

2010 Bonita Springs Utilities Water Quality Report



OUR MISSION: Quality Service For Our Members

Bonita Springs Utilities is a not-for-profit water and wastewater utility dedicated to providing safe, reliable potable water and wastewater treatment, emphasizing responsible protection of our resources at the most effective cost to all members. At the same time, we will defend our policy of socially and environmentally sound management of employee, plant and fiscal resources. We are proud to continue to earn our community's trust as your locally owned and operated utility.

THE WATER WE DRINK

In 1971, a group of residents formed Bonita Springs Utilities, Inc. (BSU) to provide potable water for a handful of homes. Since then, BSU has grown with Bonita Springs and Estero and now provides water service to more than 40,000 customers within its 60-square-mile service area.

This report, required by law, provides data about the quality of the water provided by BSU during 2010. BSU welcomes the opportunity to share this information with you. It's important that you know where our water comes from, what it contains and the risks that our water treatment is designed to prevent. Informed customers are our best allies in maintaining safe drinking water.

We're happy to report that our drinking water meets all federal and state requirements. The board of directors and staff of Bonita Springs Utilities are pleased to present this report.

WHERE OUR WATER COMES FROM

Production of Bonita Springs drinking water starts with water located deep beneath the ground. Groundwater for the lime-softening process comes from the Lower Tamiami Aquifer, a thick sequence of porous limestone and clay beneath the earth's surface. Groundwater for the reverse-osmosis process comes from the Lower Hawthorne Aquifer, which contains more brackish water.

For the lime-softening water process, Bonita Springs Utilities owns and operates two well fields with 19 wells. One well field is located at East Terry Street parallel to I-75, and the other is located east of Bonita Grande. The 19 lime-softening wells have an average depth of 100 feet.

To supply water for the reverse-osmosis water process, which began service in March 2004, Bonita Springs Utilities operates eight additional wells at a depth of 800 feet.

In 2009, the Florida Department of Environmental Protection performed a Source Water Assessment on our system as part of its Source Water Assessment and Protection Program. The assessment, which helps ensure that drinking water is safe, not just at the tap, but also at its source, provides information about potential sources of contamination in the vicinity of our wells. Eight potential sources of contamination, with low or moderate susceptibility levels, were identified. It should be noted that the potential sources of contamination identified by this assessment project are just that: potential sources. Many of these facilities are regulated and operate under stringent construction and maintenance requirements designed to protect both human health and the environment.

The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp, or they can be obtained by calling Bonita Springs Utilities Operations Director Mel Fisher at 239-992-0711.

WATER TREATMENT PROCESSES

Our drinking water is a blend of two treatment processes. The lime-softening process includes hydrogen sulfide removal, hardness reduction, filtration and chlorination. The reverse-osmosis process includes membrane treatment, degasification and chlorination. A corrosion inhibitor also is added in each process to help prevent corrosion in the plumbing of our customers' homes and businesses.

The treated water from the two processes is then blended together to produce the final finished water pumped to all customers.

Bonita Springs Utilities follows the principles and practices recommended by many experts within the utility industry to ensure our members a safe, reliable and efficient water system. We test and monitor your water to ensure compliance with state and federal

regulatory requirements and are committed to your health, safety and welfare.

CONTAMINANTS

The sources of drinking water, both tap and bottled, 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. It also can pick up substances resulting from the presence of animals or human activity.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes limits on the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits, which must provide the same protection for public health, for contaminants in bottled water.

All 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 water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 1-800-426-4791.

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 healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

*Note: Bonita Springs Utilities is not required to test for the unregulated contaminant *Cryptosporidium* because our source water is from wells, not surface waters.*

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 occur naturally or can 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, stormwater runoff and residential use.
- (D) **Organic chemical contaminants**, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and also can come from gas stations, urban-stormwater runoff and septic systems.
- (E) **Radioactive contaminants**, which can occur naturally or result from oil and gas production and mining activities.

IN CONCLUSION

The Bonita Springs-Estero area has been one of the fastest growing communities in Southwest Florida. To accommodate growth, in 2004 Bonita Springs Utilities completed and placed into service the first phase of a state-of-the-art reverse-osmosis plant with the capacity to produce 6 million gallons of potable water per day. The RO plant helps preserve our lime-softening well fields by drawing source water from a different, deeper aquifer and helps ensure that our member-customers will continue to enjoy an adequate, safe supply of drinking water. The RO process, together with the lime-softening water process, can provide a total of 14 million gallons of water per day for our customers. The Southeast Desalting Association honored our RO plant with the 2005/2006 Plant of the Year Award for the 10-state region, and in 2007, the American Water Works Association judged BSU's water the best-tasting in the three-county region.

As our population grows, demand for water will continue to increase. Our responsibility is to provide quality water to every tap. Everyone, however, must help protect our community's valuable water resources to maintain them in a usable form for present and future generations.

IF YOU'D LIKE TO KNOW MORE ...

Bonita Springs Utilities is a member-owned utility, and we want you, our member-customers, to be informed about your water quality. Our governing body is an elected board of directors, which meets the first and third Tuesdays of every month at 5 p.m.

If you have questions about this report or your water utility, please contact Bonita Springs Utilities Operations Director Mel Fisher at 239-992-0711.

En Espanol – Si usted tiene alguna pregunta sobre este informe favor de llamar a Bonita Springs Utilities al 239-992-0711.

HOW TO READ THIS TABLE

Bonita Springs Utilities routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows the results of our water quality analysis from January 1 through December 31, 2010. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected and the usual key to the units of measurements.

Some analyses are required to be performed only once every three years. Therefore, compounds detected in Bonita Springs' water since the year 2008 may be listed. The EPA requires that the highest value detected during the calendar year be provided in this report. Not listed are the hundreds of other compounds for which we tested but did not detect.

TABLE KEY DEFINITIONS

MCL (Maximum Contaminant Level) – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goals as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal) – The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

AN EXPLANATION – MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two liters of water a day at the MCL for a lifetime to have a one-in-a-million chance of having the described health effect.

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 of health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm (Parts per million) – One part per million is the equivalent of one cent in \$10,000.

ppb (Parts per billion) – One part per billion is the equivalent of one cent in \$10,000,000.

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

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

ND – Means not detected and indicates that the substance was not found by laboratory analysis.

***Date** – Although this report concerns 2010 water quality, some water contaminants are required to be tested only once every three years. This chart shows the most recent laboratory test date.

****Sodium** – The Florida Department of Environmental Protection has set the drinking water standard for sodium at 160 parts per million (ppm) to protect individuals who are susceptible to sodium-sensitive hypertension or diseases that cause difficulty in regulating body fluid volume. Sodium is monitored so that individuals who have been placed on sodium (salt) restricted diets may take into account the sodium in their drinking water. Drinking water contributes only a small fraction (less than 10 percent) to the overall sodium intake. Sodium levels in drinking water can be increased by ion-exchange softeners at water-treatment facilities or certain point-of-use treatment devices. If you have been placed on a sodium-restricted diet, please inform your physician that our water contains 71 ppm of sodium.

*****Nitrate** – Infants below the age of 6 months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

******Lead** – 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. Bonita Springs Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in home 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 two 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 about lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Primary Standards

Microbiological Contaminants

Substance	MCLG	MCL	Highest Monthly Percentage/ Number	Date*	Source	MCL Violation Yes/No
Total Coliform Bacteria	0 samples	Present in 5% or greater of monthly samples	2.63% / 2	2010 Jan-Dec	Naturally present in the environment	No
Contaminant and Unit of Measurement	MCLG	MCL	Total Number of Positive Samples for the Year	Date	Likely Source of Contamination	MCL Violation Yes/No
Fecal Coliform and E.coli in the distribution system	0	0	1	2010 Jan-Dec	Human and animal fecal waste	No

Inorganic Compounds

Contaminant and Unit of Measurement	MCLG	MCL	Level Detected	Date	Likely Source of Contamination	MCL Violation Yes/No
Barium	2 ppm	2 ppm	0.007 ppm	9/23/08	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Fluoride	4 ppm	4 ppm	0.2 ppm	9/23/08	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	No
Sodium**	N/A	160 ppm	71 ppm	9/23/08	Saltwater intrusion; leaching from soil	No
Nitrate***	10 ppm	10 ppm	0.04 ppm	2/3/10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	No

Stage 1 D/DBP Parameters

Contaminant (Unit of Measurement)	MCLG	MCL	Level Detected	Range of Results	Sampling Date	Source	MCL Violation Yes/No
Haloacetic Acids (5) HAA5 (ppb)	N/A	60 ppb	18 ppb	18 ppb	Annual sampling (8/10)	By-product of drinking water chlorination	No
TTHM (Total Trihalomethanes) (ppb)	N/A	80 ppb	35 ppb	35 ppb	Annual sampling (8/10)	By-product of drinking water chlorination	No
	MRDLG	MRDL					
Chloramines (ppm)	4 ppm	4 ppm	3.7 ppm	0.2-4.5 ppm	1/10 - 12/10 (except 05/10)	Water additive	No
Chlorine (ppm)	4 ppm	4 ppm	2.4 ppm	1.2 - 3.6 ppm	5/10	Water additive	No

Lead and Copper (Tap Water)

Substance	MCLG	90 th Percentile Result	AL (Action Level)	Sampling Sites Exceeding the AL	Date*	Source	AL Violation Yes/No
Copper (tap water)	1.3 ppm	0.121 ppm	1.3 ppm	0	8/08	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives	No
Lead (tap water)****	0 ppb	1 ppb	15 ppb	0	8/08	Corrosion of household plumbing systems, erosion of natural deposits	No

Radionuclides

Substance	MCLG	MCL	Results	Date*	Source	MCL Violation Yes/No
Radium 226 + 228	0 pCi/L	5 pCi/L	0.2 pCi/L	3/17/08	Naturally occurring or the result of oil and gas production and mining activities	No