

# 2011 Water Quality Report

Gasparilla Island Water Association, Inc.

April 2012

## *A Message From GIWA*

Gasparilla Island Water Association, Inc. (GIWA) is pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you and your family with a safe and dependable supply of drinking water.

We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Your water source is from groundwater wells that draw from both surficial and lower intermediate aquifers. Approximately 75% of your water comes from brackish water withdrawn from the lower intermediate aquifers and treated by reverse osmosis (RO). The remaining 25% is shallow well water that is treated by a color removal plant. The treated water from both plants is blended, a polymer added for corrosion control, and then disinfected with chloramines before pumping to the water distribution system. In 2011, GIWA produced 364 million gallons of quality drinking water.

GIWA also has an interconnect with Charlotte County Utilities (CCU). In 2011 we purchased twelve (12) million gallons of water from CCU. For a copy of CCU's water quality data, please contact GIWA.

We routinely monitor for contaminants in your drinking water according to Federal and State laws, rules, and regulations. This report is based on the results of our monitoring for the period of January 1 to December 31, 2011. We are pleased to report that our drinking water meets all federal and state requirements.

We encourage our members to be informed about their water utility. If you have any questions about this report or concerning GIWA, please contact Bonnie Pringle, Utility Director at 941-964-2423. GIWA's Board Meetings are held at 8:30 a.m. at our office (1700 East Railroad Avenue, Boca Grande) on the first Wednesday of each month.

## *New Water Withdrawal Permit Mandates Reduction in Water Use*

Gasparilla Island Water Association, Inc. (GIWA) renewed their ten (10) year water withdrawal permit from the Southwest Florida Water Management District (SWFWMD). A condition of that permit is for GIWA to reduce the daily average water use to 150 gallons per person by 2019.

In 2011, our average per person usage totaled 154 gallons per day. These four (4) gallons over our maximum may not seem like much water but it equates to an average of 23,000 gallons per day or eight (8) million gallons per year. Our membership faces a challenge in this next decade to reduce their water usage.

We are currently classified as in severe drought conditions with a forecast to persist or intensify between now and the end of June. With warm and dry conditions, water usage for January through March 2012 is already up 15% over 2011. If this trend continues it will significantly increase the average water usage per person for 2012.

Last year approximately two-thirds of water supplied to the island was used for landscape irrigation. In order to meet

## **Utility Services Report Fiscal Year**

	<b>October - March 11/12</b>	<b>October - March 10/11</b>
Connections, 3/31	1,679	1,674
Rainfall	13.04"	10.09"
Water Sold, Gals.	178,163,000	171,157,000
Wastewater Processed, Gals.	69,206,000	57,612,000

## ***New Water Withdrawal Permit Mandates Reduction in Water Use (continued from Page 1)***

our mandatory reduction, our membership needs better control of irrigation on a year-round basis. **Florida law requires that all automatic sprinkler systems be equipped with a rain shutoff device.** A rain shutoff device will automatically turn off sprinkler systems during and after rain showers. They allow the irrigation system to return to its normal watering schedule once the sensor dries out. Southwest Florida receives an average annual rainfall of 52 1/2 inches. The majority of rainfall occurs from June to September, but water usage on the island indicates that many irrigation systems are still running. We especially want to bring to your attention that improper irrigation practices including over-watering can be damaging to your landscaping. Aside from being a requirement, a rain sensor is a smart and easy way to conserve water and save money.

What will happen if we do not reduce our water usage as mandated? SWFWMD will most likely require GIWA to force a reduction through higher rates for large water users.

### ***Weather and Hydrology***

With the exception of 2010, we have been talking about drought conditions since 2006. The rainfall so far for 2011 is once again below normal with a 10.22" deficit for the normal dry season. The following is a comparison of rainfall recorded on the island to the historic average for this area:

	<b>Actual</b>	<b>Historic Average</b>	<b>Excess/Deficit</b>
January - March 2012	2.67"	7.73"	(10.22")
2011 Total Rainfall	44.60"	52.50"	(7.90")
2010 Total Rainfall	54.40"	52.50"	1.90"
2009 Total Rainfall	29.78"	52.50"	(22.72")
2008 Total Rainfall	33.75"	52.50"	(18.75")
2007 Total Rainfall	29.29"	52.50"	(23.21")
2006 Total Rainfall	41.85"	52.50"	(10.65")
Total Deficit			(91.55")

As you can see, we are now over 7 1/2' below normal in rainfall for the past six (6) years. The lack of rainfall has a negative effect on our shallow well water aquifers which are replenished by rain. Reduced rainfall means less water is reaching the aquifers making them vulnerable to saltwater intrusion - movement of saltwater pushing inland from the Gulf.

Since two-thirds of our water usage is for landscape irrigation, rainfall on the island greatly impacts GIWA's water sales. The following table compares our annual water sales to rainfall on the island:

	2006	2007	2008	2009	2010	2011
Million Gallons Sold	364	375	317	343	316	343
Rainfall	41.85"	29.29"	33.75"	29.78"	54.40"	44.60"

Usage is typically down during wet periods, but may also be lower as a result of mandatory watering restrictions as was the case in 2008. If more irrigation systems were equipped with working rain shutoff devices, 2011 water sales should have been much lower.

While higher sales may be great for the "bottom line" financially, it is not great for our well fields or meeting our new permit requirements. Unfortunately, when it is dry, water consumption is at its highest and we are pumping at full capacity when our wells are most vulnerable. You can help protect your water supply by adhering to the watering restrictions detailed on the following page, and conserving water whenever possible.

## ***Watering Restrictions***

With groundwater levels and stream flows in the area well below normal, Southwest Florida Water Management District declared a water emergency and Phase I Water Shortage Restrictions went into effect on December 1, 2010. The water emergency is still in effect. A Phase I declaration means that conditions are below normal and warrant alerting the public and water utilities to prepare for additional actions, and all water users are asked to

- Reduce indoor water use on a voluntary basis;
- Test and repair or adjust irrigation systems to address broken pipes and leaks, damaged or tilted sprinkler heads and other sources of water waste;
- Continue to follow the twice per week watering schedule.

Watering restrictions for GIWA's service area are mandated by two (2) separate water management districts and watering restrictions vary by county as detailed below:

### **Charlotte County (Southwest Florida Water Management District)**

Lawn and landscape watering remains limited to twice-per-week as follows:

- Odd numbered addresses may water on Wednesday and/or Saturday;
- Even numbered addresses may water on Thursday and/or Sunday;
- Watering is allowed before 10:00 a.m. or after 4:00 p.m. on designated days;
- Hand watering and micro-irrigation of plants (other than lawns) can be done on any day at any time.



### **Lee County (South Florida Water Management District)**

Lawn and landscape watering is limited to two (2) days per week as follows:

- Odd numbered addresses may water on Wednesday and/or Saturday;
- Even numbered addresses may water on Thursday and/or Sunday;
- Landscape watering is allowed before 9:00 a.m. or after 5:00 p.m. on designated days;
- Irrigation using low volume methods such as micro-irrigation, and hand watering using a hose with an automatic shut-off nozzle may be conducted at any time.

### **New Planting**

New plant material is allowed additional watering days and times, but varies by county. Please visit [mygiwa.com](http://mygiwa.com) or contact Bonnie Pringle at 941-964-2423 for further information.

## ***Keeping Citizens Informed***

Gasparilla Island Water Association, Inc. (GIWA) contracted with Emergency Communications Network to license its CodeRED high-speed notification solution. The CodeRED system provides GIWA the ability to quickly deliver emergency messages such as Precautionary Boil Water Notices to targeted areas or the entire Island.

One of the reasons the CodeRED system was selected is it gives individuals and businesses an easy and secure method to add their own phone numbers directly into the system's database. GIWA is urging all individuals and businesses to log onto [WWW.MYGIWA.COM](http://WWW.MYGIWA.COM), and follow the link to the "CodeRED Community Notification Enrollment" page. The data collected will only be used for emergency notification purposes.

The system is a great tool for GIWA to quickly notify its members of an emergency, but the system is only as good as the telephone number database; therefore, all members including businesses are urged to register.

Those without Internet access may call GIWA (941-964-2423), Monday through Friday, (7AM-4PM) to supply their information over the phone. Required information includes first and last name, street address (physical address, no P.O. boxes), city, state, zip code, and primary phone number. Additional phone numbers and e-mails can be entered as well.

GIWA thanks you for your participation to help keep you informed and up to date on important matters.

## Causeway Water and Sewer Main Relocations

As most of you already know, GIWA's water and sewer mains are hung on both the south and middle bridges; therefore, must be relocated when Gasparilla Island Bridge Authority (GIBA) replaces those bridges this year. The new water and sewer mains will be installed underwater by directional boring.

Our priority this spring has been to relocate our water and sewer mains at the south bridge as quickly as possible because our facilities conflicted with the temporary bridge that will be used while the new permanent bridge is constructed. GIWA's contractors have done an excellent job completing our work at the south bridge ahead of schedule, and have helped lower our costs with recommended plan changes.

GIWA's contractors are now relocating our water mains at the middle bridge. If all goes well, relocation of GIWA's facilities at the two (2) fixed bridges should be completed by the end of May.

Our next phase of construction will include relocating our oldest water main at the swing bridge. GIWA will proceed with design and permitting of this project in the upcoming months with construction tentatively scheduled for November 2013.

GIWA originally estimated the cost at \$1,500,000 to complete our work at all three (3) bridges; however, actual construction costs show the total will be closer to \$2.5 million dollars.

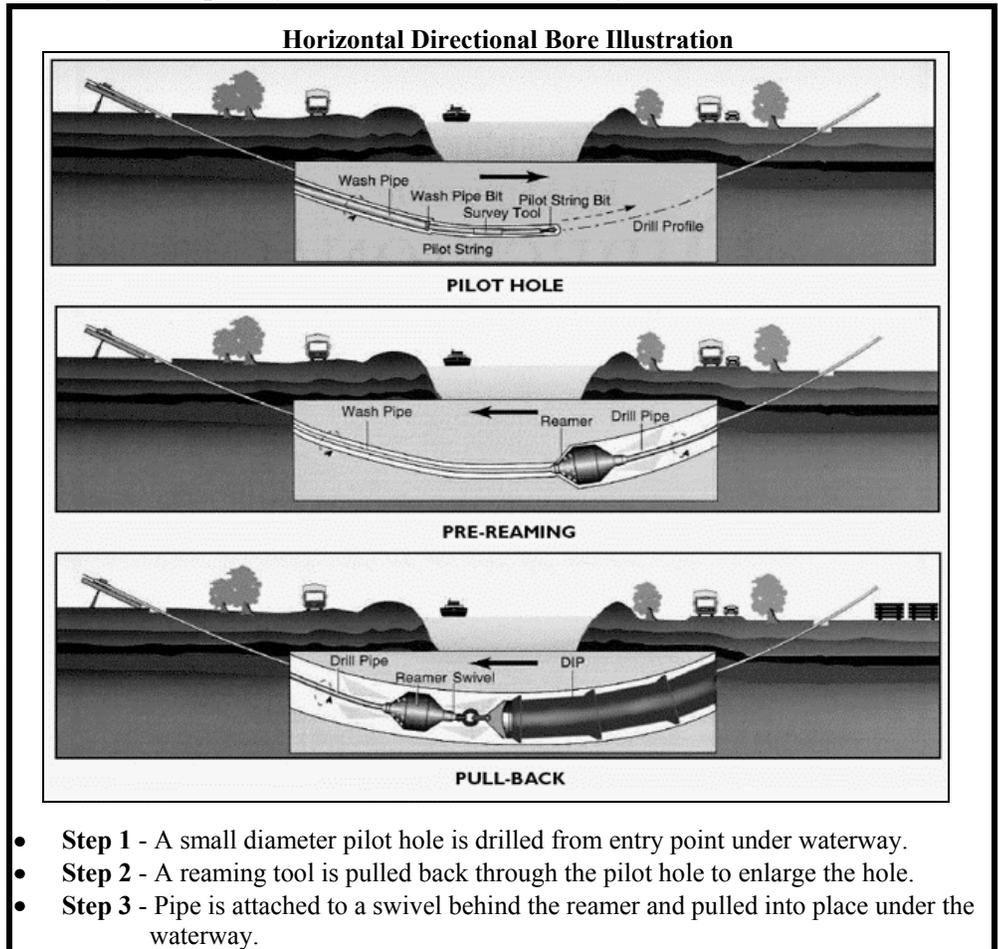
We originally bid our work at the two (2) fixed bridges as part of the bridge construction package. That bid came in at \$2,050,000.

Since that was more than double our original estimate, we decided to rebid locally and have been able to lower our cost to approximately \$1,500,000 by making design changes, purchasing materials direct to save sales tax and completing a joint bore with FP&L.

Using the actual construction costs for the south and middle bridges, we are now estimating that it will cost between \$900,000 and \$1,000,000 to relocate at the swing bridge.

In February 2011, our membership approved a five (5) year \$12.00 per unit monthly assessment to fund the original \$1,500,000 estimated cost. At a special meeting held on April 5, 2012, the membership was asked to approve increasing the monthly assessment to \$20.00 per unit for the remaining term of the assessment to fund the \$1,000,000 shortfall. The membership approved the increase with 92% of those voting in favor of the increase. The increase is scheduled to become effective with the June 2012 billing cycle.

Why were our estimates so far off? These new bridges are the first in Florida to be constructed under new coastal construction rules. The bridges are taller and longer than originally anticipated. The final design for the bridges simply requires us to do more work.



## ***What Can I Expect to Find in My Drinking Water?***

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.

Contaminants that may be present in 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.



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.

## ***Source Water Assessment Plan***

In 2011 the Florida Department of Environmental Protection (FDEP) 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 eight (8) potential sources identified for our system with susceptibility levels ranging from low to moderate for contamination. The potential sources include petroleum storage tanks (moderate risk) and industrial wastewater permits (low risk). The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swap](http://www.dep.state.fl.us/swap).

Florida relies on groundwater for approximately 92% of its drinking water needs; therefore, a very active petroleum contamination prevention program is in place with some of the most stringent rules in the country including annual compliance inspections. The industrial wastewater permits are needed for GIWA's reverse osmosis plant reject water disposal and for concrete plants operating in the area. Those permits include conditions that are designed to protect groundwater and are monitored by FDEP to insure compliance.

Additionally, Charlotte County has a Wellhead Protection Ordinance in place that is designed to protect our water supply. This ordinance requires anyone wishing to conduct business within 1500' of our wells to enter into an agreement with GIWA which contains specific conditions to protect our water supply from contamination as a result of their operation.

## *People with Special Concerns*

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 (800-426-4791).

### *Lead in Drinking Water*

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. Gasparilla Island Water Association, Inc. 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>.

### *How Do I Read This Report?*

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following 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.
- **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.
- **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.
- **“ND”** means not detected and indicates that the substance was not found by laboratory analysis.
- **Parts per billion (ppb):** One part by weight of analyte to 1 billion parts by weight of the water sample.
- **Parts per million (ppm):** One part by weight of analyte to 1 million parts by weight of the water sample.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.



*MCL's 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 at the MCL level every day for a lifetime for a one-in-a million chance of having the described health effect.*

**Gasparilla Island Water Association, Inc.  
2011 Annual Drinking Water Quality Test Results**

<b>Inorganic Contaminants</b>							
<b>Contaminant and Unit of Measurement</b>	<b>Dates of Sampling (mo./yr.)</b>	<b>MCL Violation Y/N</b>	<b>Level Detected</b>	<b>Range of Results</b>	<b>MCLG</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
Barium (ppm)	07-06-11	No	.0097		2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (as Nitrogen) (ppm)	7-06-11	No	.02		10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	7-06-11	No	.01		1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	7-06-11	No	4.7		50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	7-06-11	No	91		N/A	160	Salt water intrusion, leaching from soil
<b>Stage 1 and Stage 2 Disinfectants and Disinfection By-Products</b>							
<b>Disinfectant or Contaminant and Unit of Measurement</b>	<b>Dates of Sampling (mo./yr.)</b>	<b>MCL or MRDL Violation Y/N</b>	<b>Level Detected</b>	<b>Range of Results</b>	<b>MCLG or MRDLG</b>	<b>MCL Or MRDL</b>	<b>Likely Source of Contamination</b>
Chloramines (ppm)	Monthly 2011	No	3.0	1.8 - 3.6	MRDLG= 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	7-14-11	No	28		N/A	MCL = 60	By-product of drinking water disinfection
TTHM (Total Trihalomethanes) (ppb)	7-14-11	No	50		NA	MCL = 80	By-product of drinking water disinfection
<b>Lead and Copper (Tap Water)</b>							
<b>Contaminant and Unit of Measurement</b>	<b>Dates of Sampling (mo./yr.)</b>	<b>AL Exceeded Y/N</b>	<b>90th Percentile Result</b>	<b>Number of Sampling Sites Exceeding AL</b>	<b>MCLG</b>	<b>AL</b>	<b>Likely Source of Contamination</b>
Copper (tap water) (ppm)	08/11 & 09/11	No	.095	None	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/11 & 09/11	No	1.1	None	0	15	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**We routinely monitor for contaminants in your drinking water according to Federal and State laws, rules, and regulations. We are pleased to report that our drinking water meets all federal and state requirements.**



P.O. Box 310  
Boca Grande, FL 33921

# Be Water Smart Every Drop Counts!

<p align="center"><b>2011 Water Quality Report</b></p>	<p align="center"><i>Gasparilla Island Water Association, Inc. Board of Directors</i></p>
<p><b><i>President's Message</i></b></p> <p><i>We are pleased to report once again that our drinking water meets or exceeds all federal and state requirements. This annual Water Quality Report is our opportunity to provide you with details about your drinking water.</i></p> <p><i>GIWA's staff and the Board of Directors have been very busy this year with the relocation of our water and sewer mains on the causeway. We are ahead of schedule and hope to have our work at the two (2) fixed bridges complete by the end of May.</i></p> <p><i>We are now in the preliminary planning stages for upgrades at our water treatment facility. An upgrade to our reverse osmosis water treatment plant will allow us to produce more water and run more efficient. Also, two (2) new deep wells will be installed in the future. The new wells will help preserve the water quality of our existing wells by allowing us to pump less from each well.</i></p> <p><i>While we may be planning upgrades to produce more water on peak days, as detailed on Page 1 of this report, we are required to reduce our average water use. GIWA wants to thank you for your continued support protecting our water sources by conserving water which is our way of life and our children's future.</i></p>	<p>David McHugh, President Bill Caldwell, Vice-President Patricia Seidensticker, Secretary Mike Holmes, Treasurer Joseph Anderson Terry Bisset Bob Marini Tom Shaffer Kathleen Turner</p>
<p align="center"><b>Landlords and businesses are encouraged to share this report with their tenants. Additional copies can be obtained by contacting GIWA at 941-964-2423</b></p>	<p align="center"><b>Gasparilla Island Water Association, Inc.</b> <b>Bonnie Pringle, Utility Director</b> <b>1700 E. Railroad Avenue</b> <b>PO Box 310</b> <b>Boca Grande, FL 33921</b> 941-964-2423      <a href="http://www.mygiwa.com">www.mygiwa.com</a></p>