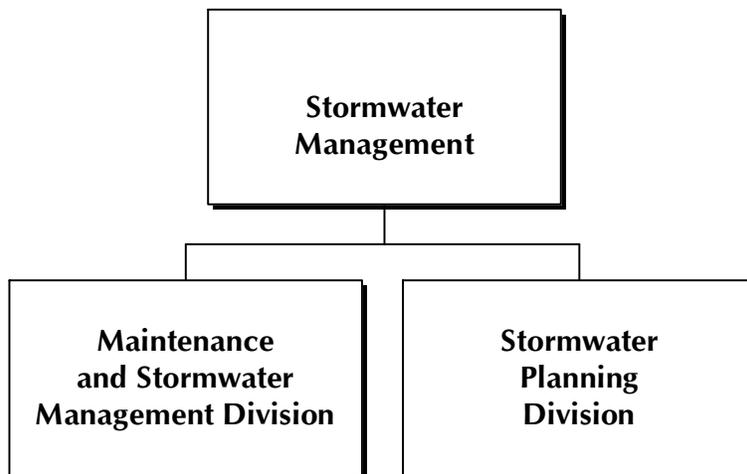


# Stormwater Management



## Mission

To develop and maintain a comprehensive watershed and infrastructure management program to protect property, health and safety; to enhance the quality of life; to preserve and improve the environment for the benefit of the public. To plan, design, construct, operate, maintain and inspect the infrastructure, and perform environmental assessments through coordinated stormwater and maintenance programs in compliance with all government regulations utilizing innovative techniques, customer feedback and program review; and to be responsive and sensitive to the needs of the residents, customers and public partners.

## Focus

The Stormwater Management Agency consists of the Maintenance and Stormwater Management Division and the Stormwater Planning Division. The two divisions develop, promote and implement strategies that protect the County's stormwater infrastructure and preserve and improve the natural ecosystem. In addition, the agency has an intricate supporting role in emergency response to flooding and other designated emergencies, as well as supporting functions in ongoing transportation and commercial revitalization initiatives. Planning, designing and maintenance efforts are provided through a combination of in-house County staff and contracted services.

Proper management of stormwater is essential to protect public safety; preserve property values; ensure environmental sustainability; and support environmental mandates, such as those aimed at protecting the Chesapeake Bay and the water quality of other local waterways. The construction of flood walls and berms, stabilization and restoration of streams, rehabilitation of dams, implementation of new low impact development techniques and regional detention ponds are some of the techniques and facilities used to manage stormwater. The County's stormwater system, which includes 1,800 miles of storm drainage conveyance systems, 45,000 stormwater drainage structures, approximately 1,200 publicly maintained stormwater management ponds and



## THINKING STRATEGICALLY

Strategic issues for the department include:

- Prioritizing maintenance requirements to identify and address the most critical needs;
- Developing, implementing and maintaining a comprehensive watershed management program to protect property and ensure environmental quality; and
- Improving communication with all customers in the County.

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approximately 2,400 privately maintained stormwater management ponds, is strained by an aging infrastructure and the continuous urbanization that has occurred in the County. This, in combination with higher water quality standards that must now be addressed by local governments, necessitates a more significant, multiyear investment in terms of funding and staff resources. In response to this challenge, the Board of Supervisors has designated the approximate value of one penny from the County's real estate tax to Fund 318, Stormwater Management Program, for the past three fiscal years. In FY 2009, the estimated value of one penny from the County's Real Estate tax, \$22.8 million, will again be dedicated to the Stormwater Management Program. In addition to the Capital investment, approximately 75 percent of the agency's operating budget supports the Stormwater Management program. The Stormwater Management program is defined by five major program categories as follows:

## Regulatory Compliance:

The County is operating under extension of the existing Municipal Separate Storm Sewer System (MS4) discharge permit that expired in FY 2007. Negotiations between the State of Virginia and Fairfax County, as well as negotiations between the state and many surrounding local communities, are continuing into FY 2008 as several issues related to permit compliance are defined and established. It is anticipated that Fairfax County will be under new and increased MS4 regulatory requirements in FY 2009. The increased requirements are anticipated to impact inspection cycles, monitoring efforts and enhanced restrictions for total maximum daily loads (TMDL) of harmful nutrients entering the streams and rivers within the County jurisdiction, as well as impacts to stormwater maintenance programs and reporting requirements.

## Dam Safety:

The program objectives under Dam Safety focus on the annual inspection and assessment of approximately 1,200 publicly maintained stormwater management ponds and approximately 2,400 privately maintained stormwater management ponds, in compliance with state dam safety regulations and the overlapping MS4 regulatory requirements associated with required stormwater management facility inspection cycles. In FY 2009, the Dam Safety program will continue to focus on obtaining the six-year maintenance and operating certificates on all state regulated dams in the County and to provide enhanced outreach efforts for owners of privately maintained facilities. In FY 2008 and continuing into FY 2009, the effort to install electronic flood control signalization to the County's largest hazard dam facilities will continue. The signalization process will provide greater flood monitoring capabilities through instantaneous water level condition assessment. This public safety improvement is intended to eventually provide an enhanced warning system that will link to an early notification system for down stream property owners during flood response events.

## Infrastructure Reinvestment:

The infrastructure reinvestment program provides inspection, assessment and repair of the 1,800 miles of storm drainage conveyance systems and 45,000 stormwater drainage structures in Fairfax County. At the end of FY 2007, the digitizing of 80 percent of the storm drainage network was completed, providing a continuous network of pipes and streams for use in analysis related to the MS4 permit and watershed modeling efforts. This storm drainage layer also provides emergency response support via instantaneous electronic imaging of storm drainage system connectivity for response issues such as hazardous material spills. In addition, 50 percent of the easement layer in the County's Geographic Information System (GIS) network has been completed. Completion of the initial digitizing will continue into FY 2008 and is anticipated to be completed in FY 2009. The storm drainage program is on a five year physical walk surface inspection cycle. The assessment program inspected 75 miles of drainage systems in FY 2007 that has resulted in over 150 opportunities for infrastructure rehabilitation projects. These projects have a wide range in scope that varies from repair to individual structures and single line segments, to rehabilitation of entire drainage systems. Correction of these identified repairs will begin in FY 2008 and continue into FY 2009. The number



# Stormwater Management

of rehabilitation projects is expected to increase in FY 2009 as the inspection and assessment program continues.

## Project Implementation:

While the primary driver of projects in this program is the implementation of the 30 watershed master plans in Fairfax County, the list of projects also includes flood control projects, including those related to the June 2006 flooding, citizen response projects and other special project needs meeting the project implementation criteria that have been established. Project implementation production is anticipated to increase in FY 2008 and FY 2009 as new in-house and outsourced project design and construction processes are better defined and implemented.

## Watershed Planning:

The goal of the watershed planning program is to complete a comprehensive master watershed plan for each of the 30 watersheds in Fairfax County by the Year 2010, in an effort to meet the County's commitment to the 2000 Chesapeake Bay Agreement. In addition, the watershed master plans provide a strong basis for management and control of stormwater runoff related to the overall water quality and conveyance in Fairfax County. By late FY 2007, and into early FY 2008, watershed planning will be completed in approximately 55 percent of the land area, while 45 percent of the remaining land area has been initiated for characterization and modeling. Several program modifications have been made to the process to help improve the quality and timeliness of the planning process by providing more focused community involvement processes and bringing consistency to reporting processes. It is anticipated that Fairfax County will meet the commitment to the Chesapeake Bay 2000 Agreement by completing the planning of all 30 watersheds by the year 2010.

Recognizing the growth in the Stormwater Management Program, and the projected growth in the number of construction projects generated from the completion of watershed management plans, continued staffing and resource management needs require innovative project management between County staff and contracted services. The internal and external partnerships created through outsourced efforts are providing increased opportunity for direct community involvement and an overall increased understanding of critical challenges and issues related to stormwater management. The responsibilities and overall objectives for each division follow.

## Maintenance and Stormwater Management Division

The Maintenance and Stormwater Management Division (MSMD) provides maintenance and rehabilitation services on existing stormwater infrastructure such as stormwater pipes, catch basins, drainage channels, stormwater management facilities and dams. Stormwater maintenance services are provided in an effort to manage the conveyance of stormwater runoff, mitigate flooding and improve water quality entering water bodies as required by local ordinances and codes, as well as state and federal laws.

In FY 2009, MSMD staff, with the assistance of contracted resources, will continue the goal of digitally video inspecting and video taping the storm drainage systems for internal storm drainage system conditions. The invasive internal inspections are designed to detect drainage system problems such as pipe joint separation, pipe alignment failures, system integrity and system functionality, providing an opportunity to predict system failures before they occur. In addition to the internal system inspections, MSMD will physically walk and inspect 20 percent of the storm drainage inventory for surface pipe system failures and deficiencies such as cave-ins, blockages and structural failures. In FY 2008, and continuing into FY 2009, the storm drainage program will begin to systematically repair the 150 rehabilitation projects that have been identified and designed through the storm drainage inspection and assessment program. The stormwater management assessment and inspection program will continue to focus on data collection and field verification of approximately 1,500 undocumented facility locations, and will continue with the focused contracted inspection program for privately maintained stormwater management facilities. The inspections focus on the MS4 regulatory requisites for the five-year inspection cycle of privately maintained facilities. The five-year private inspection cycle involves inspection of approximately 500, or 20 percent, of the privately maintained facilities with private maintenance agreements annually. In addition to the private inspection program, and as part of the regulatory inspection requirement, the entire inventory of public detention pond facilities will be inspected in FY 2009. The annual public facility inspection cycle includes approximately 1,200 publicly maintained stormwater detention facilities. The use of contracted field inspectors and additional contracted technical research staff in this program will offset internal staffing shortfalls in the Stormwater assessment and

# Stormwater Management

inspection program. This outsourced effort will ensure compliance with regulatory requirements of the County's MS4 permit associated with the annual cycle of stormwater inspections. The stormwater assessment and inspection program is providing the identification and prioritization of needed facility retrofit and rehabilitation projects for the publicly maintained facilities, as well as the documentation of stormwater easements and maintenance agreement data for privately maintained facilities. In FY 2007, this program managed nine retrofit and/or sediment removal projects, including construction of wetlands and sediment forebays. Additionally, this program oversaw the completion of four regional stormwater management facilities that provide water quality and quantity controls for over 950 acres of drainage. A similar schedule of construction projects are planned for FY 2008 and FY 2009.

Additionally, MSMD maintains transportation facilities such as the grounds maintenance of four commuter rail stations, five park-and-ride lots and two bus transit stations. The division provides maintenance and support services for County roadway segments that have not been accepted into the Virginia Department of Transportation's (VDOT) program. Other transportation operations maintenance services include maintaining public street name signs, repairing trails and sidewalks, which are upgraded to meet the Americans with Disabilities Act (ADA) code requirements when necessary and landscaping services for the County's Commercial Revitalization program along transportation routes in the Annandale, Richmond Highway, Bailey's and Springfield commercial revitalization districts. The McLean commercial revitalization district is anticipated to require maintenance responsibilities beginning in FY 2009. MSMD, along with the Fairfax County Sheriff's Office, provides maintenance to approximately 325 existing bus shelters in Fairfax County by administering three different maintenance service levels as approved by the Board of Supervisors.

MSMD also provides support to the County during emergency response operations. The division is responsible for snow removal from approximately 140 County owned and maintained facilities, including fire stations, police stations, mass transit facilities, government centers, libraries, health centers and recreation centers. The snow removal operations include, but are not limited to, plowing operations, coordination of limited sidewalk clearing, parking lot staking, delivery and maintenance of self-help sand barrels to County facilities and snow removal services for County maintained roadway segments that do not meet state criteria for snow removal services. The division also provides equipment, labor and technical support to the Fire and Rescue Department, Police Department, Health Department, Department of Planning and Zoning and other agencies in response to emergency conditions (e.g. hazardous material spills, demolition of unsafe structures, removal of hazardous trees, etc.). MSMD is also directed by the Department of Planning and Zoning to provide abatement services for directives related to private property maintenance requests associated with an effort to enforce compliance with the property maintenance code. This is an increased service requirement which began in FY 2007. These property service requests have been steadily increasing, and are anticipated to continue in FY 2008 and FY 2009.

## **Stormwater Planning Division**

The Stormwater Planning Division (SPD) provides stormwater planning, monitoring, capital project design and floodplain management. The division administers the federally mandated National Pollutant Discharge Elimination System (NPDES) program, or the Municipal Separate Storm Sewer System (MS4) permit, and coordinates the work from various agencies in support of meeting the requirements of the permit. The MS4 permit is a five-year permit that regulates the discharge of local stormwater entering state waterways. The County is currently operating under extension of the existing (MS4) discharge permit that expired in FY 2007 and negotiations for the new permit are underway.

The division is currently working with the Fairfax County Public Schools (FCPS) to assume the responsibility of the FCPS MS4 permit requirements. This consolidation effort will add approximately 225 additional stormwater management facilities to the County's existing inventory. Additional staff and resources have been provided to revise the County's current stormwater program and permit application process, complete the inventory of the School's facilities and initiate joint contracting programs. It is anticipated that developing a consolidated program will result in more effective delivery of services.

# Stormwater Management

As part of the MS4 permit, the division conducts bio-assessment and bacteria monitoring to identify and correct non-stormwater discharges, such as illegal discharge and improper dumping, to state waters. The monitoring program is being expanded to provide statistical performance data for existing and new stormwater control structures. The statistical data will aid in future project design strategies and project implementation. In addition to the monitoring activities, the division's ecology branch performs physical stream assessments on an inventory that consists of over 800 miles of streams in support of planning efforts and maintains the GIS hydrological layer of the stream network. This GIS layer was recently enhanced through the perennial stream identification project.

SPD is responsible for the development and oversight of Fairfax County's Comprehensive Stormwater Management Program. The division remains current with a multitude of state and federal regulatory stormwater management requirements. As watershed management plans throughout the County are completed, the project implementation strategies and goals for the project list are further developed and implemented.

The division participates in several regional partnering efforts such as the Chesapeake Bay Preservation Area Designation and Management, and the 2000 Chesapeake Bay Agreement, in support of removing the bay from the U.S. EPA's impaired waters list by the year 2010. These joint regional efforts assist in the management and reduction of nutrient and sediment loads to the Chesapeake Bay. The division oversees regulatory Clean Water Act requirements as they pertain to Total Maximum Daily Loads (TMDLs) in an effort to define, monitor and control the number of nutrient pollutants in streams that violate state water standards.

SPD oversees and implements the County's Dam Safety program. The division coordinates the state mandated dam safety operation and maintenance certificates and emergency action plans related to dams meeting requirements for state certification. Federal and state regulations require inspections and engineering certification of dams to insure public safety. The division is also responsible for coordinating and providing assistance for floodplain management regulations pertaining to floodplain residential building requirements and national flood insurance standards.

To complete the regulatory and maintenance requirements of the agency, both divisions utilize both in-house County workforces and contracted services. The agency focuses on the increasing stormwater management requirements of an aging stormwater system inventory and the increased environmental performance requirements. The challenge of the agency is to maintain existing systems, while enhancing and retrofitting the degraded systems to meet stormwater management regulations as the County moves toward a full urban development in which the aged stormwater systems are approaching expected life spans. The County continually seeks public outreach opportunities to inform the public of water quality matters and environmental effects of stormwater runoff through various educational venues, public notices and community support functions. The educational opportunities provide an understanding of environmental impacts related to stormwater runoff and are geared toward youth involvement. The dedication of one penny of the Real Estate Tax for stormwater management has provided significant opportunities for Fairfax County to rehabilitate deficient drainage systems and initiate innovative stormwater control systems.

In FY 2009, the Stormwater Planning Division (SPD) and a portion of the Maintenance and Stormwater Management Division (MSMD) will charge positions and associated costs to Fund 318, Stormwater Management Program. Administrative expenses will be charged directly to Project FX0005, Operations Support, and will not be charged to individual projects throughout the fund. This results in a reduction of \$4,365,213 of General Fund support for the Stormwater program including \$4,131,165 associated with the charge out of positions and associated costs and \$234,048 in Agency 89, Fringe Benefits. Historically, these expenses have been supported by the General Fund; however, based on budget constraints in FY 2009, the General Fund cannot fully support the Stormwater program. Other General Fund reductions would have been required had Fund 318 funding not been available to provide this support for the Stormwater program. This adjustment to Fund 318 will impact future stormwater project implementation schedules.

# Stormwater Management

## New Initiatives and Recent Accomplishments in Support of the Fairfax County Vision

 <b>Maintaining Safe and Caring Communities</b>	<b>Recent Success</b>	<b>FY 2009 Initiative</b>
As a result of the flooding that occurred in June 2006 in Fairfax County both divisions, in a combined effort, managed approximately 14 flood control projects for houses that flooded through completion of the construction phase, and an additional 23 projects through various design phases. It is anticipated that approximately 19 additional locations will be managed through the design phase in FY 2008. Approximately 30 of the current and future flooding projects in design will reach the construction completion phase in late FY 2008 to early FY 2009. These projects vary in scope and include, but are not limited to, flood walls, raising window and stairwell elevations, yard re-grading, drainage swales and flood berms.	☑	☑
In FY 2007 the Maintenance and Stormwater Management Division initiated a public involvement and outreach program to provide private property owners with helpful maintenance and operational suggestions and tips for privately maintained stormwater management facilities. The outreach program will continue in FY 2008 and FY 2009.	☑	☑
In FY 2007, the Maintenance and Stormwater Management Division responded to 2,500 residents' requests for maintenance. All of the requests were addressed and completed in FY 2007. The requests generated a total of 1,335 in-house maintenance work orders.	☑	
The Stormwater Planning Division awarded a contract in FY 2007 to develop the flood monitoring and signalization project. This project provides electronic monitoring of excessive storm flows for high hazard dams, increasing the ability to provide early warning notification to down stream property owners in the event of unanticipated flooding events. The project will continue in FY 2008, and will possibly be operational in early FY 2009.	☑	☑
 <b>Practicing Environmental Stewardship</b>	<b>Recent Success</b>	<b>FY 2009 Initiative</b>
In FY 2007, the agency completed 14 stream buffer planting projects involving over 400 volunteers. These buffer restoration projects included over 1,400 man-hours, and planted over 1,800 plants on approximately six acres of stream bank. Additional buffer planting projects are planned for FY 2008 and FY 2009.	☑	☑
The agency initiated innovative monitoring for Low Impact Development and Green Roofs, and developed enhanced protocols for biological assessment, dry weather screening and wet weather industrial high risk monitoring.	☑	

# Stormwater Management

 Exercising Corporate Stewardship	Recent Success	FY 2009 Initiative
In FY 2007, the Stormwater Planning Division played a major role in the establishment of a regional forum for addressing Phase I and Phase II MS4 communities permitting and program implementation issues. The forum will continue to meet in FY 2008 and FY 2009 to address these MS4 permit issues.	✓	✓
In late FY 2007 and early FY 2008, watershed master plans were completed for the Cameron Run, Bull Run, and Difficult Run Watersheds. With the completion of these three major watersheds, 55 percent of the land area in relation to the 30 watersheds has been completed, and the remaining 45 percent of land area has been initiated for characterization and modeling.	✓	✓

## Budget and Staff Resources

Category	FY 2007 Actual	FY 2008 Adopted Budget Plan	FY 2008 Revised Budget Plan	FY 2009 Advertised Budget Plan	FY 2009 Adopted Budget Plan
Authorized Positions/Staff Years					
Regular	132/ 132	132/ 132	139/ 139	138/ 138	139/ 139
Expenditures:					
Personnel Services	\$6,823,161	\$7,724,031	\$8,036,383	\$8,246,514	\$8,318,848
Operating Expenses	4,761,775	3,222,678	3,761,714	3,222,678	3,272,678
Capital Equipment	304,120	390,500	684,966	406,250	406,250
<b>Subtotal</b>	<b>\$11,889,056</b>	<b>\$11,337,209</b>	<b>\$12,483,063</b>	<b>\$11,875,442</b>	<b>\$11,997,776</b>
Less:					
Recovered Costs	(\$863,454)	(\$863,666)	(\$863,666)	(\$5,031,132)	(\$8,249,758)
<b>Total Expenditures</b>	<b>\$11,025,602</b>	<b>\$10,473,543</b>	<b>\$11,619,397</b>	<b>\$6,844,310</b>	<b>\$3,748,018</b>
Income:					
Street Sign Fabrication Fees	\$3,470	\$3,400	\$3,700	\$3,800	\$3,800
Miscellaneous Revenue	29,831	16,000	29,831	29,831	29,831
<b>Total Income</b>	<b>\$33,301</b>	<b>\$19,400</b>	<b>\$33,531</b>	<b>\$33,631</b>	<b>\$33,631</b>
<b>Net Cost to the County</b>	<b>\$10,992,301</b>	<b>\$10,454,143</b>	<b>\$11,585,866</b>	<b>\$6,810,679</b>	<b>\$3,714,387</b>

## FY 2009 Funding Adjustments

The following funding adjustments from the FY 2008 Revised Budget Plan are necessary to support the FY 2009 program:

- ◆ **Employee Compensation** **\$293,163**  
 An increase of \$293,163 associated with salary adjustments necessary to support the County's compensation program. As a result of budget constraints, compensation adjustments for County employees have been reduced. For FY 2009, employee increases as part of the pay for performance system have been discounted by 50 percent and the impact of the lower pay for performance funding is reflected above.
- ◆ **Personnel Services Reduction** **(\$161,447)**  
 A decrease of \$161,447 in Personnel Services as part of an across-the-board reduction to meet budget limitations based on available revenues as a result of a continued softening of the residential real estate market.

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- ◆ **Replacement of Critical Capital Equipment** **\$406,250**  
Funding of \$406,250 is included for Capital Equipment requirements associated with replacement equipment that has outlived its useful life and is not cost effective to repair. The equipment includes \$70,000 for a portable pipeline video camera, \$76,500 for a vibratory roller/compactor, \$175,000 for a motor grader, \$34,000 for two chemical spreaders, \$24,250 for a large scale plotter and \$26,500 for a tractor loader with mower.
  
- ◆ **Recovered Costs** **(\$4,167,466)**  
An increase in Recovered Costs of \$4,167,466 including an increase of \$36,301 for salary requirements and an increase of \$4,131,165 associated with the charge out of positions and associated costs to Fund 318, Stormwater Management Program. In addition, an amount of \$234,048 in Fringe Benefits budgeted in Agency 89 will be charged to Fund 318. Administrative expenses will be charged directly to Project FX0005, Operations Support, and will not be charged to individual projects throughout the fund. Historically, these expenses have been supported by the General Fund; however, based on budget constraints in FY 2009, the General Fund cannot fully support the Stormwater program. Other General Fund reductions would have been required had Fund 318 funding not been available to provide this support for the Stormwater program. This adjustment to Fund 318 will impact future stormwater project implementation schedules.
  
- ◆ **Carryover Adjustments** **(\$833,502)**  
A decrease of \$833,502 in Recovered Costs due to the carryover of one-time expenses, including \$539,036 in operating expenses and \$294,466 in capital equipment, as part of the *FY 2007 Carryover Review*.

## Board of Supervisors' Adjustments

*The following funding adjustments reflect all changes to the FY 2009 Advertised Budget Plan, as approved by the Board of Supervisors on April 28, 2008:*

- ◆ **Pay for Performance** **\$105,716**  
An increase of \$105,716 in Personnel Services is associated with the decision by the Board of Supervisors to eliminate the 50 percent reduction to employee increases as part of the pay for performance system. A reduction to pay for performance increases had been proposed in the FY 2009 Advertised Budget Plan due to budget constraints. However, as a result of the Board's decision, employees will be eligible for the full compensation increase for which they qualify based on performance.
  
- ◆ **Reduction in Limited-Term Funding** **(\$33,382)**  
A decrease of \$33,382 in Personnel Services is associated with a reduction in funding for limited-term support based on budget limitations.
  
- ◆ **Fuel Costs** **\$50,000**  
An increase of \$50,000 for Department of Vehicle Services charges is based on anticipated requirements due to higher costs for unleaded and diesel fuels.
  
- ◆ **Recovered Costs** **(\$3,218,626)**  
This adjustment reflects an increase in Recovered Costs of \$3,218,626 associated with the charge out of positions and associated costs to Fund 318, Stormwater Management Program. Administrative expenses totaling \$7,583,839 will be charged directly to Project FX0005, Operations Support, and will not be charged to individual projects throughout the fund. Historically, these expenses have been supported by the General Fund; however, based on budget constraints in FY 2009, the General Fund cannot fully support the Stormwater program. The additional \$3.2 million will move the entire Stormwater Line of Business to the Penny fund, including a total of 109 positions. Other General Fund reductions would have been required had Fund 318 funding not been available to provide this support for the Stormwater program. This adjustment to Fund 318 will impact future stormwater project implementation schedules.

# Stormwater Management

## Changes to FY 2008 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2008 Revised Budget Plan since passage of the FY 2008 Adopted Budget Plan. Included are all adjustments made as part of the FY 2007 Carryover Review and all other approved changes through December 31, 2007:

- ◆ **Personnel Services Adjustments**

As part of the FY 2007 Carryover Review, the Board of Supervisors approved an increase of \$63,395 in Personnel Services based on the transfer of one position from Capital Facilities and the addition of 5/5.0 SYE positions for the County to assume responsibility for the Fairfax County Public Schools (FCPS) Municipal Separate Storm Sewer System (MS4) permit. These positions increased Personnel Services by \$327,372.

**\$390,767**
- ◆ **Carryover Adjustments**

As part of the FY 2007 Carryover Review, the Board of Supervisors approved encumbered funding of \$833,502, including \$539,036 in Operating Expenses and \$294,466 in Capital Equipment.

**\$833,502**
- ◆ **Position Transfer**

During FY 2008, the County Executive approved the transfer of 1/1.0 SYE Engineer IV from Land Development Services (LDS) to Stormwater Management. This position will provide the Maintenance and Stormwater Management Division with increased engineering and technical support.

**\$0**

The following funding adjustments reflect all approved changes to the FY 2008 Revised Budget Plan from January 1, 2008 through April 21, 2008. Included are all adjustments made as part of the FY 2008 Third Quarter Review:

- ◆ **Third Quarter Adjustments**

As part of the FY 2008 Third Quarter Review, the Board of Supervisors approved a decrease of \$78,415 in Personnel Services as part of an across-the-board reduction necessary to address budget limitations resulting from declining revenues. This adjustment accelerated the Personnel Services reduction included for FY 2009 in the FY 2009 Adopted Budget Plan.

**(\$78,415)**

## Maintenance and Stormwater Management Division

Funding Summary					
Category	FY 2007 Actual	FY 2008 Adopted Budget Plan	FY 2008 Revised Budget Plan	FY 2009 Advertised Budget Plan	FY 2009 Adopted Budget Plan
Authorized Positions/Staff Years					
Regular	101/ 101	101/ 101	105/ 105	104/ 104	105/ 105
<b>Total Expenditure</b>	<b>\$9,604,865</b>	<b>\$8,594,350</b>	<b>\$9,542,909</b>	<b>\$6,844,310</b>	<b>\$3,748,018</b>

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<b>Position Summary</b>		
<p><b><u>MAINTENANCE AND STORMWATER MANAGEMENT DIVISION</u></b></p> <p><b><u>Administration</u></b></p> <p>1 Assistant Director 1 Director 2 Engineers V 1 Safety Analyst 1 Management Analyst II 1 Public Information Officer II 1 Network/Telecom Analyst I 1 Administrative Assistant IV 2 Administrative Assistants III 2 Administrative Assistants II 1 Safety Analyst</p> <p><b><u>Contracting Services</u></b></p> <p>1 Management Analyst III 1 Engineering Technician III 1 Engineering Technician II</p>	<p><b><u>MAINTENANCE AND SERVICES</u></b></p> <p><b><u>Field Operations</u></b></p> <p>1 Facilities Support Supervisor 4 Senior Maintenance Supervisors 2 Maintenance Supervisors 9 Maintenance Crew Chiefs 16 Senior Maintenance Workers 6 Maintenance Workers 8 Heavy Equipment Operators 9 Motor Equipment Operators 4 Masons I</p> <p><b><u>Maintenance Inspections</u></b></p> <p>1 Engineer III 1 Senior Maintenance Supervisor 3 Engineering Technicians III 3 Engineering Technicians I</p> <p><b><u>SIGN SERVICES AND MATERIAL SUPPORT</u></b></p> <p>1 Warehouse Supervisor 1 Warehouse Specialist 1 Engineering Aide 1 Motor Equipment Operator</p>	<p><b><u>Engineering/Technical Support</u></b></p> <p>1 Engineer IV 3 Engineers III 3 Engineering Technicians III 1 Engineering Technician II 1 Engineering Technician I 1 GIS Analyst III 1 GIS Analyst I 1 GIS Technician 1 Ecologist III</p> <p><b><u>Equipment/Specialty Trades</u></b></p> <p>1 Vehicle Maintenance Coordinator 1 Heavy Equipment Operator 1 Carpenter I 1 Equipment Repairer 1 Welder II</p>
<p><b><u>TOTAL POSITIONS</u></b> 105 Positions / 105.0 Staff Years</p>		

## Key Performance Measures

### Goal

To maintain the County's storm drainage systems, stormwater management facilities, walkways/trails, commuter rail and park-and-ride facilities, and public street name signs, in addition to providing snow removal for essential County facilities, responding to health and safety directives, and providing support for other public safety emergencies as requested.

### Objectives

- ◆ To ensure zero violations in order to maintain compliance with the terms of the federally mandated Municipal Separate Storm Sewer System (MS4) Permit, as part of the comprehensive Stormwater Management Program.
- ◆ To ensure that 100 percent of Emergency Action plans are updated and operational to minimize impact to Fairfax County citizens, as well as protect property from weather events and other emergency situations.
- ◆ To ensure that 100 percent of the Commuter Rail, Park-and-Ride and Bus Transit facilities maintained by the County are functional 365 days per year in support of Fairfax County alternative transportation initiatives in order to reduce air pollution.

# Stormwater Management

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2005 Actual	FY 2006 Actual	FY 2007 Estimate/Actual	FY 2008	FY 2009
<b>Output:</b>					
Annual private stormwater management facility inventory	463	2,261	2,320 / 2,441	2,600	2,800
Public stormwater management facilities inspected and maintained annually	1,146	1,104	1,136 / 1,222	1,300	1,330
Emergency Action plans updated	13	9	16 / 16	18	18
Average weekly private vehicle trips into maintained facilities	23,525	22,795	22,065 / 22,770	23,000	23,000
Average weekly commuter bus trips into maintained facilities	6,085	9,365	12,645 / 9,425	9,000	9,000
Average weekly train trips into maintained facilities	285	265	245 / 265	270	270
<b>Efficiency:</b>					
Annual cost per private stormwater management facility	\$272	\$82	\$95 / \$393	\$355	\$358
Cost of inspection and maintenance per public stormwater management facility	\$1,025	\$988	\$1,143 / \$1,626	\$1,494	\$1,587
Cost of Emergency Response program per 100,000 population	\$66,120	\$69,180	\$81,609 / \$128,095	\$125,000	\$125,000
Cost per transit trip	\$0.28	\$0.39	\$0.43 / \$0.52	\$0.51	\$0.55
<b>Service Quality:</b>					
Percent of private facilities inspected within the fiscal year (1)	20%	3%	20% / 19%	20%	20%
Percent of public facilities inspected and maintained within the fiscal year (1)	100%	46%	100% / 100%	100%	100%
Dollar loss per 100,000 population for claims paid as a result of annual emergency events	\$4,308	\$2,483	\$2,994 / \$4,440	\$3,500	\$3,500
Annual commuter facilities complaints received	41	36	50 / 93	75	75
<b>Outcome:</b>					
MS4 permit violations received	0	0	0 / 0	0	0
Percent of Emergency Action Plans current	93%	64%	100% / 100%	100%	100%
Percent of commuter facilities available 365 days per year	100%	100%	100% / 100%	100%	100%

(1) The actual regulatory reporting period for the inspection cycle of "Private" and "Public" stormwater management facilities is on a calendar basis. The performance measure for the stormwater inspection and maintenance objective is on a fiscal basis. While the "Service Quality" indicator for actual inspections completed in FY 2006 indicates that the goal was not met in FY 2006, the regulatory requirement of inspecting 100 percent of the "Public" facilities, and 20 percent of the "Private" facilities will be met within the 2006 regulatory calendar year requirement.

# Stormwater Management

## Stormwater Planning Division<sup>1</sup>

Funding Summary					
Category	FY 2007 Actual	FY 2008 Adopted Budget Plan	FY 2008 Revised Budget Plan	FY 2009 Advertised Budget Plan	FY 2009 Adopted Budget Plan
Authorized Positions/Staff Years					
Regular	31/ 31	31/ 31	34/ 34	34/ 34	34/ 34
<b>Total Expenditure</b>	<b>\$1,420,737</b>	<b>\$1,879,193</b>	<b>\$2,076,488</b>	<b>\$0</b>	<b>\$0</b>

Position Summary					
1 Director	1 Landscape Architect III	3 Ecologists III			
3 Engineers V	1 Engineering Technician III	7 Ecologists II			
1 Engineer IV	1 Engineering Technician I	1 Accountant I			
10 Engineers III	1 Project Manager II	1 Management Analyst II			
1 Project Coordinator	1 Project Manager I	1 Administrative Assistant III			
<b>TOTAL POSITIONS</b>					
<b>34 Positions / 34.0 Staff Years</b>					

<sup>1</sup>Beginning in FY 2009, the entire Stormwater Planning Division will be recovered from Fund 318, Stormwater Management Program.

## Key Performance Measures

### Goal

To develop and implement the planning and design of stormwater systems to promote, preserve and improve the natural ecosystems in order to enhance the quality of life within the community.

### Objectives

- ◆ To incrementally initiate and complete development of Fairfax County's 30 watershed management plans in order to support the MS4 permit and meet Fairfax County's commitment of the Chesapeake Bay 2000 Agreement, and contribute to the removal of the Bay from the "Impaired Water" list by the year 2010.

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2005 Actual	FY 2006 Actual	FY 2007 Estimate/Actual	FY 2008	FY 2009
<b>Output:</b>					
Watershed Plans completed	1	1	9 / 3	6	6
<b>Efficiency:</b>					
Average cost per square mile to develop watershed plans	\$67,800	\$41,635	\$37,600 / \$27,260	\$45,000	\$45,000
<b>Service Quality:</b>					
Cumulative percent of watershed plans completed based on drainage area	2.8%	7.6%	48.6% / 35.9%	51.5%	80.8%
<b>Outcome:</b>					
Annual percent of watershed plans completed	50.0%	25.0%	100.0% / 33.3%	100.0%	100.0%

# Stormwater Management

## Performance Measurement Results

The “Output” indicator for the inventory of private stormwater management facilities indicates a growth of nearly 25 percent over a three year period from FY 2006–FY 2009. One reason for the increase in private facilities is based on facilities constructed as part of recent private development being turned over for County maintenance. Another factor contributing to this increase is a concerted effort to improve inventory control by utilizing GIS to identify potential facilities that were either constructed prior to the current inventory, or are not included in the inventory for other reasons. Due to improvements in the inspection and reporting process to comply with permit conditions, the “Efficiency” indicator for the annual cost of the inspection of private facilities and the per facility cost for the maintenance and inspection of public facilities were both higher than anticipated. The additional work load resulting from the increased inventory and the increase in quality of inspection has primarily been accomplished through the use of contract services and is expected to level off in FY 2008 and FY 2009. The “Service Quality” indicator pertaining to the inspection cycle for public stormwater facilities was met. The inspection cycle pertaining to private facilities was lower than the estimated projection. Part of the difference is attributed to the consideration that new facilities do not require inspection until they have been in service for several years after being added to the inventory. Further, it is important to note that the performance measurement process related to inspection cycles is on a fiscal basis and the inspection cycle requirements for the MS4 permit are on an annual basis. The MS4 facility inspection requirements for both programs pertaining to the 5-year permit were achieved. This achievement resulted in Fairfax County being in compliance with the permit as provided in the “Outcome” indicator for all five years that the permit has been in effect and indicates that the “Objective” to ensure zero violations with the MS4 permit was accomplished.

The “Output” indicator for updating 16 Emergency Action Plans (EAP) was met. The “Efficiency” indicator shows that the cost of the emergency response program per 100,000 Fairfax County residents was higher than projected and the “Service Quality” indicator shows that the dollar loss per 100,000 residents was greater than originally anticipated. Both the “Efficiency” and the “Service Quality” indicators were impacted by the flooding that occurred in the County during late June 2006. The unanticipated flooding resulted in a larger number of claims paid in FY 2007. This resulted in higher than projected program costs and greater than anticipated dollar loss per 100,000 county residents than was previously estimated. The result of the “Outcome” indicator illustrates that 100 percent of the EAP’s required to be maintained were updated, thereby meeting the intent of the “Objective” to ensure that 100 percent of the EAP’s are updated and operational to minimize impacts to Fairfax County citizens.

The performance indicators for the commuter program indicate that there were approximately 1.7 million annual trips from vehicles, busses and trains entering the facilities. Except for one performance indicator, the actual numbers were within a normal variation of the estimated numbers. The performance indicator for the “Average Weekly Bus trips” was incorrectly estimated showing significant growth last year, when in fact the program has been experiencing only moderate growth. The “Efficiency” indicator shows a \$0.52 cent maintenance cost per trip, which is higher than the estimated \$0.43 cents per maintenance trip projected last year. This can be attributed to larger than anticipated facility maintenance requirements associated with the program. The “Outcome” indicator shows that all facilities were open and functional for 365 days in FY 2007, meeting the “Objective” to ensure that 100 percent of the Commuter Rail, Park-and-Ride and Bus Transit facilities were available and functional all year. This supports the important environmental initiatives related to reducing air pollution.

The Watershed Planning process has taken longer than originally anticipated, resulting in three of the four performance indicators not being met. Three of the watersheds were completed in FY 2007, a fourth watershed plan was adopted by the Board in August 2007, and with that adoption, watershed plans have been completed for over 50 percent of the land area in the County. The remaining five watersheds are smaller watersheds and are being planned as one project, with an anticipated completion date in late 2008. The “Efficiency” indicator implies that the average cost per square mile to develop watershed plans is within estimated costs, which can be attributed to redefined plan scopes and planning processes. The program is on schedule to complete watershed planning in all 30 watersheds by 2010, to meet the Fairfax County commitment as part of the Chesapeake Bay 2000 Agreement.