

## DREAMS of Wilmington Stormwater Improvement Project

The Water Resources Research Institute and Department of Biological and Agricultural Engineering, both at NC State University, are leading a project in partnership with DREAMS and the City of Wilmington to reduce storm water running off the site's parking lot to Burnt Mill Creek. The effort constitutes about half\* of a \$199,000 US Environmental Protection Agency grant (from Clean Water Act Section 319, commonly referred to as EPA319 grants) for improving Burnt Mill Creek that is matched with \$133,000 of cost sharing from the City of Wilmington, NC State University, and DREAMS. Educational partners NC Coastal Federation and NC Cooperative Extension, New Hanover County Center are also helping to leverage the retrofit design and construction as a means to educate youth and adults about watershed protection and stormwater management.

This stormwater project is creating a sustainable parking lot that will serve DREAMS as an outdoor living laboratory on the grounds of the Center. The new parking lot will include permeable pavement and bioretention (also called a rain garden) for reducing stormwater runoff and associated pollution. Students are participating in hands-on educational activities and multidisciplinary art projects inspired by the stormwater project that encourage them to build a stronger connection with the environment in which they live. In March 2015, middle and high school students from DREAMS participated in a field trip "From your creek to the coast" to see how stormwater impacts their community, and downstream wildlife. Stops on the trip included planting flowers at Gregory Elementary School's rain garden, and seining (dragging a net in the water) for fish at the coast with NC Coastal Federation.



*DREAMS students on a field trip to the coast*

This project benefits DREAMS goals by fostering a strong connection between students and their immediate environment. It will increase their understanding of stormwater and associated

environmental issues, will provide opportunities for involvement in a citizen science project, and will inspire them to create an artistic body of work that reflects their deepened interest in and concern for our natural world.

The grant timeline is Jan 2014- June 2016.



*DREAMS parking lot pre-construction*