

Water Quality Report **January 1 - December 31, 2016**
St. Bernard Parish's Water & Sewer Division - Public Water Supply ID 1087001

We are pleased to present to you this year's annual Water Quality Report. This report is required by the Environmental Protection Agency through the Safe Drinking Water Act and is designed to inform you about the quality water and services we deliver to you every day (Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien). 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 one surface water intake on the **Mississippi River ID # 1087001-001**. The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and, in some cases radioactive materials 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 sewerage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants – Such as salts and metals, which can be naturally occurring or results 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 natural-occurring or be the result of oil and gas production and mining activities?

A Source Water Assessment Plan (SWAP) is now available from our office. This plan is an assessment of a delineated area around our listed source through which contaminants, if present, could migrate and reaches our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility rating of 'high'. If you would like to review the Source Water Assessment Plan, please feel free to contact our office at the number provided in the following paragraph. The Source of the Water Treated in St. Bernard Parish is the *Mississippi River*.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. We are pleased to report that our drinking water is safe and meets federal and state requirements. If you have any questions about this report or concerning your water quality, or simple want to learn more about your drinking water, please contact **Jacob Groby, Environmental Dept. Dir. at (504) 271-1681**. We want our customers to be informed about their water utility.

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. St. Bernard Parish Water 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 about 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 have you can take to minimize exposure is available from the Safer Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

The Louisiana Department of Health/Office of Public Health routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1 to December 31, 2016. We detected the following regulated contaminants at levels well below the maximum contaminant level. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of these constituents does not necessarily pose a health risk.

Additionally, we wish to inform you that these samples, except for lead and copper results, were collected at our treatment plant. The last chemical sampling of our treated water was collected 3/30/2015. We at the St. Bernard Parish Water Treatment Division work 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. If you have any questions Please contact Jacob Groby, Supt. Quality Control at 504-271-1681 x 234.

In the 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:

Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligram 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 Microgram per liter (µg/l) - One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (ng/l) - One part per trillion corresponds to one minute in 2,000,000 years or a single penny in \$10,000,000,000

Parts per quadrillion (ppq) or Nanograms per liter (pg/l) - One part per quadrillion corresponds to one minute in 2,000,000,000 years or a single penny in \$10,000,000,000,000

Picocuries per liter (pCi/l) - Picocuries per liter is a measurement of radiation in the water.

Millrems per year liter (pCi/l) – Measure of radiation absorbed by the body.

Million fibers per liter (MFL) – Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (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. **Turbidity** is a measurement of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

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

Treatment Technique (TT) – A treatment technique is a required process intended to reduce the level of a contaminate in the drinking water.

Variances & Exemption (V&E) – State or EPA permission not to meet the MCL or treatment technique under certain conditions.

Maximum Contaminant Level (MCL) - The “Maximum Allowed” is the highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The "Goal" 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 Disinfection Level (MRDL) - The “Maximum Allowed” is the highest level of 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 (MRDLG) - The “Goal” 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.

During the period covered by this report had below noted violations of drinking water regulations.

Compliance Period	Analyte	Type
1/1/2016- 3/31/2016	Total Haloacetic Acids (HAA5)	MCL, LRAA
4/1/2016-6/30/2016	Total Haloacetic Acids (HAA5)	MCL, LRAA

Our water system tested a minimum of 50 samples per month, Monthly samples are in accordance with the Total Coliform Rule for microbiological contaminants. During the monitoring period covered by this report we had the following noted detections for microbiological contaminants.

Microbiological	Result	MCL	MCLG	Typical Source
Coliform	In October 2016 3.51% of samples returned as positive	MCL: Systems that collect 40 or more samples per month - no more than 5% can be positive monthly	0	Naturally present in the environment.

Cryptosporidium

St. Bernard Parish conducted monthly source water monitoring for Cryptosporidium (Crypto) from October 2016 – December 2016. Of the 3 samples, cryptosporidium was **NOT** detected in any of the samples.

In the tables below, we have shown the regulated contaminants that have been detected. Chemical Sampling of our drinking water may not be required on an annual basis; therefore, information provided in the tables refers back to the latest year of chemical sampling results.

Regulated Contaminates	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Sources
Barium	2/17/2016	0.058	0.058	ppm	2	2	Discharge of Drilling waste; discharge from Metal refineries; erosion of natural deposits
Chromium	2/17/2016	3.7	3.7	ppb	100	100	Discharge from steel and pulp, mills; Erosion of natural deposits.
Fluoride	2/17/2016	0.17	0.17	ppm	4	4	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Nitrate – Nitrite	2/17/2016	2.1	2.1	ppm	10	10	Runoff from fertilizer use, leaching from septic Tanks, sewerage, erosion of natural deposits
Selenium	2/17/2016	0.61	0.61	ppb	50	50	Discharge from Petroleum and metal refineries; Erosion of natural deposits; Discharge from Mines

Disinfection Byproducts	Sample Point	Period	Highest LRAA	Range	Unit	MCL	MCLG	Typical Source
Total Haloacetic Acids (HAA5)	Paris Road Marina Hotel	2016	62	32.6-52.5	ppb	60	0	By-product of drinking water disinfection
Total Haloacetic Acids (HAA5)	Southlake Food Store	2016	49	32.6-48.5	ppb	60	0	By-product of drinking water disinfection
Total Haloacetic Acids (HAA5)	Toca Booster Station	2016	71	33.8-57.4	ppb	60	0	By-product of drinking water disinfection
Total Haloacetic Acids (HAA5)	Water Treatment Plant	2016	59	31.167.5	ppb	60	0	By-product of drinking water disinfection
TTHM	Paris Road Marina Hotel	216	59	15.7-62.2	ppb	80	0	By-product of drinking water chlorination
TTHM	Southlake Food Store	2016	58	15.08-62.2	ppb	80	0	By-product of drinking water chlorination
TTHM	Toca Booster Station	2016	64	17.1-60.1	ppb	80	0	By-product of drinking water chlorination
TTHM	Water Treatment Plant	2016	49	15.56-53.3	ppb	80	0	By-product of drinking water chlorination

Secondary Standards	Collection Date	Your Highest Value	Range	Unit	SMCL
Aluminum	3/30/2015	0.035	0.035	mg/l	0.05
Chloride	2/17/2016	23.9	23.9	mg/l	250
Iron	2/17/2016	0.023	0.023	mg/l	0.3
Manganese	2/17/2016	0.008	0.008	mg/l	0.05
pH	2/17/2016	7.7	7.7	Su	8.5
Sulfate	2/17/2016	44	44	mg/l	250

Lead and Copper	Collection Date	90th. Percentile	Range	Unit	AL	Sites over AL	Typical Source
Copper, Free	2014-2016	0.9	0.1-1.6	ppm	1.3	1	Corrosion of household plumbing systems Erosion of natural deposits; leaching from wood preservatives
Lead	2014-2016	2	1-10	ppb	15	0	Corrosion of household plumbing systems Erosion of natural deposits.

Our water plant continuously tests the turbidity level in the water being pumped to the distribution system, below is the average for 2016.

Regulated Contaminate	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Turbidity HSS	2/2/2016	0.13	0.01-0.13	NTU	0.15	0	Soil Runoff
Turbidity LMA	100%	Compliant					

Turbidity is a measurement of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The major sources of turbidity include soil runoff.

Our water plant continuously tests the chlorine level in the water being pumped to the distribution system, below is the average for 2016.

Disinfectant	Date	Result	Unit	Range	MRDL or MCL	MRDLG or MCLG	Typical Source
Chloramines	2016	3.82	ppm	3.59-3.94	4	4	Water additives used to control microbes

Our water system tested a minimum of 50 distribution samples per month, total chlorine residual testing is in accordance with the Safe Drinking Water Act.

Quarter	1st.			2nd.			3rd.			4th.		
Monthly Avg. Quarterly Avg. Quarterly RAA*	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
	2.85	3.44	2.95	2.61	2.30	3.08	2.87	2.95	2.75	2.69	3.27	2.93
	3.08			2.66			2.86			2.96		
	2.51			2.39			3.05			3.08		

*Reported RAA for 1st. - 3rd. quarter are based on data from previous quarter not reported on this table

Disinfectant	Date	Result	Unit	Range	MRDL or MCL	MRDLG or MCLG	Typical Source
Chloramines	2016	3.08	ppm	2.39-3.08	4	4	Water additives used to control microbes

Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
Combined Uranium	2/17/2016	0.91	0.91	µg/l	30	0	Erosion of natural deposits
Gross Beta Particle Activity	2/17/2016	2.92	2.92	pCi/l	50	0	Decay of natural and man-made deposits. Note: The gross beta particle activity MCL is 4 millirems/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level.

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 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).

MCL: For the systems that collect more than 40 samples per month, if 5 percent are positive for coliform. For systems that collect less than 40 samples per month, if 1 sample is positive for coliform. Coliforms are bacteria that are naturally present in the environmental and are used as an indicator that other, potentially-harmful may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

Total Organic Carbon required language: Total organic carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection byproducts (DBPs). These byproducts include Trihalomethanes (THMs) and Haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increase risk of getting cancer.

Some people who drink water containing Haloacetic Acids in excess of the MCL over many years may have an increased risk of getting cancer. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. We at the ST BERNARD PARISH WATERWORKS work around the clock to provide top quality drinking water to every tap. We ask that all our customers help us protect and conserve our water sources, which are the heart of our community, our way of life, and our children's future. Please call our office if you have questions.