Where Your Water Comes From

The Savannah River is the water source for both of BJWSA’s water treatment plants. The river water travels 18 miles via an open canal to the Chelsea Water Treatment Plant, providing up to 24 million gallons a day (mgd) of drinking water to residences and businesses in northern Beaufort County. The Plant also supplements the Purrysburg Water Treatment Plant when necessary.

The Purrysburg Water Treatment Plant, which sits near the Savannah River, supplies southern Beaufort and Jasper counties with up to 15 mgd of drinking water. The plant has been designed to expand to 45 mgd.

Protecting Water Supplies

In order to protect public drinking water supplies—our rivers, lakes, and streams—the State of South Carolina established a Source Water Assessment Program. As part of this program, the South Carolina Department of Health and Environmental Control (DHEC) compiled the assessments from all water utilities, including an assessment of the Savannah River basin.

The Savannah River Basin Source Water Assessment Report has helped to identify what and where pollution prevention efforts are necessary to ensure the future safety of our community’s drinking water. A copy of the Source Water Assessment Report is available for your review at the BJWSA Administration Office or at www.scdhec.net/water.

Tritium Levels Declining

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 EPA regulates tritium by setting a maximum contamination level of 20,000 picocuries per liter (pCi/L) of water. In 2007, testing showed tritium at less than 2% of this maximum level.

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Before it ever reaches your faucet, water travels through an elaborate system that treats, moves, and stores it. The water quality of the Savannah River is regularly sampled and tested. BJWSA and DHEC take samples at our treatment plants, in the distribution system, and at water taps in homes scattered across the service area. All of this information is on file at BJWSA and available for review.

Want to Know More?

BJWSA’s website, quarterly customer newsletter, water and wastewater treatment brochures, and a comprehensive customer service booklet offer a wide variety of up-to-date information on our operations, services, and current water issues.

If you would like copies of any BJWSA publications or have any questions about the quality of your water, call our Customer Service Department at 843/987-9200 or 843/757-2667 or our Public Affairs Office at 843/987-9219 or send your request through our website, www.bjwsa.org.

Here are some additional sources of information:

www.bjwsa.org
Beaufort Jasper Water & Sewer Authority

www.scdhec.net
The South Carolina Department of Health and Environmental Control

www.srs.gov
Savannah River Site

www.epa.gov/safewater
Environmental Protection Agency’s Safe Drinking Water

www.epa.gov/safewater/kids/health.html
A great site for kids and teachers

800-426-4791
EPA Safe Drinking Water Hotline
WHAT YOU SHOULD KNOW 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 2007.

WATER QUALITY REPORT

2007

A Focus on Our Communities

Involvement. BJWSA works not only for the communities we serve, but also with the communities to help safeguard the quality of life in Beaufort and Jasper counties. BJWSA employees participate in numerous community events, including the Festival of Trees, Water Festival, and Earth Day activities.

BJWSA recognizes that our professional involvement on local, state, and national levels will help ensure quality services for our customers, as well as protection of public health and the environment.

- **Michael Bell**, a BJWSA board member representing Bluffton for 15 years, has been appointed by the American Water Works Association Board of Directors to serve as Chairman of the Public Officials Forum.

- **Dean Moss**, BJWSA’s General Manager, is serving as Chairman of the newly created Savannah River Maritime Commission. As a member of the South Carolina Savannah River Committee, Mr. Moss has a lead role in working with Georgia to resolve issues of water use, wastewater management, and saltwater intrusion into the Floridan Aquifer.

- **Ed Saxon**, BJWSA’s Deputy General Manager of Engineering & Operations, has been named as the President of the South Carolina Water Quality Association.

Education. In local public forums this year, BJWSA joined with the S.C. Department of Natural Resources and Clemson University Cooperative Extension Service to offer citizens an opportunity to learn more about water quality, our future water supply, water reuse, and conservation. Partnering with Clemson Extension, we sponsor an Irrigation Workshop for landscapers and numerous community workshops to promote water conservation. Our ongoing facility tours are open to everyone — young and old.

Planning. With unprecedented weather extremes throughout Southeastern United States, a proactive and flexible approach to managing our water supply is more critical than ever. BJWSA is developing a comprehensive water supply program, called the Integrated Water Resource Management Plan. This plan will identify new potential water sources, and determine the most efficient and appropriate ways to ensure that our communities have the water they need over the next fifty years.

Public input. BJWSA encourages public comment on decisions affecting drinking water. BJWSA Board meetings are held the fourth Thursday of each month at our Chelsea administration offices on Highway 170, beginning at 8:00 a.m. You can preview board agenda(s) and review board meeting minutes at www.bjwsa.org.
Drinking water sources include streams, lakes, rivers, reservoirs, and wells, which are subject to potential “contamination” by a wide variety of substances that occur naturally or are man-made. As water travels over the surface of the land or through the ground, it dissolves natural minerals, and, in some cases radioactive material, and can pick up substances resulting from human activity or the presence of animals.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water.

Contaminants that could be present in source water before it is treated:

- **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 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 septic systems
- **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 or defense activities

### Why Are There Contaminants in Drinking Water?

Testing shows that the amount of lead in our drinking water is well below the EPA's allowed levels (see Water Test Results). It is important to know that lead in drinking water is primarily from materials and components associated with water service lines and home plumbing. Lead in elevated levels can cause serious health problems, especially for pregnant women and young children. **BJWSA is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential plumbing.**

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds up 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](http://www.epa.gov/safewater/lead).

### Water Test Results

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 2007 and how it compares to national standards.

#### Chelsea Water Treatment Plant

The Chelsea Water Treatment Plant provides drinking water for customers north of the Broad River. Samples were taken at the plant for testing of the substances below.

<table>
<thead>
<tr>
<th>Better than EPA Standard</th>
<th>Substance</th>
<th>Typical Source</th>
<th>EPA Ideal Goal (MCLG)</th>
<th>Highest EPA Allowed Level (MCL)</th>
<th>Highest Detected Level (what we found)</th>
</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>Turbidity</td>
<td>Soil runoff</td>
<td>0</td>
<td>TT = 1 NTU</td>
<td>0.10 NTU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TT = 95% of samples &lt; 0.3 NTU</td>
<td>100%</td>
</tr>
</tbody>
</table>

#### Purrysburg Water Treatment Plant

The Purrysburg Water Treatment Plant provides drinking water for customers in the southern portion of Beaufort and Jasper counties. Samples were taken at the plant for testing of the substances below.

<table>
<thead>
<tr>
<th>Better than EPA Standard</th>
<th>Substance</th>
<th>Typical Source</th>
<th>EPA Ideal Goal (MCLG)</th>
<th>Highest EPA Allowed Level (MCL)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>Turbidity</td>
<td>Soil runoff</td>
<td>0</td>
<td>TT = 1 NTU</td>
<td>0.07 NTU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TT = 95% of samples &lt; 0.3 NTU</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Better than EPA Standard</th>
<th>Substance</th>
<th>Typical Source</th>
<th>EPA Ideal Goal (MCLG)</th>
<th>Highest EPA Allowed Level (MCL)</th>
<th>Range of Removal</th>
<th>Annual Average Removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>Total Organic Carbons</td>
<td>Naturally present in the environment</td>
<td>N/A</td>
<td>TT (&gt;35% removal is required)</td>
<td>47.9 – 59.3%</td>
<td>52.7%</td>
</tr>
</tbody>
</table>
Distribution System
The samples taken for testing of these substances came from various points in BJWSA’s raw and treated water distribution systems.

### 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).

### Terms to Know in Reading the Water Test Results

- **AL (Action Level)**: The concentration of a contaminant, which if exceeded, triggers treatment or other requirements which a water system must follow.
- **MCLG (Maximum Contaminant Level Goal)**: 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.
- **MRDL (Maximum Residual Disinfectant Level)**: 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.
- **MRDLG (Maximum Residual Disinfectant Level Goal)**: 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 contamination.
- **ND (non-detected)**: No measurable level of a substance or contaminant detected.

### Samples Taken for Testing

<table>
<thead>
<tr>
<th>Substance</th>
<th>Typical Source</th>
<th>EPA Ideal Goal (MCLG)</th>
<th>Highest EPA Allowed Level (MCL)</th>
<th>Highest Detected Level (what we found)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>Corrosion of household plumbing</td>
<td>1.3 ppm</td>
<td>AL 1.3 ppm</td>
<td>0.115 ppm (90th percentile) [last required sampling 2006]</td>
</tr>
<tr>
<td>Lead</td>
<td>Corrosion of household plumbing: erosion of deposits</td>
<td>AL=15 ppb</td>
<td>0</td>
<td>0/30 sites over AL Actual Range ND-12.1 ppb [last required sampling 2006]</td>
</tr>
<tr>
<td>Nitrate</td>
<td>Runoff from fertilizer use</td>
<td>10.0 ppm</td>
<td>10.0 ppm</td>
<td>0.046 ppm</td>
</tr>
<tr>
<td>Total Trihalomethanes (TTHMS)</td>
<td>By-product of drinking water disinfection</td>
<td>0 ppb</td>
<td>80.0 ppm (annual average)</td>
<td>26.69 ppb (annual average) Actual Range 4.0 - 49.9 ppb</td>
</tr>
<tr>
<td>Haloacetic acids (HAA)</td>
<td>By-product of drinking water disinfection</td>
<td>N/A</td>
<td>60.0 ppm (annual average)</td>
<td>23.0 ppb (annual average) Actual Range ND - 50.0 ppb</td>
</tr>
<tr>
<td>Total Coliform</td>
<td>Naturally present in the environment</td>
<td>0</td>
<td>Present in no more than 5% of samples taken</td>
<td>Present in less than 1% of samples taken</td>
</tr>
<tr>
<td>Fecal coliform or E.coli bacteria</td>
<td>Human or animal fecal waste</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluoride</td>
<td>Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories</td>
<td>4.0 ppm</td>
<td>4.0 ppm EPA</td>
<td>0.92 ppm Actual Range 0.80 - 0.92 ppm</td>
</tr>
</tbody>
</table>

### Water Treatment Technology

- **TT (Treatment Technique)**: A required process intended to reduce the level of a contaminant in drinking water.
- **Turbidity**: A measure of the cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. NTU is a measurement of the clarity of the water.