City of Port St. Lucie
Utility Systems Department

2012 Water Quality Report

A MESSAGE FROM THE DIRECTOR

Our mission is to provide clean, safe, great tasting water, and dependable service every day of the year. The Federal and State standards we must follow for water quality testing are strictly enforced and I am pleased to report that we continue to meet all water quality standards. I am also very happy to report that our water was named "Best Tasting" at the 2013 Florida Section of the American Water Works Association Region VIII drinking water contest!

This report includes information about the tests performed to ensure the water we supply protects the public's health and safety. It is published in compliance with Federal legislation commonly called the 1996 Safe Drinking Water Act Amendments. Except where otherwise indicated, it reflects results of the testing and monitoring we conducted between January 1, 2012 and December 31, 2012. A list of Important Definitions appears on page 6 to help you interpret and understand certain terms and abbreviations we are required to use in the report.

Utilities across the nation are challenged with identifying sufficient water resources to meet the demands of their current and future customers. Meeting Port St. Lucie's current customer demands is ensured by our existing 20-year Water Use Permit issued by the South Florida Water Management District. The permit allows us to provide up to a combined total of 51.513 million gallons per day (MGD) from the shallow aquifer and the much deeper Floridan Aquifer. However, population projections indicate we will need to be able to provide as much as 70.29 MGD when our utility service area reaches its projected build out in 2060. Reliance on the shallow and Floridan aquifers for more than the currently permitted 51.513 MGD of water is questionable, thus alternative resources will be necessary to ensure the Utility can provide 70.29 MGD of water to customers in the future.

In preparation for meeting the projected 70.29 MGD demands, the City has purchased an approximately 3,100-acre tract of land west of Range Line Road known as McCarty Ranch. It is intended that a Cyclic Water Treatment, Storage and Recovery System using surface water (lakes and reservoirs) will be constructed over the course of the next several years so that it is in full service to meet the community's growing water demands well in advance of 2060. The property will also provide opportunities for environmental preservation and wildlife conservation, in addition to potential passive recreation uses.

There are many unknowns about the future, but steps being taken now, such as acquiring the McCarty Ranch property and planning for the construction of a Cyclic Water Treatment, Storage and Recovery System, will ensure this community has an adequate raw water supply for generations to come. In addition, it will help sustain the community's natural resources, its economy, and the quality of life residents enjoy. It will also help us remain as our service slogan says, "Connected To The Community!"

If you have questions about this report or about any of our services, please feel free to contact us by calling our switchboard that is operated by highly trained Utility employees who stand ready to assist you 24 hours a day. You can reach us at 772-873-6400 day or night.

Jesus A. Merejo
Utility Systems Director

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, 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, multimedia filtration, and disinfection with chloramines. 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, 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 from human activity.

HOW SAFE IS OUR WATER?

The City of Port St. Lucie's Utility Systems Department routinely monitors 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 our monitoring for the period of January 1 to December 31, 2012. Data obtained before January 1, 2012, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

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.

In addition, 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. 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. Immunocompromised 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 at 1-800-426-4791.

In 2012 the Florida 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 two potential sources of contamination identified for this system with a low susceptibility level. It should be noted that the potential sources of contamination identified by this assessment project are just that: potential sources. All of Port St. Lucie's 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.

CONTAMINANTS THAT MAY BE PRESENT IN THE 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.

CROSS CONNECTION CONTROL: PROTECTING OUR WATER

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. Also, residents in neighborhoods utilizing reclaimed water for irrigation must take precautions to prevent cross connections. Reclaimed water is not suitable for potable use and must not be connected to household plumbing. 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 at 772-873-6400 for further information about ways you can help.

WATER CONSERVATION TIPS

The power to conserve water continues to rest with each one of us. Conserving water not only helps you save money, but it also helps preserve our water resources for the use of generations to come.

Free and/or low cost water conservation tips include:

- Turn off the water while shaving, brushing your teeth, or washing your hands.
- Don't use running water to thaw food.
- Upgrade plumbing fixtures and toilets manufactured before 1994 with new water-efficient models. Look for the "WaterSense" label and buy products bearing that label that meet the Environmental Protection Agency's criteria for water efficiency and performance.
- Repair or replace dripping and leaking faucets. Also check outdoor faucets, hose bibs, and sprinklers. A slow drip can waste 20 or more gallons of water per day.
- Get the most for your money and only run your automatic dishwasher when it's full. Dishwashers use about 15 gallons of water during every cycle, regardless of how many dishes and glasses are loaded into it.
- If you have water level options on your washing machine, use the smallest amount of water necessary for each load. If your machine does not have water level options, only wash full loads of laundry.
- Taller grass in a lawn helps shade the roots and hold moisture in the soil better than grass that is clipped short.
- Landscape with water-thrifty ornamental grasses, plants, and trees. Try to group plants together according to similar water needs and mulch landscape beds to help retain moisture.
- Always follow the Water Use Restrictions imposed by South Florida Water Management District for landscape irrigation days and times.

Additional water conservation tips and information about the importance of water conservation can be found at the following sites: www.cityofpsl.com, http://my.sfwmd.gov, or http://www.epa.gov/watersense.

ENVIRONMENTAL PROTECTION: PREVENTING URBAN STORMWATER RUNOFF POLLUTION

- Use fertilizer sparingly and keep it off driveways, sidewalks, and roads.
- Never dump anything down the storm drains.
- Compost your yard waste.
- Avoid pesticides; learn about Integrated Pest Management (IPM)
- Pick up after your pet.

For more information of how you can minimize Urban Stormwater Runoff pollution, go to the following link. http://www.cityofpsl.com/npdes/combating-pollution.html.

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							
Fluoride (ppm)	1/2011	N	0.74	N/A	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Nitrate (ppm)	2/2012	N	0.05	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	1/2011	N	86.2	N/A	N/A	160	Salt water intrusion; leaching from soil
RADIOLOGICAL CONTAMINANTS							
Radium 226 (pCi/L)	4/2008	N	0.3	N/A	0	5	Erosion of natural deposits

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)	6/2012	N	0.085	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	6/2012	N	3.4	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

Stage 1 Disinfectants and Disinfection By-Products
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)	1-12/2012	N	3.1	2.9 - 3.3	MRDLG = 4	MRDL = 4	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	1/2012	N	13.8	1.4 - 18.8	N/A	MCL = 60	By-product of drinking water disinfection
TTHM (Total trihalo-methanes) (ppb)	1/2012	N	25.4	2.6 - 35.6	N/A	MCL = 80	By-product of drinking water disinfection

Stage 2 Disinfectants and Disinfection By-Products
These results are for the entire distribution system

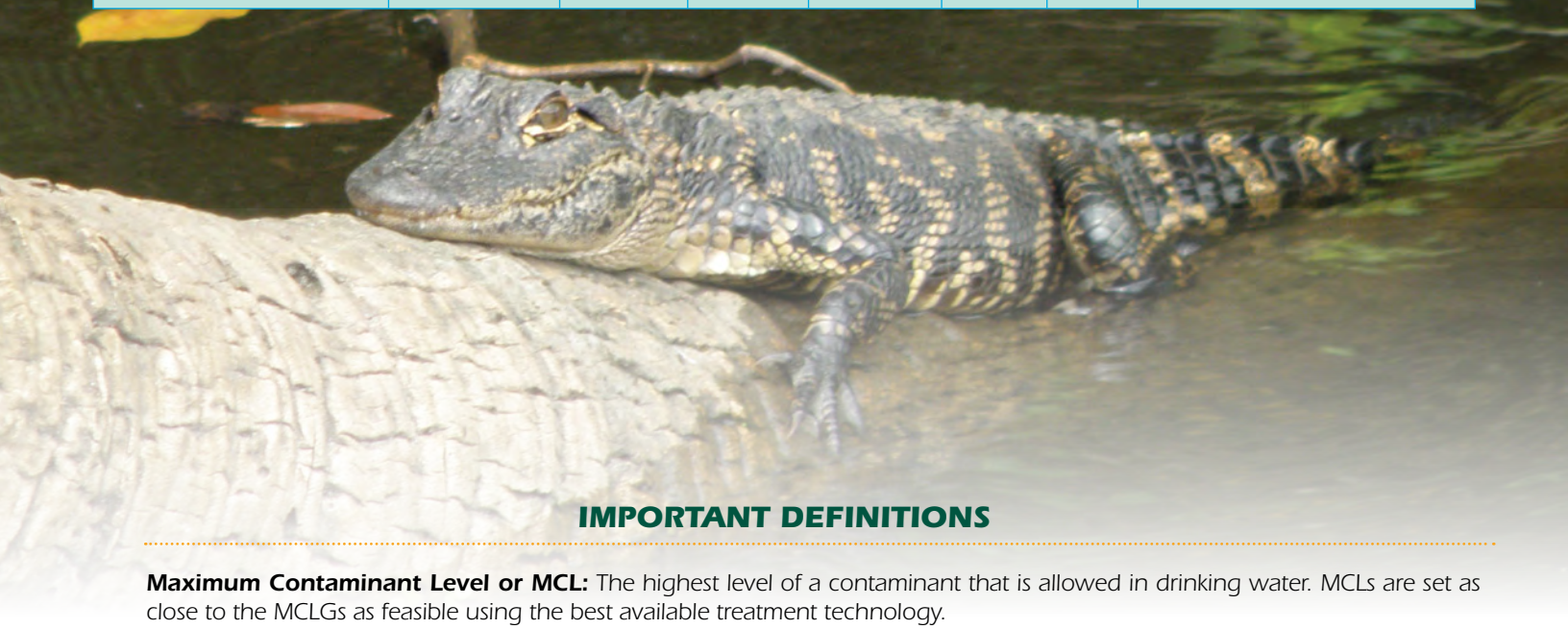
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation Y/N	Level Detected **	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
TTHM (Total trihalo-methanes) (ppb)	5, 8, 11 2012	*	*	1.7 - 56.3	N/A	MCL = 80	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	5, 8, 11 2012	*	*	1.7 - 31.6	N/A	MCL = 60	By-product of drinking water disinfection

* These columns require four quarters of data. Only three quarters were collected since the Stage 2 rule was only recently implemented.

** 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 HAA5s that were sampled more than once in 2012, the "level detected" will be the average of those results.

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)	1/2011	N	0.84	N/A	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Nitrate (ppm)	2/2012	N	0.05	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	1/2011	N	85.4	N/A	N/A	160	Salt water intrusion; leaching from soil



IMPORTANT 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.

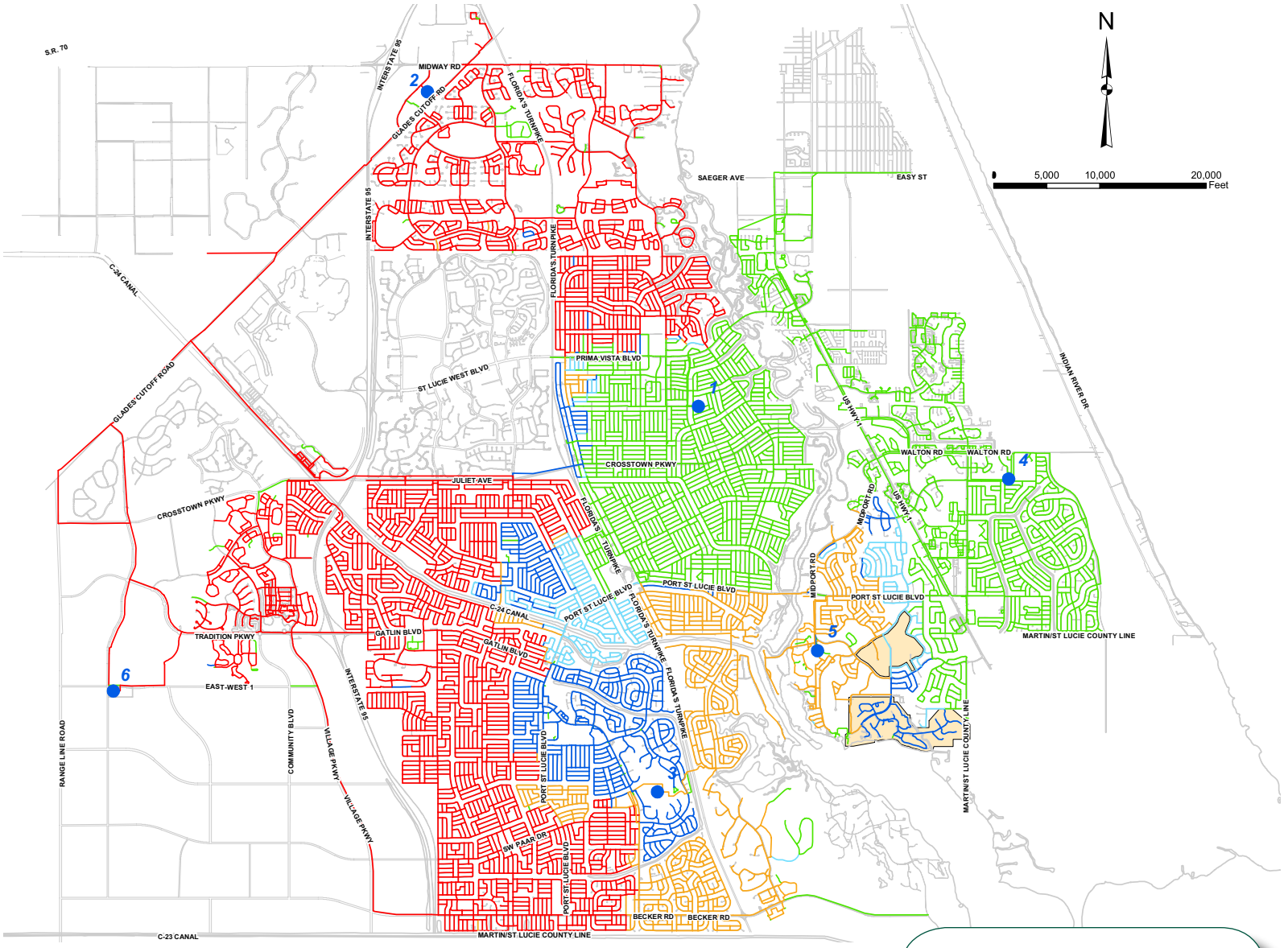
Maximum residual disinfectant level goal or MRDLG: The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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
Utilities System Water Distribution Map



LEGEND

Water Source

- 1 - Prineville WTP
- 2 - JEA WTP
- 3 - Westport Repump
- 4 - Midport Repump
- 5 - Southport Repump
- 6 - Rangeline Repump

% JEA Water

- 0 - 20
- 20 - 40
- 40 - 60
- 60 - 80
- 80 - 100
- Existing Reclaimed Water Service Area

Unbeatable Value

Port St. Lucie's Utility Systems Department supplies drinking water at a tremendous value. For just 67¢ per year, customers can get the daily recommended eight glasses (64 ounces) of fluid by drinking 2,920 eight-ounce glasses of tap water provided directly by Port St. Lucie's Utility Systems Department. Purchasing that same volume in bottled water from a retail store or vending machine could cost hundreds of dollars per year. In today's economy, drinking tap water instead of bottled water is very cost effective!

City of Port St. Lucie
Utility Systems Department
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Place
Stamp
Here

CITY OF PORT ST. LUCIE LEADERSHIP

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Councilwoman District 2

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Councilman District 4

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