2018 Grant Projects

Durham County Community Conservation Assistance Program (Grant Award: $100,000; 1/1/19-12/31/21)

Durham County Soil & Water Conservation District is partnering with local stakeholders to help landowners voluntarily reduce their nonpoint source pollution by installing around 30 best management practices (BMPs) in impaired areas of Third Fork Creek, Northeast Creek, Little Lick Creek, and Ellerbe in Durham County. The sources of impairment have been traced back to downspout and storm sewer connections, streambank erosion, and improper application of fertilizer. Load reductions for over a 30-year period are estimated to be 103 lbs. of nitrogen, 19 lbs. of phosphorous and 2,829 tons of soil. Students from local high schools will participate in the installment and growth of plant materials for the projects and planned 6 community outreach events.

Reducing Stormwater Runoff Volume on the UNC Wilmington Campus (Grant Award: $117,131; 1/1/19-12/30/20)

North Carolina Coastal Federation partnered with University of North Carolina – Wilmington (UNCW), the City of Wilmington Heal Our Waterways Program, New Hanover Soil and Water Conservation and the local community to reduce stormwater runoff into the impaired Bradley and Hewletts Creek Watersheds in New Hanover County. Project planners installed a linear rain garden system and pervious pavement on the UNC Wilmington campus to reduce bacteria entering the creeks. The installed retrofits reduced an estimated 56,773 cf of stormwater runoff for an average one-year storm. Project partners engaged the community in conversations about the watersheds and posted signage recognizing all partners.

Stormwater Volume Reduction in Ward Shore Park, Swansboro (Grant Award: $67,323; 1/1/19-6/30/20)

North Carolina Coastal Federation partnered with the Town of Swansboro to remove sections of asphalt and compacted turf from a select street and replace it with rock-filled permeable paving grids to reduce stormwater runoff from entering the White Oak River in Onslow County. The permeable grids now capture and infiltrate approximately 18,000 gallons of polluted runoff from the 1 year, 24-hour storm. The eight constructed parking spaces provide parking at Ward Shore Park for public access while also serving as a stormwater system. This project is the third successful permeable parking project the town has installed with 319 funding to work toward implementation of their watershed restoration plan. The project also serves as a demonstration site to showcase techniques for mimicking the natural hydrology of the landscape.

Ellerbe Creek Green Infrastructure Implementation Phase II (Grant Award: $146,518; 1/1/19-12/31/21)

Ellerbe Creek Watershed Association is partnering with local stakeholders to implement 20 residential rain gardens and 10 cisterns, monitor and maintain 120 stormwater control measures, and construct a floodplain restoration project and 2 large bioretention projects along Ellerbe Creek. The creek is impaired for fish community and benthos due to urbanization and altered hydrology. The project also includes 2 public projects with multiple bioretention areas, swales, and soil amendment at an elementary school and a local church. The estimated load reductions are 11.3 lbs./year of Nitrogen and 6.3 lbs./year of phosphorous. Project partners will conduct 3 hands-on workshops to teach attendees to install their own rain garden or cistern and continue to improve ECWA's website.

Repairing Failing Septic Systems to Protect the Rocky River Watershed (Grant Award: $250,887.11; 1/1/19-6/30/22)

Triangle J Council of Governments is partnering with local stakeholders to repair or replace failing private septic systems for 35 houses within the Rocky River watershed to reduce loading of nitrogen, phosphorous and fecal coliform to several impaired streams and tributaries in Chatham County. Load reductions are estimated to be 331.80 lbs. of nitrogen per year and 106.75 lbs. of phosphorous per year. Outreach includes preparing flyers and articles, public presentations, phone calls and face-to-face contacts and communications with faith communities.

City of Hendersonville Patton Park Stormwater Retrofits (Grant Award: $100,000; 1/19-12/20)

City of Hendersonville partnered with Wildlands Engineering to install a rainwater harvesting system at the new City of Hendersonville building maintenance facility and retrofit two areas in Patton Park to treat stormwater runoff from large impervious areas and serve as a public education project. The project included constructing a 7000-gallon rain water harvesting system, retrofitting approximately 2500 SF of parking area with permeable interlocking pavers, retrofitting existing green space into bioswales that treat runoff from approximately 20,000 SF of impervious surface in Patton Park, and creating educational opportunities for the public that highlight innovative stormwater management practices. The approximated load reductions associated with the BMPs are: Nitrogen: 14.78 Lbs./Yr., Phosphorus: 1.65 Lbs./Yr., and Sediment/Soil: 1247 Lbs./Yr.

Mud Creek Confluence Floodplain Restoration (Grant Award: $245,000; 1/1/19; 12/31/20)

Conserving Carolina partnered with local stakeholders to restore and enhance six different habitat types at the Mouth of Mud Creek in Henderson County, NC. The project has created and enhanced over 60-acres of floodplain habitat, including 4-acres of

backwater slough habitat to support muskellunge spawning, 6.7-acres of pollinator and grassland habitat, 9.4-acres of floodplain wetland habitat, and 35+ acres of montane alluvial forest habitat. Additionally, the project reconnected the French Broad River and Mud Creek to their floodplain, stabilized over 600-linear feet of streambank and enhanced an additional 6,000-linear feet. These efforts will reduce over 180 tons of sediment from entering surface water each year and provide clean water and diverse habitat for various aquatic and terrestrial species. Over 120 species have been documented utilizing the newly constructed wetland, forest, and backwater slough features, including Muskellunge tagged at locations more than 20 miles away.

Carteret and Onslow Soil and Water Conservation District Stormwater Retrofit Projects (Grant Award: $150,000; 4/1/19; 12/31/21)

NC Division of Soil and Water Conservation is partnering with local stakeholders to implement various stormwater and erosion control retrofit best management practices (BMPs) in two shellfish waters impaired by fecal coliform in Onslow and Carteret counties. The BMPs are designed and implemented according to local districts. Load reductions are estimated to be 24.88 lbs. of Nitrogen per year, 2.22 lbs. of phosphorous and 86 tons of soil per year. A Living Shoreline Academy program will provide educational outreach and signage to further the understanding and knowledge of the factors that go into designing a living shoreline system.

Lower Creek Water Quality Improvement (Grant Award: $240,216; 3/8/19-6/30/21)

NC State University partnered with local stakeholders to install stormwater control measures (SCMs) and best management practices (BMPs) such as stream restoration and riparian buffer plantings in Lower Creek, which is impaired for benthos due to streambank erosion in Caldwell County. The load reductions are estimated to be 27 lbs. per year of nitrogen, 5 lbs. per year of phosphorous and 407 lbs. of soil. Public outreach will include watershed education workshops and educational signage.