppb)	3/05	N	1.5	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits discharge from mines
Sodium (ppm)	3/05	N	100	N/A	N/A	160	Salt water intrusion; leaching from soil
Thallium (ppb)	3/05	N	0.69	N/A	0.5	2	Leaching from one-processing sites; drug factories
Nitrate (ppm)	11/07	N	ND	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants							
Carbon Tetrachloride (ppb)	2,4,9,11 2007	N	0.82	ND-0.82	0	3	Discharge from chemical plants and other industrial activities
Ethyl Benzene (ppb)	2,4,9,11 2007	N	0.09	ND-0.09	700	700	Discharge from petroleum refineries
Toluene (ppm)	2,4,9,11 2007	N	0.1	ND-0.1	1	1	Discharge from petroleum factories

** Results in the Level Detected column for radiological contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency. For contaminants such as toluene that were sampled more than once in 2007, the "level detected" will be the average of those results.

Lead and Copper Results							
These results are for the entire distribution system							
Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Violation Y/N	90th Percentile Result	# of sites Exceeding the AL	MCLG	AL (action level)	Likely Source of Contamination
Copper (tap water) (ppm)	6,7/2007	N	0.06	0	1.3	1.3	Corrosion of household plumbing (ppm) systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6,7/2007	N	10	1	0	15	Corrosion of household plumbing (ppm) systems; erosion of natural deposits; leaching from wood preservatives

TTHMs and Stage 1 Disinfectant/Disinfection By-Product (D/DBP) Contaminants							
These results are for the entire distribution system							
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)	1/12,2007	N	3.06	2.42-3.61	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	2,4,8,10 2007	N	15.5	2.0 - 29.0	NA	MCL = 60	By-product of drinking water disinfection
TTHM (Total trihalo-methanes) (ppb)	2,4,8,10 2007	N	19.4	1.0-55.0	NA	MCL = 80	By-product of drinking water disinfection

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

These results are for the entire distribution system

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)	11/2007	N	3.08	2.0-3.9	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	11/2007	N	14.2	7.9 - 46	NA	MCL = 60	By-product of drinking water disinfection
TTHM (Total trihalo-methanes) (ppb)	11/2007	N	32.0	4.42-47.2	NA	MCL = 80	By-product of drinking water disinfection

Microbiological Contaminants

These results are for the entire distribution system

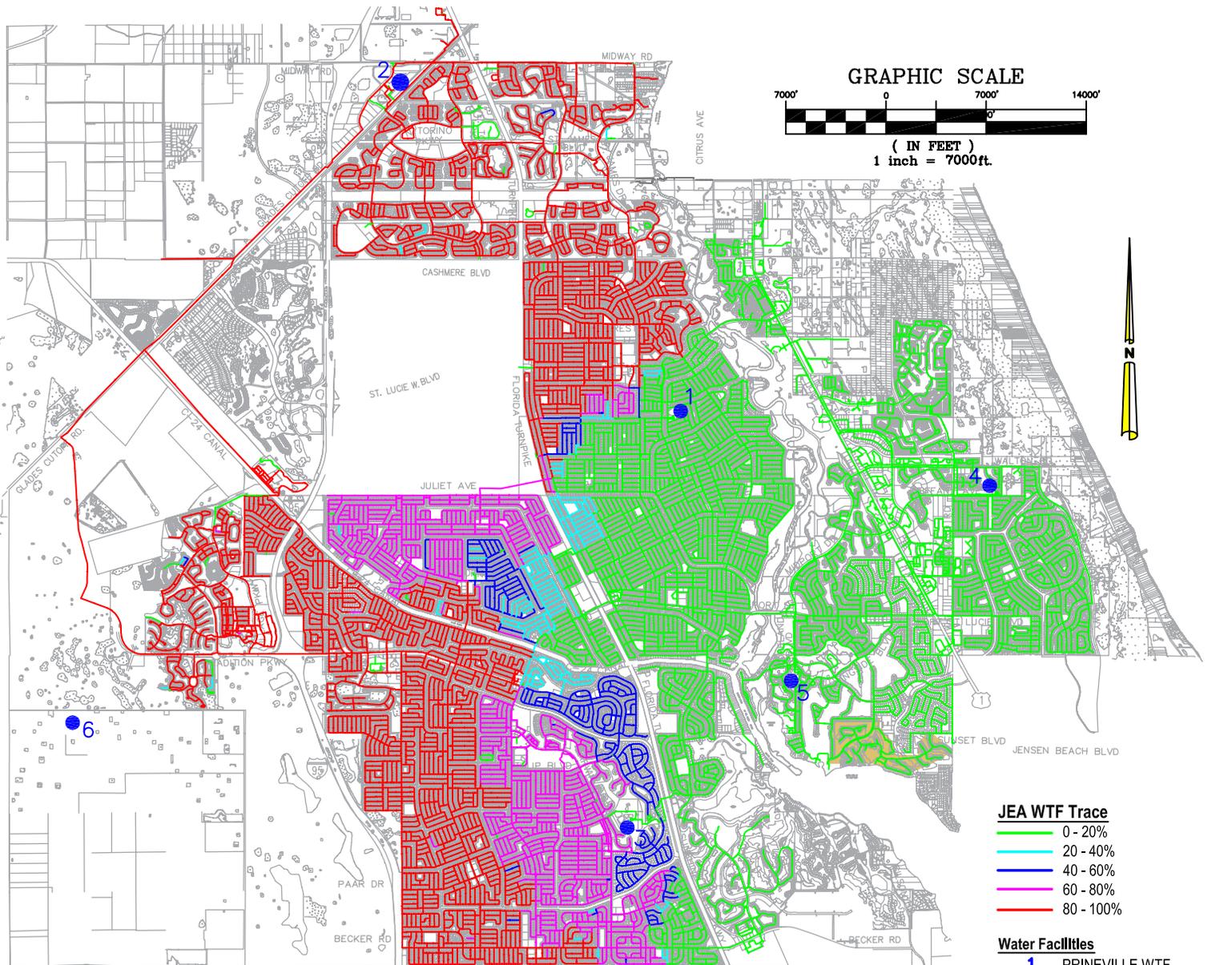
Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage/Number	MCLG	MCL	Likely Source of Contamination
Chloramines (ppm)	1-12, 2007	N	1.6%	0	5%	Naturally present in the environment

TEST RESULTS TABLE For James E. Anderson Water Treatment Plant

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
Inorganic Contaminants							
Antimony (ppb)	12/05	N	0.25	N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	12/05	N	0.59	N/A	N/A	50	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	12/05	N	0.0024	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	12/05	N	0.89	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Selenium (ppb)	12/05	N	1	N/A	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits discharge from mines
Sodium (ppm)	12/05	N	82	N/A	N/A	160	Salt water intrusion; leaching from soil
Nickel (ppb)	12/05	N	0.26	N/A	N/A	100	Polluting from mining and refining operations; natural occurrence in soil
Nitrate (ppm)	11/07	N	0.497	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radiological Contaminants							
Radium 226+228(pCi/L)	3,9,12/05	N	0.6	0.4 - 0.6	0	5	Erosion of natural deposits

** Results in the Level Detected column for radiological contaminants, inorganic contaminants, synthetic organic contaminants including pesticides and herbicides, and volatile organic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency. For contaminants such as toluene that were sampled more than once in 2007, the "level detected" will be the average of those results.

City of Port St. Lucie Utilities System Water Distribution Map



JEA WTF Trace

- 0 - 20%
- 20 - 40%
- 40 - 60%
- 60 - 80%
- 80 - 100%

Water Facilities

- 1 PRINEVILLE WTF
- 2 JEA WTF
- 3 WESTPORT REPUMP
- 4 MIDPORT REPUMP
- 5 SOUTHPORT REPUMP
- 6 RANGELINE REPUMP

Reclaimed Water

- EXISTING SERVICE AREA

IMPORTANT DEFINITIONS

AL - Action Level: The concentration of a contaminant which, if exceeded, triggers requirements that a water system must follow.

IDSE - Initial Distribution System Evaluation: An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a 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.

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: 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.

MRDLG - Maximum Residual Disinfectant Level Goal: 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.

PPB - Parts Per Billion: Approximately one part by weight of analyte to 1 billion parts by weight of the water sample.

PPM - Parts Per Million: Approximately one part by weight of analyte to 1 million parts by weight of the water sample.

ND - Not Detected: The concentration of the parameter is too low to be detected by EPA approved laboratory method.

pCi/L (Pico Curies per Liter): Measure of the radioactivity in water.

NA: Not applicable, does not apply.

City of Port St. Lucie Leadership

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Jack Kelly

Vice Mayor District 4

Linda Bartz

Councilwoman District 1

Michelle Berger

Councilwoman District 2

Christopher Cooper

Councilman District 3

Donald B. Cooper

City Manager

Jesus A. Merejo

Utility Systems Director



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