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**Implementation of low impact development retrofits in a low income neighborhood in Wilmington, NC**

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Abstract:

Burnt Mill Creek, located within downtown Wilmington, NC, is on the EPA's 303(d) list for impairment due in large part to urban stormwater runoff. The urban nature of the watershed presents challenges for restoration because of the varying land uses including single and multi-family residential areas, recreational parks, and commercial and industrial areas. Watershed Education for Communities and Local Officials (WECO) of NC State University (NC State) coordinated a partnership, with NCSU Dept. of Biological and Agricultural Engineering (BAE), as well as several other key state and local organizations and citizens groups, to obtain an EPA 319 grant that addresses stormwater management in the watershed. Collaboration with community leaders has led to several retrofit opportunities and successful partnerships.

Often in large scale watershed retrofit projects, education and retrofit opportunities in low income areas are overlooked. This paper focuses specifically on the partnership with one citizens group, the Bottom Neighborhood Empowerment Association (BNEA). The bottom area, called the bottom because it is one of the lowest points in the watershed, is a dense urban neighborhood where many residents have incomes lower than the median income of Wilmington and New Hanover County (Wilmington median income is \$42,000, New Hanover County \$41,000; areas in BMC between \$22,000 and \$34,000 depending on census tract) (NC Census, 2000). BNEA is a group of citizens living in the bottom area who are working to improve the quality of life in their neighborhood. Cooperation with BNEA has led to several educational and LID retrofit opportunities including three educational workshops held in the community, installation of ten rain gardens in community areas and private residences, and distribution of twenty-four 65 gallon rain barrels. A survey developed and distributed by an NCSU graduate student showed that each resident who responded found some stormwater educational benefit to participating in the workshops and the retrofit efforts.

Impact Statement:

This paper focuses specifically on the partnership with one citizens group, the Bottom Neighborhood Empowerment Association (BNEA). BNEA is a group of citizens living in the bottom area who are working to improve the quality of life in their neighborhood. A survey developed and distributed by an NCSU graduate student showed that each resident who responded found some stormwater educational benefit to participating in the workshops and the retrofit efforts. Many of the respondents indicated that they shared what they learned with their neighbors, a significant accomplishment in accordance with the goals of the overall project.

Category: Watershed Assessment and Restoration

Type of Presentation: Poster Presentation