

## Section 9: IMPLEMENTATION PLAN

This Section provides implementation schedules for the required management measures for local governments included in this Plan in Section 5, as well as schedules for the recommendations for the regional and State agencies provided in Section 7. As funding is a key challenge for local government implementation, this Section also provides a summary of various program funding alternatives including a detailed discussion of stormwater utilities.

### IMPLEMENTATION SCHEDULES

Three separate implementation schedules are included on the following pages: one for local governments, one for regional agencies, and one for State agencies. It should be noted that local governments are only responsible for implementing management measures on this implementation schedule, and are not responsible for Metro Water District or State-level tasks. The reference page numbers provide the location of the full description of each measure in the Watershed Management Plan where descriptions of the measure and implementation guidance may be found.

New program implementation or creation of a program is indicated differently than ongoing implementation in the implementation schedules. The distinction provides a quick snapshot for the level of intensity of implementation on an annual basis.

Tasks in the implementation schedule are outlined individually for the first few years of the Watershed Management Plan, considered the short-term. The management measures for implementation in the years 2012 to 2015 are considered medium-term and the management measures for the 2015 to 2035 time-frame are considered long-term recommendations. The schedule for medium-term and long-term tasks may be adjusted during updates every 5 years, following an adaptive management approach.

**Section 9: IMPLEMENTATION PLAN**

**TABLE 9-1  
Local Government Implementation Schedule**


Category	#	Implementation Action Item	2009	2010	2011	2012 - 2015	2015 - 2035	Ref. Pages
Legal Authority	5.A.1	Post-Development Stormwater Management	.....	.....	.....	.....	.....	5-5 to 5-8
	5.A.2	Floodplain Management/Flood Damage Prevention	.....	.....	.....	.....	.....	5-9 to 5-12
	5.A.3	Stream Buffer Protection	.....	.....	.....	.....	.....	5-13 to 5-14
	5.A.4	Illicit Discharge and Illegal Connection	.....	.....	.....	.....	.....	5-15 to 5-16
	5.A.5	Litter Control	.....	.....	.....	.....	.....	5-17 to 5-18
Watershed Planning	5.B.1	Comprehensive Land Use Planning	■.....	.....	.....	.....	.....	5-19 to 5-20
	5.B.2	Future-Conditions Floodplain Delineation	■.....	.....	.....	.....	.....	5-21 to 5-24
	5.B.3	Sewer and Septic Planning	.....	■.....	.....	.....	.....	5-25 to 5-26
	5.B.4	Greenspace and Green Infrastructure Tools for Watershed Protection	■.....	.....	.....	.....	.....	5-27 to 5-28
Land Development	5.C.1	Integrated Development Review Process	■.....	.....	.....	.....	.....	5-29 to 5-30
	5.C.2	Stormwater Design Criteria & Standards (Georgia Stormwater Management Manual)	.....	.....	.....	.....	.....	5-31 to 5-32
	5.C.3	Construction Erosion and Sediment Control	.....	.....	.....	.....	.....	5-33 to 5-36
Asset Management	5.D.1	Stormwater Infrastructure Inventory	■.....	.....	.....	.....	.....	5-37 to 5-40
	5.D.2	Extent and Level of Service Policy	■.....	.....	.....	.....	.....	5-41 to 5-44
	5.D.3	Inspections (public and private systems)	■.....	.....	.....	.....	.....	5-45 to 5-46
	5.D.4	Maintenance	.....	■.....	.....	.....	.....	5-47 to 5-50
	5.D.5	Capital Improvement Program	.....	.....	■.....	.....	.....	5-51 to 5-52
Pollution Prevention	5.E.1	Pollution Prevention/ Good Housekeeping for Local Operations	.....	.....	.....	.....	.....	5-53 to 5-56
	5.E.2	Illicit Discharge Detection and Elimination Program	.....	.....	.....	.....	.....	5-57 to 5-60
Watershed Conditions Assessment	5.F.1	Long-term Ambient Trend Monitoring	.....	.....	.....	.....	.....	5-61 to 5-64
	5.F.2	Habitat and Biological Monitoring	.....	.....	.....	.....	.....	5-65 to 5-66
Education and Public Awareness	5.G.1	Local Education and Public Awareness Program	.....	.....	.....	.....	.....	5-67 to 5-68
Watershed-specific Measures	5.H.1	Source Water Watershed Protection	■.....	.....	.....	.....	.....	5-69 to 5-72
	5.H.2	Total Maximum Daily Load (TMDL) Management	■.....	.....	.....	.....	.....	5-73 to 5-76
	5.H.3	Endangered Species Protection	■.....	.....	.....	.....	.....	5-77 to 5-78
	5.H.4	Watershed Improvement Projects	.....	.....	.....	.....	.....	5-79 to 5-82
								

TABLE 9-2  
Regional Agency Implementation Schedule

Category	Implementation Action Item	2009	2010	2011	2012 - 2015	2015 - 2035	Ref. Pages
Fertilizer Nutrient Content	Research water quality benefits of restricting sale of certain fertilizers within Metro Water District	█	█				7-2
	Consider recommending legislation based on research of fertilizer impacts on water quality		█	█	█		7-2
Georgia Stormwater Management Manual	Update the Georgia Stormwater Management Manual	█	█				7-5
	Coordinate training classes with the Georgia Association of Water Professionals as needed	█	.....	.....	.....	.....	7-5
	Complete Volume III of the Georgia Stormwater Management Manual on Pollution Prevention	█	█	█	.....	.....	7-5
	Develop Volume III training and conduct as needed.			█	█	.....	7-5
Watershed Management Program Evaluation	Work with the TCC to develop metrics for evaluating the watershed management plan implementation.	█	█	█	.....	.....	7-5
Regional Monitoring Network	Consider the evaluation of watershed monitoring data and compile information on all active monitoring programs.	█	.....	.....	.....	.....	7-5
Regional Education and Public Awareness Program	Continue supporting the regional education and public awareness program.	.....	.....	.....	.....	.....	8-4 to 8-6
█ Active Implementation <span style="float: right;">..... Ongoing Implementation/ Program Maintenance</span>							

TABLE 9-3  
State Agency Implementation Schedule

Category	Implementation Action Item	2009	2010	2011	2012 - 2015	2015 - 2035	Ref. Pages
<b>Georgia Department of Community Affairs (Georgia DCA)</b>							
Comprehensive Land Use Plan Coordination	Update Comprehensive Land Use Plan review checklist to reflect updated Watershed Management Plan requirements, including annual coordination between land use planners and watershed managers	■	.....				7-3
	Communicate with Metro Water District regarding implementation challenges shared by multiple communities	■	.....				7-3
	Ensure drinking water supply watershed buffers have been adopted and are being implemented	■	.....				7-3
	Consider adding additional reviews of Part V Environmental Planning Criteria implementation prior to issuance of grants or awards		■	.....			7-3
	Discuss implementation challenges of Part V Environmental Planning Criteria annually with Georgia EPD		■	.....			7-3
<b>Georgia Department of Human Resources (Georgia DHR)</b>							
Septic System Planning and Coordination	Meet annually with local governments & wastewater utilities	■	.....				7-4
	Work with local jurisdictions to identify critical areas and support additional management measures needed in these areas	■	.....				7-4
<b>Georgia Department of Transportation (Georgia DOT)</b>							
Georgia Department of Transportation (GDOT) NPDES MS4 Compliance	Develop and implement road design standards that meet GSWMM criteria for post-construction stormwater controls	■	■	■	.....		7-1
	Review other states' transportation department programs for guidance with MS4 Phase II permit development	■	■	.....			7-1
	Develop a capital improvement plan that includes stormwater retrofits		■	■	.....		7-1
<b>Georgia Environmental Protection Division (Georgia EPD)</b>							
GDOT NPDES MS4 Compliance	Enforce GDOT compliance with MS4 Phase II permit	■	.....				7-1
Bacteria Standards and Guidance	Review white paper developed by Bacteria TMDL Technical Advisory Group and consider its recommendations	■	.....				7-4
	Allow local governments to remove streams from 303(d) list if E. coli monitoring proves wildlife to be impairment source				■	.....	7-4
Streamline Reporting Requirements	Participate in GAWP Streamlining Task Force and dialogue related to streamlining regulatory reporting requirements; Develop an internal implementation team with community representatives	■	■	■	.....		7-4
	Update reporting timelines for interested communities to streamline reporting requirements	■	.....				7-4
	Assess viability of web-based electronic data management center		■	.....			7-5
■ Active Implementation		..... Ongoing Implementation/ Program Maintenance					

## IMPLEMENTATION COSTS

Costs for the implementation of this Plan’s required local management measures were estimated through a combination of technical literature review and actual expenditures provided by local governments in the Metro Water District. Per capita costs for the programmatic measures are detailed in Table 9-4. For some local measures and activities, per capita costs were not meaningful and are listed separately in Table 9-5.

**TABLE 9-4**  
Estimated Annual Implementation Cost by Program Category

Management Measures	Per Capita Cost <sup>1</sup>		
	Level of Service		
	Low	Medium	High
5.A Legal Authority	\$0.50	\$1.13	\$1.75
5.B Watershed Planning	\$0.15	\$0.38	\$0.60
5.C Land Development	\$0.50	\$0.88	\$1.25
5.D Asset Management	\$3.10	\$14.55	\$26.00
5.E Pollution Prevention	\$1.30	\$2.13	\$2.95
5.F Watershed Conditions Assessment	\$0.30	\$0.44	\$0.58
5.G Education and Public Awareness	\$0.22	\$0.29	\$0.36
5.H Resource-specific Measures	\$0.25	\$0.75	\$1.25
<b>TOTAL</b>	<b>\$6.32</b>	<b>\$20.53</b>	<b>\$34.74</b>

Notes:

1. Basis for cost includes: Metro Water District 2003 Watershed Management Plan, EPD NPDES MS4

**TABLE 9-5**  
Estimated Discrete Costs by Program or Activity

Management Measures	Estimated Cost <sup>1</sup>		
	Low	Medium	High
<b>Floodplain Delineation</b>			
Future Floodplain Conditions Mapping (PER MILE)	\$750	\$3,125	\$5,500
<b>Additional Maintenance Elements</b>			
CCTV Pipe Inspections (PER LINEAR FOOT)	\$2	\$3	\$4
Inlet Cleaning (PER INLET)	\$507	\$563	\$619
Pipe Cleaning (PER LINEAR FOOT)	\$1	\$51	\$100
Pipe Rehabilitation (PER LINEAR FOOT)	\$100	\$225	\$350
Point Repairs (PER LINEAR FOOT)	\$330	\$698	\$1,066
BMP Cleaning/ Inspections (PER POND ACRE)	\$1,700	\$2,800	\$5,300
Sweeping (PER CURB-MILE)	\$12.90	\$21.20	\$27.20
Ditch Cleaning/ Maintenance (PER LINEAR FOOT)	\$2.70	\$3.00	\$3.30
Computerized Maintenance Management System (PER SYSTEM)	\$40,000	\$120,000	\$200,000
<b>Capital Improvements &amp; Watershed Improvement <sup>2</sup></b>			
Upgrade, Remove and Replace Storm System (PER IN-FT)	\$2.50	\$3.33	\$5.73
Floodplain Buyout/ Open Space (PER ACRE)	\$15,000	\$30,000	\$45,000
Watershed Improvement Plan (PER ACRE OF BASIN)	\$4.00	\$9.50	\$15.00
Streambank Stabilization/ Restoration (PER FOOT)	\$150	\$325	\$500
Retrofit BMP (PER ACRE OF POND)	\$35,000	\$92,500	\$150,000
New BMP Construction (PER ACRE OF POND)	\$35,000	\$55,000	\$75,000

Notes:

1. Basis for costs includes: Metro Water District 2003 Watershed Management Plan, EPA NPDES MS4 implementation cost literature and budget information provided by Metro Water District communities

2. Retrofit and restoration costs include engineering, permitting, and construction

### IMPLEMENTATION FUNDING

Successful implementation of local watershed management efforts requires adequate program funding. There are two primary funding methods available to local governments, general appropriations (general fund) and stormwater user fees. In addition, there are number of supplemental sources of funding, including loans, bonds, service fees, and grants. A blend of funding methods is recommended for most local governments.

**General Appropriations (General Fund)** – Revenues from local taxes typically comprise the “General Fund” which funds most activities performed by local governments. Annually, the local government divides the general fund based on local priorities into budgets for police, fire, transportation and other activities. Currently, general funds are the most common funding source for watershed and stormwater management in the Metro Water District. The principal advantage of using the general fund for implementation of the Watershed Management Plan is that it is an existing, stable funding source. The disadvantage is that stormwater and watershed management activities must compete with other local programs for limited funds, so funds are not expressly dedicated.

**Stormwater User Fees / Stormwater Utilities** – Like other public utilities, stormwater utilities charge property owners for services provided by the local government. Stormwater utilities provide a stable and dedicated revenue source for most of the mandatory local management measures in this Watershed Management Plan. User fees provide an alternative to tax increases or impact fees for the support of local programs. Stormwater utilities are very similar in nature to enterprise funds established by more traditional water and wastewater utilities. Stormwater utilities have existed for a number of years in several states, but are relatively new to Georgia with the first stormwater utility created for the City of Griffin in 1998.

Specifically, stormwater utilities collect stormwater fees from property owners in relationship to their stormwater impacts. These impacts are calculated based on a property’s relative burden on the stormwater system resulting from changes that they have made to the character (volume, rate, and pollutant content) of the stormwater that runs off their property. Most stormwater utilities relate this burden to the type of land use activity and the percentage of impervious ground surface for each property. Properties with a greater level of impervious surface pay more for their increased negative contribution to the system.

A stormwater utility can provide a vehicle for consolidating and coordinating activities and responsibilities; generating funding that is adequate, stable, equitable, and dedicated; and developing programs that are comprehensive, cohesive, and consistent. More detail on stormwater utilities as a funding source and the process for developing a stormwater utility are outlined later in this Section.

### LOANS AND BONDS

Loans and bonds allow immediate expenditures on stormwater and watershed projects beyond readily available local funds. Funds are typically paid over a 15-year to 20-year period with interest charges, similar to a home mortgage. Despite interest charges, loans and bonds are often a financially sound method for funding capital improvement projects. For some capital improvement projects, such as replacement of culverts to avoid collapse or flood mitigation projects to reduce property damage, the upfront expenditure may be less than the long-term expense of damage repair due to procrastination. Typically loans and bonds are used for capital improvement projects that cannot wait until local funds are available; loans and bonds are not recommended for routine operations. Repayment schedules for

loans and bonds can be developed to smooth out peaks and valleys in revenue requirements and thus reduce the need for sporadic large rate increases.

**General Obligation and Revenue Bonds** – Debt financing of capital projects can be accomplished by issuing general obligation bonds, revenue bonds, or a combination of the two. General obligation bonds are issued based on the “taxing powers” of the local government therefore no assets are required as collateral. Revenue bonds are issued based on revenues generated by a specific revenue-generating entity such as special service fees, special assessments, or stormwater utility. Because revenue bonds typically exclude property tax revenues, the interest rate on revenue bonds is typically higher.

Bonds require voter approval in a referendum and are subject to local administrative policy regarding debt ceilings. Bonds are not a revenue source, but rather are a means of borrowing money for a specific purpose. Most bonds are financed over a 15 year period with interest payments based on the community’s bond rating.

**Georgia Environmental Facilities Authority Loans** – The Georgia Environmental Facilities Authority (GEFA) provides low-interest state loans to assist local governments across the state with a number of environmental-related efforts. Loan programs administered by GEFA cover water, wastewater, solid waste, and land conservation projects. Low interest loans are available for a maximum timeframe of 20 years with population-based limits on loan amounts. GEFA loans require that a community has a good payment history for previous GEFA loans, has identified the project and secured 100% of the total project funds, and the minimum debt service coverage is 105%. There are two GEFA loans capable of supporting implementation of this Watershed Management Plan; land conservation financing and the Clean Water State Revolving Fund.

- Land conservation financing through GEFA may be used to support projects including: flood protection, wetlands protection, erosion reduction, protection of riparian buffers, and water quality protection for rivers, streams, and lakes.
- The Clean Water State Revolving Loan Fund (CWSRF) is a federal loan program administered by GEFA that funds a wide variety of wastewater infrastructure and non-point source projects.

Communities in the Metro Water District that apply for a GEFA loan must demonstrate through a Georgia EPD audit that they are in compliance with this Watershed Management Plan as well as the Water Supply and Water Conservation Management Plan and Long-term Wastewater Management Plan.

**WaterFirst** – Although typically considered a voluntary recognition program, communities designated by the Georgia DCA as “WaterFirst” communities receive discounts on GEFA loan interest rates. The WaterFirst Community Program is a voluntary partnership sponsored by the Department of Community Affairs (DCA) to increase the quality of life in communities through the wise management and protection of water resources. The award program recognizes local governments that make the connection between land use and water quality, and requires thinking beyond political boundaries to recognize the inextricable links created by shared water resources. Becoming a WaterFirst community demonstrates the desire to be responsible stewards of water resources for both environmental and economic benefits today and in the future.

### SERVICE FEES

Local governments have the authority to establish special taxes or service fees to address specific local challenges. Service fees include SPLOST funds, impact fees, special assessments/tax districts, in-lieu of construction fees, and mitigation banks as outlined below.

**SPLOST Funds** – A Special Purpose Local Option Sales Tax (SPLOST) can be voted on and approved by communities for the purpose of funding the building and maintenance of public facilities. Cities and counties are allowed to add up to a 1% sales tax levied against the sale of goods and services with a SPLOST. A SPLOST is recommended by an elected body and voted upon by residents generally during a scheduled election. A SPLOST expires at the end of six years. If additional funds are still needed, they must be voted upon and approved again by the citizens of the community. Counties and school systems are required to provide an independent accountants' report, examining the way the funds were allocated and verify that the system receiving the funds managed those funds appropriately. SPLOST revenues are generated from sales tax versus property tax, therefore are attractive in communities with significant commercial centers or high tourism rates.

**Development Impact Fees** – Local governments may legally assess new development projects an impact fee within a proposed watershed system service area. The impact fee is calculated based on expenses incurred to provide the additional public capacity needed to serve the new growth and development and not based on the benefits received. Development impact fees to pay for watershed management projects are not common in Georgia, because the burden of proof is on the local government to accurately demonstrate the cost of the impact.

Development impact fees related to local services, including permit and/or plan review fees are common in the Metro Water District. These are generally one-time fees with revenues used specifically to fund salaries for personnel needed to perform the reviews and inspections required for the new development projects.

**Special Assessments/Tax Districts** – Special assessments are best suited where a specific area directly benefits from capital improvements, land acquisition, special studies, and/or extraordinary maintenance of the stormwater systems. Special assessments establish a “user pays” approach where only those who benefit from the assessment pay for them. Special districts function as quasi-municipal corporations created by law, with several funding options available: special taxes on property, development fees, user fees, and debt financing. Creation of special assessment districts requires voter approval.

Community Improvement Districts (CIDs) are a unit of government with the power to provide governmental services and facilities. CIDs are similar to authorities that are often created by special tax districts. The benefit of the CID is that they may issue tax-exempt special assessment bonds to finance facilities that provide essential governmental functions, such as stormwater-related projects. The debt is supported by the assessment power of the CID and not by the local government. CIDs are often used to support economic development activities.

**In-Lieu Construction Fees** – Local governments may elect to construct larger regional stormwater facilities that provide benefit to new development areas as well as existing areas through a local Capital Improvement Plan. If regional stormwater facilities are designed to handle flows from new developments, local governments may charge developers an in-lieu fee for their portion of the storage area. This strategy may support economic development, especially in redevelopment and infill



development areas where stormwater management requirements are hard to address on an individual lot basis.

**Wetland and Stream Restoration Mitigation Banks** – Mitigation banks proactively restore, create, enhance, or preserve a wetland, stream, or habitat conservation area to offset expected adverse impacts to similar nearby ecosystems. Proactive restoration activities developed as part of a mitigation bank create “credits” that may be sold to offset the buyer’s impacts to wetland and stream function elsewhere. Local governments who develop a mitigation bank through the Army Corps of Engineers (USACE), may complete restoration as part of a watershed improvement project and then sell the credits to replenish funds expended and provide a continuous revenue stream for watershed improvement project. Mitigation banks are outlined in the optional local management measure section.

### GRANTS

A grant is a form of federal or state financial aid that does not need to be repaid and is typically based on demonstrated need. Grants typically require a local match but are a good way to leverage existing funds. While grants are helpful to extend locally-available funds, they typically are awarded on a competitive basis and involve a long lead time to secure funds. Most grants will not fund completed projects.

**319 (h) Grants** – The Georgia EPD nonpoint source implementation grant, defined in Section 319(h) of the Clean Water Act, funds implementation projects designed to prevent, control, and eliminate nonpoint source pollution. The funds originating from the U.S. Environmental Protection Agency (US EPA) are distributed by Georgia EPD on a competitive application basis.

The 319(h) grant has a 40% local cost share requirement that may be either financial or documented in-kind services. Applications are typically accepted on an annual basis by the Georgia EPD, and selection is based on pre-determined annual priorities. Typically Georgia EPD gives priority to implementation projects that solve water quality challenges, especially in 303(d) listed waters.

**Flood Mitigation Grants (Pre-Disaster Mitigation)** – The Georgia Emergency Management Agency (GEMA) administers the Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation (PDM) program for the State of Georgia. This program provides funds to local governments for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event.

Pre-disaster Mitigation (PDM) grants are awarded on a competitive basis and have a 25% local match requirement for most projects. Commonly funded projects include acquisition of floodprone properties and drainage/stormwater management plans and/or projects to alleviate flooding. Funding these plans and projects reduces overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations.

**Intermodal Surface Transportation Efficiency Act (ISTEA, pronounced “Ice-Tea”)** – This transportation grant program is primarily focused on transportation, however funds may be used to mitigate water pollution due to highway runoff. Funds are distributed annually by the U.S. Department of Transportation to the Georgia Department of Transportation (GDOT). GDOT issues grants on a competitive basis with a 20% local match requirement, which may be financial or documented local in-kind services.

**Community Development Block Grants (CDBG)** – The CDBG grant program provides funding for projects that substantially benefit low and moderate income persons. Eligible projects that support implementation of the Watershed Management Plan include stormwater infrastructure projects and water quality improvement projects. CDBG funds are distributed within the Metro Water District in two different manners depending on the county.

- CDBG Entitlement Communities receive their funds directly from the US Department of Housing and Urban Development (HUD). Jurisdictions in the Metro Water District that are currently entitlement communities include: Clayton, Cobb, DeKalb, Fulton, and Gwinnett Counties and the cities of Atlanta, Gainesville, Marietta, and Roswell. Entitlement communities develop their own programs and funding priorities. HUD determines the amount of each entitlement grant by a statutory dual formula which uses several objective measures of community needs, including the extent of poverty, population, housing overcrowding, age of housing and population growth lag in relationship to other metropolitan areas. There are a number of local requirements for communities to receive their annual funding allocations.
- CDBG Non-Entitlement Communities receive funds on a competitive grant basis from the Georgia Department of Community Affairs (Georgia DCA) with approximately \$36 million available for the annual competition. Counties that participate in the state-wide competitive grant process in the Metro Water District include: Bartow, Cherokee, Coweta, Douglas, Fayette, Forsyth, Hall, Henry, Paulding, Rockdale, Walton.

**Livable Centers Initiative Supplemental Funds** – The Atlanta Regional Commission (ARC) Livable Centers Initiative (LCI) program supports local projects that create quality growth plans that will enhance the livability of that community. While initial LCI funds are not eligible to fund implementation of this Watershed Management Plan, supplemental grant funds may be eligible if associated with transportation needs. Eligible projects may include culvert replacements or pedestrian trails associated with watershed improvement projects. All of the counties within the Metro Water District are eligible for these funds since they are in the metro Atlanta Metropolitan Planning Organization (Atlanta MPO) for transportation funding. The supplemental funds are issued on a competitive grant basis with a 50% local cost share.

**Targeted Watershed Grants** – The Environmental Protection Agency (EPA) distributes grant money to state and local governments to support collaborative partnerships to protect and restore the nation's water resources. The EPA only selects up to 12 watershed organizations nationally to receive grants to implement watershed-based, on-the-ground implementation projects. Targeted Watershed Grants require a 25% local match and a letter of support from the Governor with the average grant award of \$900,000. The grants focus on strong stakeholder support and producing improved environmental change.

### STORMWATER UTILITY DEVELOPMENT

Stormwater utilities are increasing in number in the Metro Water District as they have several distinct benefits over traditional funding mechanisms. Stormwater utilities are:

- **Equitable** – Stormwater utility fees are considered equitable because property owners pay in proportion to their impact on the stormwater management system. Fees are also based on the planned stormwater management program expenditures to address the collective stormwater impacts.
- **Dedicated** – Unlike general funds, all revenue collected under the stormwater utility must be allocated to stormwater programs. Audits and financial assessment ensure that fees continue to be related to actual costs incurred, and that expenses are aligned to the mission of the utility.
- **Continuous** – The stormwater utility ensures that funds will be available in the future in a regular fashion for necessary maintenance, as general funds tend to be allocated to stormwater maintenance with funding peaks in wet years and funding valleys in dry years.
- **Legal** – When based on a utility rate study and a detailed evaluation of billing units, stormwater utilities are legal in the State of Georgia. The Official Code of Georgia Annotated (O.C.G.A.) recognizes the authority and duty of local governments to operate the stormwater system as a utility and allows for the collection of fees from customers who use that system.

To ensure that the stormwater utility is legally defensible, each community's utility will be unique and developed around their local needs. Due to political and public acceptance challenges, many communities elect to implement their stormwater utility using a phased approach. The general steps to create a stormwater utility are outlined below.

#### INITIAL STORMWATER UTILITY SCOPING

The initial stormwater utility scoping phase focuses on defining local stormwater problems and in general terms how the stormwater utility will address the stated problems. This justification is tied closely to education of the public and elected officials on the stormwater utility and how it would function within the community. The initial scoping phase typically takes 6 to 12 months and may include the following tasks:

- **Problem Definition** – It is important to first define the problem or challenge that the stormwater utility will address. Local challenges may include increasing regulations, limited capacity to address growing customer concerns, backlog of operations and maintenance projects, aging stormwater system, local flooding damage, regulatory compliance problems, and water quality challenges. Research of the community may include average age and condition of stormwater infrastructure, customer acceptance of the current extent of service/ level of service policy, and map specific capital projects that need completed providing coverage throughout the community. Providing a blend of detailed statistics and pictures of local challenges will assist with “making the case” to the public.
- **Research Solutions** – Based on the identified challenges, local governments should outline desired solutions. If the problem is a backlog of projects, the level of staffing and funding needed to alleviate the backlog should be determined. If the problem is customer complaints related to a very limited extent of service/ level of service (EOS/LOS) policy, the enhanced EOS/LOS policy and its impact on staffing and funding should be determined. Involving

stakeholders in this discussion of proposed solutions may help in securing community support for the stormwater utility.

- **Organizational Structure** – For some communities, organization and management challenges will be significant because stormwater staff are located in several departments. As part of the initial program development, local governments should determine what department or entity will house the stormwater utility and what staff will be fully or partially funded.
- **Create a Vision** – Create a vision for the future stormwater utility including the future EOS/LOS policy and what services will be provided. The vision should portray a better quality of life for property owners, showing a distinct value for the proposed fees. During the creation of this vision, future policy challenges should be identified and addressed.
- **Preliminary Fee Analysis** – The potential funding needs are calculated based on the vision established for the stormwater utility. An initial analysis of potential customers can show the projected revenues to compare against the projected funding needs. Typically the revenues are balanced against projected funding needs until a reasonable fee is developed. The preliminary fee analysis should also consider whether the stormwater utility will be added to tax bills, water and sewer bills, or a separate stand alone bill. The collections rate will vary based on this decision. The community should evaluate the available information for developing a customer database and calculating stormwater fees.
- **Public Education and Outreach** – A public education program will be important to educate citizens, businesses, and elected officials on the need for the program and the program characteristics. Public education is the most important component to local success in developing a stormwater fee. Impacted property owners generally see the benefit, so the challenge is showing the benefit of a properly operated and maintained system to property owners who are not currently affected by a drainage problem.

### STORMWATER UTILITY DEVELOPMENT

The implementation phase of a utility development typically takes one to two years and includes the following tasks. At the conclusion of the implementation phase, a community is prepared to implement the stormwater utility and begin collecting fees for services provided.

- **Cost-of-service Analysis** – Based on the information developed in the scoping phase, the final determination of the services provided and the cost of these services is calculated. The fees are finalized based on the final cost-of-service analysis and the customers in the billing database.
- **Stormwater Utility Ordinance** – An ordinance that outlines the stormwater utility must be developed and passed by the local government, as outlined in Measure 6.A.4. A Stormwater Utility Enabling Legislation may also be required in certain conditions, as outlined in Measure 6.A.5.
- **Customer Database** – A customer database is developed that includes the fee for that customer based on the definition of their impact. The customer database should be carefully checked to avoid improper billing. Many communities send a draft bill with “\$0 due” prior to the first bill to check the billing database for errors.
- **Cash Flow Analysis** – Based on the final cost-of-service analysis and customer database, a cash flow analysis for the first several years of operation can be developed. The cash flow analysis will allow a realistic picture of services that will be provided in the first several years of

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operation. Managing customer expectations based on cash flow is important for customer acceptance.

- **Public Education** – Public education should focus on the benefits of the stormwater utility and a clear explanation of the stormwater utility fees. This stage of public education should build on the understanding created during the scoping phase of the stormwater utility development.
- **Stormwater Utility Policies** – Stormwater utility policies on exemptions, credits, and appeals should be outlined in a Stormwater Utility Operations Manual. This Manual should include data management protocols for updating and revising the customer database.
- **Billing and Collection System** – The billing database is completed and verified. The process for collection of fees is completed including how collected fees will be processed and managed in the internal financial system.
- **Customer Service Program** – The county or community should develop a plan to manage inquiries or challenges about fees, especially in the first several months of operation. Customer service staff should all be trained to answer questions regarding the stormwater fees. Phone call centers may be necessary for the first several months to address customer questions. Long-term customer service plans should address how customer service requests will be tracked and handled.

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