

# **ECOLOGICAL RESTORATION OF A DRAINED URBAN STREAM-WETLAND SYSTEM THROUGH BEAVER ACTIVITY**

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REFERENCE: *Proceedings of the 2017 Georgia Water Resources Conference*, held April 19-20, 2007, at the University of Georgia

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In 2002, a developer illegally rerouted a small tributary of Nancy Creek in Buckhead to drain a wetland. As mitigation for these impacts, the city of Atlanta ultimately acquired the land. Many different restoration alternatives were considered by Blue Heron Nature Preserve until the arrival of beavers a few years later began to transform the site, possibly beginning the recovery of the stream-wetland system. In conjunction with the land managers, we monitored physical, chemical, and biological data at the site, looking for indications of recovery of the ecosystem. Strong positive trends were seen in the groundwater levels and the amphibian community in the wetland. However, the site remains a net exporter of sediment to the watershed, likely due to high erosion rates in the constructed channel. Although downstream reductions in conductivity and ammonium and fecal coliform concentrations were seen at times, the site is as yet having little overall effect on downstream water quality. If beaver activity at the site continues, this ongoing monitoring project could demonstrate the potential for restoration and management of urban streams and wetlands without the high costs and impacts of major construction projects. We also hope to expand this pilot project to the greater Atlanta area to examine the broader potential for water quality benefits of beaver activity in urban watersheds.

*Program reference: 5.8.1*