2012 WATER QUALITY REPORT

about your drinking water

Your drinking water, treated and delivered by Beaufort-Jasper Water and Sewer Authority (BJWSA), consistently met or surpassed all the water quality standards and inspections from both the EPA and the South Carolina Department of Health and Environmental Control in 2012.

BJWSA

¿habla español? Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

WATER TEST RESULTS

Important Information from the EPA

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised individuals, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Guidelines from the Environmental Protection Agency and the Centers for Disease Control and Prevention on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

BJWSA is responsible for making certain that the water you drink does not contain contaminants at levels higher than the amounts mandated as safe by federal and state regulations. The following charts show the findings of our water testing throughout 2012 and how it compares to national standards.

Levy-Limehouse-Bellinger Hill

If you live in the Levy-Limehouse-Bellinger Hill area, your source of your drinking water is groundwater drawn through two wells from the Upper Floridan Aquifer.

Better than EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG)	Highest EPA Allowed Level (MCL)	Highest Detected Level (what we found)
✓	Copper	Corrosion of household plumbing; erosion of natural deposits	1.3 ppm	AL=1.3 ppm	0.035 ppm (90th percentile) 0 over AL
✓	Fluoride	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	4.0 ppm	4.0 ppm EPA	0.36 ppm Actual Range 0.36–0.4 ppm
✓	Haloacetic Acids (HAA)	By-product of drinking water disinfection	N/A	60.0 ppb (annual average)	N/A ppb (annual average) Actual Range 0–1.7 ppb
✓	Lead	Corrosion of household plumbing; erosion of natural deposits	0 ppb	Al=15.0 ppb	0 ppb (90th percentile) 0 over AL
✓	Total Trihalomethanes (TTHMS)	By-product of drinking water disinfection	0 ppb	80.0 ppb (annual average)	10.0 ppb (annual average) Actual Range 2.1–16.1

Better than EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG)	Highest EPA Allowed Level (MCL)	Highest Detected Level (what we found)
✓	Chlorine	Water additive used to control microbes	4.0 ppm	4.0 ppm	1.08 ppm Actual Range 0.84–1.33 ppm
			Highest quarterly running average		

Chelsea Water Treatment Plant

Better than EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG)	Highest EPA Allowed Level (MCL)	Highest Detected Level (what we found)
✓	Turbidity	Soil runoff	0	TT = 1 NTU	0.09 NTU
				TT = 95% of samples less than 0.3 NTU	100% less than 0.3 NTU

Better than EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG)	Highest EPA Allowed Level (MCL)	Range of Removal	Annual Average Removal
✓	Total Organic Carbons	Naturally present in the environment	N/A	TT (35%–50% removal required)	38.2–55.6%	49.8%

Purrysburg Water Treatment Plant

Better than EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG)	Highest EPA Allowed Level (MCL)	Highest Detected Level (what we found)
✓	Turbidity	Soil runoff	0	TT = 1 NTU	0.05 NTU
				TT = 95% of samples less than 0.3 NTU	100% less than 0.5 NTU

Better than EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG)	Highest EPA Allowed Level (MCL)	Range of Removal	Annual Average Removal
✓	Total Organic Carbons	Naturally present in the environment	N/A	TT (35%–50% removal required)	37.8–55.2%	47.1%

Main Distribution System

Better than EPA Standard	Substance	Typical Source	EPA Ideal Goal (MCLG)	Highest EPA Allowed Level (MCL)	Highest Detected Level (what we found)
✓	Total Coliform	Naturally present in the environment	0	Present in no more than 5% of monthly samples taken	Present in less than 1% of samples taken
✓	Fecal Coliform or E. coli Bacteria	Human or animal fecal waste	0		0
✓	Copper 2	Corrosion of household plumbing; erosion of natural deposits	1.3 ppm	AL = 1.3 ppm	0.238 ppm (90th percentile) 0 over AL
✓	Fluoride	Erosion of natural deposits; water additive that promotes strong teeth	4.0 ppm	4.0 ppm EPA	0.74 ppm Actual Range 0.44–0.74 ppm
✓	Lead 3	Corrosion of household plumbing; erosion of deposits	0 ppb	AI = 15.0 ppb	0.0 ppb (90th percentile) 0 over AL
✓	Nitrate (measured as nitrogen)	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	10.0 ppm	10.0 ppm	0.17 ppm ND–0.17 ppm
	STAGE 1 1				
✓	(TTHM) Total Trihalomethanes	By-product of drinking water disinfection	0 ppb	80.0 ppb	RAA 29.0 Actual Range 15.5–33.3 ppb
	(HAA5) Haloacetic Acids	By-product of drinking water disinfection	0 ppb	60.0 ppb	RAA 20.0 Actual Range 11.4–24.6 ppb
	STAGE 2 1				
✓	(TTHM) Total Trihalomethanes	By-product of drinking water disinfection	0 ppb	80.0 ppb	Actual Range 4.4–67.7 ppb
	(HAA5) Haloacetic Acids	By-product of drinking water disinfection	0 ppb	60.0 ppb	ND–58.6 ppb

Better than EPA Standard	Substance	Typical Source	EPA Ideal Goal (MRDLG)	Highest EPA Allowed Level (MRDL)	Highest Detected Level (what we found)
✓	Chlorine	Water additive used to control microbes	4.0 ppm	4.0 ppm	1.24 ppm Actual Range 0.73–1.81 ppm
				Highest quarterly running average	

Protecting Your Health

TRITIUM IN DRINKING WATER Tritium is present in our water source, the Savannah River, as a result of natural processes in the atmosphere, fallout from past atmospheric nuclear weapons tests, and the operation of the Savannah River Site (SRS). The SRS stopped making nuclear materials and is now only stabilizing nuclear waste. Consequently, tritium levels in the river have been declining.

The EPA regulates tritium by setting a maximum contamination level of 20,000 picocuries per liter (pCi/L) of water. Twelve years ago, the tritium level was 848 pCi/L. In 2011, testing showed tritium 447 pCi/L – less than 3% of EPA's maximum level.

We will continue monitoring extensively for tritium and reporting our findings in future issues of this *Water Quality Report*.

1 **NEW MONITORING REGULATIONS** SCDHEC and EPA issued new regulations on disinfection byproducts (TTHM and HAA). The new rule is called Stage 2 and came into effect for BJWSA in 2012. Both regulations require monitoring at 8 sites in our system, but Stage 2 requires more samples from each site. Since both rules were in effect in 2012, monitoring results for the Stage 1 and Stage 2 Rules are both reported here.

2 **COPPER** As shown in the water test results in this report, the amount of copper is well below the EPA's allowed levels. The EPA requires no more than 10% of the sampled homes test positive for copper. In our last copper test, no homes exceeded the action level. However, one of our homeowners who participated in the testing refused to give us their sample, leaving us with only 29 homes tested (we typically test 30).

Copper in drinking water is primarily from corrosion and household plumbing; it is not in our source water or water leaving our plant. Every three years, as required by EPA, we test water samples from 30 homes throughout the distribution area that were built before 1983 and have copper plumbing. Homes very rarely test higher than EPA standards because we treat the water to protect the interior of pipes from corrosion. If there is a high result, BJWSA always investigates and resamples the water.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level (AL) over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the AL over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

3 **LEAD** As shown in the water test results in this report, the amount of lead is well below the EPA's allowed levels. The EPA requires no more than 10% of the sampled homes test positive for lead. In our last lead test, no homes exceeded the action level. However, one of our homeowners who participated in the testing refused to give us their sample, leaving us with only 29 homes tested (we typically test 30).

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. BJWSA 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 www.epa.gov/safewater/lead.

Want to Know More?

BJWSA is committed to increasing community awareness of water and environmental issues. We offer tours of our treatment and reclamation facilities to all citizens, providing a unique opportunity to find out more about their drinking water. Our bi-annual customer newsletter, brochures, and fact sheets offer a wide variety of up-to-date information on our operations, services, and current water issues. Check out www.bjwsa.org – our website tells the story of your drinking water from treatment to tap!

If you have any questions about the quality of your water, call the BJWSA Customer Service Department (**Beaufort** – 843-987-9200, **Hardeeville** – 843-288-0006, **Bluffton** – 843-707-0017) or send your request through our website, **www.bjwsa.org**.

Here are some other great sources of information:

www.scdhec.gov/environment/water
South Carolina Department of Health and Environmental Control

sc.water.usgs.gov
USGS Water Resources of South Carolina

www.srs.gov
Savannah River Site

water.epa.gov/learn/kids/drinkingwater
A great site for kids and teachers

800-426-4791
EPA Safe Drinking Water Hotline

BJWSA encourages public comment on decisions affecting drinking water. BJWSA Board meetings are held on the fourth Thursday of each month at our Chelsea administration offices on Highway 170, beginning at 8:00 a.m. You can preview board agendas and review board meeting minutes at **www.bjwsa.org**.

We're on YouTube!

Watch an amazing video about how we purify your drinking water. Go to **youtube.com** and type in BJWSA **Water Treatment Process.**

Beaufort-Jasper Water & Sewer Authority
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