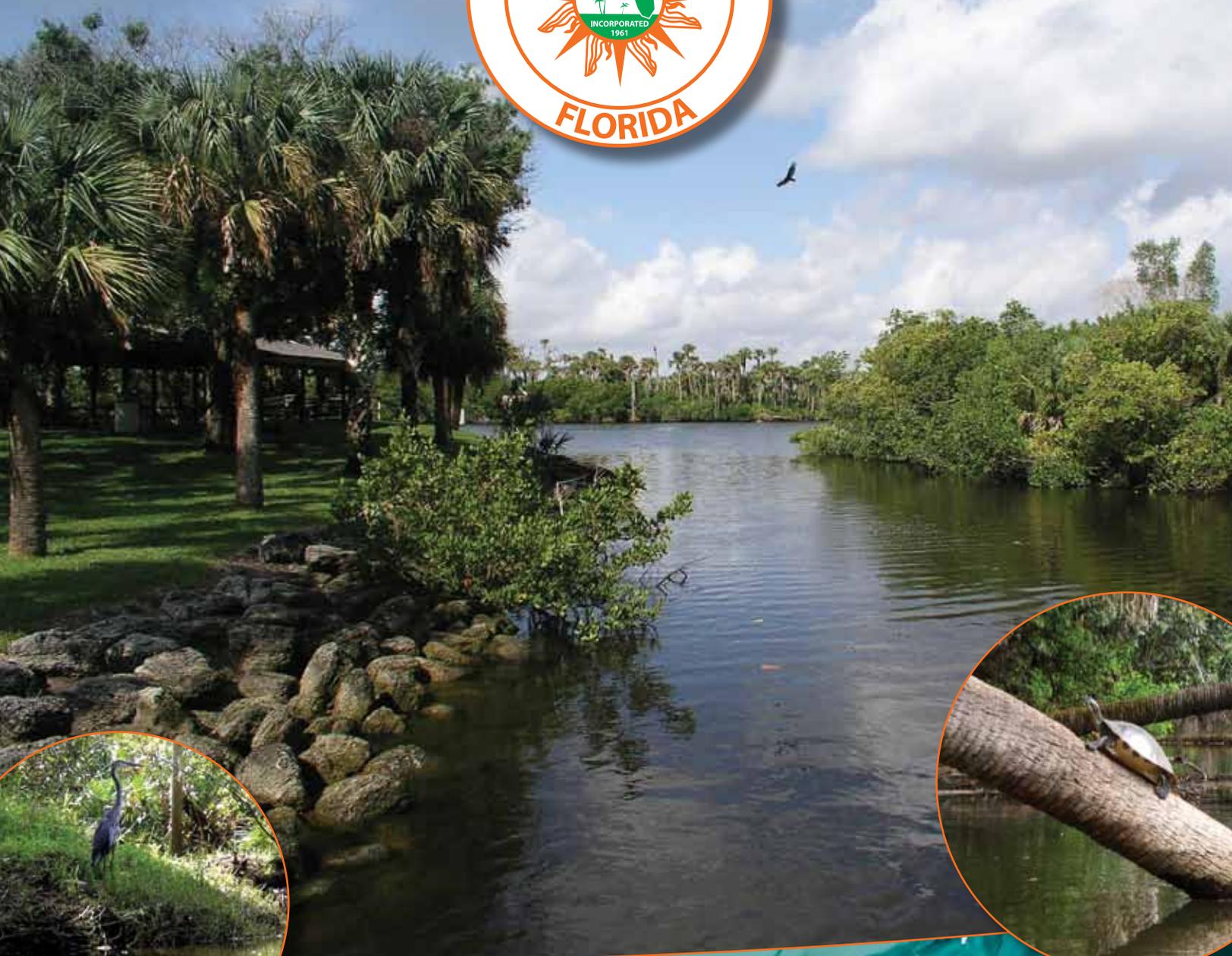


City of Port St. Lucie • Utility Systems Department

2008 Water Quality Report





Dear Valued Customer,

Water utilities throughout the country are required by the United States Environmental Protection Agency (EPA) to provide their customers annual written reports about the quality of water and services they deliver to their customers, thus we are providing you this copy of our 2008 Water Quality Report.

Before going further, allow me to say that I am pleased to again be able to report to you that the drinking water provided by the Port St. Lucie Utility Systems Department continues to meet all Federal and State requirements!

This year's report summarizes the results of water quality tests we routinely perform and except where indicated otherwise; the report covers the results of testing and monitoring done between January 1, 2008 and December 31, 2008. It also includes a brief description of where Port St. Lucie's water comes from, the treatment processes we use, and simple water conservation tips.

We are required to include certain facts and data 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 7.

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

Jesus A. Merejo
Utility Systems Director



Our Mission:

The employees of Port St. Lucie's Utility take great pride in providing clean, safe, and great-tasting water to you every time you turn on the faucet. We are also dedicated to:

- Leading the water and wastewater utility industry by relying on innovative operating and maintenance processes, effective management, and strategic planning
- Protecting our natural water resources and enhancing the public's awareness of the need to conserve those resources
- Providing exceptional customer support and service
- Insuring the health, safety and welfare of this community by providing a safe and dependable supply of drinking water



Where does our water come from and how is it treated?

Our water supply comes from two independent sources, the shallow aquifer and the deeper Floridan aquifer. Raw water from the shallow aquifer, which is about 100 feet deep, 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, and multi-media filtration. The deeper Floridan aquifer, which is about 1350 feet deep, is treated by our 11.15 million gallon per day and our 22.5 million gallon per day reverse osmosis facilities. Both finished waters are blended, disinfected with chlorine, pH adjusted, and fluoride is added.

The sources 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 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.

Water Conservation:

One of the Utility's continuing responsibilities is to educate the public about the need to conserve our community's natural water resources.

- Did you know that thousands of gallons of water are wasted by Port St. Lucie's water customers each day?
 - A single leaky faucet can waste as much as 100 gallons of water per day
 - Water used for landscape irrigation and other outdoor uses can account for up to 50% of a customer's water use
 - Leaks from toilets, faucets, or irrigation systems not only result in increases to your water bills, but they can also cause water damage to your home

The power to conserve water rests with you. Examples of easy water conservation tips include:

- Repair or replace dripping and leaking faucets and toilets
- Cover landscape beds with mulch to help retain moisture in the soil
- Only run automatic dishwashers when they are fully loaded
- Don't let water run while brushing teeth, washing your face, or shaving
- Don't use recreational water toys that require a constant stream of water
- Use a broom or blower instead of a water hose to clean leaves and debris from sidewalks and driveways

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.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and younger children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Port St. Lucie 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 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 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

A "cross-connection" is an unprotected connection between a public water supply and any other system of unknown or unsafe quality, such as a well, swimming pool, or sewer that is capable of contaminating the public water supply. There are over 64,000 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 would like to learn more about helping to protect the quality of our water, call us at 873-6400 for further information about ways you can help prevent cross connections.



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							
Arsenic (ppb)	3/08	N	0.51	N/A	N/A	50	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Fluoride (ppm)	3/08	N	0.71	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Sodium (ppm)	3/08	N	85	N/A	N/A	160	Salt water intrusion; leaching from soil
Volatile Organic Contaminants							
Xylenes (ppm)	3,6,9,10 2008	N	0.00056	ND-0.00095	10	10	Discharge from chemical plants and other industrial activities

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							
Fluoride (ppm)	3/08	N	0.9	N/A	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Sodium (ppm)	3/08	N	100	N/A	N/A	160	Salt water intrusion; leaching from soil
Synthetic Organic Contaminants							
Di(2-ethylhexyl) phthalate (ppb)	3,8/2008	N	0.56	ND - 0.63	0	6	Discharge from rubber and chemical factories
Radiological Contaminants							
Radium 226+228(pCi/L)	3,6,9,11/2008	N	1.46	0.30-1.46	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 Xylenes that were sampled more than once in 2008, 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)	8,9/2008	N	0.071	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	8,9/2008	N	2.4	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Stage 1 and Stage 2 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)	1-12/2008	N	3.24	2.65-3.7	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	1,2,4,5,7,8,10 2008	N	19.5	1.0-37.0	NA	MCL = 60	By-product of drinking water disinfection
TTHM (Total trihalo-methanes) (ppb)	1,2,4,5,7,8,10 2008	N	31.6	2.0-65.0	NA	MCL = 80	By-product of drinking water disinfection

Microbiological Contaminants

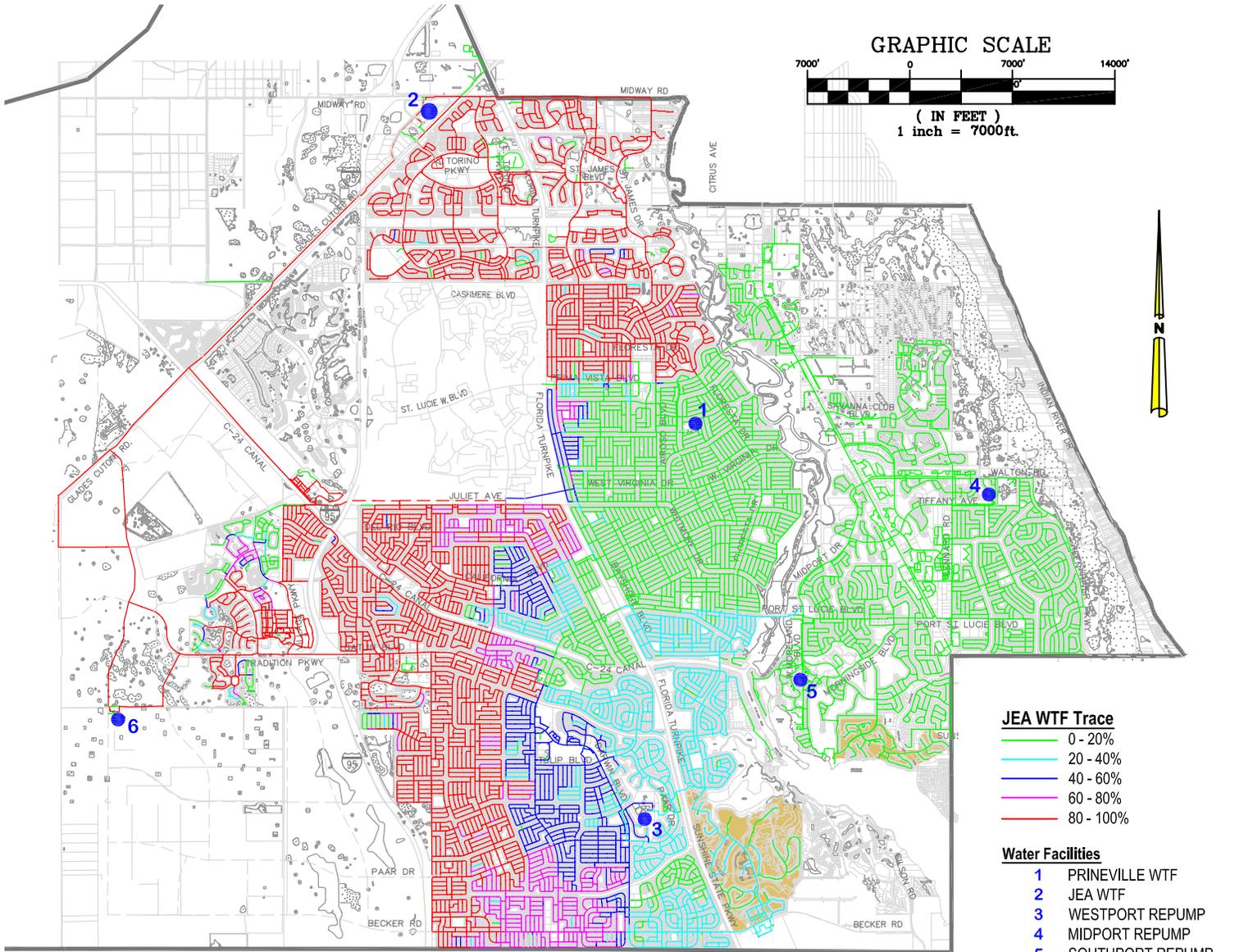
These results are for the entire distribution system

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Highest Monthly Percentage/Number	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	1-12, 2008	N	0.8%	0	5%	Naturally present in the environment

** 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 Xylenes that were sampled more than once in 2008, 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 RANGLINE REPUMP

- Reclaimed Water**
- EXISTING SERVICE AREA

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.

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

Initial Distribution System Evaluation (IDSE): 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.

Maximum residual disinfectant level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal or MRDLG: The level of 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.

“ND” means not detected and indicates that the substance was not found by laboratory analysis.

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.

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.

Picocurie per liter (pCi/l) – measure of the radioactivity in water.



City of Port St. Lucie
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