

Crooked Creek BMP Demonstration/ Implementation

Gwinnett County, Georgia



CLIENT

Gwinnett County Dept. of Public Utilities

SCOPE OF SERVICES

- Preliminary & Final BMP Design
- Grant Assistance & Implementation
- Concept Plans & Development
- Alternatives Analyses & Recommendations
- Hydrologic & Hydraulic Analyses
- Site Investigations
- Permitting Services
- Public Information Materials
- GIS Analysis
- Construction Observation
- Construction Contract Administration



Crooked Creek Watershed has been designated the “most impaired watershed” in Gwinnett County. A pollutant load analysis was completed for the nine-square-mile watershed, which revealed an annual sediment load exceeding Gwinnett County guidelines under current conditions. The Crooked Creek Storm Water Master Plan presents a ranked list of 33 recommended capital improvement projects (CIPs) that when implemented should bring the watershed pollutant loading to its target of 1,600 lb/ac/yr.

Manhard Consulting, Ltd. assisted the County with identifying the subbasins within the Crooked Creek Watershed where the pollutant load exceeds the target yield and where stream conditions and habitat have been heavily impacted, selecting the best projects that will improve water quality and habitat within identified priority subbasins, and providing a final design for the selected projects.

CIP projects were evaluated and ranked based on their potential impacts on water quality, pollutant removal, channel protection, hydrology and hydraulics, and habitat. Potential projects were also evaluated on TSS and habitat benefit relative to cost, and consideration was given to the feasibility of acquiring and accessing property, construction, environmental permitting, cost-effectiveness, land use compatibility, aesthetics, sustainability, and the probability of success of the improvement projects. This project is funded with 319(h) federal grant monies, and projects were selected to meet the goals and objectives set forth in the 319(h) grant.

The two selected projects, both pond retrofits located along the floodplain of Crooked Creek, will be taken from inception through final design, including property easements, preliminary and final construction bid documents, permitting, and construction contract administration. Implementation of these projects also includes a public education element, intended to increase awareness and support for the BMP projects and the County’s goals for watershed improvement. Educational materials will be developed and distributed throughout the community to explain the County’s efforts in watershed management and the importance of this project. The final element of the public education campaign involves assisting the County with a project tour by preparing presentations, handouts, and educational activities for children; coordinating with local and regional agencies and community groups to generate interest; and preparing press releases for the event.