

ANNUAL CONSUMER CONFIDENCE REPORT (CCR)  
 PERIOD: JANUARY 1, 2016 TO DECEMBER 31, 2016

**Harbor Island**  
 0750013

We are pleased to present to you this year's annual Consumer Confidence Report. This report is designed to inform you about the quality of water and services we deliver to you everyday.

Our constant goal is to provide you with a safe and dependable supply of drinking water. Beaufort Jasper Water and Sewer Authority (BJWSA) provides our water, with its source being the Savannah River; the raw water is treated at the Chelsea Water Treatment Plant. The river water travels 18 miles via open canal to the water plant located in the Chelsea area. The Chelsea Water Treatment Plant provides up to 24 million gallons per day (mgd) to residences and businesses in northern Beaufort County. This plant can also be used to supplement water supplies in southern Beaufort County as necessary. BJWSA's annual report is available for your review at [www.bjwsa.org](http://www.bjwsa.org). This report details our water quality and what it means. In addition to BJWSA testing, Harbor Island Utilities routinely monitors for contaminants in your drinking water according to Federal and State laws.

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. These substances can include 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 water poses a health risk. More information about contaminants and potential health risks can be obtained by calling the EPAs Safe Drinking Water Hotline at (800) 426-4791.

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 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, urban storm water 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 infections by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

We routinely monitor for various constituents in the water supply to meet all regulatory requirements. Lead and Copper monitoring was done in September 2015. Harbor Island Utilities, Inc., **did not** exceed the action level for lead or copper at the 90<sup>th</sup> Percentile. Therefore, we remain on an ultra-reduced triennial monitoring schedule. Our next sampling will take place between June 1, 2018 and September 30, 2018. \*\* 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. We 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 cooking or drinking. 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://epa.gov/safewater/lead>.

\*Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. BJWSA's water did not exceed the average MCL for copper or lead, and did not have any violation.

For the year 2016, the average level of tritium in the Savannah River raw water was 308 pCi/L. Tritium is a regulated constituent and the US Environmental Protection Agency (EPA) has set a maximum contamination level for its occurrence in the water as 20,000 pCi/L. BJWSA levels are 2% of the EPA's drinking water standard. BJWSA will continue its extensive monitoring program for tritium and report to HIU.

South Carolina's Source Water Assessment Program, mandated by 1996 Amendments to the Federal Safe Drinking Water Act, is aimed at protecting public drinking water supplies at the source – the rivers, lakes and streams all across South Carolina. As part of this program, a source water assessment of the Savannah River Basin has been completed. This assessment is part of a program to identify what and where pollution prevention efforts are necessary to ensure the future safety of our community's drinking water and to implement those protective measures. SC Department of Health and Environmental Control (DHEC) has compiled the assessments from all water utilities in the state into a Source Water Protection Program.

DHEC's assessment included consideration of eight categories of potential contaminants: volatile organic compounds, petroleum products, metals, nitrates, pesticides/herbicides, pathogens, radionuclides and undetermined. The assessment identified and mapped sources that could potentially release these contaminants, such as gas stations, dry cleaners, agricultural areas, automobile repair shops, landfills, septic systems, and manufacturers, businesses and facilities where potential contaminants are used or stored. DHEC compiled an initial inventory of potential contaminants at 22 sources within the Savannah River basin. Zero sources had a high susceptibility ranking; 17 had a moderate susceptibility ranking and 5 had a low susceptibility ranking. The information in the Source Water Assessment Report will be the foundation of a local effort to improve protection of our drinking water sources.

**Harbor Island Utilities (0750013)**  
**2016 Regulated Contaminants Detected**

Substance	Date Tested	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Of Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2015	1.3	1.3	0.028	0	ppm	N	Erosion of natural deposits. Leaching from wood preservatives; corrosion of household plumbing systems.

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2016	0.8	0.5 – 0.8	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes
HAA5	2016	27	0E-9 – 58.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection
HAA5*	2016	27	0E-9 – 58.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection
TTHM	2016	69	31.49 – 54.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection
TTHM	2016	69	31.49 – 54.8	No goal for the total	80	ppb	N	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected some results may be part of an evaluation to determine where compliance sampling should occur in the future  
**DEFINITIONS KEY:** The following contain scientific terms and measures, some of which may require explanation.

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

**Action Level Goal (ALG):** The level of contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

**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.

**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.

**ppm:** milligrams per liter or parts per million – or one ounce in 7,350 gallons of water

**ppb:** micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.

**Maximum residual disinfectant level goal or MRDLG:** The level of 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.

**Maximum residual disinfectant level or MRDL:** 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.

**Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**na:** not applicable.

**PCi/L:** pociuries per liter ( a measure of radioactivity)

**P/A:** Presence or Absence of Bacteria found

Total Trihalomethanes (TTHM)			
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 systems, and may have an increased risk of getting cancer.			
Violation Type	Violations Begin	Violation End	Violation Explanation
FAILURE TO SUBMIT OEL REPORT FOR TTHM	02/23/2016	04/06/2016	We failed to submit our operational evaluation level (OEL) report to our regulator. The report is needed to determine best treatment practices necessary to minimize possible future exceedences of TTHM.

### Distribution System BJWSA (0720003)

Samples taken for testing came from various points in BJWSA's water treatment and distribution system

Contaminant	Detected Level	Range of Detection	Highest Level Allowed (MCL)	Goal (MCLG)	Unit of Measure	Violation	Year	Possible Source
TOTAL COLIFORM BACTERIA	Present in less than 1% of samples taken	ND-0.700	Present in no more than 5% of monthly samples taken	0	P/A	N	2016	Naturally present in the environment
FECAL COLIFORM OR E.COLI BACTERIA	0	ND	0	0	P/A	N	2016	Naturally present in the environment
Fluoride	1.00	0.48-0.99	4	4	PPM	N	2016	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	0.024	ND-0.024	10	10	PPM	N	2016	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits
Di (2-ethylhexyl) phthalate	0.700	ND-0.700	0	0	PPB	N	2016	Discharge from rubber and chemical factories
Copper*	90 <sup>th</sup> % = 0.180 0 > AL	ND – 0.250	AL = 1.3	1.3	PPM	N	2015	Corrosion of household plumbing; erosion of natural deposits
Lead**	90 <sup>th</sup> % = 0.1 > AL	ND-23***	AL = 15	0	PPB	N	2015	Corrosion of household plumbing; erosion of natural deposits

### Disinfection and Disinfection By-Products

TTHM	Locational RAA: 47.0 PPB	21.7-81.1	80	0	PPB	N	2016	By-product of drinking water disinfection
HAA5	Locational RAA: 39.0 PPB	3.90-72.6	60	0	PPB	N	2016	By-product of drinking water disinfection
CHLORINE	2.00	2.00-2.00	4	4	PPM	N	2016	Water additive used to control microbes

30 of the 30 required samples for Lead and Copper were collected. The 90<sup>th</sup> percentile is based on 30 samples.

\*\*\*Re-sampling at the only site where the initial sample showed a quantity above the action level of 15 ppb indicated lead levels to be below detection limits

### Chelsea Water Treatment Plant (Savannah River Source)

Substance	Date Tested	Typical Source	EPA MCL	EPA MCLG	Level Found	Violation
Turbidity <sup>1</sup>	2016	Soil Runoff	TT=1 NTU	0	0.10 NTU	No
			TT=95% of samples <0.30 NTU		100 %	

<sup>1</sup>Turbidity is a measure of the cloudiness of the water. BJWSA monitors it because it is a good indicator of the effectiveness of their filtration system.

Substance	Date Tested	Typical Source	EPA MCL	EPA MCLG	Range of Removal	Level Found	Violation
Total Organic Carbons	2016	Naturally present in the environment	TT	n/a	36.5-62.6% removal	53.1 removal (35%-50% is required)	No

Please direct specific questions regarding HIU's report to Bret Oberholzer, Chief Operator, (843) 982-0405. For questions about BJWSA and their water quality you may contact them at (843) 987-9200 or [www.bjwsa.org](http://www.bjwsa.org).

