



2017 Lower Cape Fear Stewardship Development Award Winner

Outstanding Stewardship

- Project Name:** Raintree Wetland
- Partners:** City of Wilmington Stormwater Services, Heal Our Waterways Program & Raintree Neighborhood Subdivision
- Location:** City drainage easement; Oak Bluff Lane in the Raintree Subdivision
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Hewletts Creek and Bradley Creek are two polluted and urbanized waterways in New Hanover County. Both tidal creeks are heavily contaminated with bacteria to the point that valuable resources, like shellfish beds, are closed to public use or harvest. When water resources can no longer meet their assigned uses, they are placed on the Clean Water Act's 303(d) list of impaired waterbodies.

Rather than wait for time consuming regulatory action, the City of Wilmington undertook a progressive voluntary program



that targets water quality improvements in both Bradley and Hewletts Creeks. This program is known as the Bradley and Hewletts Creek Watershed Restoration Plan, or Heal Our Waterways (HOW). The restoration plan was approved and supported by City Council in 2012. Part of the plan involves installing Best Management Practices (BMPs) within the impaired watersheds to increase pollution absorption and filtration and reduce the total amount of runoff flowing into Hewletts Creek.

Since much of the land in these watersheds is developed, public participation from homeowners and business owners is crucial for success since most BMPs will need to be installed on private property.

One of these retrofits was a constructed wetland installed within a city easement in the Raintree neighborhood in the Hewletts Creek Watershed. The site was a former stormwater runoff ditch with a drainage pipe located between two residential properties that frequently overflowed and flooded surrounding properties and the nearby street. The constructed wetland not only acts as an exemplary educational resource for homeowners but also treats approximately 2,628 cubic feet of stormwater runoff. This lessened the flooding concern of adjacent residents and also reduced direct pollutant loading into Hewletts Creek.

The City partnered with a team led by the NC National Estuarine Research Reserve (NCNERR), the North Carolina Coastal Federation, and the University of Wilmington (UNCW) who received grant funding to reduce polluted stormwater runoff that enters Masonboro Sound. Grant funding was used throughout the Raintree Neighborhood to incorporate pervious pavement on private properties. This served to multiply the impact of pollutant removal and reduced the amount of runoff into Hewletts Creek. The wetland project was completely funded in-house by the city.