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Integrated Water Technologies Concept and Communitywide Water Management

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Abstract:

Traditionally, water management in a community has been handled via separate methods, technologies and regulations for: household wastewaters (septic systems), stormwater removal, water table management, flood control, and erosion and sedimentation control. Technology and regulatory barriers exist between each of these water management categories. These barriers result in uncoordinated water management in local communities throughout much of the U.S. The professionals who plan and design on-site systems do not typically consider the effects of the on-site systems used in a subdivision or small communities on other water management needs, such as stormwater treatment and flood control. Rules that regulate the design of on-site systems are separate from those that regulate stormwater treatment and removal. Likewise, professionals who plan and design stormwater treatment systems, water table management systems and flood control systems, don't address the likely effects of these technologies on the on-site systems installed in the area and so on.

An Integrated Water Technologies (IWT) National Demonstration Project was proposed and funded by EPA to bridge knowledge gaps regarding coordination and integration of all decentralized water management technologies. The Albemarle Regional Health Service agency in partnership with North Carolina State University are demonstrating IWT that holistically account for and balance the water quality and quantity impacts in a 50 lot demonstration community. The Integrated Water Technologies coordinate all water management issues within the community.

Impact Statement:

This is an ongoing project funded by EPA STAG grant to the Albemarle Regional Health Service (ARHS) agency. This project involves a substantial partnership between the ARHS and North Carolina State University. The purpose of this project is to develop Integrated Water Technology (IWT) concept that minimize and balance potential water resources impacts within a low impact development framework, to demonstrate these technologies within a demonstration community and to provide educational programming regarding IWT.

Category: Other Water Resource Topics
Type of Presentation: Oral Presentation