

# DEVELOPMENT OF A MULTI-JURISDICTIONAL STORMWATER UTILITY IN CLAYTON COUNTY

Bruce Taylor<sup>1</sup>, Mike Thomas<sup>2</sup>, Douglas S. Baughman<sup>3</sup>, Kelly Taylor<sup>4</sup>, and Dawn Abercrombie<sup>5</sup>

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AUTHORS: <sup>1</sup>Manager Program Management and Engineering, <sup>2</sup>General Manager; Clayton County Water Authority, 1600 Battle Creek Road, Morrow, GA 30260; <sup>3</sup>Senior Environmental Scientist, <sup>4</sup>Water Resources Engineer, <sup>5</sup>GIS Analyst/Planner; CH2M HILL, 115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346

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**Abstract.** Many local governments are implementing stormwater utilities (SWUs) to fund enhanced stormwater management and maintenance programs in Georgia as a result of the increased regulatory focus on the impacts of stormwater runoff and increasing costs for repair and replacement of aging infrastructure. The local governments in Clayton County, including the County and the Cities of Forest Park, Jonesboro, Lake City, Lovejoy, Morrow, and Riverdale, plus the Clayton County Water Authority (CCWA) have agreed to develop a single SWU to fund and implement a county-wide stormwater management program. In this unique partnership, CCWA will take on the responsibility for implementing the utility, including collection of revenues and implementation of stormwater-related services within each of the jurisdictions just as they currently provide water and sewer services. CCWA will become the one point of contact for all water related services county-wide and will charge for all water, wastewater, and stormwater services on one bill. A technical coordination committee (TCC), consisting of the public works directors from each of the jurisdictions, helped to facilitate this rare multilateral agreement. In addition, a diverse citizens advisory committee (CAC) was consulted to finalize the proposed stormwater services, potential fees, and implementation approach. With the assistance of these two advisory groups, the County and City officials reached a consensus on a consolidated SWU. Currently, CCWA is developing the billing database using a combination of new planimetric data (on impervious surfaces), the County tax assessor's data, and CCWA's billing system. Reconciliation of the County tax data and CCWA's billing database has proved to be a challenge, but full implementation of the new county-wide utility is expected in 2007.

## INTRODUCTION

The need for additional stormwater management in Clayton County has been emerging for a number of years. Under the current arrangement, Clayton County, the Cities (Forest Park, Jonesboro, Lake City, Lovejoy, Morrow, and Riverdale), and the Clayton County Water Authority (CCWA), share various responsibilities for providing

stormwater services throughout the county. Together, they faced an increasing set of stormwater management challenges stemming from:

- The need to comply with federal, state, and local mandates.
- Changes in stormwater quantity and quality as a result of growth and development.
- Aging and deteriorating drainage infrastructure.
- Community demands for greater responsiveness related to drainage facility maintenance and repair.

The existing stormwater programs were primarily funded through tax revenues. A more comprehensive stormwater management program was needed to allow the County to shift from the existing "reactive" approach to a "proactive" approach that meets regulatory requirements and infrastructure maintenance needs. Consequently, the County, Cities, and CCWA agreed to develop a stormwater utility (SWU) to fund and implement a consolidated and enhanced county-wide stormwater management program.

## INTER-GOVERNMENTAL PLANNING PROCESS

A phased approach was used to define the stormwater program needs and associated costs, to determine the most appropriate method for funding and the most efficient implementation approach, and to develop the recommended SWU program.

### **Feasibility Study.**

Initially, Clayton County and CCWA discussed the concept of a consolidated stormwater management approach and the potential for development of an SWU to help fund the required new services. A feasibility study was initiated by the County and CCWA to define the future service needs and potential funding alternatives. During the early stages of this evaluation, the County approached the Cities about participating in the feasibility study. Senior management from CCWA and the Clayton County Commission Chairman discussed the need for additional stormwater management with the city councils

and how a consolidated program may benefit all of the jurisdictions within the County. As a result, all six Cities agreed to participate in the feasibility study.

**Technical Coordinating Committee:** A technical coordinating committee (TCC), consisting of the public works directors or their appointees from each City and the County, and CCWA, was established during the feasibility study. The purpose this group was to assist in defining the stormwater program needs and costs and to evaluate future alternatives for implementation. This multi-jurisdictional group also provided an important linkage back to the elected officials in each jurisdiction. Based on feedback from the TCC, the recommendations for future stormwater management were summarized in the feasibility study and presented to the County Commission, City Councils, and CCWA Board.

In October 2004 the County, all six Cities, and CCWA agreed that an SWU was the most feasible approach for funding an enhanced stormwater management program and that CCWA should be responsible for leading the implementation of the new program.

### **Stormwater Utility Development**

Implementation of the new SWU required several key tasks:

- Development of Intergovernmental Agreements
- Development of an SWU Ordinance
- Public Involvement and Education
- Update of the Billing System to Add SWU Fees
- Development of the Billing Database
- Engineering and Master Planning
- Operations and Maintenance (O&M) Planning
- Customer Service Preparations
- Development of Capital Improvement Prioritization Process and Initial CIP List

**Citizens Advisory Committee.** During the feasibility study, a citizens advisory committee (CAC) was established to initiate the public education process and to provide early input on the recommended stormwater management program and associated costs as well as the potential funding method and potential fees. The CAC included representatives from the chambers of commerce, religious organizations, homeowner associations, or other key stakeholders. Input from this diverse group was vital to selection of the final level of service and recommended SWU fees. Recommendations and feedback from the CAC were incorporated into the final program and presented to the elected officials.

**Stormwater Executive Committee.** In addition, an Executive Committee, consisting of the CCWA Director

and one representative from the Clayton County Municipal Association (for the Cities), the County Commission, and the CCWA Board was formed. This committee provided representation from each entity involved in the SWU during development and implementation of the new program.

Intergovernmental agreements were developed between CCWA and each of the Cities and the County to clearly define responsibilities for the SWU program. These agreements required several months for legal reviews and approval by elected officials, but the agreements were eventually approved by all of the entities to give CCWA the authority to bill for and implement stormwater management services county-wide.

A model SWU ordinance was developed by CCWA for approval by each entity (the County and the Cities) to establish the SWU and the required enterprise fund within the CCWA. Each of the entities eventually passed the ordinance, allowing the CCWA to continue with implementation.

### **Stormwater Utility Implementation**

Implementation of the SWU will proceed in an incremental process based on the projected revenues. As of January 2007, CCWA will begin to take over the responsibilities for stormwater management (see below for specific activities) and program activities will be phased in over time.

### **STORMWATER MANAGEMENT APPROACH**

Through the planning process described above, the recommended stormwater services and implementation approach were defined. Several important items involving stormwater management services had to be determined throughout this process, including:

- Level of Service – What services will be provided and at what level?
- Extent of Service – Geographically, where will these services be provided?
- Responsibility for Service – Which entity is responsible for these stormwater services?

### **Level of Service**

Typically, the Level of Service (LOS) for stormwater management refers to the scope of services that will be provided. In addition, the LOS usually addresses a performance level (for flooding and water quality) and a maintenance level of service. Overall, the SWU and the associated level of funding have been designed to provide a “moderate” LOS. Under the moderate LOS, the primary goals are to:

- Meet regulatory requirements, including the Phase I MS4 NPDES stormwater permit, source water protection, watershed management, and Metropolitan North Georgia Water Planning District (MNGWPD) recommendations.
- Initiate proactive O&M programs, including system inventory and Geographic Information System (GIS), making repairs on drainage infrastructure in the right-of-way (ROW) and pipe systems directly connected to the ROW.
- Slowly ramp up master planning, Capital Improvement Project (CIP) implementation, and more comprehensive water quality programs.

Stormwater infrastructure will be designed and maintained to accommodate the 25-year storm with minimal impacts to roadway flooding. Additionally, CCWA completed a set of design guidelines called “Stormwater Development Guidelines” that apply to all jurisdictions participating in the SWU. The future LOS for the SWU includes 9 elements: program administration, public information, billing and financial management, regulation and enforcement, stormwater quality management, engineering and master planning, floodplain management, O&M, and CIPs.

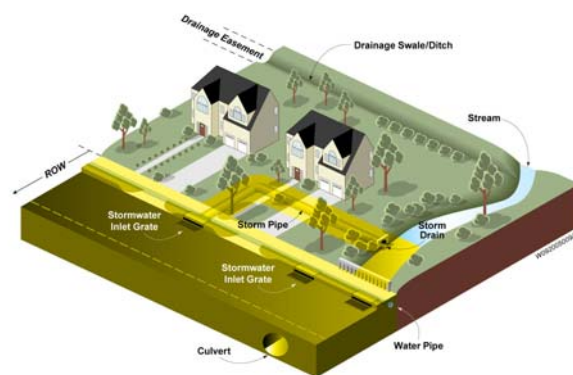
### Extent of Service

The “extent of service” for stormwater management programs refers to the geographic area that is included for stormwater management services. For the SWU program, CCWA will have responsibility for providing stormwater management services throughout the unincorporated areas of the County and the incorporated areas in the Cities. One of the primary issues for SWU implementation is defining whether services will be confined to the ROW or will be extended to private property.

Stormwater infrastructure within public ROWs and pipe systems directly connected to the ROW are included. This category includes inlets, catch basins, drop inlets, culverts, and drainage pipes (see Figure 1). “Directly connected” is interpreted as meaning the pipe outside the ROW is connected to the ROW pipe system by a junction box or by a pipe and no open ditch or stream channel separates the systems. Pipe systems outside the ROW but directly connected to the ROW will be addressed based on funding availability and the following priority ranking: (1) downstream of the ROW on single-family residential property; (2) downstream of the ROW and prevents proper ROW drainage, resulting in a safety hazard in the ROW in a commercial or industrial area; (3) upstream of the ROW on single-family residential property; and (4) upstream of the ROW on commercial or industrial property. Structural stormwater control facilities on private property will be the responsibility of the property owner; however, the SWU will have the authority to

inspect these facilities to ensure that proper maintenance has been completed by the property owner. The SWU will assist the property owner in identifying maintenance activities necessary to ensure the facilities continue to function as designed. Rivers and streams on public property or within the ROW directly downstream and upstream of stormwater infrastructure will be maintained or repaired when there is clear evidence of water quality impacts from stormwater runoff. Streambank stabilization and restoration projects may be conducted on private property only when water quality and biological habitat benefits will be substantial and a public easement with restrictive covenants is provided.

Figure 1. Extent of SWU Service Area



### Responsibility for Service

The SWU partners (CCWA, Clayton County, and the six participating Cities) have identified all stormwater-related tasks and the responsible entity. Table 1 summarizes the responsibilities of the entities participating in the SWU. Overall, CCWA will have the primary responsibility for implementation of the SWU and the county-wide stormwater management program. The County and Cities will retain responsibility for land disturbance permitting, sedimentation and erosion control inspections and enforcement, litter control, and street sweeping. This approach will consolidate stormwater services under the CCWA throughout the entire county. Representatives of the County and Cities will continue to participate in the TCC (described above) and provide planning assistance to the CCWA on O&M considerations and CIP planning.

### STORMWATER UTILITY BILLING SYSTEM DEVELOPMENT

Alternatives for billing the SWU fee included property tax statements, separate billing systems or the water and sewer bills. Based on feedback from the TCC and CAC, the county decided to bill the fee on the water and sewer

bill. The major advantages of using the utility billing system is that it will help to citizens to associate stormwater with other utilities, it uses existing databases and administrative infrastructure, and avoids duplication of costs such as postage.

Table 1. Stormwater Utility Responsibilities by Entity

Major Program Elements	Clayton County	CCWA	Cities
<b>1. Program Administration</b>			
General Stormwater Program Administration		X	
General Program Planning and Development		X	
Interagency Coordination		X	
Customer Service		X	
<b>2. Public Information</b>			
Public Involvement		X	
Public Education	X	X	X
Source Water Education Efforts		X	
<b>3. Billing and Financial Management</b>			
Billing Operations		X	
Financial Planning	X	X	X
<b>4. Regulation/Enforcement/Inspections</b>			
Ordinance Review and Update	X	X	X
Land Development Regulation (Plan Review)	X	X	X
Land Development Inspection	X	X	X
Erosion and Sediment Control Program	X		X
<b>5. Stormwater Quality Management</b>			
Annual NPDES MS4 Reporting	X	X	X
Stormwater Monitoring		X	
BMPs Database Management		X	
Commercial/Industrial Inspection Program		X	
Street Sweeping Programs	X		X
Illicit Discharge Screening		X	
<b>6. Engineering and Master Planning</b>			
Subbasin Master Planning (Hydraulic/Hydrologic Modeling)		X	
O&M Engineering		X	
WIP Development		X	
BMP and Drainage System Inventory		X	
GIS		X	
<b>7. Floodplain Management</b>			
Flood Insurance Program Administration		X	
Floodplain Field Inspections		X	
Response to Flooding Complaints		X	
Development of Future Floodplain Maps		X	
<b>8. Operations and Maintenance</b>			
O&M Administration	X	X	X
Scheduled Maintenance			
(a) ROW and Roadway Maintenance	X		X
(b) ROW Litter Control	X		X
(c) Stormwater Infrastructure Inspection and Maintenance		X	
(d) Curb and Gutter Maintenance	X		X
(e) BMP Inspection		X	
Emergency Response Maintenance		X	
Complaint Inspections		X	
BMP Maintenance		X	
Catch Basins		X	
<b>9. Capital Improvements</b>			
Drainage Infrastructure Projects	X	X	X
BMP Retrofits	X	X	X
Streambank Restoration	X	X	X

Development and maintenance of the SWU accounts and billing system are essential tasks for the SWU. To ensure that all properties with impervious surfaces are billed appropriately, the SWU accounts database will need to include water and sewer customers as well as properties that do not have water and sewer service. Steps used to develop the database included: development of the accounts database, assignment of stormwater class, delineation of impervious surfaces for developed properties, development of customer account boundaries, and assignment of the appropriate Stormwater Unit (SU) to each account. The CCWA’s Customer Information System (CIS) will store the stormwater account information. Development of the customer account boundaries was a challenge because Clayton County did not have digital tax parcel data available. Boundaries had to be digitized for each of the non-residential properties to confirm impervious area by customer (Figure 3). Assigning a CCWA customer identification number to each parcel was another challenge. In many cases, the County tax assessor database and CCWA customer database were in conflict (most frequently addresses did not match) and additional field global positioning system (GPS) data were needed to locate individual non-residential sites. This database reconciliation process added significant time and effort to development of the billing database.

Figure 2- Example of Account Boundary Delineation with Impervious Surfaces



## CONCLUSIONS

The inter-jurisdictional approach for stormwater management and funding in Clayton County is unique in Georgia. Although the process for obtaining the inter-governmental agreements extended the implementation schedule, the results will provide citizens of Clayton County with a consistent and efficient stormwater

management program, with the CCWA serving as the sole provider for all water-related services across all jurisdictions in the County. Charging the SWU fee on the water bills will ultimately help customers understand that stormwater services are, in fact, a “utility” similar to water and sewer services. The initial billing system development is clearly more problematic than alternative billing methods. However, these challenges were overcome through collaborative efforts among the implementation team.