2019 Grant Projects

7th Ave. Green Stormwater Infrastructure Demonstration Project (Grant Award: $150,000; 1/1/20-6/30/22)

The City of Hendersonville is partnering with local stakeholders to revamp aging infrastructure and reduce urban stormwater runoff into Mud Creek, which is impaired for benthos and fish community. The street revitalization in the historic area of Hendersonville will include the implementation of 1000 SF of bioretention in curb bump outs, 1000 SF of permeable on-street parking and 4 tree infiltration boxes. The estimated load reduction is 12.45 lbs./year of Nitrogen, 2.21 lbs./year of Phosphorous and 125,604 cubic feet of stormwater. Public education workshops will be developed, and educational signage will be installed.

Stormwater Controls in the Piggly Wiggly sub-watershed of Loves Creek (Grant Award: $221,012.73; 1/1/20-12/31/22)

The Piedmont Conservation council is partnering with local stakeholders to implement storm water control measures (SCMs) in Siler City, Chatham County that are designed to reduce peak stormwater flows, address aquatic habitat degradation, and reduce nutrient loading into Loves Creek. The SCMs include 10 residential rain gardens, 1800 linear feet of roadside rain gardens along local public right-a-ways, 250 linear feet of vegetated buffers along an unnamed tributary to Loves Creek and the planting of 25-50 trees on residential parcels. Load reductions are estimated to be 9.63 lbs./year of Nitrogen, 2.87 lbs./year of Phosphorous, 581 lbs./year of soil and 63,812 cubic feet/year of stormwater. Yearly volunteer stream cleanups will be held, informational brochures will be distributed, a BMP/SCM tour will take place with bilingual educational material provided.

Reduction of Nutrient Loading to Greenfield Lake from Jumping Run Branch, Wilmington, N.C., Phase I (Grant Award: $210,000; 1/1/20-3/31/22)

Cape Fear River Watch is partnering with local stakeholders to design and construct a physical remodeling of an unrefined wet area and to install a retrofit innovative reactive treatment berm at a private retention pond for monitoring in Greenfield Lake, New Hanover County. Greenfield Lake is impaired due to excess nutrients in stormwater runoff that cause an increase in chlorophyll-a, algal blooms, bottom-water hypoxia, fish kills and high fecal coliform bacterial counts. The retrofits have the potential to create estimated load reductions of 355 lbs./year of Nitrogen and 24.5 lbs./year of Phosphorous. Environmental education and outreach events will take place, as well as citizen science opportunities that enhance public awareness and concern for the water quality at Greenfield Lake.

Richland Creek Wastewater and Community Education Project (Grant Award: $137,850; 1/1/20-12/31/21)

Haywood Waterways Association, Inc. is partnering with local stakeholders to improve water quality in Richland and Raccoon in Haywood County. This project will repair approximately 20 failing septic systems and implement multiple education tasks designed to address Richland Creek's fecal coliform bacteria and fish community impairment. The estimated load reductions are 50 - 90% concentration reductions in fecal coliform bacteria. Educational outreach will be held through community meetings, presentations, septic workshops, press releases, mailing inserts, public displays, stream clean-ups, storm drain stenciling, recycling promotions, rain barrel construction workshops, and educational signage.

Mills River Pollutant Reduction Project (Grant Award: $200,000; 1/20-12/31/22)

Mills River Partnership and local stakeholders are collaborating in the restoration of 600 linear feet of Brandy Branch and Town of Mills River streambank, installation of an agrichemical handling facility at the Mountain Horticulture Research Station, as well the implementation of agricultural best management practices (BMPs) on farmland throughout the watershed in the city of Mill River, NC. Brandy Branch has an estimated load reduction of 231 lbs./ year of Nitrogen, 6 lbs./year of Phosphorous and 9.5 tons/year of sediment. Mills River has estimated load reductions of 112 lbs./year of Nitrogen, 8 lbs./ year of Phosphorous and 9.3 tons/year of sediment. Project planners expect to have 2 stream restoration workshops, 3 environmental education events, 12 outreach events, 2 raingarden workshops and 6 elementary and middle school events.

Ivy River Partners Water Quality Improvement Projects (Grant Award: $68,664; 1/1/20-12/31/22)

Mountain Valleys Resource Conservation & Development Council (RC&D) is partnering with local stakeholders to form Ivy River Partners to repair failing septic systems, construct agricultural and stormwater best management practices (BMPs), and repair and restore failing streambanks along the Ivy River in Madison and Buncombe Counties. Ivy River Partners aims to reduce sources of fecal coliform, sediment, and nutrients in the Ivy River Watershed and to raise awareness and promote stewardship of water resources. The load reduction is estimated to be 5 tons/year of soil. Ivy River Partners plan to do outreach and education to increase overall water resource stewardship practices.

Reducing Stormwater Runoff at Everyone Carries an Umbrella University (ECU) (Grant Award: $195,573; 1/1/20- 6/30/22)

East Carolina University is partnering with local stakeholders to improve water quality in Greens Mill Run in Greenville, North Carolina, which is impaired due to

urban stormwater runoff. Stormwater control measures (SCMs) will be implemented on the ECU campus, including the conversion of a dry detention basin to a wet detention basin or wetland near the ECU Athletic Maintenance Building. This project will also monitor the flow and water quality (total nitrogen, total phosphorus, total suspended solids, specific conductance, dissolved oxygen, turbidity, and temperature) entering and exiting the basin before and after the retrofit to determine and compare treatment efficiency. The estimated load reduction is up to 63.86 lbs./year of Nitrogen, up to 9.06 lbs./year of Phosphorous, 1.69 tons/year of soil and 10,521 cubic feet / 1 inch of stormwater. Tours of campus stormwater control measures including this project will be given to over 300 ECU students per year. Project partners will host educational workshops for citizens and local officials to educate participants on the importance of stormwater management and local efforts to improve water quality.

Improving the Dan River by Reducing Turbidity (Grant Award: $126,483; 1/1/20-12/31/22)

NCDACS Division of Soil & Water Conservation is partnering with local stakeholders to complete additional Best Management Practices (BMPs) on the Dan River in Stokes, Rockingham and Caswell counties as an effort to reduce erosion and turbidity in the Dan River Watershed. The BMPs include crop rotation, no-till, critical area, grass waterways, field borders and cattle exclusion. The estimated load reductions are 5000 lbs./year of Nitrogen, 150 lbs./year of Phosphorous and 1,500 tons/year of soil. Project planners will meet with schools to plan educational activities.

Beechtree HOA – Dam Removal and Stream Corridor Restoration Project (Grant Award: $90,000; 4/1/20-12/31/22)

Piedmont Conservation Council, Inc. is partnering with local stakeholders to reduce substantial water quality risks of failing dams and to achieve the co-benefits of improved stormwater control and stream restoration along a section of Upper Crabtree Creek that is impaired for benthos in Cary, NC. The completed project will include the removal of 3 dams and the restoration of 1,000 linear feet of streams. Load reductions are estimated to be 5.2 lbs./year of Nitrogen, 1.86 lbs./year of Phosphorous, 200 tons/year of soil and 10,000 cf/year of stormwater. Project partners plan to have community meetings, involve volunteers in the restoration planting and host public stream walk event to share results with the community.