



Engineering & Property Management Sustainability Newsletter

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IN THIS ISSUE: The Sustainability Benefits of Properly Managed Stormwater



Storm Water Services conducts a variety of important work including flood control projects, water quality improvement projects, and storm drainage system maintenance. Public safety is an obvious benefit of the Division’s work– reducing flooding can save lives. Many projects have a much broader spectrum of benefits, including environmental, social, and financial. The Briar-Chantilly Water Quality Improvement Project (WQIP) is one such project.



BEFORE

The Briar Creek-Chantilly WQIP began as a Floodplain Buyout project. Prior to the project, the existing Doral and Cavalier apartment complexes were the most flood-prone buildings in Mecklenburg County and had suffered millions of dollars of flood damage. The project site is now being converted into a water quality improvement project that will restore 4,500 feet of streams and incorporate additional water quality enhancement features, such as a wet pond and stormwater wetland. Future plans for the site include a greenway trail, educational opportunities for the nearby elementary school and community, and possible expansion of Chantilly Neighborhood Park.



AFTER

PLANET: Though there are many benefits to the project, the environmental benefits are the most obvious. Approximately 4,500 feet of streams will be restored to a natural condition, meaning the banks will be stabilized and a buffer and floodplain consisting of native trees and shrubs will be established. In addition, a pond and wetland will be constructed to capture and treat stormwater before it enters our streams. Overall, the project will improve water quality and provide enhanced aquatic and wildlife habitat. In addition, Habitat for Humanity removed reusable items from the apartments such as appliances, doors, windows, cabinets, and light fixtures. Furthermore, during demolition at both sites, all asphalt, brick, concrete, carpets and metal products were recycled.

PEOPLE: From a social perspective, think about what clean creeks mean to a community and the social benefits become clearer. By reducing pollutants to the creek, it becomes more enjoyable for citizens, especially for kids who love to play in them and observe and learn about the critters that inhabit the creeks. In addition to the environmental improvements, the site is proposed to include multiple recreational and educational benefits for the community.

PROFIT: This project represents a successful collaboration between several entities and multiple funding sources. More than half (64%) of the cost of the floodplain buyout was funded by a FEMA Pre-disaster Mitigation grant, with the remaining cost being funded by Mecklenburg County Storm Water Services. City Storm Water Services is funding the restoration of the Chantilly Tributary, which will generate credits for the City’s Stream and Wetland Mitigation Bank that can then be sold to fund future water quality projects. The City is also funding the stormwater pond and wetland, with some money coming from Post-Construction Stormwater Ordinance (PCO) mitigation fees that are collected from private developers. Leveraging money from multiple sources helps to build a comprehensive project that maximizes public benefits per dollar spent. Creeks eventually lead to lakes that are a source of drinking water, so having a clean water source means less money spent to treat the water for drinking. Water recreation is also a vital part of our economy when you think of all the fishing, boating and swimming that take place in our local lakes.