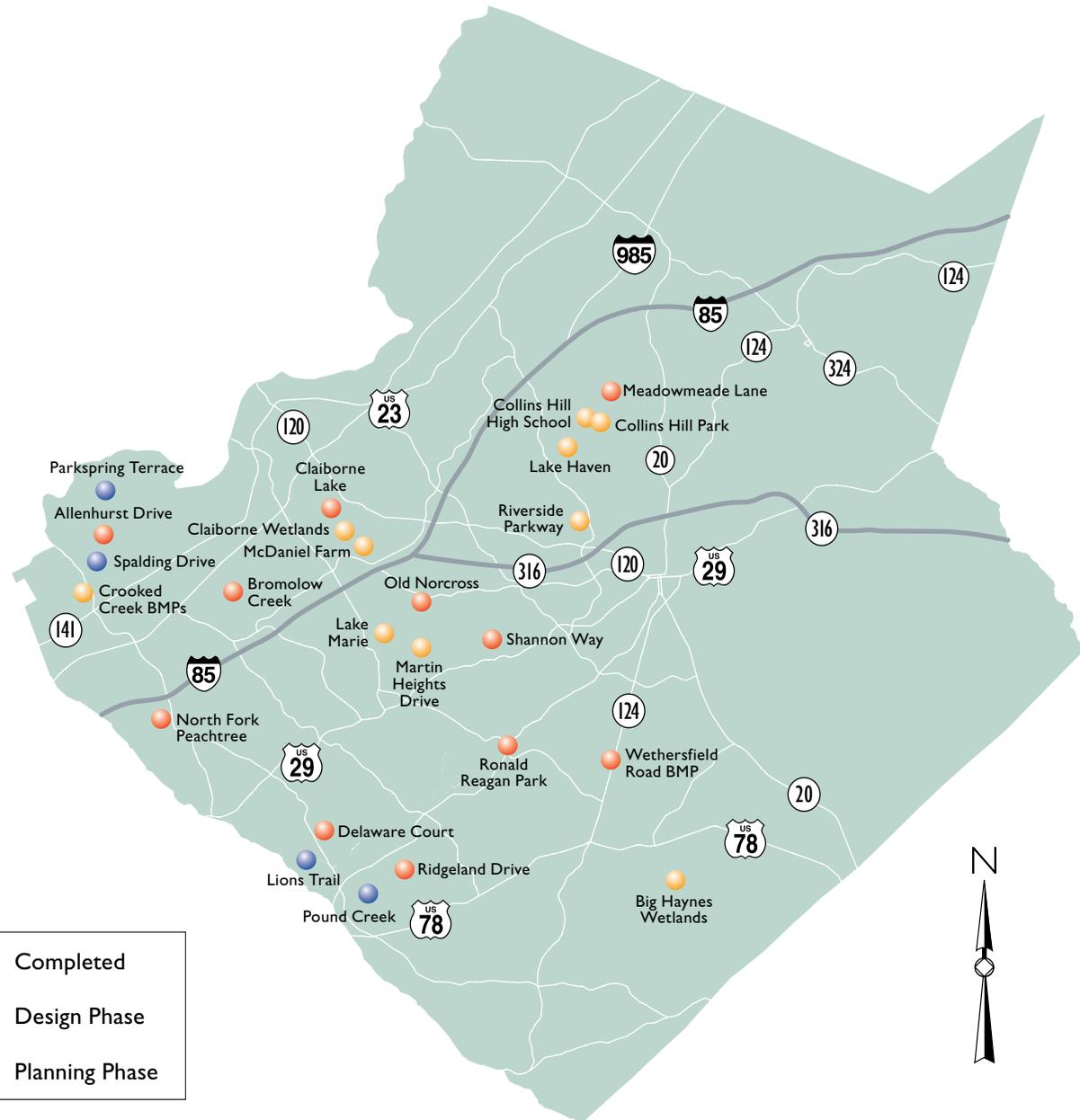


Watershed Improvement Projects

Watershed Improvement Projects fall into three categories: completed, design phase, and planning phase projects. The map below illustrates the locations of these Watershed Improvement Projects* in Gwinnett County.



*As of spring 2009

gwinnettcounty
GWINNETT WATERSHED
 improvement program

Informing and educating the public about protecting rivers and streams is an important feature of the Watershed Improvement Program. Inquiries to the Watershed Improvement Program are welcomed.

gwinnettcounty
 Department of Water Resources
 Watershed Improvement Program
 684 Winder Highway
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Watershed Improvement Program

gwinnettcounty
 Department of Water Resources

Protecting Water Through Watershed Improvement

Here in Gwinnett County, we realize the importance of protecting our natural resources, and that includes the ways in which we protect and enhance our rivers and streams. As a result of decades of growth and development, these bodies of water have been affected by a variety of natural conditions, such as flooding and erosion, as well as man-made factors that include land development and road construction, littering, landscaping, and lawn care and other activities.

To protect our rivers and streams, we must protect and maintain the health of the county watersheds—those natural land formations where water collects before flowing into the rivers, streams, and other bodies of water. This is the primary goal of the **Watershed Improvement Program**.



A Watershed Protection Plan

Over the past decade, communities throughout the Atlanta region began to look at the impact of development on their water resources. The Gwinnett County Department of Water Resources initiated a study of the county's watersheds to better understand how natural and man-made actions affect the county's waterways and how water quality and habitat can be protected. This indepth study helped to characterize and define the conditions of Gwinnett streams and waterways and led to the development of a **Watershed Protection Plan** focused on improving the county's water quality and stream conditions.

Through this planning process, a three-part Watershed Protection Program was developed that includes:

- Enhanced standards for new developments in the county
- Improvement projects for areas impacted by urban stormwater runoff
- Public education to enhance awareness and improve watershed stewardship

All three phases of the Watershed Protection Plan are now being implemented. The Watershed Improvement Program focuses on specific projects to improve those areas impacted by urban stormwater runoff.



Planning and Implementation

To target those areas most in need of improvement projects, Watershed Improvement Plans (WIPs) are being produced for every watershed in the County. Hundreds of potential WIP projects have been identified to help improve water quality and aquatic habitat.

These detailed WIPs provide information about the condition of streams, ponds and stormwater detention facilities. Using innovative computer modeling, the County is able to chart both current and future sediment loads carried in these bodies of water and to design projects for mitigating problems. WIP projects are selected based on a variety of criteria, including sediment reduction need and the opportunity to repair degraded streams.

Project Categories

The two most common categories of Watershed Improvement Projects are:

- **Stormwater Best Management Practices (BMPs)**
- **Stream Restoration**

Stormwater BMPs projects usually focus on creating new or improving existing stormwater ponds. These stormwater ponds are intended to capture and slowly release stormwater to prevent downstream stream bank erosion while trapping sediment and pollutants. New BMPs, such as constructed wetlands, are built in areas where none existed and are intended to provide an attractive amenity to an area. Many existing

stormwater BMPs were built before development of current protective standards. The Watershed Improvement Program will retrofit these stormwater BMPs to improve the function of the ponds. Improved stormwater ponds will trap sediment and pollutants while slowing down high velocity runoff from parking lots and streets.

The goal of **Stream Restoration** projects is to return degraded streams to more natural flow patterns and conditions. Stormwater runoff from developed areas increases the volume and velocity of water traveling through a stream bed, creating stream bank erosion and increased sediment loads. Excessive sediment buries habitat for fish and aquatic life. Using natural materials and design techniques, Stream Restoration Projects restore streams to more healthy conditions that support aquatic life, improve water quality and enhance natural beauty (see *photos at right*).



Before



After

Collins Hill Park Stream Restoration
Improving Water Quality and Habitat

