

Water Quality Trading in South Carolina

South Carolina currently has a trading program for phosphorus in the Saluda River arm of Lake Greenwood.

What were the drivers for starting a water quality trading program?

The Saluda River arm of Lake Greenwood was not impaired as determined by South Carolina DHEC's assessment program and 303(d) list. However, there was concern about future growth of the wastewater dischargers possibly creating nutrient-related problems in Lake Greenwood, such as algal blooms. As is often the case, the domestic wastewater systems in the watershed were not at their full capacity, but DHEC's assessment was that when the dischargers were at their design flow, the phosphorus levels in Lake Greenwood would be exceeded. Phosphorus limits were put in place to help ensure that the lake would continue to meet standards.

Permittees were concerned about more stringent limits for phosphorus and talked to DHEC about trading to meet the phosphorus loading target for the lake. The trading allows the group to make the most cost-effective phosphorus reductions in the watershed (e.g., they may target certain facilities to effect most of the reductions needed so that each facility doesn't have to make system improvements).

Further, there was interest in Lake Greenwood from American Rivers and a local environmental conservation group.

What has been the process to get a water quality trading program created and running?

In May 2011, DHEC reissued the 12 domestic NPDES permits in the Saluda River watershed with new requirements for phosphorus limits. As part of the permitting process, the utilities entered into a trading agreement to collectively determine how much phosphorous each utility would discharge. Each permit is linked to that agreement and signed by DHEC and the utilities.

Since loading within the watershed has a different impact on the lake – i.e., a pound of phosphorus at point A is not the same impact as a pound of phosphorus at point B – South Carolina DHEC developed a spreadsheet calculator to determine compliance with the overall loading. Said another way, since the dischargers are spread out, it is not as simple to say: "all of the dischargers need to cumulatively not exceed "x" pounds/month".

All permittees signed a trading agreement regarding sharing data, using the spreadsheet calculator, and the method for discharge monitoring reports. The agreement was incorporated into each permittees NPDES permit. The 12 permits were issued to eight utilities. The eight utilities include: Belton, Easley Combined Utilities, Pelzer, Renewable Water Resources, United Utility Companies, Ware Shoals, West Pelzer, and Williamston.

Who were players in the process?

South Carolina Department of Health and Environmental Control and the individual permitted utilities: Belton, Easley Combined Utilities, Pelzer, Renewable Water Resources, United Utility Companies, Ware Shoals, West Pelzer, and Williamston.

What do you hope to achieve with the program?

As stated above, The Saluda River arm of Lake Greenwood was not impaired as determined by South Carolina DHEC's assessment program and 303(d) list. However, there was concern about future growth of the wastewater dischargers possibly creating a problem in the Lake Greenwood. As is often the case, the domestic wastewater systems in the watershed were not at their full capacity, but DHEC's assessment was that when the dischargers were at their design flow, the phosphorus levels in Lake Greenwood would

be exceeded. The phosphorus limits help ensure that the lake would continue to meet standards. Trading will help permittees meet the limits in the most cost-effective manner.

For more information about the Saluda River arm of Lake Greenwood, visit <http://www.scdhec.gov/HomeAndEnvironment/Docs/03050109-08.pdf>.