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Type	oral presentation
Category	Innovative watershed and stream restoration approaches/methods
Title	Gwinnett County, Georgia, Watershed Improvement Program: Integrating Stream Restoration and Stormwater Treatment to Meet Multiple Watershed Restoration Goals
Abstract	<p>Gwinnett County, Georgia, an outlying county in the metro Atlanta region, is actively planning and implementing watershed and stream improvements through a Watershed Improvement Program (Program) to restore lost habitat and improve the water quality in the region. Led by the Gwinnett County Department of Water Resources, the Program seeks to meet an aggressive goal of reducing total suspended solids (TSS) yield to less than 1,600 pounds per acre per year in all streams within Gwinnett County. Since 2006, more than ten restoration projects have been implemented that include stream restoration using natural channel design techniques, stormwater treatment with wetlands, ponds, and sustainable stormwater design techniques such as bioretention areas and infiltration trenches.</p> <p>In December 2008, construction was completed on the Martin Heights Stream Restoration and Stormwater Treatment Project, a unique project that integrates stream restoration and water quality improvement through channel reconstruction and construction of an off-line wet detention pond. Prior to construction, the existing stream channel of approximately 750 feet was impounded by an in-line pond causing backwater and significant sediment deposition in the upstream channel. Following construction, the existing stream channel was re-routed (daylighted) around the pond using Priority I channel restoration technique restoring connectivity with the downstream channel, reducing erosion, and providing valuable aquatic habitat. In addition to channel restoration, the pond was excavated and reconstructed to create a wet detention pond for stormwater treatment. A stream diversion was incorporated into a cross vane structure near the upstream end of the project to convey stream flows to the pond during storm events for water quality treatment and reduction in peak flows downstream of the project.</p> <p>This presentation will provide an overview of the County's Watershed Improvement Program and discuss the specific components of the Martin Heights Project including the stream restoration, wet pond construction, diversion structure, and planting plan. Collected in support of the site's status as a mitigation bank, monitoring data will be presented to demonstrate the success of the project.</p>