Drinking Water Quality Report 2003

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Sarasota County

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You, as a customer, are a stakeholder in a multi-million dollar water system that delivers an uninterrupted flow of water to your faucet every day. This report is designed to inform you about the quality of water you purchase and use on a daily basis. This report will also help make you aware of the need to protect, conserve, and preserve our precious water resources.

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Sarasota County Environmental Services

This report, promulgated to meet the Clean Water Act, as adopted by the State of Florida, Department of Environmental Protection under Florida Administrative Code 62-550.824, shows that Environmental Services consistently meets or exceeds all Federal and State standards for drinking water. The following is a summary of the quality of water provided to customers during 2003. It is a record reflecting the hard work of your county employees to bring you high-quality, dependable drinking water.

Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

Water Sources

Sarasota County utilizes several water sources for its drinking water.

Sources in Sarasota County include seven wells along University Parkway, seven at the Jacaranda site, and fourteen wells on the T. Mabry Carlton, Jr. Reserve where our treatment plant is located. These public supply wells, ranging from 400 to 700 feet, draw water from the Intermediate and Floridan Aquifers.

The water we produce at the Carlton facility undergoes state-of-the-art Electrodialysis Reversal, a process using electricity to remove minerals from water. A disinfection and filtration process provides additional treatment and provides about 30 percent of our daily supply. In May 2002, we began purchasing treated water from the Peace River/Manasota Regional Water Supply Authority which uses the Peace River as its water source. This water is blended with water from the Carlton facility and provides approximately 25 percent of our daily supply. The Jacaranda reverse osmosis water facility produces water on a limited, daily basis. Facility currently being expanded to 2.0 million gallons per day (mgd) and should be operational by December 2004. This facility and University Parkway account for about five percent of our daily supply.

About 40 percent of our water is purchased from Manatee County, which utilizes the Manatee River and 1,200-foot wells drawing from the Floridan Aquifer. This water is fully treated by various physical and chemical processes including filtration and disinfection.

All of our water sources are permitted by the Southwest Florida Water Management District.

Do We Have Enough Water for the Future?

Communities throughout Florida are struggling to provide drinking water to their growing populations. In Sarasota County, however, we have invested in ample drinking water supplies to accommodate the next 10 years of growth. Meantime, we have identified sources to provide for our community through 2030, and we are preparing to make those investments on behalf of our utility customers.

Because of the substantial cost of providing water, developing future supplies and investing the money required must be carefully timed to precede, but not vastly outpace, future needs. Improvements in technology, better understanding of natural systems, and changing population patterns require constant vigilance and adjustments to forecast demands and planned supplies.

The County's population increased at about 1.7 percent per year over the past decade. Our 30-year plan for our drinking water supply is based on that rate and the current average demand. If either factor changes, our plans will adjust accordingly.

Sarasota County utility customers currently use an average of 18 million gallons per day (mgd), and the drinking water supply is nearly 25 mgd.

Drinking Water Standards

The raw water obtained from our sources contains various substances or contaminants, some of which must be removed by a treatment process to produce water that meets federal safe drinking water standards. Naturally occurring drinking water sources are never 100 percent "pure." Even rainwater contains dissolved minerals or other chemicals.

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.

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).

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 storm water 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 storm water 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 storm water 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, the Environmental Protection Agency (EPA) prescribes regulations that 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 that must provide the same protection for public health.

Sarasota County Environmental Services routinely monitors for contaminants in your drinking water according to federal and state laws. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1, 2003, to December 31, 2003. As authorized and approved by EPA, the state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

Sarasota County continues to provide an adequate and reliable supply of water daily while balancing the needs of our environment. We believe that by emphasizing nature's needs, people will ultimately benefit as well.

Ensuring Quality

- Daily water samplings throughout the distribution system, including more than 120 samples, are analyzed monthly for bacteria content.
- Specialized samples from the treatment facilities and the distribution system are analyzed daily for treatment process control, surpassing even regulatory requirements.

Sarasota County Water Quality Summary

Your drinking water meets or exceeds all established standards. We are providing information on substances which, though detected, were far below the Maximum Contaminant Level (MCL). Samples were taken in 2003.

Contaminant and Unit of Measurement	MCLG	MCL	Highest Monthly Percentage/ Number		Likely Source of Contamination	Date of Sampling	MCL Violation
Microbiological							
Total Coliform Bacteria	0	<5%	0.42%		Naturally present in the environment	01/03-12/03	No
			Highest Level Detected	**Range of Results**			
Radiological							
Alpha Emitters (pCi/l)	0	15	2.3	0-2.3	Erosion of natural deposits	2003	No
Radium 226 0	5	1.5	0.2-1.5		Erosion of natural deposits	2003	No
			Highest Level Detected	**Range of Results**			
Inorganic							
Barium (ppm)	2	2	0.013	ND -0.013	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits	01/2003	No
Fluoride (ppm)	4	4	1	0.23-1.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	01/2003	No
Lead (point of entry) (ppb)	0	15	0.014	ND-0.014	Corrosion of household plumbing; erosion of natural deposits	07/2003	No
		AL	**90th Percentile Result**	**No.of Sampling Sites Exceeding the AL**			**AL Violation**
Nitrate (as Nitrogen) (ppm)	10	10	0.55	ND-0.55	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	01/2003	No
Nitrite (ppm)	1	1	0.11	ND-0.11	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	01/2003	No
Sodium (ppm)	N/A	160	54	7.4-54	Salt water intrusion, leaching from soil	01/2003	No
Lead and Copper (Tap Water)							
Copper(tap water) (ppm)	1.3	1.3	ND	0	Corrosion of household plumbing system; erosion of natural deposits; leaching from wood preservatives	08/2002	No
Lead (tap water) (ppb)	0	15	0.0058	0	Corrosion of household plumbing system; erosion of natural deposits	08/2002	No
Stage 1 Disinfection By-Products (D/DBP)	**MCLG**	**MCL**	**Average Results**	**Range of Results**			**MCL Violation**
Chloramines (mg/L)	4[E]	4[F]	2.34[C]	0.10-4.68[D]	Water additive used to control microbes	Daily 2003	No
Haloacetic Acids (Five)(HAA5) ppb	N/A	60	14.5[C]	ND-25.7[D]	By-product of drinking water chloramination	Quarterly 2003	No
Total Trihalomethanes (ppb)	0	80/100	24.6[C]	11.2-53.0[D]	By-product of drinking water chloramination	Quarterly 2003	No
Unregulated Organic Contaminants							
Bromodichloromethane (ppb)	NR	NR	8.2	4.4-19.0	By-product of drinking water chloramination	Quarterly 2003	No
Bromoform (ppb)	NR	NR	0.25	ND-2.0	By-product of drinking water chloramination	Quarterly 2003	No
Chloroform (ppb)	NR	NR	12	1.0-19.0	By-product of drinking water chloramination	Quarterly 2003	No
Dibromochloromethane (ppb)	NR	NR	3.31	ND-13.0	By-product of drinking water chloramination	Quarterly 2003	No

[C] these values represent an annual average
[D] these values represent values at individual sample sites
[E] this value is a MRDLG (see definition below)
[F] this value is a MRDL (see definition below)

Maximum residual disinfectant level goal or 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.
Maximum residual disinfectant level or 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.
Not Detected or ND: means not detected and indicates the substance was not found by laboratory analysis.

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

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.

N/A – Not Applicable

ND – Not Detected - Indicates that the substance was not found by laboratory analysis.

NR – Not Regulated

NTU – Nephelometric Turbidity Unit – is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/l – Picocuries per liter – is a measure of the radioactivity in water.

ppb - Parts per billion or micrograms per liter – one part by weight of analyte to one billion parts by weight of the water sample. One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

ppm or mg/l - Parts per million (ppm) or milligrams per liter (mg/l) – One part by weight of analyte to one million parts by weight of the water sample. One part per million corresponds to one minute in two years or a single penny in $10,000.

TT – Treatment Technique – A required process intended to reduce the level of contaminant in drinking water.

Sarasota County Environmental Services works around the clock to provide top-quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

What does this mean?

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all federal and state requirements. We have learned through our monitoring and testing that some compounds have been detected; however, the EPA has determined that your water meets all standards at these levels.

MCLs are set at very stringent levels. To exhibit the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Concerns?

Immuno-compromised persons - 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 for infections. These people should seek advice about drinking water from their health care providers. The EPA's and Center for Disease Control's 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).

Questions?

If you have any questions about this report or your water, please contact us at 861-6790 or visit our web site at **www.scgov.net** or e-mail us at **waterquality@scgov.net**

To learn more about our water, please attend any of the regularly advertised Water and Sewer Advisory Board meetings.

This report is available in English and Spanish.
Este informe se encuentra disponible en Ingles y Español.

Attention property managers:

If you are a property owner or manager, please provide this water quality report to your tenants. This report may be photocopied or posted in a prominent location at your facility. More copies are available by calling (941) 861-6790.

Conservation Counts

Our customers deserve praise for conserving drinking water. Sarasota County's average customer uses 86 gallons per day (source: 2003 Per Capita Survey), while the average U.S. resident uses 170 gallons per day. In the past decade, County customers have reduced consumption by about 40 percent. This was accomplished by using less water both inside and outsi the house. Outdoors, we are irrigatin landscapes with irrigation wells and reclaimed water, instead of using drinking water. Indoors, we are makin a difference with low-flow toilets and water conserving showerheads.

Why should I conserve?

- It's the right thing to do.
- It protects our natural resources.
- It saves you money.

Conservation suggestions

No matter the weather, using water wisely is a habit we all can practice year round.

Ways to conserve outdoors

- Without rain, once-a-week irrigation during warm months is usually adequate for most established trees and shrubs. Once every two weeks should suffice December through February.
- Use a rain gauge. If it rains, don't water.
- Make sure there is a functioning rain shut-off device on all automatic lawn irrigation systems.
- Calibrate your automatic system to irrigate by amount (3/4 inch per watering) instead of minutes.
- Install drought-tolerant plants such as oaks, palms, lantana, and crape myrtle.

Ways to conserve indoors

- Repair dripping faucets with new washers.
- Install faucet aerators. They can cut faucet water use by 60 percent.
- Test your toilet to see if the flapper is leaking and needs to be replaced. Put a few drops of food coloring in the tank, wait 20 minutes, if color appears in the bowl, the flapper needs to be replaced.
- Install water-efficient showerheads and low-flow toilets.

This document meets standards of the Florida Department of Environmental Protection, which requires community water systems to deliver annual water quality reports to their customers.