

**2003 GEORGIA WATER RESOURCES CONFERENCE**  
**Call for Papers**  
**Presentation Abstract**

Submitted by (Speaker): Courtney Nolan, PE  
Phone: (770) 461-4292  
Email: cnolan@intse.com  
Organization: City of Griffin Stormwater Utility / Integrated Science & Engineering  
Address: PO Box T, Griffin, GA 30224 / 118 N. Expressway, Griffin, GA 30223

---

**Highway Corridor Non-Point Source Pollution Mitigation Study**

City of Griffin Stormwater Utility Department, Griffin, Georgia

The City of Griffin identified a project area along Georgia Highway 16 (Taylor Street) for TEA-21 funding. The project falls under the category of Transportation Aesthetics Project, specifically, Mitigation of Water Pollution Due to Highway Runoff. The purpose of the project is to provide quantitative data regarding the effectiveness of various water quality improvement Best Management Practices (BMPs) for stormwater runoff that originates along highly developed and urbanized highway corridors. Based on empirical evidence collected and analyzed using both traditional and high-tech methods and procedures, the City of Griffin will endeavor to show the effectiveness of the proposed BMPs. Successful implementation of stormwater BMPs should result in improved water quality, reduction in pollutant loadings in downstream receiving waters, improved wildlife habitat, and other associated environmental benefits.

The project is comprised of three phases of work. Phase 1 of the project involved the collection and laboratory analysis of stormwater samples originating along Georgia Highway 16, within the Potato Creek sub-watershed, followed by analysis of the stormwater quality data. The project area lies within the headwaters area of the watershed along the urbanized highway corridor. Phase 2 of the project involved the evaluation of the water quality data compiled in Phase I and implementation of the selected BMPs in an attempt to enhance the quality of stormwater runoff originating within the roadway. Phase 3 is currently underway and involves the evaluation of the effectiveness of the BMPs implemented to establish the potential for future application. Based on the findings, a comparative analysis will be performed and compiled into a report to demonstrate the effectiveness of the various BMPs implemented.

The City has incorporated this project into its ongoing Potato Creek Watershed Assessment project. A significant amount of the TEA-21 project data was utilized in the watershed assessment modeling effort resulting in a more cost effective assessment program. More importantly, several of the BMP strategies implemented as part of the TEA-21 project have been incorporated into the Potato Creek Watershed Protection Plan for the headwaters area of the basin. Additionally, the National Sanitation Foundation (NSF) Environmental Testing Verification (ETV) Protocol Program contacted the City of Griffin and Integrated Science & Engineering (ISE) regarding the unique nature of this project. NSF contracted with ISE to expand the TEA-21 testing program to include protocols established by the United States Environmental Protection Agency (USEPA) regarding BMP pollutant removal efficiency. ISE developed a comprehensive test plan, which outlined the rigorous testing protocols that would be followed under the NSF project. The testing program is currently underway and will likely continue for a one- to two-year period. Ultimately, the data compiled as part of this project will be incorporated into the USEPA's national database regarding pollutant removal efficiencies for stormwater BMPs.