



# Annual Report on the Quality of Drinking Water

Public Water Systems 0240001, 0240036 & 0240084

We're pleased to present to you this year's Annual Quality Water 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 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. Our water source is from wells drawing from the Pascagoula Formation, Graham Ferry Formation and the Miocene Series Aquifer.

The source water assessment has been completed for our public water system to determine the overall susceptibility of its drinking water supply to identified potential sources of contamination. A report containing detailed information on how the susceptibility determinations were made has been furnished to our public water system and is available for viewing upon request.

The wells for the City of Biloxi PWS ID#: 240001 have received a moderate susceptibility ranking to contamination; the wells for PWS ID#: 240036 have received moderate to higher susceptibility rankings to contamination; the wells for PWS ID #: 240084 have received lower to moderate susceptibility rankings to contamination.

If you have any questions about this report or concerning your water utility, please contact Tracey Forehand at 228-435-6271. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first, third, and fourth Tuesdays of each month at 1:30 PM at the Biloxi City Hall located at 140 Lameuse Street.

We routinely monitor for constituents in your drinking water according to Federal and State laws. The tables inside list all of the drinking water contaminants that we detected during for the period of January 1st to December 31st, 2012. In cases where monitoring wasn't required in 2012, the table reflects the most recent results. As water travels over the surface of land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances or contaminants from the presence of animals or from human activity; microbial contaminants, such as viruses and bacteria, that 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 storm-water 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 storm-water 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 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily indicate that the water poses a health risk.

We are required to monitor your drinking water for specific contaminants on a monthly basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. On system # 240001- We took forty samples for coliform bacteria during August 2012. Three of those samples showed the presence of coliform bacteria. The standard is that no more than 1 sample per month of our samples may do so. We did not find any bacteria in our subsequent testing and further testing shows that this problem has been resolved.

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. Our

Water Association 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>. The Mississippi State Department of Health Public Health Laboratory offers lead testing. Please contact 601.576.7582 if you wish to have your water tested.

## SIGNIFICANT DEFICIENCIES

System # 0240001

During a sanitary survey conducted on 1/22/10, the Mississippi State Department of Health cited the following deficiency:

1.) Inadequate security measures

Corrective actions: The system is in a Bilateral Compliance Agreement with the Mississippi State Department of Health to correct this deficiency by 6/30/2013.

2.) Well in flood zone (100 year)

Corrective actions: The system is in a Bilateral Compliance Agreement with the Mississippi State Department of Health to correct this deficiency by 6/30/2013.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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 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.

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.

## April 1, 2013 – MESSAGE FROM MSDH CONCERNING RADIOLOGICAL SAMPLING

In accordance with the Radionuclides Rule, all community public water supplies were required to sample quarterly for radionuclides beginning January 2007 – December 2007. Your public water supply completed sampling by the scheduled deadline; however, during an audit of the Mississippi State Department of Health Radiological Health Laboratory, the Environmental Protection Agency (EPA) suspended analyses and reporting of radiological compliance samples and results until further notice. Although this was not the result of inaction by the public water supply, MSDH was required to issue a violation. This is to notify you that your water system has completed the monitoring requirements and is now in compliance with the Radionuclides Rule. If you have any questions, please contact Karen Walters, Director of Compliance & Enforcement, Bureau of Public Water Supply, at 601.576.7518.

The City of Biloxi 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.

## Biloxi Water Well Listing

Health Dept Tag No	Facility Name	Street Address
240001-01	Maple Street	162 Maple St
240001-04	Hospital Water Well	1123 Bayview Ave
240001-05	Greater Ave	1880 Greater Ave
240001-06	Porter Ave	1082 Irish Hill Dr
240001-09	Old Bay Vista	2434 Bay Vista Dr
240001-10	Bradford St Well	768 Bradford St
240001-11	Debuys Water Well	262 Debuys Rd
240001-12	Kuhn St	199 Kuhn Street
240001-13	Iberville	205 Iberville Dr
240001-14	Park Circle Water Well	345 Park Dr
240001-15	Father Ryan	1352 Father Ryan Ave
240001-16	Pine Street Well	129 Pine St
240001-17	Tullis	369 Beach Blvd
240001-18	Lakeview	364 Lakeview
240036-02	North Rivervue	11186 N Riviere Vue Dr
240036-03	Oaklawn	9339 Oaklawn Dr
240036-05	Hwy. 67 & Oaklawn	Hwy. 67 & Oaklawn Dr
240084-01	Rustwood	2181 Rustwood Dr
240084-04	South Hill	1991 South Hill Dr
240084-05	N Biloxi #1	2145 Popp's Ferry Rd
240084-06	Vee Street	Vee Street
240084-07	Cedar Lake Subdivision	11412 Penton Dr
240084-08	Biloxi Sports Complex	765 Wells Dr

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

- **Action Level** – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Contaminant Level (MCL)** – The “Maximum Allowed” (MCL) is 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 (MCLG)** – The “Goal” (MCLG) is 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.
- **Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** – 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.
- **Parts per million (ppm) or Milligrams per liter (mg/l)** – one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter** – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

## Test Results of City of Biloxi Public Water Systems 0240001, 0240036 & 0240084

Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
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### Public Water System 240084 - Test Results

#### Inorganic Contaminants

10. Barium	N	2011	.005	.002 - .005	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
14. Copper	N	2010*	.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	N	2011	37	17 - 37	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride	N	2011	.33	.16 - .33	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2010*	2	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

#### Disinfection By-Products

81. HAA5	N	2012	30	No Range	ppb	0	60	By-product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2012	29.5	No Range	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2012	1.3	.10 - 4	mg/l	0	MDRL = 4	Water additive used to control microbes

Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
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### Public Water System 240001 - Test Results

#### Microbiological Contaminants

1. Total Coliform Bacteria	N	August	Positive	3	NA	0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
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#### Inorganic Contaminants

10. Barium	N	2011*	.011	.001 - .011	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2011*	.8	.5 - .8	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2011*	.2	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	N	2011*	83	18 - 83	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride**	N	2011*	.39	.16 - .39	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2011	4	6	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

#### Disinfection By-Products

81. HAA5	N	2012	22	No Range	ppb	0	60	By-product of drinking water disinfection
82. TTHM [Total trihalomethanes]	N	2012	28	No Range	ppb	0	80	By-product of drinking water chlorination
Chlorine	N	2012	.9	.10 - 3	mg/l	0	MDRL = 4	Water additive used to control microbes

### Public Water System 240036 - Test Results

#### Inorganic Contaminants

8. Arsenic	N	2011*	.6	No Range	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
10. Barium	N	2011*	.002	.001 - .002	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
14. Copper	N	2008*	.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide	N	2011*	34		ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride	N	2011*	.32	.25 - .32	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2008*	4	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

#### Disinfection By-Products

Chlorine	N	2012	1.60	.1 - 4	mg/l	0	MDRL = 4	Water additive used to control microbes
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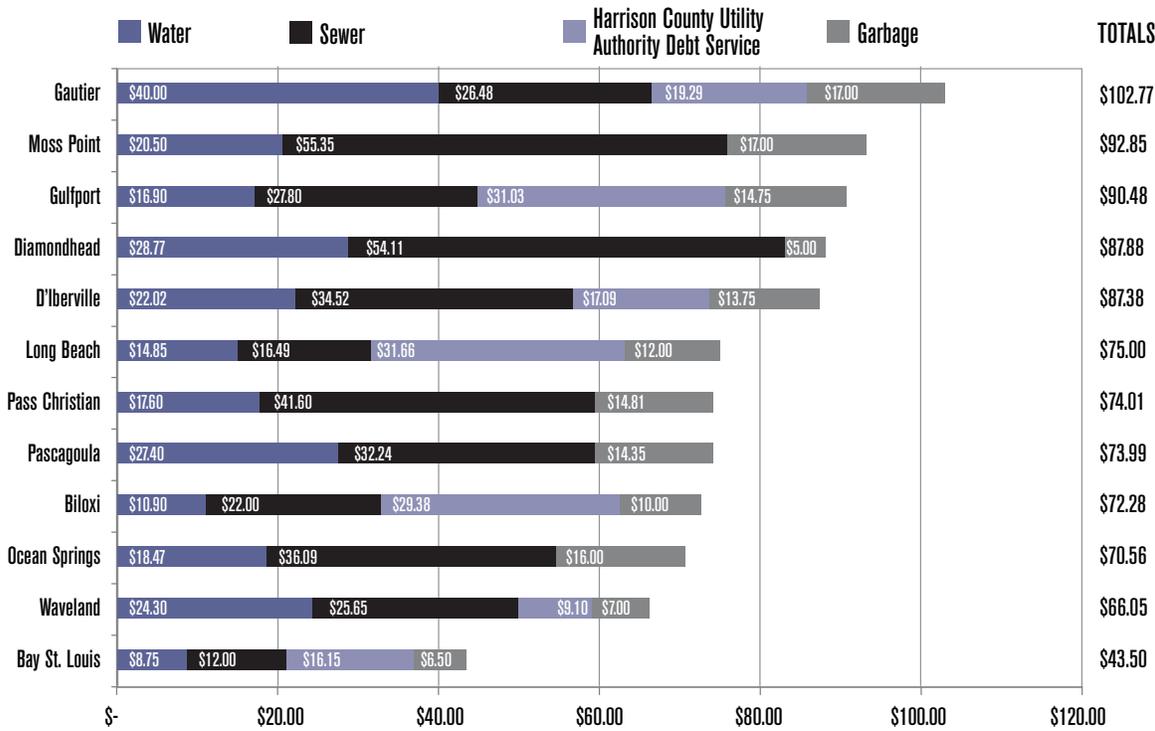
\*Most recent sample. No sample required for 2012.

Microbiological Contaminants:

(1) Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.\*Most recent sample. No sample required for 2011.

# Comparison of Monthly Water Bills

(Based on 8,000 gallons)



For the record: Pass Christian does not stipulate its debt service payments to Harrison County Utility Authority on its monthly bills. Debt service payments in Bay St. Louis and Waveland are to the Hancock County Utility Authority. Long Beach's water and sewer rates are a flat fee, regardless of monthly usage.

10/2011

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*The Annual Report on the Quality of Drinking Water*



April 2013

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P.O. Box 429  
 Biloxi, MS 39533

**Mayor A.J. Holloway and the Biloxi City Council**  
 George Lawrence • William "Bill" Stallworth • Lucy Denton  
 Clark Griffith • Arlene Wall • Edward "Ed" Gemmill • David Fayard

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