

Richland County Utilities

An Open Message to Our Valued Customers:

Clean drinking water and proper sanitation are things most of us take for granted in the United States and other parts of the civilized world. It is widely recognized that, in the United States, we began investigating water treatment in the early 1900s, and continually improve on treatment processes through innovation, research and technology. Very early on, those concerned with public health recognized the importance of neutralizing pathogens in water sources to protect against human illness. The Centers for Disease Control and Prevention estimates that proper water treatment and sanitation has the potential to prevent approximately 9.1% of global diseases. The CDC estimates that inadequate water treatment and insufficient sanitation contribute to approximately 88% of deaths caused by gastrointestinal illness in the world. (http://www.cdc.gov/healthywater/global/wash_statistics.html) As a result, federal legislation was developed to outline requirements for proper sanitation and protection of drinking water supplies. Today, the water and wastewater industry is one of the most regulated industries in the US.



Richland County Utilities currently is responsible for the proper operation and maintenance of three (3) wastewater treatment facilities and five (5) community water systems, which must be operated seven days a week, three hundred sixty-five days a year. These various water and wastewater treatment facilities provide an invaluable service to the citizens of Richland County, South Carolina. The community water systems operated by County employees provide safe drinking water for citizens across the county. The CDC asserts that water and sanitation interventions are very cost effective, as they have demonstrated economic benefits ranging from \$5-\$46 per every \$1 invested in the system.

(http://www.cdc.gov/healthywater/global/wash_statistics.html)

In July 2005, the County entered into a Receivership Agreement with the South Carolina Department of Health and Environmental Control to assume operations of one wastewater treatment facility and two small community water systems that were abandoned by a private utility. These systems had histories of poor water quality and environmental regulation violations. Immediately, County employees began making improvements to the existing physical facilities and establishing working relationships with the residents in the area. Residents of these communities soon came to understand that Richland County Utilities personnel were committed to improving their living conditions and providing their families with safe, clean drinking water and proper sanitation. A new \$5 million regional drinking water facility was completed in 2012 in partnership with the Richland One School District to provide safe drinking water and fire protection for the Hopkins community.



In addition to undertaking this monumental task, Utilities employees also operate and maintain a wastewater treatment facility that serves the Eastover community, and treats approximately 75,000 gallons of wastewater each day. After proper treatment, the water is then discharged into

Richland County Utilities

the Wateree River, a resource citizens depend on to be free of pollutants and contaminants so they can enjoy such recreational activities as fishing, boating and swimming in the River. Richland County began operating the facility in Eastover approximately twelve years ago. Recently, the County experienced a catastrophe when the walls of a steel basin collapsed, significantly reducing the treatment capacity of the facility. However, Richland County Utilities



personnel tirelessly worked to maximize treatment at the damaged facility, and operated the facility with a very limited number of permit excursions until a new treatment facility was constructed. This operation required several employees to frequently work past their scheduled hours, over the weekends, and on holidays to ensure maximum treatment efficiency. Working as expeditiously as possible the County was able to obtain \$3.8 million grant funding and started on a design/build project to not only replace the failed process basin, but approximately a year later provided for almost a complete new

facility. Using the selected design and construction approach saved time and money. The new facility operates with about 99% efficiency.

Several years ago, the County undertook construction of the new \$32 million Broad River Regional wastewater treatment facility to serve citizens in the Irmo/Harbison/Ballentine and other unincorporated areas of Northwest Richland County. Despite unexpected delays and unforeseen circumstances during the construction process, County employees now efficiently treat approximately two million gallons of wastewater per day at this facility, and discharge treated water into the Broad River. Water is treated at this facility to the level that most



pollutants sampled for cannot be detected in sample results. Routinely, Utilities staff operate the Broad River facility in such a manner that approximately 99% of pollutants are removed from the wastewater before it is discharged into the river. In addition to the recreational activities available to boaters, fishermen and swimmers in the Broad River, Utilities personnel also assist in protecting a drinking water supply for the majority of the citizens of the City of Columbia, as the City's surface water intake for the Canal Water Treatment plant is located

approximately five miles downstream of the discharge location from the Broad River wastewater

Richland County Utilities

treatment facility. Additionally, Utilities staff are currently pursuing State certification to offer beneficial bio-solids to farmers and other interested members of the community. Bio-solids are a byproduct of the treatment facility, and are further treated by Utilities staff to ensure pathogens



are reduced to a safe level for use as fertilizer and soil conditioner in an agricultural setting. Richland County Utilities also currently owns and operates a water and wastewater testing laboratory, certified by the South Carolina Department of Health and Environmental Control. The laboratory is located at the Broad River Regional Wastewater Treatment Facility, and provides sampling and analysis of drinking water and wastewater from the County's treatment facilities. Having the certified laboratory

allows the operators timely and cost-effective access to water quality data, and helps ensure safe drinking water and effective sanitation for users of the County's systems.

Working as a public water and wastewater treatment operator requires a dedicated individual, willing to go above and beyond routine daily job functions. Operators routinely are called into work during overnight hours, during extreme weather conditions and emergencies and on holidays and weekends. Power outages, heavy rains, snow and ice and other such emergency situations require the attention of water professionals. Even during these times, the citizens of Richland County depend on Utilities operators to provide uninterrupted safe drinking water supplies and sanitation services. Utilities operators have developed very specialized skills, and all are required to acquire and maintain licensure from the State of South Carolina as operators. This licensure requires diligent study and research, as well as a minimum of twelve continuing education hours every two years. Additionally, water and wastewater operators routinely work in hazardous conditions, confined spaces with poor air quality, around dangerous liquid and gaseous chemicals and are continually exposed to pathogenic bacteria and viruses. Therefore, water professionals also must continually train in safety techniques and procedures.



Richland County Utilities water professionals are further committed to their industry, as demonstrated in their involvement in community outreach programs and not-for-profit organizations. Currently, Midlands Technical College and ECPI University routinely schedule field trips for their students to tour the Broad River Regional Wastewater Treatment Facility, learn about water quality, water treatment and other industry

Richland County Utilities

innovations. These tours and classes are conducted by Utilities personnel. Additionally, several public schools in the area schedule similar events for their students. Utilities operators are also members of the Water Environment Association of South Carolina, a not-for-profit organization for water professionals. This Association provides many educational and networking opportunities for its members, and is actively involved in promoting both water professionals and water quality. Additionally, the Water Environment Association of South Carolina has an awards program, where members are nominated by their peers for outstanding work. Awards are given annually by this Association. Below is a list of Richland County Utilities personnel who have been recognized by their peers and received awards from the Association:

Reynaldo Angoluan, Raymond Peterson – Engineer of the Year

Curtis Teets – Maintenance Technician of the Year

Anthony Langford – Drinking Water Operator of the Year

Heather Beard – Laboratory Analyst of the Year

Raymond Peterson, Joseph Rivers – Quarter Century Operator

Raymond Peterson, Joseph Rivers, Heather Beard, Stephen Mulherin – All inducted into the 5S Society

Raymond Peterson, Joseph Rivers, Tom Richmond, Stephen Mulherin, Carla Lamb, Heather Beard – President’s Service Award

Heather Beard – Crystal Crucible Award

Elmer Brown – Rookie of the Year Award



No taxes are used to operate and maintain these County facilities. Instead, the systems are funded based on user fees directly from our customers. As we look to the future we plan on providing additional water and sewer facilities for the Hopkins and Eastover communities. Although a small group, our mission is to respond to customer requests as quickly as possible, in a professional manner, reflective of financial responsibility, while protecting the health of our citizens and the environment we all enjoy.

We thank you for being our customers.

*Andy H. Metts, Director, and the Staff of the
Richland County Utilities Department*

