


T&E COMMITTEE #2
February 27, 2014

Worksession

MEMORANDUM

February 25, 2014

TO: Transportation, Infrastructure, Energy & Environment Committee

FROM:  Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Worksession: FY15-20 Capital Improvements Program (CIP) Conservation of Natural Resources:**

- **Stormwater Management**
- **Storm Drains**

Council Staff Recommendations:

- **Stormwater Management: Approve as Recommended by the County Executive.**

Highlights:

- *Continued ramp-up in scope and costs for projects to address retrofit work per the NPDES-MS4 permit*
- *State Aid assumed at previously approved levels.*

NOTE: the Stormwater Management CIP is funded entirely from Water Quality Protection Fund dollars (current revenue and bonds) and State aid. Therefore, changes in expenditures in this program DO NOT affect overall CIP Spending Affordability limits.

- **Storm Drains: Approve as Recommended by the County Executive but with a two-year appropriation recommended for the Storm Drain General project.**

Highlights:

- *No new "stand alone" projects*
- *Wapakoneta Road Improvements project on schedule*
- *CE recommends moving switching GO bond funding to Water Quality Protection Fund bonds.*

The following officials and staff will be attending this meeting:

Stormwater Management CIP Discussion

Bob Hoyt, Director, Department of Environmental Protection (DEP)

Kathleen Boucher, Assistant Director (DEP)

Steve Shofar, Chief, Division of Watershed Management (DWM), DEP

Vicky Wan, Manager, Water Quality Protection Charge (DWM-DEP)

Craig Carson, Manager, Watershed Management (DWM-DEP)

Jim Stiles, Manager, Construction and Contracts (DWM-DEP)

Mary Beck, CIP Coordinator, Office of Management and Budget (OMB)

Matthew Schaeffer, OMB

Storm Drains CIP Discussion

Holger Serrano, Deputy Division Chief, Transportation Engineering, Department of Transportation

Michael Mitchell, Senior Engineer, Division of Transportation Engineering, Department of Transportation

Brady Goldsmith, Office of Management and Budget

Note: Time permitting, Council Staff has asked both DEP and DOT staff to present the Committee with some “before/during/after” photographs of some typical work being done under both the Stormwater Management CIP and the Storm Drains CIP.

FY15-20 STORMWATER MANAGEMENT CIP

Summary

Stormwater management is a shared responsibility among several County departments and agencies. DEP plans and implements the stormwater management CIP program. The Department of Permitting Services reviews, approves, inspects, and enforces requirements for construction of privately-owned stormwater management facilities. DEP works with the County’s Department of Transportation (DOT) to address storm drain outfall repair issues, as well as with the Washington Suburban Sanitary Commission (WSSC) when WSSC infrastructure work is needed. DEP also inspects and provides structural maintenance for most Montgomery County Public Schools’ (MCPS) and the Montgomery County facilities on Maryland-National Capital Park and Planning Commission (M-NCPPC) land.

An excerpt from the Executive’s Recommended FY15-20 CIP is attached on ©1-12. The Executive is recommending a significant increase in the six-year program (from \$304.9 million to \$363.7 million, or 19.3 percent). This follows very large increases in the program approved in the previous two CIP cycles (FY11-16 and FY13-18).

These prior increases were reflective of the County’s efforts to implement its work associated with the County’s National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit (discussed in more detail later in this

memorandum). This year's increase reflects a continued ramping up of work and revised cost estimates based on additional design work completed.

The following table shows the Executive's recommendation compared to the latest Approved FY13-18 CIP.

Stormwater Management CIP (in \$000s)									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	304,861	44,861	45,000	50,000	50,000	55,000	60,000		
FY15-20 CE Recommended	363,655			53,345	56,724	70,368	60,612	60,666	61,940
change from Approved	58,794			3,345	6,724	15,368	612		
percent change from Approved	19.3%			6.7%	13.4%	27.9%	1.0%		

The bulk of the increased dollars are in the Miscellaneous Stream Valley Improvements project (\$26.1 million increase), SM Retrofit: Roads (\$22 million increase), and SM Facility Major Structural Repair (\$8.8 million increase) projects.

Overall, there are six ongoing projects and two new projects.

The sources of funds for the Approved FY13-18 CIP and the FY15-20 Recommended CIP are shown in the following chart.

Stormwater Management CIP Funding (in \$000s)					
	FY13-18 Total	FY15-20 Total	% of Total	Change from FY13-18 \$\$	Change from FY13-18 %
Six-Year Total	304,861	363,655		58,794	19.3%
State Aid	69,861	60,000	16.5%	(9,861)	-14.1%
Water Quality Protection Charge - Bonds	228,250	295,255	81.2%	67,005	n/a
Water Quality Protection Charge	6,750	8,400	2.3%	1,650	24.4%

Four years ago, the Council approved the Executive's recommendation to use bonds paid for with Water Quality Protection Charge (WQPC) revenue to cover the majority of spending in this program. According to OMB staff, these bonds are being treated like revenue bonds and therefore do not factor into the County's General Obligation Bond Spending Affordability limits. For FY15-20, most of the recommended increase in spending would be covered with additional Water Quality Protection Charge bonds.

The rest of the increase is covered by Water Quality Protection Charge current revenue. State aid is assumed to decrease overall by about \$9.9 million (-14.1 percent) during the six-year period. The new recommended amount (\$60 million) is close to the amounts received for FY13 and FY14 (\$19.8 million). If State aid ultimately received is lower than assumed, then the Council will need to consider whether to increase local funding or reduce the level of effort in projects.

**National Pollution Discharge Elimination System
Municipal Separate Storm Sewer System Discharge
(NPDES-MS4) Permit**

Background

DEP is the lead agency for Montgomery County with regard to the NPDES Permit. The Maryland Department of the Environment (MDE) is the State agency responsible for approving NPDES permits, which are required as part of the Clean Water Act enforced by the Environmental Protection Agency. The first five-year permit was renewed in July 2001 and later modified in January 2004 to include six localities as “co-permittees.” The County’s permit covers all areas of the County, with the exception of the cities of Gaithersburg, Rockville, and Takoma Park, and lands under the control of State agencies (including the Maryland-National Capital Park and Planning Commission and Washington Suburban Sanitary Commission) or Federal agencies.

The current 5-year permit was issued by MDE on February 16, 2010. DEP is the lead department coordinating a multi-department/agency response to meet the permit’s requirements.

Permit Requirements

The County’s Coordinated Implementation Strategy (CCIS) (dated January 2012) provides the planning basis for the County to meet the following goals, as required in the County’s NPDES-MS4 Permit:

1. *Meet Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) approved by EPA.*
2. *Provide additional stormwater runoff management on impervious acres equal to 20 percent of the impervious area for which runoff is not currently managed, to the maximum extent practicable (MEP). **This requirement continues to be the primary driver of CIP expenditure increases.***
3. *Meet commitments in the Trash Free Potomac Watershed Initiative 2006 Action Agreement, which include support for regional strategies and collaborations aimed at reducing trash, increasing recycling, and increasing education and awareness of trash issues throughout the Potomac Watershed.*
4. *Educate and involve residents, businesses, and stakeholder groups in achieving measurable water quality improvements.*
5. *Establish a reporting framework that will be used for annual reporting, as required in the County’s NPDES-MS4 Permit.*
6. *Identify necessary organizational infrastructure changes needed to implement the Strategy.*

Cost Implications

The cost implications for implementation of these changes are substantial. Overall, DEP estimates the permit costs to be about \$305 million through 2015 and nearly \$1.9 billion through

2030. Charts from the CCIS (attached on ©23-24) break out these estimated costs by watershed and type of work to be done.

Funding will be sought from Federal and State sources, as well as from local partners. However, as shown earlier, over 80 percent of the Stormwater Management CIP costs are expected to be funded with bonds supported by the County's Water Quality Protection Fund (WQPF).

The increase in Water Quality Protection Fund bond funding in the Recommended FY15-20 CIP is about \$67 million (over the six years) above what is programmed in the Amended FY13-18 CIP. The impact on FY15 is far less, however, and the Water Quality Protection Charge impact for FY15 will depend on a number of other impacts on the Fund. A full review of the Fund will be done as part of the Operating Budget review of the DEP Budget later this spring.

Water Quality Protection Fund

The Water Quality Protection Fund and charge were created in 2001 via Council legislation (Bill 28-00). Since its inception, the Water Quality Protection Fund has covered the costs for the County's inspection, maintenance, and rehabilitation of thousands of stormwater management facilities. Since the approval of the County's latest NPDES-MS4 permit in 2010, the Water Quality Protection Fund has become the major source of funding (for both current revenue and bond financing) for this work as well.

Last year, the Council approved major legislative and regulatory changes in the structure of the Water Quality Protection Charge. These changes included:

- Broadening the charge to include almost all property owners.
- Providing credits to property owners who have on-site or off-site stormwater management facilities and/or implement certain best practices.
- Providing a hardship exemption for residential property owners and qualifying non-profits.
- Providing for a supplemental grant program to offset the cost to eligible homeowners associations for WQPC assessments associated with private roads that meet certain conditions.
- Phasing in any increased charges to property owners over three years.

These changes addressed requirements in State law while also making the charge more equitable and broader in the context of providing sufficient resources to meet the County's NPDES-MS4 permit requirements.

Implementation

DEP already has engineering and construction contracts in place that are being utilized now for current work. Additional contracts will be needed in future years to handle the significantly greater construction load. DEP plans to utilize contractors as much as possible to

minimize staff increases. DEP has already started to ramp up with the addition of new staff in the last several budgets.

Issues

State Aid Assumptions

Council Staff asked Executive staff to elaborate on the \$10 million per year State aid assumption for FY15-20. Below is DEP's response:

In FY13 and FY14, we received commitments from the State for grants in the amount of \$19.8M. As this actual grant commitment amount ($\$19.8M / 2 \text{ years} = \$9.9M \text{ per year}$) was very close to our previous assumption of \$10M per year, we decided to again utilize the \$10M per year assumption. We also wanted to use a number which indicates that the County still needs State Aid for this work.

The apportioning of projected State Aid was based on: 1) how the FY13-14 State Aid was distributed among projects and 2) our estimating where the State will provide Aid in the future.

While the Governor's office has indicated interest in providing additional State Aid, there has been little concrete information. The \$18.9M received in FY13/14 may be a maximum number – now that additional jurisdictions have similar permits to comply with.

If State Aid is received higher than current assumptions, work will increase accordingly to utilize this funding. If State Aid is received lower than current assumptions, the County Executive and County Council would need to decide the adjustments needed to the implementation schedule.

Receipt of the State aid will be a key factor in how much work DEP can implement in the CIP. From Montgomery County's perspective, Council Staff would argue that the local commitment of CIP dollars (already extremely high) should not have to increase further if the assumed State aid is not forthcoming.

Stormwater Management Retrofits

The biggest costs in the stormwater management CIP are for stormwater retrofit work. The permit goal is to retrofit 4,300 acres to the maximum extent practicable (MEP). DEP estimates that it has retrofitted 3,200 acres to date and will retrofit approximately 3,750 acres (87.2 percent of the permit requirement) by the end of the permit period (February 2015).

While below the permit goal, DEP's estimate of acres to be treated represents a massive ramp-up of work. DEP previously has noted that it has received positive feedback from MDE regarding its plans and that Montgomery County is a statewide leader in its permit implementation efforts to date.

Project Review

Facility Planning: SM (PDF on ©4)

Facility Planning: Stormwater Management									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	6,750	1,150	1,150	1,150	1,100	1,100	1,100		
FY15-20 CE Recommended	8,400			1,150	1,250	1,350	1,450	1,550	1,650
change from approved	1,650			-	150	250	350		
percent change from approved	24.4%			0.0%	13.6%	22.7%	31.8%		

This project funds evaluations of watershed needs and identifies alternatives to address these needs, including possible CIP projects. This project provides approximately 30 percent design completion to projects generated from this program. The project is funded with Water Quality Protection Fund current revenue dollars.

Annual facility planning costs are assumed to go up during the six-year period as DEP expects future stormwater management and stream restoration opportunities will require more effort and resources to meet future MS4 permit requirements. DEP has noted that, *“future planning efforts will involve identifying projects to reduce waste loads allocations closer to the pollutant source (LID/ESD) rather than treating larger impervious areas by retrofitting existing stormwater management facilities.”*

As far as current work in the project, DEP provided the following project update:

The watershed implementation plans for Dry Seneca, Little Seneca, Upper Potomac Direct, Lower Potomac Direct, and Patuxent watersheds are currently underway and will be completed at the end of FY14. Completing these assessments meets the watershed assessment requirements outline in the County’s MS4 permit.

DEP will complete the assessment of 61 schools to identify LID retrofit opportunities in FY14 and begin the final assessment of 80 schools for LID retrofit opportunities before the end of FY14.

The following items are efforts required by MDE or in preparation for future permit requirements

- *Updating the CCIS baseline and wasteload allocations in preparation for permit reporting and future MS4 permit requirements (planned for FY15)*
- *Developing and updating the implementation plan for the impaired watersheds issued by MDE (ongoing based upon issuance from MDE)*

SM Retrofit: Countywide (PDF on ©5-6)

SM Retrofit - Countywide									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	151,805	14,005	24,200	25,100	24,500	29,500	34,500		
FY15-20 CE Recommended	146,470			18,726	22,968	23,408	23,732	27,696	29,940
change from approved	(5,335)			(6,374)	(1,532)	(6,092)	(10,768)		
percent change from approved	-3.5%			-25.4%	-6.3%	-20.7%	-31.2%		

This project provides for the design and construction of stormwater management retrofit projects countywide. The list of projects to be done is summarized on the PDF with more detail and cost information provided on ©32-36. The project is funded with WQPF bonds and State aid (\$3.5 million per year assumed).

The Executive is recommending a total of \$146.5 million over the six-year period (a slight decrease from the FY13-18 CIP after very large increases in this project over the past two biennial CIP cycles).

Misc. Stream Valley Improvements (PDF on ©7-8)

Misc Stream Valley Improvements									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	16,456	3,656	3,070	3,070	2,220	2,220	2,220		
FY15-20 CE Recommended	42,573			6,393	5,440	9,640	8,900	6,100	6,100
change from approved	26,117			3,323	3,220	7,420	6,680		
percent change from approved	158.7%			108.2%	145.0%	334.2%	300.9%		

This project funds the design and construction of restoration and corrective measures to stream reaches having severe channel erosion, sedimentation, habitat degradation, and flooding problems. Priorities are based on watershed studies and data from the Countywide Stream Protection Strategy (see excerpt from 2003 update on ©12-13).

The Executive is recommending a total of \$42.6 million over the six-year period (an increase of nearly 160 percent from the approved six-year total of \$16.5 million). The PDF notes that costs are increasing due to an increase in the number of projects to be done¹, site conditions, and higher individual project costs. The projects to be done are summarized on the PDF, and more detail is attached on ©30-31.

During its stream evaluations, DEP also identifies storm drain outfall repair needs and coordinates with DOT's Outfall Repairs project. Sewer issues are also identified and forwarded to WSSC.

The project is funded with Water Quality Protection Bonds and State aid. For FY15, the Executive is recommending the same annual level of State aid assumed in the FY13-18 CIP for years FY15 and beyond (\$1.0 million per year).

¹ DEP staff noted that "since the FY13-18 CIP budget submission, the State has provided guidance on equivalent IA which can be obtained via stream restoration projects. Preliminary analysis indicated that stream projects can be cost effective. Therefore, the Department is recommending an increase in the number of stream restoration projects."

SM Retrofit: Schools (PDF on ©9)

SM Retrofit - Schools									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	20,100	1,270	1,010	3,270	4,850	4,850	4,850		
FY15-20 CE Recommended	24,930			3,470	6,280	3,480	3,900	3,900	3,900
change from approved	4,830			200	1,430	(1,370)	(950)		
percent change from approved	24.0%			6.1%	29.5%	-28.2%	-19.6%		

This project was split from the SM Retrofit: Government Facilities project two years ago.

The Executive is recommending a six-year total of \$24.9 million, funded entirely with WQPF bonds.² The project is recommended to increase by 24 percent over the six-year period primarily because of prior project delays.

Projects planned for construction are listed on the PDF, with further detail provided on ©25.

SM Retrofit: Roads (PDF on ©10)

SM Retrofit - Roads									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	76,425	20,515	9,910	11,500	11,500	11,500	11,500		
FY15-20 CE Recommended	98,420			12,740	14,080	26,320	16,010	15,170	14,100
change from approved	21,995			1,240	2,580	14,820	4,510		
percent change from approved	28.8%			10.8%	22.4%	128.9%	39.2%		

This project was split from the SM Retrofit: Government Facilities project two years ago.

The Executive is recommending a six-year total of \$98.4 million, funded with WQPF bonds and State aid. The project is recommended to increase by almost 29 percent over the six-year period as a result of additional retrofit projects being added to the schedule.

DEP has provided the following information regarding the large spike in costs in FY16-FY18:

The increases result from two primary items: 1) As indicated on the spreadsheet, DEP has a fairly large number of road subprojects in design; the expected construction of these Roadway SWM projects is expected to occur in FY16 and FY17 – causing a “spike” in costs those years, and 2) Experience over the last 2 years indicate these types of projects are more expensive than previously assumed.

Projects planned for construction are listed on the PDF, with further detail provided on ©26-27.

² Unlike the other projects, no State aid is assumed for this project, because State legislative action would be required.

SM Retrofit: Government Facilities (PDF on ©11)

SM Retrofit - Government Facilities									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	16,425	1,125	2,900	3,100	3,100	3,100	3,100		
FY15-20 CE Recommended	17,732			3,026	2,816	2,820	3,270	2,900	2,900
change from approved	1,307			(74)	(284)	(280)	170		
percent change from approved	8.0%			-2.4%	-9.2%	-9.0%	5.5%		

This project provides for the design and construction of Environmentally Sensitive Design (ESD) and Low Impact Development (LID) stormwater management devices at County facilities. The Executive is recommending a six-year total of \$17.7 million, funded entirely with WQPC bonds. The project is recommended to increase by 8.0 percent over the six-year period. A detailed project schedule is attached on ©28-29.

Stormwater Management Facility Major Structural Repair (PDF on ©12)

SM Facility Major Structural Repair									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	14,280	1,830	2,450	2,500	2,500	2,500	2,500		
FY15-20 CE Recommended	23,070			7,530	3,540	3,000	3,000	3,000	3,000
change from approved	8,790			5,030	1,040	500	500		
percent change from approved	61.6%			201.2%	41.6%	20.0%	20.0%		

This project provides for the design and construction of major structural repairs to County maintained stormwater management facilities. Smaller, less complex projects are funded out of the Operating Budget.

The Executive is recommending a six-year total of nearly \$23.1 million (an increase of \$8.8 million). Most of the increase results from a large bump in FY15. The FY15 increase is a result of including the hydraulic dredging of two large lakes: Lake Whetstone in Montgomery Village and Gunners Lake in Germantown (each costing about \$3.0 million). DEP has noted that because this work requires a specialty contractor, there are economies gained from doing both lakes in FY15.

The project is funded with WQPF Bonds and some State aid.

A full list of projects to be done (and costs) by fiscal year is attached on ©37-38.

Watershed Restoration – Interagency (PDF on ©3)

Watershed Restoration - Interagency									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	2,620	1,310	310	310	230	230	230		
FY15-20 CE Recommended	2,060			310	350	350	350	350	350
change from approved	(560)			-	120	120	120		
percent change from approved	-21.4%			0.0%	52.2%	52.2%	52.2%		

This project is an ongoing series of subprojects that are being constructed in cooperation with the US Army Corps of Engineers. Expenditures by the Corps of Engineers do not show up in the PDF. The Corps pays 65 percent to 75 percent of the total costs.

For FY15-20, the Executive is recommending \$2.1 million in expenditures, which represents a 21.4 percent decrease from the FY13-18 Approved CIP. Apart from the completion of \$1.0 million in State-funded work completed in FY13, the project is showing annual increases in FY16 and beyond as a result of an increase in the number of projects expected to be done in the outyears.

FY15-20 STORM DRAINS CIP

Summary: Council Staff is supportive of the FY15-20 Storm Drains CIP projects recommended by the County Executive.

NOTE: For FY15-20, the County Executive is recommending that the Storm Drains CIP be funded from Water Quality Protection Charge (WQPC) bonds and WQPC current revenue, consistent with the transition made over several years to move Storm Drain operating costs from the County's General Fund to the WQPC. Council Staff concurs with this funding change. Assuming this change, any potential expenditure changes in these projects do not affect the County's affordability calculations with regard to G.O. bonds or general current revenue.

Summary

The Department of Transportation (DOT) Division of Transportation Engineering manages the County storm drains program. Properly functioning storm drains remove excess water from the roads, ensuring safer road conditions while also protecting roads from water damage. Properly functioning storm drains also protect adjacent properties from water runoff damage. Work is identified through requests for assistance that come from property owners as well as from government agencies. DOT works in partnership with the State and other municipalities when State roads and/or municipal properties are involved. DOT staff will be available to provide a brief overview of the storm drains program. Some summary information from the DOT website is attached on ©21-22.

An excerpt from the Executive's Recommended FY15-20 CIP for storm drains is attached on ©13-20. The Executive is recommending \$16.6 million for FY15-20. The following table shows the recommendation by fiscal year compared to the latest Approved FY13-18 CIP.

Stormdrains CIP (in 000s)									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	17,528	3,043	3,521	2,676	2,676	2,806	2,806		
FY15-20 CE Recommended	16,576			2,676	2,676	2,806	2,806	2,806	2,806
change from amended	(952)			-	-	-	-		
percent change from approved	-5.4%			0.0%	0.0%	0.0%	0.0%		

Last year, the Council approved two amendments to the Stormdrain CIP:

- Facility Planning: Stormdrains: Funding of this project switched from current revenue to Water Quality Protection fund dollars. The annual level of spending (\$250,000) was left unchanged.
- Storm Drain Culvert Replacement: New level of effort project added to the CIP (\$6.3 million total for FYs14-18, funded with G.O. Bonds).

For the FY15-20 CIP, the County Executive is recommending a decrease of \$952,000 (5.4 percent) over the latest Approved CIP. The six-year decrease in expenditures is primarily the result of the completion of two projects (Maple Avenue Storm Drain & Roadway Improvement and the Town of Chevy Chase Storm Drain Improvements). No new projects are recommended.

The sources of funds for the Stormdrains CIP are shown in the following chart.

Stormdrains CIP (in \$000s)				
	FY13-18 Total	FY15-20 Total	\$\$\$ Change	% Change
Total	17,528	16,576	(952)	-5.4%
GO Bonds	15,838	-	(15,838)	-100.0%
Water Quality Protection Charge	1,580	6,512	4,932	312.2%
Water Quality Protection Bonds	-	10,064	10,064	n/a
Intergovernmental	110	-	(110)	-100.0%

As shown in the chart, the County Executive is recommending using Water Quality Protection Fund (WQPF) Bonds and WQPF current revenue for all ongoing projects. G.O. bonds, which were the primary funding source in the FY13-18 CIP, are zeroed out for the FY15-20 CIP. Some storm drain projects can involve State or other outside participation, although none of these sources are assumed in FY15-20 Recommended CIP at this time.

Project Review

Facility Planning: Stormdrains (PDF on ©15-16)

Facility Planning: Storm Drains									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	1,580	250	250	250	250	290	290	290	290
FY15-20 CE Recommended	1,660			250	250	290	290	290	290
change from approved	80			-	-	-	-	-	-
percent change from approved	5.1%			0.0%	0.0%	0.0%	0.0%		

This project provides for the investigation and analysis of various storm drainage assistance requests initiated by private citizens and public agencies. Depending on the complexity of the project, in-house staff or consultants design projects to a 35 percent design level. At that point, projects that cost over \$500,000 become stand-alone projects if approved. Projects costing less than \$500,000 are constructed in the Storm drain: General project.

The County Executive is recommending \$250,000 in FY15 and FY16 and \$290,000 per year in FY17 through FY20, all with Water Quality Protection Charge current revenue funding. The FY15 through FY18 amounts are the same as approved.

A large portion of funds from this project covers the costs of responding to Drainage Assistance Requests (DARs), background research, data collection, survey, and concept alternative evaluation. Requests continue to be received on a regular basis.

Two projects are noted on the PDF (Linton St./Patton St. and Hollywood Ave. However, DOT has noted that a number of other projects have been added to the project since the PDF was developed last fall. These projects include:

*19016 Jamieson Drive
Blakeford Court at Falmouth Road
5504 Cornish Road
3005 Decatur Avenue
5506 Ridgfield
6215 Garnett Drive
Piney Meetinghouse S. of Cavanaugh*

Outfall Repairs (PDF on ©14)

Outfall Repairs									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	2,628	426	426	426	426	462	462		
FY15-20 CE Recommended	2,700			426	426	462	462	462	462
change from approved	72			-	-	-	-		
percent change from approved	2.7%			0.0%	0.0%	0.0%	0.0%		

This project provides for the repair of existing storm drain outfalls into stream valleys. The priorities for this project are developed in coordination with DEP. In addition to planned projects (see below), DOT also receives and coordinates efforts for one or two requests per month from various sources, including DOT-DHS, DEP, WSSC, and M-NCPPC.

For FY15-20, the County Executive recommends a total of \$2.7 million. The annual level of funding is the same as approved for FY15 through FY18. The FY19 and FY20 levels continue the slightly higher levels previously approved in FY17 and FY18.

DOT provided the following list of completed and pending (funded) work in this project:

Completed in FY14

*Falls Bridge Lane – Potomac
Locksley Lane – Silver Spring (Sherwood Forest)*

To be completed in FY14

Holman Avenue – Silver Spring

11101 Schuylkill Road – Rockville

Maple Leaf Drive – Montgomery Village

Maple Leaf Court – Montgomery Village

FY15 and beyond

Dilston Place – Silver Spring (WSSC)

Dartmouth Avenue – Silver Spring

Pebble Hill Lane – Gaithersburg

Hollyoak Drive – Bethesda

Twig Road – Spencerville

Southlawn Lane – Rockville

DOT also noted that additional outfall projects need further investigation and have scopes of work developed.

Storm Drain Culvert Replacement (PDF on ©17)

Storm Drain Culvert Replacement									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	6,300	-	1,500	1,200	1,200	1,200	1,200		
FY15-20 CE Recommended	7,200			1,200	1,200	1,200	1,200	1,200	1,200
change from approved	900			-	-	-	-		
percent change from approved	14.3%			0.0%	0.0%	0.0%	0.0%		

This project (approved last year as an amendment to the FY13-18 CIP) provides for the replacement of failed storm drain pipes and culverts which are less than 6 feet in roadway longitudinal length.³ The project does not make major changes to the location or size of the existing storm drain facilities.

For FY15-20, the County Executive recommends a total of \$7.2 million (\$1.2 million per year). The annual level of funding is the same as approved for FY15 through FY18. The FY19 and FY20 levels continue the FYs 15-18 approved funding levels.

A portion of the funding for this project is for an asset inventory and condition assessment, which DOT estimates will cost about \$200,000 per year over the next five years. So far, preliminary work has been done in coordination with DEP to identify existing storm drain records, and DOT is beginning to do field verification of the data.

³ Structures longer than 6 feet in longitudinal length would continue to be addressed in the Bridge Renovation Program project (No. 509753).

Storm Drain General (PDF on ©18-19)

Storm Drain General								
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19 FY20
FY13-18 Latest Approved	4,908	800	800	800	800	854	854	
FY15-20 CE Recommended	5,016			800	800	854	854	854 854
change from approved	108			-	-	-	-	
percent change from approved	2.2%			0.0%	0.0%	0.0%	0.0%	

This project includes any storm drain projects costing less than \$500,000, as well as funding to address “spot” projects that can be addressed relatively quickly throughout the year. The annual level of funding in the project has fluctuated over the past several years within a \$600,000 to \$900,000 range, depending on whether there are specific projects assumed to move forward and the availability of funds in general. Projects are prioritized based on their public safety impact (if any), cost, readiness (i.e., facility planning must be completed), potential community benefits, and order the issue was first identified (if projects are of equal merit).

For FY15-20, the County Executive recommends a total of \$5.02 million (\$800,000 per year for FYs 15-16 and \$854,000 per year for FYs 17-20). The annual level of funding is the same as approved for FY15 through FY18. The FY19 and FY20 levels continue the slightly higher levels previously approved in FY17 and FY18.

DOT provided the following information on work to be done in FY15 and FY16:

Linton-Patton: construct new storm drain system in area with few existing closed drainage system where storm event runoff in addition to discharge runoff from an existing pond causes local inundation.

Hollywood Avenue: no existing storm drain system at the local sump of the road; runoff flows through some backyards and causes localized erosion. Construct new storm drain system and connect to existing system further south of subject location.

Jamieson Drive: construction of new road and sidewalk created a small local ponding area in two backyards. Construct local inlet and connect to existing drainage system.

Blakeford Court at Falmouth Road: near-continuous groundwater discharge causes icing at the intersection. Install under-drain and new storm drain system and connect to existing system further south of subject location.

Cornish Road: groundwater discharge causes icing along the road. Install new SD system and connect to existing system further down the road.

Decatur Ave: local runoff cuts through backyards and flows over sidewalk. Install new small system to capture this runoff. Connect to existing system.

5506 Ridgefield: lack of storm drain system in the area causes large flows during storms along surface and icing at intersection. Construct new storm drain system.

Garnett Drive: groundwater discharge causes icing along the road. Install new SD system and connect to existing system further down the road.

Piney Meetinghouse: groundwater discharge causes icing along the road. Install new SD system and connect to existing system further down the road.

Over the past four full CIP cycles, the Council has appropriated this project at a level sufficient to support the first two years of the program. This level of appropriation provides flexibility to DOT to bid and award contracts for work that may fall near the end of the first year of funding. The Recommended CIP assumes to only fund the first year of expenditures (\$800,000). According to OMB staff, including only a single year appropriation for FY15 was an oversight.

Council Staff recommends increasing the FY15 appropriation to \$1.6 million to continue the practice of funding the first two years of the program.

Wapakoneta Road Improvements (PDF on ©20)

Wapakoneta Road Improvements									
	Six-Year	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
FY13-18 Latest Approved	1,563	255	363	945	-	-	-	-	-
FY15-20 CE Recommended	915	159	459	915	-	-	-	-	-
change from approved	(648)			(30)					
percent change from approved	-41.5%			-3.2%	#DIV/0!	#DIV/0!	#DIV/0!		

Note: This project was approved in May 2010 in the FY11-16 CIP. However, because land acquisition was involved, the project was approved as a road project in order to avail the County of the “quick take” process and expedite the project implementation and minimize costs. Therefore, project costs are not reflected in the overall Storm Drains CIP cost totals noted earlier.

This project provides for reconstruction of pavement and storm drain improvements along Wapakoneta Road between Namakagan Road and Walhonding Road in Glen Echo Heights.⁴ Design is scheduled to start this summer. The project schedule, scope, and cost are unchanged from the Approved CIP, with completion scheduled for the summer of 2015. G.O. bonds are the primary funding source, with some intergovernmental revenue from WSSC also assumed.

Attachments

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⁴ Glen Echo Heights was the subject of a comprehensive study that was completed in August 2007. The study identified a number of roadway and safety issues, as well as stormwater conveyance deficiencies. According to DOT staff, the Glen Echo Heights study area has some of the worst drainage problems in the County. However, the potential scale and cost of the recommended improvements was substantial, and there was disagreement within the Glen Echo Heights Community as to which improvements should be pursued. In addition to roadway and storm drain improvements, the report recommended a number of Low Impact Development (LID) efforts that DEP has included for study and implementation that are being pursued with Water Quality Protection Fund resources.

Stormwater Management

PROGRAM DESCRIPTION AND OBJECTIVES

Uncontrolled stormwater runoff from developed areas leads to erosion of stream banks, siltation and widening of stream channels, and localized flooding. Urbanization often destroys stream habitat, leading to dramatic declines in the diversity of fish and other aquatic species. Urban runoff also adds to downstream pollution in the Anacostia, Patuxent, and Potomac rivers and the Chesapeake Bay. Multi-state agreements as well as State legislation and programs emphasize the importance of watershed-based programs to protect aquatic habitat and reduce pollution in the Bay and its tributaries.

The objectives of the Stormwater Management program are protection of natural waterway environments; restoration of streams previously damaged by excessive erosion, sedimentation, and impaired water quality; and prevention or remediation of property damage caused by localized flooding. The County's Stormwater Management program is watershed-based and focuses on mitigating problems caused by development that was constructed prior to implementation of stringent stormwater management controls, and on proactive planning in the developing portions of the County.

The Stormwater Management capital program addresses problems caused by prior development through facility planning studies and the development of Watershed Restoration Action Plans, and through the design and construction of stormwater retrofit projects (including low impact development) and stream restoration projects. These projects reduce pollution in streams and manage peak runoff flows to reduce stream channel habitat and sedimentation damage from watershed development and urbanized areas. This prevents flooding and reduces erosive velocities affecting stream channels. Project implementation helps fulfill requirements specified in the County's National Pollutant Discharge Elimination System (NPDES) municipal stormwater discharge permit. Stream restoration priorities are established through the Countywide Stream Protection Strategy (CSPS, February 2003).

Since FY04, the County has offered public maintenance services for qualified private stormwater facilities. All residential property and "associated non-residential" structures are eligible for County maintenance. Residential and Commercial property owners pay a Water Quality Protection Charge (WQPC) to fund the maintenance of these privately-owned structures as well as County-owned facilities. This program will improve the long-term operational effectiveness of these facilities and increase their pollution removal efficiency. Inspection and routine maintenance of these facilities are funded in the operating budget, while major structural repairs

that require extensive engineering design and permitting are funded in the CIP.

The County was issued a five-year National Pollutant Discharge Elimination System (NPDES) permit in February 2010 to develop a storm water management program to prevent harmful pollutants from being washed or dumped into the Municipal Separate Storm Sewer System (MS-4).

The Stormwater Management program which was developed by the Department of Environmental Protection (DEP) to comply with the MS-4 permit continues to set precedent and act as a model for jurisdictions throughout the State. Beginning in 2013, counties throughout Maryland were required to develop and implement a Stormwater Management program and Montgomery County has worked with the State and other counties to assist in the first stages of many County Stormwater Management implementations throughout Maryland.

The FY15-20 CIP program for Stormwater Management continues Montgomery County's commitment to treat impervious surfaces within the County to the maximum extent possible, with total six-year program expenditures increasing \$58.8 million (19.3 percent) above the amended approved FY13-18 six-year program of \$304.9 million.

The Department of Transportation (DOT) is also assisting the DEP in implementing the MS-4 Permit by: (1) constructing Storm Water Management (SWM) retrofit projects which have been developed through DEP's MS-4 planning studies; (2) providing opportunities for curb bump-outs and road narrowing where feasible to permit implementation of low-impact development (LID) SWM provisions within the right-of-way; (3) seeking DEP guidance on prioritization of storm drain outfall repairs; (4) coordinating with DEP on storm drain projects developed in the Storm Drain General and Facility Planning - Storm Drain programs to identify opportunities for enhancements which would assist in meeting the requirements of the MS-4 permit; and (5) holding quarterly meetings with DEP and DOT staff looking for additional areas of cooperation in meeting the MS-4 permit requirements.

HIGHLIGHTS

- Continue the planning and implementation of stormwater controls, public outreach, stream monitoring, and other actions needed to comply with the County's National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS-4) permit, which will significantly enhance the County's efforts to improve

water quality in local streams and ultimately the Chesapeake Bay.

- Expand the design and construction of environmentally friendly stormwater management techniques known as environmental site design (ESD) or low impact development (LID) throughout the County, including County facilities.
- Construct new stormwater management facilities and retrofit old stormwater controls to prevent property damage, improve water quality, and protect habitat.
- Perform major structural repairs on public and private stormwater facilities accepted into the County's maintenance program.
- Continue to repair damaged stream channels and tributaries in stream valley parks and priority watersheds.
- Expand the County's efforts to prevent trash from polluting our streams and rivers.

PROGRAM CONTACTS

Contact Jim Stiles of the Department of Environmental Protection at 240.777.7789 or Matt Schaeffer of the Office of Management and Budget at 240.777.2751 for more information regarding this department's capital budget.

CAPITAL PROGRAM REVIEW

A total of eight ongoing projects are recommended for FY15-20 and described in detail in the Project Description Forms. The Recommended FY15-20 Stormwater Management Program totals \$363.7 million, an increase of \$58.8 million or 19.3 percent over the amended approved FY13-18 program of \$304.9 million. This increase will be funded primarily by long-term debt financing through the issuance of Water Quality Protection Bonds (WQPBs) secured by the Water Quality Protection Charge (WQPC). The bonds will cover expenditures incurred for the planning, design, and construction of additional stormwater facilities needed to comply with the requirements of the County's MS-4 permit. Also included in the funding of the stormwater management projects is an assumption of \$60 million in State Aid based on the State's expressed interest in supporting stormwater management efforts in the state.

Watershed Restoration - Interagency (P809342)

Category Conservation of Natural Resources
 Sub Category Stormwater Management
 Administering Agency Environmental Protection (AAGE07)
 Planning Area Colesville-White Oak

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	3,849	2,895	54	900	310	230	90	90	90	90	0
Land	4	4	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	3,117	1,873	84	1,160	0	120	260	260	260	260	0
Other	2	2	0	0	0	0	0	0	0	0	0
Total	6,972	4,774	138	2,060	310	350	350	350	350	350	0

FUNDING SCHEDULE (\$000s)											
G.O. Bonds	527	527	0	0	0	0	0	0	0	0	0
State Aid	506	506	0	0	0	0	0	0	0	0	0
Stormwater Management Waiver Fees	3,364	3,226	138	0	0	0	0	0	0	0	0
Water Quality Protection Bonds	2,545	485	0	2,060	310	350	350	350	350	350	0
Water Quality Protection Charge	30	30	0	0	0	0	0	0	0	0	0
Total	6,972	4,774	138	2,060	310	350	350	350	350	350	0

OPERATING BUDGET IMPACT (\$000s)											
Maintenance				105	5	10	15	20	25	30	
Net Impact				105	5	10	15	20	25	30	

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	0
Appropriation Request Est.	FY 16	350
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		6,038
Expenditure / Encumbrances		4,826
Unencumbered Balance		1,212

Date First Appropriation	FY 93	
First Cost Estimate		
Current Scope	FY 15	6,972
Last FY's Cost Estimate		7,038

Description

This project provides for the design and construction of stormwater management retrofits and stream restoration projects which manage stormwater runoff, enhance aquatic habitat, and improve water quality in County streams. The projects are executed under interagency agreements with the U.S. Army Corps of Engineers (USACE). The first two agreements, which were signed in 1992 and 1997, were limited to subwatersheds within the Anacostia Watershed. In FY04, the USACE expanded project eligibility to include all County subwatersheds within the Mid-Potomac watershed. The feasibility study and the design and construction of the projects selected in Montgomery County are managed by the U.S. Army Corps of Engineers with assistance from the Maryland Department of Environmental Protection and Maryland-National Capital Park and Planning Commission.

Cost Change

Increase due to additional number of budgeted projects and the addition of FY19 and FY20 to this ongoing project adjusted for prior project delays.

Justification

This project will improve local stream water quality, protect stream conditions, and enhance wildlife and aquatic habitats in Sligo Creek, Northwest Branch, Paint Branch, and Little Paint Branch tributaries within the interjurisdictional Anacostia River Watershed. The project supports the goals of the Chesapeake Bay initiatives, the Anacostia Watershed Restoration Agreement, and addresses the County's Municipal Separate Storm Sewer System (MS4) permit as detailed in the Montgomery County Coordinated Implementation Strategy (CCIS).

Fiscal Note

This project leverages Federal Aid with the Federal government paying for 75 percent of construction costs for projects designed under the Anacostia Phase I Feasibility Study, and 65 percent of construction costs for projects designed under the subsequent agreements. Program expenditures reflect County contributions to the U.S. Army Corps of Engineers for design/construction and in-kind services. The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Coordination

U.S. Army Corps of Engineers, Maryland-National Capital Park and Planning Commission, Department of Permitting Services, Department of Transportation, Maryland Department of the Environment, Facility Planning: SM (No. 809319), Maryland Department of Natural Resources.

Facility Planning: SM (P809319)

Category Conservation of Natural Resources
 Sub Category Stormwater Management
 Administering Agency Environmental Protection (AAGE07)
 Planning Area Countywide

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	17,445	8,108	937	8,400	1,150	1,250	1,350	1,450	1,550	1,650	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0
Other	52	52	0	0	0	0	0	0	0	0	0
Total	17,497	8,160	937	8,400	1,150	1,250	1,350	1,450	1,550	1,650	0

FUNDING SCHEDULE (\$000s)											
Current Revenue: General	5,000	5,000	0	0	0	0	0	0	0	0	0
State Aid	140	140	0	0	0	0	0	0	0	0	0
Stormwater Management Waiver Fees	797	797	0	0	0	0	0	0	0	0	0
Water Quality Protection Charge	11,560	2,223	937	8,400	1,150	1,250	1,350	1,450	1,550	1,650	0
Total	17,497	8,160	937	8,400	1,150	1,250	1,350	1,450	1,550	1,650	0

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	1,150
Appropriation Request Est.	FY 16	1,250
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		10,862
Expenditure / Encumbrances		9,154
Unencumbered Balance		1,708

Date First Appropriation	FY 93
First Cost Estimate	
Current Scope	FY 15
	17,497
Last FY's Cost Estimate	15,312
Partial Closeout Thru	0
New Partial Closeout	0
Total Partial Closeout	0

Description

This project provides for facility planning and feasibility studies to evaluate watershed conservation needs and to identify remedial project alternatives for stormwater management, stormwater retrofit, Environmental Site Design (ESD)/Low Impact Development (LID), and stream restoration projects. Projects in facility planning may include the preparation of watershed plans assessing stream restoration, stormwater management retrofit projects, and LID and ESD projects to help mitigate degraded stream conditions in rural and developed watersheds. Water quality monitoring and analysis is required to quantify impacts of watershed development and projects implemented in Retrofit SM Government Facilities (No. 800900), SM Retrofit Roads (No. 801300), SM Retrofit Schools (No. 801301), SM Retrofit Countywide (No. 808726), and Misc Stream Valley Improvements (No. 807359). The projects generated in facility planning support the requirements in the County's Municipal Separate Storm Sewer System (MS4) Permit. Facility planning represents planning and preliminary design and develops a program of requirements in advance of full programming of a project. This project also provides for operation of automated fixed monitoring stations as required by the MS4 Permit.

Cost Change

Increase due to an increase in the number of projects budgeted related to complying with requirements of the County's MS4 permit and the addition of FY19 and FY20 to this ongoing project adjusted for prior project delays.

Justification

The Facility Planning products support the requirements outlined in the MS4 Permit as detailed in the Montgomery County Coordinated Implementation Strategy (CCIS). This project establishes the facilities planning data and alternatives analysis needed to identify and set priorities for individual capital projects. Facility planning costs for projects which are ultimately included in stand-alone Project Description Forms (PDFs) are reflected here and not in the resulting individual project. Future individual CIP projects which result from facility planning will each reflect reduced planning and design costs.

Disclosures

Expenditures will continue indefinitely.

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Coordination

Maryland-National Capital Park and Planning Commission, U. S. Army Corps of Engineers, Washington Suburban Sanitary Commission, Department of Transportation, Montgomery County Public Schools, SM Retrofit Government Facilities (No. 800900), SM Retrofit Roads (No. 801300), SM Retrofit Schools (No. 801301), SM Retrofit Countywide (No. 808726), Misc. Stream Valley Improvements (No. 807359).

SM Retrofit: Countywide (P808726)

Category Conservation of Natural Resources
 Sub Category Stormwater Management
 Administering Agency Environmental Protection (AAGE07)
 Planning Area Countywide

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	79,325	2,189	10,270	66,866	10,510	9,276	10,760	11,280	12,300	12,740	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	87,358	1,850	5,904	79,604	8,216	13,692	12,648	12,452	15,396	17,200	0
Other	7	7	0	0	0	0	0	0	0	0	0
Total	166,690	4,046	16,174	146,470	18,726	22,968	23,408	23,732	27,696	29,940	0

FUNDING SCHEDULE (\$000s)											
Federal Aid	299	0	299	0	0	0	0	0	0	0	0
State Aid	25,490	0	4,490	21,000	3,500	3,500	3,500	3,500	3,500	3,500	0
Water Quality Protection Bonds	140,901	4,046	11,385	125,470	15,226	19,468	19,908	20,232	24,196	26,440	0
Total	166,690	4,046	16,174	146,470	18,726	22,968	23,408	23,732	27,696	29,940	0

OPERATING BUDGET IMPACT (\$000s)											
Maintenance				90	0	6	12	18	24	30	
Net Impact				90	0	6	12	18	24	30	

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	15,226
Appropriation Request Est.	FY 16	19,468
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		38,625
Expenditure / Encumbrances		11,455
Unencumbered Balance		27,170

Date First Appropriation	FY 87	
First Cost Estimate		
Current Scope	FY 15	166,690
Last FY's Cost Estimate		159,855
Partial Closeout Thru		19,239
New Partial Closeout		4,046
Total Partial Closeout		23,285

Description

This project provides for the design and construction of new and/or upgrades of existing underperforming stormwater management facilities and devices under the County's Municipal Separate Storm Sewer System (MS4) permit as detailed in the draft Montgomery County Coordinated Implementation Strategy (CCIS). Compliance with the MS4 permit requires controlling 20 percent of impervious surfaces, or approximately 4,300 impervious acres, not currently treated to the maximum extent practicable to address the approved Total Maximum Daily Loads (TMDLs). Inventories of candidate projects have been conducted under the Facility Planning: SM project (PDF No. 809319) for the County's ten watersheds (Paint Branch, Rock Creek, Cabin John Creek, Hawlings River, Watts Branch, Great Seneca, Muddy Branch, Sligo Creek, Little Paint Branch, and Northwest Branch). Some of the most complex projects constructed under this project are assessed, and the preliminary plans are completed in the Facility Planning: SM project (No. 809319). Where feasible, the projects integrate wetland and habitat features consistent with the goals of the Chesapeake Bay 2000 Agreement. In small drainage areas, retrofit projects may also include biofiltration, bioretention, or stormwater filtering devices.

Cost Change

Increase due to the addition of FY19 and FY20 to this ongoing project and adjustments for prior project delays. Costs have also been offset by capitalization of prior expenditures.

Justification

This project is needed to comply with the new MS4 permitting requirements outlined in the County Coordinated Implementation Strategy (CCIS) and to implement the County's adopted water quality goals (Chapter 19, Article IV) and protect habitat conditions in local streams. In addition, the project supports the goals of the Chesapeake Bay tributary strategy initiatives and the Anacostia Watershed Restoration Agreement.

Other

Projects in design and construction include projects located in the Rock Creek Watershed, Watts Branch Watershed, Great Seneca Creek Watershed, Muddy Branch Watershed, Cabin John Creek Watershed, and Anacostia River Watershed.

Fiscal Note

While the State of Maryland has indicated a desire to provide funding, all indicated State Aid is preliminary and not committed. Funding may need to be revised based on actual State Aid commitments.

Disclosures

Expenditures will continue indefinitely.

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

SM Retrofit: Countywide (P808726)

Coordination

Department of Transportation, Maryland National Capital Park and Planning Commission, Department of Permitting Services, Maryland Department of the Environment, Natural Resources Conservation Service, U.S. Army Corps of Engineers, Facility Planning: SM (No. 809319), Maryland Department of Natural Resources.

Misc Stream Valley Improvements (P807359)

Category Conservation of Natural Resources
 Sub Category Stormwater Management
 Administering Agency Environmental Protection (AAGE07)
 Planning Area Countywide

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	16,009	844	2,606	12,559	2,379	2,160	2,210	2,010	1,900	1,900	0
Land	42	2	40	0	0	0	0	0	0	0	0
Site Improvements and Utilities	2	0	2	0	0	0	0	0	0	0	0
Construction	32,860	694	2,152	30,014	4,014	3,280	7,430	6,890	4,200	4,200	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	48,913	1,540	4,800	42,573	6,393	5,440	9,640	8,900	6,100	6,100	0

FUNDING SCHEDULE (\$000s)											
State Aid	9,099	845	2,254	6,000	1,000	1,000	1,000	1,000	1,000	1,000	0
Stormwater Management Waiver Fees	233	0	233	0	0	0	0	0	0	0	0
Water Quality Protection Bonds	39,581	695	2,313	36,573	5,393	4,440	8,640	7,900	5,100	5,100	0
Total	48,913	1,540	4,800	42,573	6,393	5,440	9,640	8,900	6,100	6,100	0

OPERATING BUDGET IMPACT (\$000s)											
Maintenance				350	10	30	40	65	95	110	
Net Impact				350	10	30	40	65	95	110	

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	5,393
Appropriation Request Est.	FY 16	4,959
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		10,007
Expenditure / Encumbrances		3,321
Unencumbered Balance		6,686

Date First Appropriation	FY 73
First Cost Estimate	
Current Scope	FY 15 48,913
Last FY's Cost Estimate	21,709
Partial Closeout Thru	17,368
New Partial Closeout	1,540
Total Partial Closeout	18,908

Description

This project provides for design and construction of habitat restoration or stabilization measures for stream reaches having severe channel erosion, sedimentation, and habitat degradation. Developed areas constructed without modern stormwater controls contribute uncontrolled runoff which results in severely eroded streambanks, excessive sediment, tree loss, and degraded habitat for fish and aquatic life. Stormdrain outfalls damaged from severe erosion are identified and, where possible, the outfalls are repaired as part of stream restoration projects - funded from the Outfall Repairs project (No. 509948). Stream deterioration can also adversely affect sanitary sewer crossings by exposing sewer lines and manholes, which in turn can be fish barriers and leak raw sewage into streams or allow infiltration of stream baseflow into the sewer system, potentially causing substantial increases in wastewater treatment costs.

Cost Change

Increase due to an increase in the number of projects budgeted, site conditions, and higher individual project costs. Costs have also increased due to FY19 and FY20 being added to this ongoing project and are partially offset by capitalization of prior expenditures.

Justification

The project supports the requirements of the MS4 permit and addresses the goals of the Chesapeake Bay Tributary Strategy Initiatives, Anacostia Watershed Restoration Agreement, and the County's adopted water quality goals (Chapter 19, Article IV). The project will stabilize and improve local stream habitat conditions where streams have been damaged by inadequately controlled stormwater runoff. Corrective measures constructed or coordinated under this project include stream bank stabilization, channel modifications, habitat restoration, storm drain outfall or sanitary sewer infrastructure repairs to improve fish and other biological resources, while reducing sediment and nutrient loadings caused by excessive streambank erosion. The Facility Planning: SM project (No. 809319) includes funds for watershed studies and identifies and prioritizes stream reaches in need of restoration and protection.

Other

The Department of Environmental Protection identifies damaged sewer lines as part of this project, and the Washington Suburban Sanitary Commission makes sewer repairs during project construction. Projects planned for design and construction include Bel Pre Creek I, Donnybrook Tributary, Hollywood Branch I, Breewood, Bedfordshire and Fallsreach, Muddy Branch I, Great Seneca (GSGN 205), Grosvenor Tributary, Stonybrook Tributary, Snakeden Branch II, and Whetstone Run.

Fiscal Note

While the State of Maryland has indicated a desire to provide funding, all indicated State Aid is preliminary and not committed. Funding may need to be revised based on actual State Aid commitments.

Disclosures

Expenditures will continue indefinitely.

Misc Stream Valley Improvements (P807359)

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Coordination

Department of Transportation, Maryland-National Capital Park and Planning Commission, Washington Suburban Sanitary Commission, Department of Permitting Services, Maryland Department of the Environment, Maryland Department of Natural Resources.

SM Retrofit - Schools (P801301)

Category Conservation of Natural Resources
 Sub Category Stormwater Management
 Administering Agency Environmental Protection (AAGE07)
 Planning Area Countywide

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	9,315	168	1,317	7,830	1,350	1,360	1,220	1,300	1,300	1,300	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	17,140	0	40	17,100	2,120	4,920	2,260	2,600	2,600	2,600	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	26,455	168	1,357	24,930	3,470	6,280	3,480	3,900	3,900	3,900	0
FUNDING SCHEDULE (\$000s)											
Water Quality Protection Bonds	26,455	168	1,357	24,930	3,470	6,280	3,480	3,900	3,900	3,900	0
Total	26,455	168	1,357	24,930	3,470	6,280	3,480	3,900	3,900	3,900	0
OPERATING BUDGET IMPACT (\$000s)											
Maintenance				771	7	7	124	163	211	259	
Net Impact				771	7	7	124	163	211	259	

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	7,161
Appropriation Request Est.	FY 16	3,440
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		2,280
Expenditure / Encumbrances		1,048
Unencumbered Balance		1,232

Date First Appropriation	FY 13	
First Cost Estimate		
Current Scope	FY 15	26,455
Last FY's Cost Estimate		20,100
Partial Closeout Thru		0
New Partial Closeout		0
Total Partial Closeout		0

Description

This project provides for the design and construction of Environmental Site Design (ESD)/Low Impact Development (LID) stormwater management devices at Montgomery County Public Schools (MCPS) such as buildings, parking lots, and other impervious surfaces constructed prior to modern stormwater management controls. LID/ESD stormwater devices that may be implemented under this project include: Green roofs, bioretention areas, tree box inlets, porous concrete and other types of devices that promote water filtering and groundwater recharge.

Cost Change

Increase due to the addition of FY19 and FY20 to this ongoing project adjusted for prior project delays.

Justification

This project supports the requirements of the MS4 permit and addresses the goals of the Chesapeake Bay tributary strategy initiatives, and the County's adopted water quality goals (Chapter 19, Article IV). The County's MS4 permit requires that the County provide stormwater controls for 20 percent of impervious surfaces not currently treated to the maximum extent practicable, with an emphasis, where possible, on the use of LID/ESD devices. This project will be responsible for controlling stormwater on Montgomery County Public School (MCPS) properties largely through the use of LID/ESD practices needed to satisfy the permit requirements.

Other

A portion of these potential LID/ESD stormwater retrofits located at County schools were previously programmed under the FY11-16 Approved SM Retrofit - Government Facilities project (No. 800900). This stand-alone project includes LID/ESD projects located on MCPS property and allows for a more efficient implementation of projects in partnership with MCPS.

Disclosures

Expenditures will continue indefinitely.

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Coordination

Maryland-National Capital Park and Planning Commission, Montgomery County Public Schools, Department of Permitting Services, Maryland Department of the Environment.

SM Retrofit - Roads (P801300)

Category Conservation of Natural Resources
 Sub Category Stormwater Management
 Administering Agency Environmental Protection (AAGE07)
 Planning Area Countywide

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	35,200	304	4,736	30,160	5,710	5,340	5,020	4,640	4,750	4,700	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	76,615	88	8,267	68,260	7,030	8,740	21,300	11,370	10,420	9,400	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	111,815	392	13,003	98,420	12,740	14,080	26,320	16,010	15,170	14,100	0
FUNDING SCHEDULE (\$000s)											
State Aid	45,195	392	13,003	31,800	5,300	5,300	5,300	5,300	5,300	5,300	0
Water Quality Protection Bonds	66,620	0	0	66,620	7,440	8,780	21,020	10,710	9,870	8,800	0
Total	111,815	392	13,003	98,420	12,740	14,080	26,320	16,010	15,170	14,100	0
OPERATING BUDGET IMPACT (\$000s)											
Maintenance				5,874	282	496	550	1,110	1,524	1,912	
Net Impact				5,874	282	496	550	1,110	1,524	1,912	

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	7,440
Appropriation Request Est.	FY 16	19,570
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		27,925
Expenditure / Encumbrances		7,241
Unencumbered Balance		20,684

Date First Appropriation	FY 13	
First Cost Estimate		
Current Scope	FY 15	111,815
Last FY's Cost Estimate		76,425
Partial Closeout Thru		0
New Partial Closeout		0
Total Partial Closeout		0

Description

This project provides for the design and construction of Environmental Site Design (ESD)/Low Impact Development (LID) stormwater management devices along County roads constructed prior to modern stormwater management controls. ESD/LID stormwater devices include bioretention, curb extensions, porous concrete, tree box inlets and other types of devices that promote water filtering and groundwater recharge.

Cost Change

Increase due to an increase in the amount of retrofit projects beginning in FY15 and the addition of FY19 and FY20 to this ongoing project.

Justification

This project supports the requirements of the MS4 permit and addresses the goals of the Chesapeake Bay tributary strategy initiative, and the County's adopted water quality goals (Chapter 19, Article IV). The County's MS4 permit requires that the County provide stormwater controls for 20 percent of impervious surfaces not currently treated to the maximum extent practicable, with an emphasis, where possible, on the use of ESD/LID devices. This project will be responsible for controlling stormwater on County roads, largely through ESD/LID practices, as needed to satisfy the permit requirements.

Other

A portion of these potential ESD/LID stormwater retrofits on County roads were previously programmed under the SM Retrofit - Government Facilities project (No. 800900). This new stand alone project includes all the potential ESD/LID projects for County roads and allows for a more efficient implementation of projects of similar scope in partnership with the Department of Transportation (DOT). Planned and in-construction projects include Amherst Avenue, Breewood Neighborhood Green Street, Dennis Avenue DOT Participation, Donnybrook LID Retrofit, Franklin Knolls DOT Partnership, and Sligo Park Hills Neighborhood Green Street.

Fiscal Note

While the State of Maryland has indicated a desire to provide funding, all indicated State Aid is preliminary and unappropriated in FY15-20. Funding may need to be revised based on the actual State Aid commitments.

Disclosures

Expenditures will continue indefinitely.

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Coordination

Department of General Services, Department of Transportation, Maryland-National Capital Park and Planning Commission, Department of Permitting Services, Maryland Department of the Environment, United States Army Corps of Engineers, Maryland Department of Natural Resources.

SM Retrofit - Government Facilities (P800900)

Category Conservation of Natural Resources
 Sub Category Stormwater Management
 Administering Agency Environmental Protection (AAGE07)
 Planning Area Countywide

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
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EXPENDITURE SCHEDULE (\$000s)

Planning, Design and Supervision	13,529	4,728	1,979	6,822	2,246	826	1,000	950	900	900	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	3	3	0	0	0	0	0	0	0	0	0
Construction	14,269	2,939	420	10,910	780	1,990	1,820	2,320	2,000	2,000	0
Other	18	18	0	0	0	0	0	0	0	0	0
Total	27,819	7,688	2,399	17,732	3,026	2,816	2,820	3,270	2,900	2,900	0

FUNDING SCHEDULE (\$000s)

State Aid	192	192	0	0	0	0	0	0	0	0	0
Water Quality Protection Bonds	26,445	6,314	2,399	17,732	3,026	2,816	2,820	3,270	2,900	2,900	0
Water Quality Protection Charge	1,182	1,182	0	0	0	0	0	0	0	0	0
Total	27,819	7,688	2,399	17,732	3,026	2,816	2,820	3,270	2,900	2,900	0

OPERATING BUDGET IMPACT (\$000s)

Maintenance				609	13	25	42	139	168	222	
Net Impact				609	13	25	42	139	168	222	

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	3,026
Appropriation Request Est.	FY 16	2,816
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		12,582
Expenditure / Encumbrances		9,587
Unencumbered Balance		2,995

Date First Appropriation	FY 09
First Cost Estimate	
Current Scope	FY 15
	27,819
Last FY's Cost Estimate	25,982
Partial Closeout Thru	0
New Partial Closeout	0
Total Partial Closeout	0

Description

This project provides for the design and construction of Environmental Site Design (ESD)/Low Impact Development (LID) stormwater management devices at County facilities such as buildings, parking garages, and parking lots constructed prior to modern stormwater management controls. ESD/LID stormwater devices include: Green Roofs, bioretention areas, tree box inlets, porous concrete, and other types of devices that promote water filtering and groundwater recharge. Implementing new stormwater devices in developed areas built with inadequate or no stormwater control is required in the County's Municipal Separate Storm Sewer System (MS4) Permit as detailed in the Montgomery County Coordinated Implementation Strategy (CCIS). The Department of Environmental Protection (DEP) in coordination with the Department of General Services (DGS) has identified candidate CIP projects that will be implemented jointly.

Cost Change

Increase due to the addition of FY19 and FY20 adjusted for prior project delays.

Justification

This project supports the requirements of the County's MS4 permit and addresses the goals of the Chesapeake Bay tributary strategy initiatives, and the County's adopted water quality goals (Chapter 19, Article IV), which require that the County provide stormwater controls for 20 percent of impervious surfaces not currently treated to the maximum extent practicable, with an emphasis, where possible, on the use of LID/ESD devices.

Fiscal Note

No State Aid is assumed for this project in FY15 to FY20. Funding schedule may need to be revised based on actual State Aid commitments.

Disclosures

Expenditures will continue indefinitely.

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Coordination

Department of General Services, Maryland-National Capital Park and Planning Commission, Department of Permitting Services, Maryland Department of the Environment, Maryland Department of Natural Resources.

SM Facility Major Structural Repair (P800700)

Category Conservation of Natural Resources
 Sub Category Stormwater Management
 Administering Agency Environmental Protection (AAGE07)
 Planning Area Countywide

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	6,750	1,586	1,179	3,985	765	615	805	670	80	1,050	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	24,985	3,223	2,677	19,085	6,765	2,925	2,195	2,330	2,920	1,950	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	31,735	4,809	3,856	23,070	7,530	3,540	3,000	3,000	3,000	3,000	0

FUNDING SCHEDULE (\$000s)											
State Aid	1,680	0	480	1,200	200	200	200	200	200	200	0
Water Quality Protection Bonds	27,055	1,809	3,376	21,870	7,330	3,340	2,800	2,800	2,800	2,800	0
Water Quality Protection Charge	3,000	3,000	0	0	0	0	0	0	0	0	0
Total	31,735	4,809	3,856	23,070	7,530	3,540	3,000	3,000	3,000	3,000	0

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	7,631
Appropriation Request Est.	FY 16	3,239
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		8,930
Expenditure / Encumbrances		6,298
Unencumbered Balance		2,632

Date First Appropriation	FY 07
First Cost Estimate	
Current Scope	FY 15
	31,735
Last FY's Cost Estimate	19,930
Partial Closeout Thru	0
New Partial Closeout	0
Total Partial Closeout	0

Description

This project provides for the design and construction of major structural repairs to County maintained stormwater management facilities. The County is responsible for structural maintenance of over 2,600 stormwater management facilities. The project includes old facilities that require more extensive maintenance as ponds fill with sediment, pipes rust, concrete structures crack and deteriorate, and dam embankments develop leaks. Some of the existing stormwater facilities require extensive engineering analysis and design and may require retrofitting which is funded through the SM Retrofit: Countywide project (No. 808726).

Cost Change

Increase in FY15 is primarily due to the need to hydraulically dredge two large lakes (Lake Whetstone and Gunners Lake), the addition of the FY19 and FY20 to this ongoing project, and adjustments for prior project delays.

Justification

This project provides for major structural repairs in order to comply with the County's MS4 permit. It is limited to funding repairs at facilities that require extensive engineering design and permitting that cannot be accomplished within a single fiscal year due to the time required to obtain State and Federal permits.

Other

Projects include: Quince Orchard Manor (Quince Orchard Valley Neighborhood Park), Lake Whetstone, Chadwood, Hunters Woods, B'nai Israel, Brandermill, Gunners Lake, Colony Pond, and Persimmon Tree.

Fiscal Note

Indicated State Aid is preliminary and unappropriated. Funding may need to be revised based on actual State Aid commitments.

Disclosures

Expenditures will continue indefinitely.

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Coordination

Department of Transportation, Maryland-National Capital Park and Planning Commission, Department of Permitting Services, Homeowners Associations, Montgomery County Public Schools, Department of General Services, Maryland State Highway Administration, SM Retrofit: Countywide (No. 808726), Maryland Department of Natural Resources.

Storm Drains

PROGRAM DESCRIPTION AND OBJECTIVES

The Department of Transportation (DOT) involvement in the County Conservation of Natural Resources program is mandated by Section 2-58A (c) of the County Code which requires DOT to be responsible for control, supervision, design, construction, and maintenance of all culverts and storm drainage systems under the jurisdiction of the County.

The DOT Storm Drains Capital Program consists of the construction of storm drainage structures such as curbs, gutters, drainage inlets, pipes (which provide for stream enclosure), and paved channels. Such networks are constructed to provide for the conveyance of stormwater from impervious surfaces into natural drainage swales and stream channels. This program is focused on storm drainage projects outside the scope of the larger DOT Roads program, which also installs storm drainage systems at the time of new road construction or existing road reconstruction or enhancement.

A second component of the storm drainage program involves County-developer and homeowner participation in the construction of storm drainage facilities. Construction of storm drainage facilities provides a public and environmental benefit by reducing drainage problems, flooding, property damage, and contributing to the orderly development of the County. In participation projects, the County and the developer or the homeowner agree to share the costs of storm drainage facilities in which the benefit of storm drainage extends beyond the developer's or homeowner's own property. The County pays only for that portion of the project which benefits properties other than the developer's or homeowner's, not to exceed 50 percent of the total cost. Homeowners can satisfy their portion of the cost-share through in-kind contributions.

STORMWATER MANAGEMENT COORDINATION

In February 2010, the Maryland Department of the Environment issued the County a five year National Pollutant Discharge Elimination System (NPDES) Permit. This permit requires that the County develop and implement a storm water management program to prevent harmful pollutants from being washed or dumped into the Municipal Separate Storm Sewer Systems (MS4). The DOT is assisting the Department of Environmental Protection (DEP) in implementing the MS4 Permit by 1) constructing Storm Water Management (SWM) retrofit programs which have been developed through DEP's MS4 planning studies, 2) providing opportunities for curb bump-outs and road narrowing where feasible to permit implementation of Low-Impact Development (LID) SWM provisions within the right-of-way, 3) seeking DEP guidance on prioritization of storm

drain outfall repairs, 4) coordinating with DEP on storm drain projects developed in the Storm Drain General and Facility Planning Storm Drain programs to identify opportunities for enhancements which would assist in meeting the requirements of the MS4 permit, and 5) establishing quarterly meetings with DEP and DOT staff looking for additional areas of cooperation in meeting the MS4 permit requirements.

In recognition of the Stormwater Management value of the Storm Drains projects, the Storm Drains are funded through Water Quality Protection Bonds or the Water Quality Protection Charge.

PROGRAM CONTACTS

Contact Holger Serrano of the Department of Transportation at 240.777.7235 or Brady Goldsmith of the Office of Management and Budget at 240.777.2793 for more information regarding this department's capital budget.

CAPITAL PROGRAM REVIEW

The Storm Drainage program for FY15-20 includes four ongoing projects. The overall cost of the recommended six-year program is \$16.6 million, representing a \$0.9 million or 5.1 percent decrease from the FY13-18 Amended Program of \$17.5 million. This decrease is primarily due to the completion of the Maple Avenue Storm Drain and Roadway Improvements and Town of Chevy Chase Storm Drain Improvements projects.

Outfall Repairs (P509948)

Category Conservation of Natural Resources
 Sub Category Storm Drains
 Administering Agency Transportation (AAGE30)
 Planning Area Countywide

Date Last Modified 12/23/13
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	3,141	1,087	506	1,548	234	234	270	270	270	270	0
Land	10	10	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	4,903	3,351	400	1,152	192	192	192	192	192	192	0
Other	3	3	0	0	0	0	0	0	0	0	0
Total	8,057	4,451	906	2,700	426	426	462	462	462	462	0

FUNDING SCHEDULE (\$000s)											
G.O. Bonds	5,357	4,451	906	0	0	0	0	0	0	0	0
Water Quality Protection Bonds	1,848	0	0	1,848	0	0	462	462	462	462	0
Water Quality Protection Charge	852	0	0	852	426	426	0	0	0	0	0
Total	8,057	4,451	906	2,700	426	426	462	462	462	462	0

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	426
Appropriation Request Est.	FY 16	426
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		5,357
Expenditure / Encumbrances		4,724
Unencumbered Balance		633

Date First Appropriation	FY 99	
First Cost Estimate		
Current Scope	FY 15	8,057
Last FY's Cost Estimate		7,133
Partial Closeout Thru		0
New Partial Closeout		0
Total Partial Closeout		0

Description

This project provides for the repair of existing storm drain outfalls into stream valleys. Design of corrective measures is included when in-kind replacement of original outfall structures is not feasible. Candidate outfall repairs are selected from citizen and public agency requests. The Department of Environmental Protection's (DEP) Miscellaneous Stream Valley Improvements project generates and assists in rating the outfalls, which are identified as that project expands into additional watersheds.

Cost Change

Increase due to the addition of FY19-20 to this on-going level of effort project

Justification

Collapsed storm drain pipe sections, undermined endwalls, and eroded outfall channels create hazardous conditions throughout the County. The course of drainage could be altered endangering private property or public roads and speeding the erosion of stream channels. Erosion from damaged outfalls results in heavy sediment load being carried downstream that can severely impact aquatic ecosystems and exacerbate existing downstream channel erosion. As part of its watershed restoration inventories, DEP identifies storm drain outfalls that are in need of repair in County stream valleys and respective watersheds. As this program expands to include additional watersheds, each outfall is categorized and, where damaged, rated. A functional rating and evaluation process is used to prioritize each outfall.

Other

The number of outfall locations being repaired per year varies based on the severity of the erosion and damage, the complexity of the design, and the complexity of the needed restorative construction work. Completed outfalls in FY12-13: Emory Grove Road, Bluehaven Court, Circle Drive at Spring Drive, Prathertown Road, Marseille Drive, Wayne Avenue at Sligo Creek Parkway. Scheduled for repairs (FY14 - beyond): 11101 Schuylkill Road, 10668 Maple Leaf Drive, 20232 Maple Leaf Court, 1301 Dilston Place, 9112 Falls Bridge Lane.

Fiscal Note

Funding source changed from General Obligation Bonds to Water Quality Protection Charge (FY15 and FY16) and Water Quality Protection Bonds (FY17-20).

Disclosures

A pedestrian impact analysis has been completed for this project.
 Expenditures will continue indefinitely.

Coordination

Department of Environmental Protection, Maryland-National Capital Park and Planning Commission, Maryland Department of the Environment, United States Army Corps of Engineers, Montgomery County Department of Permitting Services, Utility Companies, Miscellaneous Stream Valley Improvements

Facility Planning: Storm Drains (P508180)

Category Conservation of Natural Resources
 Sub Category Storm Drains
 Administering Agency Transportation (AAGE30)
 Planning Area Countywide

Date Last Modified 12/23/13
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	6,181	4,244	277	1,660	250	250	290	290	290	290	0
Land	142	142	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	37	37	0	0	0	0	0	0	0	0	0
Other	4	4	0	0	0	0	0	0	0	0	0
Total	6,364	4,427	277	1,660	250	250	290	290	290	290	0

FUNDING SCHEDULE (\$000s)											
Current Revenue: General	4,103	4,103	0	0	0	0	0	0	0	0	0
G.O. Bonds	101	101	0	0	0	0	0	0	0	0	0
Water Quality Protection Charge	2,160	223	277	1,660	250	250	290	290	290	290	0
Total	6,364	4,427	277	1,660	250	250	290	290	290	290	0

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	250
Appropriation Request Est.	FY 16	250
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		4,704
Expenditure / Encumbrances		4,443
Unencumbered Balance		261

Date First Appropriation	FY 81
First Cost Estimate	
Current Scope	FY 15
	6,364
Last FY's Cost Estimate	5,784
Partial Closeout Thru	0
New Partial Closeout	0
Total Partial Closeout	0

Description

This project provides for the investigation and analysis of various storm drainage assistance requests initiated by private citizens and public agencies. These requests are related to the design, construction, and operation of public drainage facilities where flooding and erosion occur. This project includes expenditures for the preliminary and final design and land acquisition for storm drain projects prior to inclusion in the Storm Drain General project, or as a stand-alone project in the CIP. Prior to its inclusion in the CIP, the Department of Transportation (DOT) will conduct a feasibility study to determine the general and specific features required for the project. Candidate projects currently are evaluated from the Drainage Assistance Request list. As part of the facility planning process, DOT considers citizen and public agency requests and undertakes a comprehensive analysis of storm drainage issues and problems being experienced in the County. This analysis is used to select areas where a comprehensive long-term plan for the remediation of a problem may be required. No construction activities are performed in this project. When a design is 35 percent complete, an evaluation is performed to determine if right-of-way is needed. Based on the need for right-of-way, the project may proceed to final design and the preparation of right-of-way plats under this project. The cost of right-of-way acquisition will be charged to the Advanced Land Acquisition Revolving Fund (ALARF). When designs are complete, projects with a construction cost under \$500,000 will be constructed in the Storm Drain General project. Projects with a construction cost over \$500,000 will be constructed in stand-alone projects.

Capacity

Projects will be designed to accommodate the ten year storm frequency interval.

Cost Change

Increase due to the addition of FY19 and FY 20 to this on-going level of effort project

Justification

Evaluation, justification, and cost-benefit analysis are completed by DOT as necessary. In the case of participation projects, drainage studies and preliminary plans will be prepared by the requestor's engineer and reviewed by DOT. A review of impacts to pedestrians, bicyclists, and ADA (Americans with Disabilities Act of 1991) is being performed and addressed for each subproject in this project. Traffic signals, streetlights, crosswalks, bus stops, ADA ramps, bikeways and other pertinent issues are being considered in the design of the project to ensure pedestrian safety.

Other

Before being added as a sub-project, concept studies are evaluated based on the following factors: public safety, damage to private property, frequency of event, damage to public right-of-way, environmental factors such as erosion, general public benefit, availability of right-of-way and 5:1 cost benefit ratio. In the case of public safety or severe damage to private property, the 5:1 cost benefit damage prevented ratio can be waived. Drainage assistance requests are evaluated on a continuing basis in response to public requests. DOT maintains a database of complaints. Construction projects completed: Meadowood Dr, Chicago Ave, Dalton Rd-Westport Rd, Old Chester Rd, Easley St-Houston St, Whites Ferry Rd. Candidate Projects for FY15-16: Linton St-Patton St, Hollywood Ave.

Disclosures

A pedestrian impact analysis has been completed for this project.

Facility Planning: Storm Drains (P508180)

Expenditures will continue indefinitely.

Coordination

Montgomery County Department of Environmental Protection, Maryland-National Capital Park and Planning Commission, Maryland Department of the Environment, United States Army Corps of Engineers, Montgomery County Department of Permitting Services, Utility Companies, Annual Sidewalk Program (CIP No. 506747)

Storm Drain Culvert Replacement (P501470)

Category Conservation of Natural Resources
 Sub Category Storm Drains
 Administering Agency Transportation (AAGE30)
 Planning Area Countywide

Date Last Modified 12/23/13
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	1,305	0	225	1,080	180	180	180	180	180	180	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	7,395	0	1,275	6,120	1,020	1,020	1,020	1,020	1,020	1,020	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	8,700	0	1,500	7,200	1,200	1,200	1,200	1,200	1,200	1,200	0

FUNDING SCHEDULE (\$000s)											
G.O. Bonds	1,500	0	1,500	0	0	0	0	0	0	0	0
Water Quality Protection Bonds	4,800	0	0	4,800	0	0	1,200	1,200	1,200	1,200	0
Water Quality Protection Charge	2,400	0	0	2,400	1,200	1,200	0	0	0	0	0
Total	8,700	0	1,500	7,200	1,200	1,200	1,200	1,200	1,200	1,200	0

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	1,200
Appropriation Request Est.	FY 16	1,200
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		1,500
Expenditure / Encumbrances		0
Unencumbered Balance		1,500

Date First Appropriation	FY 14
First Cost Estimate	
Current Scope	FY 15 8,700
Last FY's Cost Estimate	0
Partial Closeout Thru	0
New Partial Closeout	0
Total Partial Closeout	0

Description

This program will provide for the replacement of failed storm drain pipes and culverts. The County's storm drain infrastructure is aging and many of the metal pipe culverts installed from 1960 through the 1990's have reached the end of their service life. Currently no asset inventory with condition assessment exists; therefore no funding is programmed for systematic replacement of these pipes and culverts. This program will provide for emergency culvert replacement and provide for funding to assist in the development of an asset inventory program to better forecast future replacement needs. This program includes; storm water pipe and culvert replacement of both metal and concrete less than six (6) feet in roadway longitudinal length (structures greater than six feet roadway longitudinal length are repaired under the Bridge Renovation Program, CIP#509753), headwalls, end sections, replacement, or extension of culverts to assure positive flow of storm water and channeling of storm water into existing ditch lines or structures. Repairs also include roadside pipe and culvert end treatment safety improvements to eliminate safety hazards. This project will not make major changes to the location or size of existing storm drainage structures.

Cost Change

Increase due to addition of FY19 and FY12 to this ongoing level of effort project.

Justification

This program will address emergency pipe replacements of aging metal and concrete pipes that have reached the end of their service life. The result of these pipe failures has been deep depressions, sinkholes, sediment build up, open pipe joints and metal pipe inverts to an unacceptable levels. Existing storm drain conditions are extremely poor. Repairs are need to improve safety and reduce the potential for hazards and associated public inconvenience. Failure of a storm drain pipe will precipitate emergency repairs at much higher prices. Further, this program will provide some funding towards the development of an asset inventory of the storm drain system including pipe and culvert conditions for future funding forecasting.

Fiscal Note

Funding source changed from General Obligation Bonds to Water Quality Protection Charge (FY15 and FY16) and Water Quality Protection Bonds (FY17-20).

Disclosures

Expenditures will continue indefinitely.

Coordination

Washington Suburban Sanitary Commission, Washington Gas Company, Department of Permitting Services, Pepco, Cable TV, Verizon, Montgomery County Public Schools, Regional Service Centers, Community Associations, Commission on People With Disabilities, Maryland Department of Environment, Montgomery County Department of Environmental Protection, Army Corps of Engineers

Storm Drain General (P500320)

Category Conservation of Natural Resources
 Sub Category Storm Drains
 Administering Agency Transportation (AAGE30)
 Planning Area Countywide

Date Last Modified 1/6/14
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	3,542	1,219	7	2,316	350	350	404	404	404	404	0
Land	63	63	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	10,969	8,188	81	2,700	450	450	450	450	450	450	0
Other	1	1	0	0	0	0	0	0	0	0	0
Total	14,575	9,471	88	5,016	800	800	854	854	854	854	0

FUNDING SCHEDULE (\$000s)											
G.O. Bonds	9,169	9,086	83	0	0	0	0	0	0	0	0
Intergovernmental	228	223	5	0	0	0	0	0	0	0	0
State Aid	162	162	0	0	0	0	0	0	0	0	0
Water Quality Protection Bonds	3,416	0	0	3,416	0	0	854	854	854	854	0
Water Quality Protection Charge	1,600	0	0	1,600	800	800	0	0	0	0	0
Total	14,575	9,471	88	5,016	800	800	854	854	854	854	0

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	800
Appropriation Request Est.	FY 16	800
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		9,559
Expenditure / Encumbrances		9,492
Unencumbered Balance		67

Date First Appropriation	FY 03
First Cost Estimate	
Current Scope	FY 15 14,575
Last FY's Cost Estimate	12,867
Partial Closeout Thru	0
New Partial Closeout	0
Total Partial Closeout	0

Description

This project provides the flexibility to construct various sub-projects that might otherwise be delayed for lack of funds or difficulty in acquiring right-of-way. This project provides for right-of-way acquisition and construction for storm drain projects resulting from the Drainage Assistance Request program. Individual projects range from retrofitting existing storm drainage systems to developing new drainage systems required to upgrade the existing systems in older subdivisions. Projects formerly handled through the Neighborhood Storm Drain Improvements project are usually small, unanticipated projects initiated by requests from citizens whose homes and properties are subject to severe flooding or erosion and where there is a demonstrated need for early relief. Potential new storm drain projects are studied under the Facility Planning: Storm Drain project. Concept studies are evaluated based on the following factors: public safety, damage to private property and frequency of event, damage to public right-of-way, environmental factors such as erosion, general public benefit, availability of right-of-way and 5:1 cost benefit damage prevented ratio. After the completion of facility planning, projects with construction estimated to cost less than \$500,000 are included in this project. Prompt relief is frequently achieved by the use of Department of Transportation (DOT) personnel to construct and provide construction management. The project also facilitates financial participation with developers up to 50 percent share of construction cost for storm drainage projects where such construction would yield a public benefit to properties other than that of homeowner or developers. Right-of-way is acquired under the Advanced Land Acquisition Revolving Fund (ALARF).

Capacity

Projects will be designed to accommodate the ten year storm frequency interval.

Cost Change

Increase due to the addition of FY19-20 to this on-going level of effort project

Other

For participation projects, cost sharing between the County and either homeowners or developers varies and is based upon a signed letter of understanding. Some funds from this project will go to support the Renew Montgomery program. Completed Projects in FY 12 and FY 13: Meadowood Dr, Chicago Ave, Old Chester Rd, Easley St-Houston St, Accord Ct, Brickyard Rd, Whites Ferry Rd, Woodrow Pl, Tournay Rd, Falstone Ave, McArthur Blvd, Hurst St, Newport Mill Rd, Maryland Ave, Clarksburg Rd-Barnes Rd, Lilly Stone Dr, Leighton Ave-Worth Ave, Rowen Rd, Stoneybrook Dr, Mcneil Ln, Harrington Dr, Hempstead Rd, Overbrook Rd, Dalton Rd-Westport Rd, Merivale Rd
 Potential future projects: Linton St-Houston St, Hollywood Ave

Fiscal Note

Funding source changed from General Obligation Bonds to Water Quality Protection Charge (FY15 and FY16) and Water Quality Protection Bonds (FY17-20).

Disclosures

A pedestrian impact analysis will be performed during design or is in progress.

Storm Drain General (P500320)

Expenditures will continue indefinitely.

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

Coordination

Montgomery County Department of Environmental Protection , Maryland-National Capital Park & Planning Commission , Maryland Department of the Environment , United States Army Corps of Engineers , Montgomery County Department of Permitting Services , Utility Companies , Annual Sidewalk Program

Wapakoneta Road Improvements (P501101)

Category	Transportation	Date Last Modified	1/6/14
Sub Category	Roads	Required Adequate Public Facility	No
Administering Agency	Transportation (AAGE30)	Relocation Impact	None
Planning Area	Bethesda-Chevy Chase	Status	Preliminary Design Stage

	Total	Thru FY13	Est FY14	Total 6 Years	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	Beyond 6 Yrs
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	528	158	243	127	127	0	0	0	0	0	0
Land	217	1	216	0	0	0	0	0	0	0	0
Site Improvements and Utilities	10	0	0	10	10	0	0	0	0	0	0
Construction	808	0	0	808	808	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	1,563	159	459	945	945	0	0	0	0	0	0

FUNDING SCHEDULE (\$000s)											
G.O. Bonds	1,533	159	459	915	915	0	0	0	0	0	0
Intergovernmental	30	0	0	30	30	0	0	0	0	0	0
Total	1,563	159	459	945	945	0	0	0	0	0	0

OPERATING BUDGET IMPACT (\$000s)											
Maintenance				5	0	1	1	1	1	1	1
Net Impact				5	0	1	1	1	1	1	1

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 15	0
Appropriation Request Est.	FY 16	0
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		1,563
Expenditure / Encumbrances		239
Unencumbered Balance		1,324

Date First Appropriation	FY 13	
First Cost Estimate		
Current Scope	FY 13	1,563
Last FY's Cost Estimate		1,563

Description

This project provides for reconstruction of full-depth pavement and construction of storm drain improvements along Wapakoneta Road from Namakagan Road to Walhonding Road (approximate length of 900 linear feet). The specific improvements will include reconstruction and resurfacing of the roadway, curb and gutters within a 24-foot roadway section, storm drain system (inlets and drain pipes), and bio-retention facilities. Storm drain improvements will extend beyond properties along Wapakoneta Road. Wapakoneta Road south of Namakagan Road has curb and gutters, a storm drain system, and a reconstructed pavement.

Estimated Schedule

Design completed in Fall 2013. Property acquisition started in Spring 2013 and will conclude by Spring 2014. Construction is expected to start by Winter 2015 and will be completed by Summer 2015.

Justification

A number of the properties experience severe flooding of their dwellings during rain storms and the lack of a drainage system or roadside ditches also causes erosion of shoulders and inundation of the roadway in this older community. The residents of this segment of Wapakoneta Road have submitted a petition requesting installation of curb and gutters, storm drain improvements, and reconstruction of the road. This project is to alleviate erosion of road shoulders and inundation of the roadways and private properties along the west side of the street. The installation of the proposed storm drain improvements will be followed by the reconstruction/resurfacing of the pavement section. The project would benefit all residences in this part of Wapakoneta Road by reducing flooding. A review of impacts of pedestrians, bicycles and ADA (Americans with Disabilities Act of 1991) is being performed and addressed by this project. Traffic signals, streetlights, crosswalks, bus stops, ADA ramps, bikeways, and other pertinent issues are being considered in the design of the project to ensure pedestrian safety.

Other

Intergovernmental represents the Washington Suburban Sanitary Commission's share of utility relocation costs.

Disclosures

A pedestrian impact analysis has been completed for this project.

Coordination

Maryland-National Capital Park and Planning Commission, Department of Transportation, Department of Permitting Services, Washington Suburban Sanitary Commission, Washington Gas, Pepco, Verizon

Montgomery County Department of Transportation**Division of Transportation Engineering****DRAINAGE PROGRAMS**

The Montgomery County Department of Transportation (MC-DOT) has two assistance programs pertaining to drainage issues associated with surface runoff from roads and other property owned and maintained by Montgomery County. One is for maintenance of existing storm drain systems and the other is for addressing communities' requests for drainage improvements.

DRAINAGE SYSTEM MAINTENANCE REQUEST

For drainage concerns on existing storm drain systems where maintenance is needed, such as clearing of debris from inlets, storm drain pipes, and/or drainage channels, re-establishment of drainage channels which may have eroded or silted up over time, water ponding on roads (puddles, potholes), or reconstruction of roadside curbs, please contact Montgomery County's Main Line at 3-1-1 (from outside Montgomery County dial 240-777-0311). e-mail address: <mailto:Mcdot.Highway@Montgomerycountymd.gov>

DRAINAGE ASSISTANCE REQUEST (DAR) PROGRAM

The Division of Transportation Engineering (DTE) administers and manages the County's Drainage Assistance Request Program. The purpose and goal of this program is to solve drainage problems where there is no storm drain system or the existing system is failing or is inadequate. Through this program, the Design Section receives and addresses requests for assistance to correct drainage problems where the runoff water originates from the public Right-of-Way.

PROCEDURE FOR REQUESTING DRAINAGE ASSISTANCE

A request for assistance can be initiated by completing the Drainage Request Form (click below) a telephone call, e-mail, FAX or letter to the Design Section of the Division of Transportation Engineering (DTE). A County staff knowledgeable in surface runoff issues will review the request in a timely manner. After the review has been completed, you will receive an explanation of the review findings and proposed action.

e-mail address: <mailto:michael.mitchell@montgomerycountymd.gov>

(21)

Phone Number: 240-777-7262

Online Application:



Drainage Assistance Request Form

OTHER WATER RUNOFF RELATED REFERRALS

- Nuisance Drainage Problems such as neighbor's fence blocking yard ditch, house gutter spouts drain on neighbor yard, minor ponding in yard, swimming pool discharges on land
Montgomery County Department of Housing and Community Affairs--Code Enforcement Division- 240-777-3785
- Flooding and drainage from State Roads
State Highway Administration (District 3) - 301-513-7300
- Permit for construction on County Right-of-Way (such as driveway culverts), waterway construction permits, sediment control/storm water management
Montgomery County Department of Permitting Services--Land Development Division- 240-777-6259
- Stream erosion on private land, stream valley improvements, swimming pool discharges in waterways, private pools and hot tubs, storm water management ponds, watershed management, water quality/pollution, fish kills
Montgomery County Department of Environmental Protection--Division of Environmental Policy & Compliance - 240-777-7770
- Stream erosion on park land
Maryland-National Capital Park & Planning Commission--Parks Department- 301-495-2500
- Drainage issues within City of Rockville
City of Rockville DPWT - 240-314-8567
- Drainage issues within City of Gaithersburg
City of Gaithersburg DPWT- 301-258-6370
- Broken water main or sanitary sewer problems
Washington Suburban Sanitary Commission- 301-206-4002

0



FY2015 Permit Cycle

Watershed	Strategies	Total Potential Cost	Total Restoration Potential (acres)	% Implementation in Permit Cycle	Impervious Treated (acres)	ESD (% Impervious)	Cost (Million \$)	ESD (% Cost)	Nitrogen	Phosphorus	Sediment	Bacteria	Trash
Anacostia	Completed and High Priority Projects	\$15.8	315	100.0%	315	9%	\$16	30%	5.8%	5.9%	1.9%	6.2%	5.5%
	Low Priority Projects	\$5.1	194	100.0%	194	8%	\$5	61%	2.0%	2.1%	0.7%	2.2%	2.7%
	Other Potential Projects	\$249.2	2,217	33.0%	732	20%	\$82	24%	7.7%	8.0%	2.6%	8.4%	10.0%
	Public ESD Retrofits	\$237.8	956	10.0%	96	100%	\$24	100%	1.1%	1.1%	0.4%	1.2%	1.4%
	Private ESD Retrofits	\$213.0	857	10.0%	86	100%	\$21	100%	1.0%	1.0%	0.3%	1.0%	1.3%
	Riparian Reforestation	\$1.4	6	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Stream Restoration	\$93.7	-	11.7%	-	0%	\$11	0%	5.0%	6.6%	38.1%	0.0%	0.0%
	Programmatic Practices	\$3.6	-	25.0%	-	0%	\$0.9	0%	2.2%	2.1%	2.6%	2.0%	20.4%
	Subtotal	\$819.6	4,544	31.3%	1,421	26.3%	\$160	45.4%	24.8%	26.8%	46.6%	21.0%	41.3%
Rock Creek	Completed and High Priority Projects	\$13.3	585	100.0%	585	1%	\$13	13%	4.0%	5.0%	6.0%	5.5%	6.0%
	Low Priority Projects	\$8.8	665	100.0%	665	1%	\$9	7%	3.9%	3.9%	6.2%	4.9%	7.0%
	Other Potential Projects	\$2.0	193	25.0%	48	0%	\$1	0%	0.3%	0.3%	0.4%	0.4%	0.5%
	Public ESD Retrofits	\$247.1	1,020	10.0%	102	100%	\$25	100%	1.3%	1.3%	1.4%	1.3%	1.5%
	Private ESD Retrofits	\$341.2	1,407	10.0%	141	100%	\$34	100%	1.7%	1.7%	1.9%	1.8%	2.0%
	Riparian Reforestation	\$23.8	119	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Stream Restoration	\$20.1	-	21.8%	-	0%	\$4	0%	2.0%	1.5%	21.9%	0.0%	0.0%
	Programmatic Practices	\$1.2	-	100.0%	-	0%	\$1	0%	11.0%	11.0%	0.0%	7.5%	0.0%
	Subtotal	\$657.6	3,989	38.6%	1,541	16.5%	\$87	70.4%	24.1%	24.7%	37.8%	21.4%	17.0%
Cabin John	Completed and High Priority Projects	\$1.6	88	100.0%	88	2%	\$2	19%	2.9%	3.0%	3.3%	3.2%	2.5%
	Low Priority Projects	\$1.6	10	100.0%	10	78%	\$2	98%	0.2%	0.2%	0.2%	0.2%	0.3%
	Other Potential Projects	\$0.1	5	25.0%	1	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Public ESD Retrofits	\$87.8	403	10.0%	40	100%	\$9	100%	1.0%	1.0%	1.1%	1.1%	1.3%
	Private ESD Retrofits	\$103.1	473	10.0%	47	100%	\$10	100%	1.2%	1.2%	1.3%	1.3%	1.5%
	Riparian Reforestation	\$7.8	39	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Stream Restoration	\$16.2	-	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Programmatic Practices	\$0.5	-	100.0%	-	0%	\$0	0%	15.3%	14.4%	0.0%	9.9%	0.0%
	Subtotal	\$218.7	1,018	18.4%	187	52.0%	\$23	92.0%	20.7%	19.9%	6.0%	15.7%	5.6%
Muddy Watts	Completed and High Priority Projects	\$4.4	211	100.0%	211	1%	\$4	8%	6.0%	6.0%	6.0%	0.0%	6.0%
	Low Priority Projects	\$2.0	26	100.0%	26	33%	\$2	84%	0.2%	0.3%	1.2%	0.0%	0.7%
	Other Potential Projects	\$0.0	-	0.0%	-	0%	\$0	0	0.0%	0.0%	0.0%	0.0%	0.0%
	Public ESD Retrofits	\$0.0	-	0.0%	-	100%	\$0	100%	-	-	-	-	-
	Private ESD Retrofits	\$0.0	-	0.0%	-	100%	\$0	100%	-	-	-	-	-
	Riparian Reforestation	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Stream Restoration	\$24.2	-	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Programmatic Practices	\$0.0	-	100.0%	-	0%	\$0	0%	-	-	-	-	-
	Subtotal	\$30.6	237	100.0%	237	4.3%	\$6	31.6%	6.2%	6.3%	7.2%	0.0%	6.2%
Great Seneca (inclusive of Clopper Lake)	Completed and High Priority Projects	\$18.9	800	100.0%	800	1%	\$19	6%	20.0%	20.0%	21.0%	0.0%	26.0%
	Low Priority Projects	\$6.6	87	100.0%	87	15%	\$7	41%	3.7%	3.7%	4.3%	0.0%	4.3%
	Other Potential Projects	\$0.2	53	25.0%	13	0%	\$0	0%	0.6%	0.6%	0.7%	0.0%	0.7%
	Public ESD Retrofits	\$0.0	-	0.0%	-	100%	\$0	100%	-	-	-	-	-
	Private ESD Retrofits	\$0.0	-	0.0%	-	100%	\$0	100%	-	-	-	-	-
	Riparian Reforestation	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Stream Restoration	\$25.9	-	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Programmatic Practices	\$0.0	-	100.0%	-	0%	\$0	0%	-	-	-	-	-
	Subtotal	\$51.6	941	95.8%	901	2.2%	\$26	15.2%	24.3%	24.3%	26.0%	0.0%	31.0%
Clopper Lake (subshed of Great Seneca)	Completed and High Priority Projects	\$0.0	-	100.0%	-	0%	\$0	0%	-	-	-	-	-
	Low Priority Projects	\$0.0	-	100.0%	-	0%	\$0	0%	-	-	-	-	-
	Other Potential Projects	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Public ESD Retrofits	\$0.8	12	0.0%	-	100%	\$0	100%	0.0%	0.0%	0.0%	0.0%	0.0%
	Private ESD Retrofits	\$0.5	8	0.0%	-	100%	\$0	100%	0.0%	0.0%	0.0%	0.0%	0.0%
	Riparian Reforestation	\$0.2	2	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Stream Restoration	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Programmatic Practices	\$0.01	-	100.0%	-	0%	\$0.01	0%	61.0%	30.0%	0.0%	0.0%	0.0%
	Subtotal	\$1.5	22	0.0%	-	0.0%	\$0.0	0.0%	61.0%	30.0%	0.0%	0.0%	0.0%

Countywide Coordinated Implementation Strategy
Appendix 4 Exhibit

FY2015 Permit Cycle

Watershed	Strategies	Total Potential Cost	Total Restoration Potential (acres)	% Implementation in Permit Cycle	Impervious Treated (acres)	ESD (% Impervious)	Cost (Million \$)	ESD (% Cost)	Nitrogen	Phosphorus	Sediment	Bacteria	Trash
Lower Monocacy	Completed and High Priority Projects	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Low Priority Projects	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Other Potential Projects	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Public ESD Retrofits	\$8.6	40	0.0%	-	100%	\$0	100%	0.0%	0.0%	0.0%	0.0%	0.0%
	Private ESD Retrofits	\$2.9	13	10.0%	1	100%	\$0	100%	0.4%	0.4%	0.4%	0.4%	0.0%
	Riparian Reforestation	\$1.1	5	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Stream Restoration	\$7.3	-	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Programmatic Practices	\$0.1	-	0.0%	-	0%	\$0.0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Subtotal	\$20.0	58	2.3%	1	100.0%	\$0.29	100.0%	0.4%	0.4%	0.4%	0.4%	0.0%
Patuxent (Rocky Gorge)	Completed and High Priority Projects	\$0.4	5	100.0%	5	27%	\$0	77%	0.7%	0.7%	0.8%	0.8%	1.0%
	Low Priority Projects	\$0.9	5	100.0%	5	100%	\$1	100%	8.4%	8.2%	8.3%	8.2%	11.6%
	Other Potential Projects	\$2.0	-	25.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Public ESD Retrofits	\$31.2	179	0.0%	-	100%	\$0	100%	0.0%	0.0%	0.0%	0.0%	0.0%
	Private ESD Retrofits	\$18.6	106	1.0%	1	100%	\$0	100%	0.1%	0.1%	0.1%	0.1%	0.2%
	Riparian Reforestation	\$2.5	12	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Stream Restoration	\$19.1	-	2.5%	-	0%	\$0	0%	0.3%	0.2%	0.9%	0.0%	0.0%
	Programmatic Practices	\$0.1	-	100.0%	-	0%	\$0	0%	38.0%	8.2%	0.3%	4.7%	2.0%
	Subtotal	\$74.7	307	3.6%	11	64.5%	\$3	54.5%	47.5%	17.4%	10.4%	13.8%	14.8%
Patuxent (Triadelphia)	Completed and High Priority Projects	\$0.0	-	100.0%	-	0%	\$0	0%	-	-	-	-	-
	Low Priority Projects	\$0.4	2	100.0%	2	100%	\$0	100%	0.5%	0.5%	0.6%	0.5%	1.0%
	Other Potential Projects	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Public ESD Retrofits	\$4.1	17	0.0%	-	100%	\$0	100%	0.0%	0.0%	0.0%	0.0%	0.0%
	Private ESD Retrofits	\$4.7	19	5.0%	1	100%	\$0	100%	0.3%	0.3%	0.3%	0.3%	0.5%
	Riparian Reforestation	\$0.1	1	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Stream Restoration	\$0.0	-	0.0%	-	0%	\$0	0%	-	-	-	-	-
	Programmatic Practices	\$0.01	-	100.0%	-	0%	\$0	0%	23.4%	3.5%	0.0%	0.0%	0.0%
	Subtotal	\$9.3	38	7.6%	3	100.0%	\$0.6	99.1%	24.2%	4.3%	0.9%	0.8%	1.6%
Countywide Totals		\$1,884	11,154	38.6%	4,302	17.9%	\$305	53.4%	17.8%	17.1%	22.7%	10.5%	18.0%

Assumptions:

1. 100% Completed and High Priority Projects
2. 25-33% Other potential projects
3. 100% of Public Outreach Potential for all TMDL watersheds
4. 10% of ESD potential in urban watersheds, ~1 acre ESD goal for rural watersheds
5. No riparian reforestation, Completed stream restoration
6. Used watershed area weighing to calculate countywide total pollutant removals

High and Low Priority:
20% Targeted Impervious:

2,993
4,292

Chesapeake Bay TMDL, Urban MS4 Reductions (2017):
Chesapeake Bay TMDL, Urban MS4 Reductions (2020):

768.0294602

Total
Potential
Cost
\$1,884 B

\$305 Million
current permit cycle

801301 - SM Retrofit - Schools
8.8.13

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL
	TO 08-07: Cold Spring ES		40	0							40
	TO 12-12: Rosa Parks MS & Olney Elem. School		300	220	180	40					520
	TO 12-12: Rosa Parks MS & Olney Elem. School			1560	530	1030					1560
	TO 12-13: White Oak MS, Strathmore ES & Oak View ES		460	290	220	70					750
	TO 12-13: White Oak MS, Strathmore ES & Oak View ES			2250	750	1500					2250
	FY 14 Projects		580	690	480	210					1270
	FY 14 Projects			2540	840	1700					2540
	FY15 Projects			1040	470	390	180				1040
	FY15 Projects			2080		690	1390				2080
	FY16 Projects			1300		650	390	260			1300
	FY16 Projects			2600			870	1730			2600
	FY17 Projects			1300			650	390	260		1300
	FY17 Projects			2600				870	1730		2600
	FY18 Projects			1300				650	390	260	1300
	FY18 Projects			2600					870	1730	2600
	FY19 Projects			1040					650	390	1040
	FY19 Projects			870						870	870
	FY20 Projects			650						650	650
											26,310
	TOTAL		1,380	24,930	3,470	6,280	3,480	3,900	3,900	3,900	26,310
	PDS TOTAL		1,340	7,830	1,350	1,360	1,220	1,300	1,300	1,300	
	CONSTRUCTION TOTAL		40	17,100	2,120	4,920	2,260	2,600	2,600	2,600	

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL
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801300 - SM RETROFIT ROADS

8.8.13

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL
	Sligo Park Hills (DOT)	445		0							445
	Sligo Park Hills (DOT)	2312		0							2312
	Sligo Park Hills II (DOT)			200	200						200
	Sligo Park Hills II (DOT)			2300	2300						2300
	Dennis Ave (DOT)			100	100						100
	Dennis Ave (DOT)	2410		600	600						3010
	TO 08-13: Franklin Knolls	300		210	210						510
	TO 08-13: Franklin Knolls	1940		2060	2060						4000
	TO 08-06: Donnybrook (Street LID portion) (13)	50		50	50						100
	TO 08-06: Donnybrook (Street LID portion) (13)	800		200	200						1000
	TO 08-07: Breewood and Amherst (Tenbrook)			120	120						120
	TO 08-07: Breewood and Amherst (Tenbrook)	800		200	200						1000
	TO 08-12: Spring Street			300	150	150					300
	TO 08-12: Spring Street			1800	900	900					1800
	TO 08-14: Breewood (Roads) (11)			100	100						100
	TO 08-14: Breewood (Roads) (11)	60		770	770						830
Paint Branch	TO 12-14: Springbrook/Homestead (Tanley)	480		720	360	240	120				1200
Paint Branch	TO 12-14: Springbrook/Homestead (Tanley)			3000		1500	1500				3000
Anacostia	TO 12-15: Anderson Burkhard Clifton; Cannon Road	400		650	320	210	120				1050
Anacostia	TO 12-15: Anderson Burkhard Clifton; Cannon Road			3500		1580	1920				3500
Rock Creek	TO 12-16: Judson Henderson (Glenmont Forest)	490		750	380	250	120				1240
Rock Creek	TO 12-16: Judson Henderson (Glenmont Forest)			3720		1700	2020				3720
Rock Creek	TO 12-17: Wheaton Woods Area ROW LID	700		1160	570	370	220				1860
Rock Creek	TO 12-17: Wheaton Woods Area ROW LID			5580		2000	3580				5580
	FY14: Rock Creek ROW	400		650	320	210	120				1050
	FY14: Rock Creek ROW			3150		290	2860				3150
	FY14: Anacostia ROW	1500		2050	1080	710	200	60			3550
	FY14: Anacostia ROW			10650		770	9120	760			10650
	FY15: Rock Creek ROW			1050	400	320	210	120			1050
	FY15: Rock Creek ROW			3150			300	2850			3150
	FY15: Anacostia ROW			3550	1350	1080	710	360	50		3550
	FY15: Anacostia ROW			7100				6080	1020		7100

FY16 Projects		4700		1800	1400	900	600		4700
FY16 Projects		9400				1680	7720		9400
FY17 Projects		4700			1800	1400	900	600	4700
FY17 Projects		9400					1680	7720	9400
FY18 Projects		4100				1800	1400	900	4100
FY18 Projects		1680						1680	1680
FY19 Projects		3200					1800	1400	3200
FY20 Projects		0							0
FY20 Projects		1800						1800	1800
									111,507
TOTAL	13,087	98,420	12,740	14,080	26,320	16,010	15,170	14,100	111,507
PDS TOTAL	4,765	30,160	5,710	5,340	5,020	4,640	4,750	4,700	
CONSTRUCTION TOTAL	8,322	68,260	7,030	8,740	21,300	11,370	10,420	9,400	

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL
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800900 - SM Retrofit - Government Facilities
8.8.13

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL
	TO 08-06: Donnybrook		56	0							56
	TO 08-06: Donnybrook			0							0
	TO 08-07: Breewood (Tenbrook)		140	140	140						280
	TO 08-07: Breewood (Tenbrook)			0							0
	Dennis Avenue & other DOT		370	370	370						740
	Dennis Avenue & other DOT		160	0							160
	Sligo Park Hills		133	133	133						266
	Sligo Park Hills			0							0
	TO 08-12: Spring Street		205	205	205						410
	TO 08-12: Spring Street			0							0
	TO 08-13: Franklin Knolls (Four Corners)		378	378	378						756
	TO 08-13: Franklin Knolls (Four Corners)			0							0
	TO 08-14: Breewood		179	179	179						358
	TO 08-14: Breewood			0							0
	TO 08-15: Upper County Pool, Meadowvale and Montgomery Village		194	194	194						388
	TO 08-15: Upper County Pool		200	200	200						400
	TO 08-23: Little Falls Library & Bushy Dr Rec Cntr		150	123	67	56					273
	TO 08-23: Little Falls Library & Bushy Dr Rec Cntr			550	380	170					550
Great Seneca	Plum Gar NRC (DGS)		100	0							100
Cabin John	Scotland NRC (DGS)		80	0							80
	DGS Participation (TBD)		20	1200	200	200	200	200	200	200	1220
	FY14: Colesville Park & Ride		60	140	60	40	40				200
	FY14: Colesville Park & Ride			600		300	300				600
	FY14: Greencastle Park & Ride		70	150	70	40	40				220
	FY14: Greencastle Park & Ride			660		330	330				660
	FY14: Germantown MARC Park & Rides		70	150	70	40	40				220
	FY14: Germantown MARC Park & Rides			660		330	330				660
	FY14: Longwood & Potomac CRC		140	300	140	80	80				440
	FY14: Longwood & Potomac CRC			1320		660	660				1320
	FY15: Abandoned Vehicles Facility			340	120	90	80	50			340
	FY15: Abandoned Vehicles Facility			680				680			680

(28)

FY15: Damascus Park & Ride	140	40	40	30	30					140
FY15: Damascus Park & Ride	280				280					280
FY15: Potomac CRC	280	80	80	60	60					280
FY15: Potomac CRC	560				560					560
FY16 Tasks	900		360	270	180	90				900
FY16 Tasks	1800				600	1200				1800
FY17 Tasks	900			360	270	180	90			900
FY17 Tasks	1800					600	1200			1800
FY18 Tasks	810				360	270	180			810
FY18 Tasks	600						600			600
FY19 Tasks	630					360	270			630
FY19 Tasks	0									0
FY20 Tasks	360						360			360
FY20 Tasks	0									0
										20,437
TOTAL	2,705	17,732	3,026	2,816	2,820	3,270	2,900	2,900	20,437	
PDS TOTAL	2,145	6,822	2,246	826	1,000	950	900	900		
CONSTRUCTION TOTAL	560	10,910	780	1,990	1,820	2,320	2,000	2,000		

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL
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807359 - STREAM VALLEY IMPROVEMENTS
8.7.13

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTALS
	TO 08-01: Hollywood Branch	71		142	142						213
	TO 08-01: Hollywood Branch	600		1200	1200						1800
	TO 08-05: Stream Monitoring	40		600	100	100	100	100	100	100	640
	TO 08-06: Donnybrook Stream	114		108	108						222
	TO 08-06: Donnybrook Stream	760		380	380						1140
	TO 08-08: Fallsreach & Bedfordshire	170		170	170						340
	TO 08-08: Fallsreach & Bedfordshire	320		920	920						1240
	TO 08-14: Breewood Stream Restoration	59		59	59						118
	TO 08-14: Breewood Stream Restoration	344		344	344						688
	TO 08-20: Muddy Branch (Flints Grove) Stream	70		70	70						140
	TO 08-20: Muddy Branch (Flints Grove) Stream			1000	850	150					1000
	TO 12-07: Cinnamon Woods Stream	90		90	60	30					180
	TO 12-07: Cinnamon Woods Stream			400	320	80					400
	TO 12-09: Lower Snowdens & Falling Creek	470		460	180	180	100				930
	TO 12-09: Lower Snowdens & Falling Creek			3000		1500	1500				3000
	TO 12-10: Stonybrook Tributary	290		290	100	110	80				580
	TO 12-10: Stonybrook Tributary			1200		760	440				1200
	TO 12-11: Great Seneca - Gunners Branch GSGN 205)	310		300	130	90	80				610
	TO 12-11: Great Seneca - Gunners Branch GSGN 205			1440		790	650				1440
	FY14: Grosvenor Tributary	300		740	260	240	180	60			1040
	FY14: Grosvenor Tributary			3000			2770	230			3000
	FY14: Cold Spring	100		230	100	70	60				330
	FY14: Cold Spring			940			940				940
	FY14: Bel Pre Creek I	120		270	140	80	50				390
	FY14: Bel Pre Creek I			1130			1130				1130
	FY 15: Old Farm 6 (Neilwood Drive)			260	110	50	50	50			260
	FY 15: Old Farm 6 (Neilwood Drive)			760				760			760
	FY 15: Snakeden I & III			400	200	70	70	60			400
	FY 15: Snakeden I & III			1140				1140			1140
	FY15: Muddy Branch			390	150	80	80	80			390
	FY15: Muddy Branch			1120				1120			1120
	FY15: Lower Potomac			390	150	80	80	80			390
	FY15: Lower Potomac			1120				1120			1120
	FY15: Great Seneca (GSGN xxx)			390	150	80	80	80			390

FY15: Great Seneca (GSGN xxx)

FY16 Projects

FY16 Projects

FY17 Projects

FY17 Projects

FY18 Projects

FY18 Projects

FY19 Projects

FY19 Projects

FY20 Projects

1120			1120		1120
1800	900	300	300	300	1800
4200			1400	2800	4200
1800		900	300	300	1800
4200			1400	2800	4200
1500			900	300	1500
1400				1400	1400
1200				900	1200
0					0
900				900	900
					46,801

TOTAL	4,228	42,573	6,393	5,440	9,640	8,900	6,100	6,100	46,801
PDS TOTAL	2,204	12,559	2,379	2,160	2,210	2,010	1,900	1,900	14,763
CONSTRUCTION TOTAL	2,024	30,014	4,014	3,280	7,430	6,890	4,200	4,200	32,038

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTALS
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808726 - SM RETROFIT COUNTYWIDE
8.7.13

WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6 YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL
	TO 08-04: Brookville (50%)	66		0							66
	TO 08-04: Brookville (60%)	795		0							795
	TO 08-05: Monitoring	20		330	30	40	50	60	70	80	350
	TO 08-08: Fallsreach, Fallsberry, Claggett Farm & Bedfordshire	302		156	156						458
	TO 08-08: Fallsreach, Fallsberry, Claggett Farm & Bedfordshire	1574		394	394						1968
	TO 08-10: Oxford, Naples & Georgian	300		47	47						347
	TO 08-10: Oxford, Naples & Georgian	1100		142	142						1242
	TO 08-11: Metro Park, Montgomery Manor	238		68	68						306
	TO 08-11: Metro Park, Montgomery Manor	394		112	112						506
Great Seneca	TO 08-15: Meadowvale and Montgomery Village	13		50	50						63
Great Seneca	TO 08-15: Meadowvale and Montgomery Village	660		1320	1320						1980
Cabin John	TO 08-16: Quail Valley, Hunters Woods and Goshen Estates	438		300	300						738
	TO 08-16: Quail Valley, Hunters Woods and Goshen Estates			1000	1000						1000
	TO 08-17: Magruder Branch Regional Pond	90		101	101						191
	TO 08-17: Magruder Branch Regional Pond			1036	1036						1036
	TO 08-18: Seneca Whetstone, Seneca Park, Plumgar & M. Village PEPCO	477		477	397	80					954
	TO 08-18: Seneca Whetstone, Seneca Park, Plumgar & M. Village PEPCO			1500	1200	300					1500
	TO 08-19: The Plantations, Airpark Regional	200		386	350	36					586
	TO 08-19: The Plantations, Airpark Regional			1100	1000	100					1100
	TO 08-20: Shady Grove Dev. Park, Potomac Chase, Mills Farm, Fox Hills & Flints Grove	220		400	280	120					620
	TO 08-20: Shady Grove Dev. Park, Potomac Chase, Mills Farm, Fox Hills & Flints Grove			1685	1167	518					1685
	TO 08-21: Greencastle Lakes	430		170	110	60					600
	TO 08-21: Greencastle Lakes			440	290	150					440
	TO 12-01: Potomac Ridge (4)	310		550	240	190	120				860
	TO 12-01: Potomac Ridge (4)			1720		1400	320				1720

	TO 12-02: Cinnamon Woods (4)	300	540	240	180	120	840
	TO 12-02: Cinnamon Woods (4)		1680		1370	310	1680
	TO 12-03: Watkins Meadow, Northlake Apts, Gunners Lake Village & Germantown View	320	560	250	190	120	880
	TO 12-03: Watkins Meadow, Northlake Apts, Gunners Lake Village & Germantown View		1760		1440	320	1760
	TO 12-04: Woodrock, Pine Knoll & Fox Hills	310	550	240	160	150	860
	TO 12-04: Woodrock, Pine Knoll & Fox Hills		1720		1250	470	1720
	TO 12-05: Longmeade, Gaywoods & Bel Pre Manor	260	390	200	110	80	650
	TO 12-05: Longmeade, Gaywoods & Bel Pre Manor		1300		950	350	1300
	TO 12-06: Stonehedge, Kemp Mill, Dumont Oaks & Columbia Towers	310	450	190	160	100	760
	TO 12-06: Stonehedge, Kemp Mill, Dumont Oaks & Columbia Towers		1700		1240	460	1700
	TO 12-07: Cinnamon Woods, Germantown Park	370	600	270	190	140	970
	TO 12-07: Cinnamon Woods, Germantown Park		1940		1410	530	1940
	TO 12-08: Wash Sci Cntr, Tuckerman Lane Regional, Old Georgetown Village & Mill Creek South	310	550	250	160	140	860
	TO 12-08: Wash Sci Cntr, Tuckerman Lane Regional, Old Georgetown Village & Mill Creek South		1720		1250	470	1720
Great Seneca	FY14: The Plantations, Chadsworth & Stewartown Homes	220	440	170	160	110	660
Great Seneca	FY14: The Plantations, Chadsworth & Stewartown Homes		1320		360	960	1320
Great Seneca	FY14: Quail Valley 2 & Goshen Estates	160	280	130	90	60	440
Great Seneca	FY14: Quail Valley 2 & Goshen Estates		880		290	590	880
Cabin John	FY14: Executive Blvd & Cabin John Shopping Center	80	180	80	50	50	260
Cabin John	FY14: Executive Blvd & Cabin John Shopping Center		500		170	330	500
Anacostia	FY14: Rossmor Leisure World, Tivoli Pond, Briggs Chaney Shopping Center, Verizon SWM & Rolling Acres	420	680	340	220	120	1100
Anacostia	FY14: Rossmor Leisure World, Tivoli Pond, Briggs Chaney Shopping Center, Verizon SWM & Rolling Acres		2200		500	1700	2200
Great Seneca	FY14: Williamsburg Square (7 facilities)	600	940	460	310	170	1540
Great Seneca	FY14: Williamsburg Square (7 facilities)		3080		470	2610	3080
Great Seneca	FY14: Stoneridge (Community Council Corp.)	70	150	70	40	40	220
Great Seneca	FY14: Stoneridge (Community Council Corp.)		440		100	340	440
	FY14: Tamarack Park (Valley Mill Pond)	60	0				60
	FY14: Rossmor Leisure World (Leisure World Comm Corp TR)	60	0				60
	FY14: North Bonifant Woods HOA	60	0				60

	FY14: Greencastle Lakes (CA)	60	0				60	
	FY14: Oak Spring I (Upper Pond)	60	0				60	
	FY14: MLK Recreation Park and Pond	60	0				60	
Patuxent	FY14: Hallowell (HOA)	60	0				60	
	FY14: Good Hope Estates	60	0				60	
Anacostia	FY14: George Meany Center for Labor (3)	180	0				180	
	FY14: Edgewood Pond (SS Country Club)	60	0				60	
	FY14: Colesville Depot	60	0				60	
	FY14: Aspen Hill Racquetball Club (2)	120	0				120	
	FY14: Argyle Village HOA	60	0				60	
	FY14: Westleigh (Muddy Branch SVU)	70	150	70	50	30	220	
	FY14: Westleigh (Muddy Branch SVU)		440		100	340	440	
	FY14: Dufief Home Association	70	150	70	50	30	220	
	FY14: Dufief Home Association		440		100	340	440	
	FY14: Thomas Choice Retrofit	60	100	40	30	30	160	
	FY14: Thomas Choice Retrofit		320		40	280	320	
	FY14: Pueblo (60%)		0				0	
	FY14: Pueblo (60%)	375	375	375			750	
	FY15: Clearspring Manor		260	80	80	50	50	260
	FY15: Clearspring Manor		520			170	350	520
	FY15: Chesney		260	80	80	50	50	260
	FY15: Chesney		520			170	350	520
	FY15: Greenhills (Magruder Branch SVU) (2)		520	160	160	100	100	520
	FY15: Greenhills (Magruder Branch SVU) (2)		1040			280	760	1040
	FY15: County View (Duvall Manor) (2)		520	160	160	100	100	520
	FY15: County View (Duvall Manor) (2)		1040			280	760	1040
	FY15: Garfield Manor		260	80	80	50	50	260
	FY15: Garfield Manor		520			120	400	520
	FY15: Churchill Town Sector (Waters Landing Assoc)		260	80	80	50	50	260
	FY15: Churchill Town Sector (Waters Landing Assoc)		520			120	400	520
	FY15: Willow Ridge (Orchard Neighborhood Park)		260	80	80	50	50	260
	FY15: Willow Ridge (Orchard Neighborhood Park)		520			120	400	520
	FY15: Quince Orchard Valley (Quince Valley HOA)		260	80	80	50	50	260
	FY15: Quince Orchard Valley (Quince Valley HOA)		520			120	400	520
	FY15: Quail Ridge Townhouse Assoc.		260	80	80	50	50	260
	FY15: Quail Ridge Townhouse Assoc.		520			120	400	520
	FY15: Beech Tree Place (Landmark Station HOA)		260	80	80	50	50	260
	FY15: Beech Tree Place (Landmark Station HOA)		520			120	400	520
	FY15: Germantown Park (Gunners Branch Local Park) (3)		780	240	240	150	150	780
	FY15: Germantown Park (Gunners Branch Local Park) (3)		1560			120	1440	1560

FY15: Walnut Creek Townhouse Association	60	60				60
FY15: Watkins Mill HOA (2)	120	120				120
FY15: M/A Comm DCC (Hughes Network Systems, Inc.)	60	60				60
FY 15: Hunting Hills Woods	60	60				60
FY 15: Arbor Landscapers	60	60				60
FY 15: Ashton Village	60	60				60
FY 15: Olney Town Center Regional	60	60				60
FY 15: Avenel Golf Course (TPC at Avenel) (5)	300	300				300
FY15: Bedfordshire	60	60				60
FY 15: Potomac Oaks	60	60				60
FY15: Palatine Oak (HOA)	60	60				60
FY15: Stonebridge Regional	60	60				60
FY15: Pond Ridge HOA	60	60				60
FY15: Kensington Ridge HOA	60	60				60
FY 15: Strathmore Court at White Flint (HOC)	60	60				60
FY15: Crabbs Branch Regional	60	60				60
FY 15: Needwood Estates (Crabbs Branch SVP)	60	60				60
FY15: Gude Drive North Regional	60	60				60
FY15: Bel Pre Farms (B'nai B'rith Homecrest House)	60	60				60
FY15: Rockville Fuel & Feed	60	60				60
FY15: Norbeck Estates (Norbeck Meadows Neighborhood Park)	60	60				60
FY15: Oakmont Roberts Oxygen	60	60				60
FY15: Hoover Farm HOA	60	60				60
FY15: Sequoyah Elementary School(Bowie Mill Park)	60	60				60
FY15: Islamic Center of Maryland	60	60				60
FY15: Potomac-Pond HOA	60	60				60
FY15: Congressional Country Club	60	60				60
FY15: Wexford (Wexford HOA)	60	60				60
FY15: Kings Local Park	60	60				60
FY15: Theater Pond, Montgomery Village	60	60				60
FY15: Montgomery Village (East Village Homes Corp)	60	60				60
FY15: Montgomery Village Golf Course (2)	120	120				120
FY15: Partridge Place	60	60				60
FY15: Montgomery County Airpark	60	60				60
FY15: Olney Manor Recreation Park	60	60				60
FY16 Tasks	8400	3780	2310	1150	1160	8,400
FY16 Tasks	14600			6200	8400	14,600
FY17 Tasks	9600		4320	2640	1320	9,600

FY17 Tasks		16400					6800	9600	16,400
FY18 Tasks		9320				4860	2970	1490	9,320
FY18 Tasks		7400						7400	7,400
FY19 Tasks		7830					4860	2970	7,830
FY19 Tasks		0							0
FY20 Tasks		4860						4860	4,860
FY20 Tasks		0							0
BBC MS4 Management (BBC TO 3 & 4)	1400	10500	1500	1600	1700	1800	1900	2000	11,900
Construction PM (BBC TO 2)	176	1140	180	184	188	192	196	200	1,316
Dashboard (BBC TO 6)	450	131	131						581
Monitoring	20	120	20	20	20	20	20	20	140
									161,408

TOTAL	14,938	146,470	18,726	22,968	23,408	23,732	27,696	29,940	161,408
PDS TOTAL	9,864	66,866	10,510	9,276	10,760	11,280	12,300	12,740	76,730
CONSTRUCTION TOTAL	5,074	79,604	8,216	13,692	12,648	12,452	15,396	17,200	84,678

THRU	TOTAL 6								
FY13	EST. FY14	YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL

800700 - MAJOR STRUCTURAL REPAIR

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WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	TOTAL 6		FY15	FY16	FY17	FY18	FY19	FY20	TOTALS
				YEARS								
	TO 08-04: Brookville Depot (50%)		98	0								98
	TO 08-04: Brookville Depot (40%)		530	0								530
	Auto Park Dam		163	0								163
	Auto Park Dam		1628	0								1628
	Pueblo (Quince Orchard Manor)		50	0								50
	Pueblo (Quince Orchard Manor) (40%)		375	375	375							750
	Thomas Choice SWM Facility Repair			0								0
	Thomas Choice SWM Facility Repair		156	0								156
	JV TO 10 - Anchor		137	40	20	20						177
	Gunners Lake		226	150	75	75						376
	Gunners Lake			3000	3000							3000
	Whetstone		150	150	150							300
	Whetstone		250	3000	3000							3250
	ICC Filter Dia		30	0								30
	Chadsworth Sliplining		65	0								65
	Chadsworth Sliplining			425			425					425
	Hunters Woods (Blue Smoke Ct)			260			160	100				260
	Hunters Woods (Blue Smoke Ct)			625					625			625
	B'Nai Israel			260	160	100						260
	B'Nai Israel			750				750				750
	Brandermill			260	160	100						260
	Brandermill			625				625				625
	Persimmon Tree		160	100	100							260
	Persimmon Tree			820			820					820
	Colony Pond		160	100	100							260
	Colony Pond			625			625					625
	Wheaton Branch			0								0
	Wheaton Branch			425			425					425
	ICC - PB48 Rework		60	0								60
	ICC - PB48 Rework			520	140	380						520
	Oaks Landfill Ponds			260			160	100				260
	Oaks Landfill Ponds			500					500			500
	Railroad Branch			260				160	100			260
	Railroad Branch			1250						1250		1250

Home Depot (Aspen Hill)		260			160	100			260
Home Depot (Aspen Hill)		1250					1250		1250
Retrofit Sliplining	25	600	100	100	100	100	100	100	625
Dredging Projects	50	900	150	150	150	150	150	150	950
Other Projects		1885			285	470	80	1050	1885
Other Projects		3395			570	955	170	1700	3395
									27,383
TOTAL	4,313	23,070	7,530	3,540	3,000	3,000	3,000	3,000	27,383
PDS TOTAL	1,269	3,985	765	615	805	670	80	1,050	5,254
CONSTRUCTION TOTAL	3,044	19,085	6,765	2,925	2,195	2,330	2,920	1,950	22,129

				TOTAL 6							
WATERSHED	PROJECT NAME	THRU FY13	EST. FY14	YEARS	FY15	FY16	FY17	FY18	FY19	FY20	TOTALS