2004 Drinking Water Quality Report

Published in 2005

Sarasota County

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Sarasota County

As a public utility, we are required by the Federal Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (DEP) to report to our customers annually on the quality of the drinking water we deliver to you.

We look forward to issuing this report each year. We want you to know where your water comes from, how we treat it to keep it safe for you and how we plan for sufficient supplies well into the future. Over the years, Sarasota County has provided its customers with drinking water that consistently meets or exceeds standards set for us by these regulatory agencies. We are committed to continually upholding those same high standards.

During 2004, even during the time that our area was struck by four hurricanes, the Sarasota County system successfully managed the challenge of providing uninterrupted delivery of safe drinking water to all our customers. As well, we were able to re-route water to assist our neighbors in need when their supplies were compromised. It's an important part of our commitment to providing a quality product and excellent service.

Richard E. Howell
General Manager
Sarasota County Utilities

This report shows that Sarasota County 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 2004. It is a record reflecting our dedication to bring you high-quality, reliable drinking water.

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

Sarasota County's drinking water sources

Sarasota County utilizes several water sources for its drinking water.

% of supply	Location	Water source	Treatment method
5%	University Parkway	Wellfield with 7 wells	Aeration / disinfection
	Jacaranda Water Treatment Facility	Wellfield with 7 wells	Reverse osmosis
30%	T. Mabry Carlton, Jr. Water Treatment Facility	Wellfield with 14 wells, 400 – 700 ft deep, draw water from the Intermediate and Floridan Aquifers	Electrodialysis Reversal, a state-of-the-art process that uses electricity to remove minerals from water. A disinfection and filtration process provides additional treatment
25%	Water purchased from Peace River/Manasota Regional Water Supply Authority	Peace River	Fully treated by various physical and chemical processes including filtration and disinfection and then blended with water from the Carlton facility
40%	Water purchased from Manatee County	Manatee River and 1200-ft wells drawing from the Floridan Aquifer	Fully treated by various physical and chemical processes including filtration and disinfection

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

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 (EPA'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 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, the EPA prescribes regulations that 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 that must provide the same protection for public health.

Sarasota County 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 to December 31, 2004. 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.

A source water assessment was completed. Results are available at: www.dep.state.fl.us/swapp/DisplayPWS.asp?pws_id=6581591&county=58

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.

2004 Sarasota County water quality summary

Our 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 2004.

MICROBIOLOGICAL

Contaminant and unit of measurement	MCLG	MCL	Highest single measurement	Lowest monthly %age of samples meeting regulatory limits	Likely source of contamination	Sampling date	MCL violation
Turbidity (NTU) (Manatee County)	N/A	TT	3.1	98.9%[A]	Soil runoff and treatment processes	Daily 2004	No
Turbidity (NTU) (Peace River)	N/A	TT	5.47	89.25%[A]	Soil runoff and treatment processes	Daily 2004	No
Please note: Following Hurricane Charley in August 2004, the Peace River Facility recorded turbidity levels above the required treatment levels. During that time, Sarasota County received no water from the Peace River Facility.							

RADIOLOGICAL

Contaminant and unit of measurement	MCLG	MCL	Level detected	Range of results	Likely source of contamination	Sampling date	MCL violation
Alpha emitters (pCi/L)	0	15	3.1	1.3-3.1	Erosion of natural deposits	Jan-04	No
Combined Radium (pCi/L)	0	5	1.5	0.6-1.5	Erosion of natural deposits	Jan-04	No

INORGANIC

Contaminant and unit of measurement	MCLG	MCL	Level detected	Range of results	Likely source of contamination	Sampling date	MCL violation
Barium(ppm)	2	2	0.011	ND-0.011	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits	Jan-04	No
Cyanide (ppb)	200	200	6.0	3.0-6.0	Discharge from steel/sheet metal factories; discharge from plastic and fertilizer factories	Jan-04	No
Fluoride (ppm)	4	4	1.1	0.002-1.1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Jan-04	No
Lead (point of entry) (ppb)	N/A	15	1	ND-1.0	Residue from manmade pollution such as auto emissions and paint: lead pipe, casing and solder	Jan-04	No
Nickel (ppb)	N/A	100	2.6	ND-2.6	Pollution from mining and refining operations; naturally occurring in soil	Jan-04	No
Nitrate (ppm)	10	10	0.743	ND-0.743	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Jan-04	No
Nitrite (ppm)	1	1	0.052	ND-0.052	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Jan-04	No
Sodium (ppm)	N/A	160	57	12.4-57	Salt water intrusion, leaching from soil	Jan-04	No
Thallium (ppb)	0.5	2	0.5	ND-0.5	Leaching from ore processing sites; discharge from electronics, glass and drug factories	Jan-04	No

LEAD AND COPPER (TAP WATER)

Contaminant and unit of measurement	MCLG	AL (action level)	90th percentile result	No. of sampling sites exceeding the AL	Likely source of contamination	Sampling date	AL violation
Copper (tap water) (ppm)	1.3	1.3	0.36	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Sep-04	No
Lead (tap water) (ppb)	0	15	3.4	2	Corrosion of household plumbing systems; erosion of natural deposits	Sep-04	No

TTHMs and STAGE 1 DISINFECTANT/DISINFECTION BY-PRODUCT (D/DBP)

For the following parameters monitored under Stage 1 D/DBP regulations, the level detected is the annual average of the quarterly averages: Bromate, Chloramines, Chlorine, Haloacetic Acids, and/or TTHM (MCL 80 ppb). Range of Results is the range of results (lowest to highest) at the individual sampling sites.

Contaminant and unit of measurement	MCLG or MRDLG	MCL or MRDL	Level detected	Annual average monthly removal ratio	Range of results	Range of monthly removal ratios	Likely source of contamination	Sampling date	MCL violation
Chloramines (mg/L)	4[E]	4[F]	3.04[C]	N/A	0.20-5.5[D]	N/A	Water additive used to control microbes	Monthly 2004	No
Haloacetic Acids (Five) (HAA5) (ppb)	N/A	60	15.2[C]	N/A	0-25[D]	N/A	By-product of drinking water disinfection	Quarterly 2004	No
TTHM [Total Trihalomethanes] (ppb)	0	80	24.4[C]	N/A	14.7-35.7[D]	N/A	By-product of drinking water disinfection	Quarterly 2004	No
Total Organic Carbon (ratio)[G]	N/A	TT	N/A	1.46	N/A	1.28 – 1.73	Naturally present in the environment	Monthly 2004	No

[A] The value in the "range" column represents the month with the lowest percentage of turbidity values meeting the goal.
[C] These values represent an annual average.
[D] These values represent values at individual sample sites.
[E] This value is a MRDLG (see definitions.)
[F] This value is a MRDL (see definitions.)
[G] These values represent the % total organic carbon removal achieved at the treatment plant divided by the % removal required. This value must be above 1.0 for compliance.

Definitions

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.

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.

N/A – Not Applicable

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

NR – Not Regulated

NTU – Nephelometric Turbidity Unit – 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 – 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.

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.

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

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.

Maximum Contaminant 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 two 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.

Questions?

If you have any questions about this report or your water, please contact us at 941.861.6790 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 scheduled Water and Sewer Advisory Board meetings. Schedules are advertised on the County Page ad in local sections of Sunday editions of the *Herald-Tribune,* the *Venice Gondolier, North Port Sun Herald* and the *Tempo News*.

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.

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 from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency /Centers for Disease Control 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).

Sarasota County 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 at the heart of our community, our way of life and our children's future.

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 ten years of growth. Meanwhile, 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 Water Planning Alliance, a four-county volunteer planning group of thirteen entities including Sarasota, Manatee, Charlotte and DeSoto counties, all of the municipalities within those counties, and the Englewood Water District, meets regularly to plan future water supplies. We also work closely with the Southwest Florida Water Management District (SWFWMD), which has oversight responsibility for a 16-county area. It is essential that we understand and respect each other's needs. It is no less essential that we plan together to address those needs effectively.

Conservation counts

Our customers deserve praise for conserving drinking water, using 89 gallons per person per day, compared to the average U.S. residential use of 170 gallons per day. Over the past decade, county residents have reduced their consumption by about 40 percent, by using less water both inside and outside the house. Outdoors, we are irrigating landscapes with irrigation wells and reclaimed water, instead of using drinking water. Indoors, we are making a difference with low-flow toilets and water-conserving showerheads.

Why conserve?

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

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.
- 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 report is available in English and Spanish. Este informe está disponible en inglés y español.

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.