

The City of Port St. Lucie Utility Systems Department's annual Water Quality Report is designed to inform you about the quality of water we deliver to you every day. This report explains our water quality in relation to federal and state requirements. We are committed to supply you with a safe and dependable supply of drinking water.

The City of Port St. Lucie is pleased to report that our drinking water meets all federal and state requirements. We take the responsibility of providing our customers with safe, high-quality drinking water very seriously. In order to make sure that The City of Port St. Lucie's water supply meets these high standards, the Utility's laboratory technicians and plant operators perform thousands of tests each year. A summary report of our water quality for the year 2004 follows.

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 adjustment with lime, coagulation with a polymer, multi-media filtration, and disinfection with chloramines.

The deeper Floridan Aquifer, which is about 1,350 feet deep is treated by our 11.15 million gallon per day reverse osmosis facility. This facility uses pH adjustment and reverse osmosis to remove the impurities. Both finished waters are blended, pH adjusted, and fluoride is added.

At the City of Port St. Lucie, we work around the clock to provide high quality water for every one of our 110,000 plus consumers, who average using about 9.85million gallons per day.

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.

In the table below you will find terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

**Maximum residual disinfectant level or MDRL-** 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 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.

**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.

**MCL - Maximum Contaminant Level -** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

**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.

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

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

**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.

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

NA - Not available, does not apply.

\*\* 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 of any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

TEST RESULTS TABLE							
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
<b>Inorganic Contaminants</b>							
Cyanide (ppb)	12/17/2002	N	2.4	NA	200	200	steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	11/6/2002	N	.76	NA	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium (ppm)	11/6/2002	N	62	NA	NA	160	Salt water intrusion, leaching from soil

**Note:**The result in the Level Detected column for TTHMs and HAA5s is the highest of the four quarterly running annual averages of results from all sampling sites. The quarterly running annual averages were calculated during the first, second, third, and fourth quarters of 2004.

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	
<b>Total Trihalomethanes (TTHMs)</b>								
TTHM [Total trihalomethanes] (ppb)	1,5,7,10/2004	N	39	25-53	NA	80	By-product of drinking water chlorination	
<b>Haloacetic Acids (HAA5)</b>								
Haloacetic Acids (five) (HAA5) (ppb)	1,5,7,10/2004	N	15	8-24	NA	60	By-product of drinking water chlorination	
<b>Chloramines Residuals</b>								
Chloramine (ppm)	Continuous	MRDL Violation Y/N	3.45	3.14-3.88	MRDL	MRDLG	By-product of drinking water chlorination	
		N			4.0	4.0		
<b>Lead and Copper (Tap Water)</b>								
Copper (tap water) (ppm)	7/2004	AL Violation Y/N	number exceeding AL	90th%	< .01-	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservative
		N	0	.071 .086				
Lead (tap water) (ppb)	7/2004	N	2	9.6	< 1-300	0	15	Corrosion of household plumbing systems; erosion of natural deposits

The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.



**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.

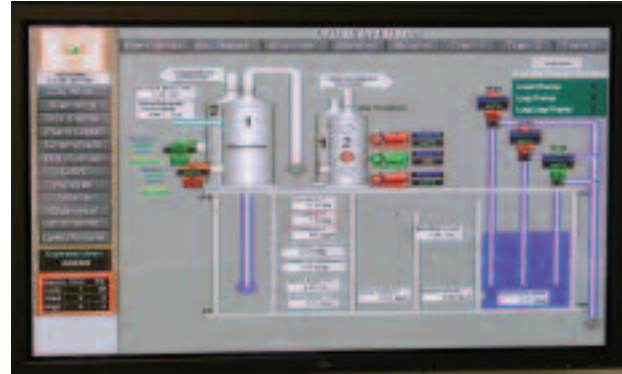
In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of con-



taminants 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, the Florida Department of Environmental Protection has implemented a Source Water Assessment and Protection Program in order to assess and report potential source water contaminants and threats to public water systems. Potential sources of contamination are those facilities, sites, and activities that have the capacity to affect the underlying ground water or nearby surface waters used for public drinking water. A source water assessment that was conducted on our system in 2004 found that some of our wells are susceptible to contamination from petroleum storage tanks. For additional information, visit [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp).



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 1-800-426-4791.

We are continually working to make sure that there will be an abundant supply of water for future needs. Over six hundred new connections are being made per month. In order to meet future needs, the reverse osmosis water treatment facility was upgraded from 4.0 million gallons per day to 11.15 million gallons per day.

As water users, it will take all of our collective participation to protect our precious natural water resources. We must conserve whenever possible.

Port St. Lucie Utility Systems Director, Jesus Merejo, said, "The unprecedented growth of this community has placed enormous demands for service on this Utility; however, we clearly understand our obligation to provide exceptional customer support and service. I want each of our customers to know that we are dedicated to meeting the present and future water and wastewater needs of our community in a timely and cost-effective manner. I also want customers to be assured that foremost to our strategic planning efforts is our continuing need to protect our environment and natural water resources."

If you have any questions about this report or concerning your water utility, please contact us at 873-6400. We want our valued customers to be informed about their water utility.

# City of Port St. Lucie Utility Systems Department

WATER QUALITY REPORT 2004

