

**Montgomery County MS4 Permittees
Chesapeake Bay Watershed Implementation Plan (WIP)
Milestones and Progress
January 31, 2014**

Local Team Lead

Meosotis Curtis, Manager, Stormwater Permit Coordination
Montgomery County Department of Environmental Protection
240-777-7711
meosotis.curtis@montgomerycountymd.gov

City of Rockville

Heather Gewandter, Stormwater Manager
240- 314-8873
hgewandter@rockvillemd.gov

City of Gaithersburg

Dyan Backe, Environmental Planner
301 258-6330, ext. 2285
DBacke@gaithersburgmd.gov

City of Takoma Park

Ali Khalilian, City Engineer
301-891-7620
Alik@takomagov.org

MNCPPC-Parks

Geoffrey Mason, Senior Natural Resources Specialist
301-962-1349
Geoffrey.Mason@montgomeryparks.org

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In September of 2013, the Maryland Department of the Environment (MDE) requested that each local jurisdiction provide an update by January 31, 2014 on the programmatic milestones for 2014-2015. The requested two-year Milestones represent near-term commitments that promote a steady pace of progress toward the long-term Chesapeake Bay restoration targets. The focus of this request is on programmatic milestone commitments to be achieved during the calendar year period January 1, 2014 – December 31, 2015. Local partners were also encouraged to submit BMP milestones to be achieved during the state fiscal year period July 1, 2013 – June 30, 2015.

The City of Gaithersburg and the Maryland-National Capital Park and Planning Commission (MNCPPC) Department of Parks had no changes from their submission on July 31, 2013. This current submittal includes updates from the Montgomery County local Municipal Separate Storm Sewer System (MS4) Phase 1 (Montgomery County) and Phase 2 permittees of the Cities of Rockville and Takoma Park..

Montgomery County Phase 1 MS4 Permit

The County's MS4 Permit encourages the County to assist in implementation of the Tributary Strategy designed to meet the nutrient and sediment reduction goals for the Chesapeake Bay. The Municipal Separate Storm Sewer System (MS4) Permit Annual Report covers activities on a fiscal year basis--for FY13, from July 1, 2012-June 30, 2013 . The FY13 Annual Report will be submitted to MDE in March 2014. The published annual reports can be found on the County's web site at

<http://www.montgomerycountymd.gov/dectmpl.asp?url=/content/dep/water/npdes.asp#reports>.

Implementation

The County has an aggressive watershed restoration projects program to meet the current MS4 Permit's requirement to add control to 20% of the impervious areas not currently controlled to the maximum extent practicable (MEP) based on data available for the year 2009. The MDE reviewed the Countywide Coordinated Implementation Strategy (Strategy) and supporting documents in 2011 and determined that "these documents present a solid foundation for addressing water quality impairments not only within the current permit term but beyond ." There are no changes in milestones and progress from those submitted to MDE on July 31, 2013.

The MS4 Permit goal is to add runoff management to 4,292 impervious acres by February 2015. Table 1. shows progress for impervious area restoration through FY13. There are a total of 736 projects with an anticipated impervious area controlled of 1,930.96 acre. By meeting the MS4 Permit impervious restoration goal, the County determined that it will meet the 2017 and 2025 nutrient reductions for the State of Maryland's Bay Restoration Watershed Implementation Plan.

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<i>Table 1. FY13 Summary of Watershed Restoration Projects Completed, in Construction, and in Design for Compliance with the 2010 MS4 Permit</i>		
Project Status	Number of Projects	Impervious Area Controlled (Acre)
Completed	107	375.92
In Construction	17	185.12*
In Design	128	2,424.86*
RainScapes Rewards Completed Projects	506	11.01**
RainScapes Neighborhoods Completed Projects	61	1.76**
Arterial Street Sweeping	n/a	16
Total	736	3,001.9
<p>*The impervious area control for projects in design and under construction is an estimate and may not reflect the final project computations</p> <p>** Final impervious area treated through RainScapes Rewards and RainScapes Neighborhood projects do not include Conservation Landscape Practices and Tree Planting as more guidance in accounting for the equivalent impervious credit is required. Credit for those practices will be taken in the FY14 MS4 Annual Report</p>		

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Montgomery County Phase II MS4 Permittees

M-NCPPC Department of Parks, Montgomery County

The M-NCPPC Department of Parks, Montgomery County (Montgomery Parks) manages over 466 miles of streams, more than 400 lakes, ponds, and stormwater management facilities and over 25,600 acres of natural landscape within its 35,725 acres of parkland. Montgomery Parks is committed to fulfilling its WIP requirements through compliance with its Phase II MS4 NPDES permit obligations and will develop a detailed Notice of Intent when the new Phase II permit is released. Therefore Montgomery Parks has no new milestones to report at this time.

City of Gaithersburg, Maryland

The City of Gaithersburg encompasses 10 square miles in the heart of Montgomery County, Maryland. The City's stormwater management and storm drain infrastructure consist of over 400 publicly and privately maintained facilities, with over 5,000 inlets and 140 linear miles of storm drain pipe. Approximately 35 percent of Gaithersburg consists of impervious cover.

Under the City's current NPDES Phase II MS4 permit, Gaithersburg operates a comprehensive stormwater management program which includes a stormwater facility inspection and maintenance program for existing facilities, an illicit discharge detection and elimination program, and robust outreach and education programs. There is no update from the July 31, 2013 submittal for the WIP Phase 2 progress

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City of Rockville

2014 - 2015 Implementation Two-Year Milestones

The City of Rockville has 32.2 miles of surface streams within its 13.54 square miles. These streams flow through three watersheds – Rock Creek, Cabin John Creek and Watts Branch. On average, the City has over 30 percent impervious surface coverage and has approximately 660 publicly and privately maintained SWM facilities. These facilities were constructed between the late 1970s and the present and range from extended detention ponds and underground sand filters to bioretentions and pervious pavement. The City has an extensive storm drainage system with approximately 162 linear miles of pipe and more than 2,560 inlets.

The City is committed to implementing Capital Improvement Projects (CIP) outlined in its Fiscal Year (FY) 2014 budget (Attachment A)*. Between the spring of 2013 and the spring of 2015, the City plans to complete the projects highlighted below. All planned projects are subject to funding and staff availability. Table 2 includes the City's 2014-2015 programmatic two-year milestones.

The City's Mayor and Council review and approve CIP funding each fiscal year. The number and extent of projects may change as a result of state legislature's decision to exempt current stormwater management utility fee payers, continued increase in the cost of SWM projects, and/or continued delay of the issuance of an updated Phase II General MS4 NPDES permit.

- The Glenora Tributary stream restoration and wetland creation project will be constructed in FY2014-FY2015
- The Horizon Hill SWM retrofit and stream restoration project will be constructed in FY2015
- The Dogwood Park stream restoration project will be designed in FY2014-FY2015.
- Design of stream improvements at Rollins Avenue storm drain outfall and Aleutian Avenue stream will be completed in FY2014-FY2015.
- Construction of stream improvements at Rollins Avenue and Aleutian Avenue will be completed in FY2015
- The design for maintenance and retrofit on three existing SWM facilities, Locks Pond, Antree Pond and Potomac Woods pond will be completed in FY2014. Construction of these sites is planned for FY2014-FY2015.
- Design of King Farm Watkins Pond minor retrofit and maintenance project is planned for FY2015.
- The Upper Watts Branch stream restoration project's outfall restoration component will be designed in FY2015.

*Please note: the completion schedule presented in the FY2014 CIP budget and what is represented in this milestone projection are not the same. The City of Rockville has adjusted its projected implementation schedule due to rising project costs, limited funding and staff time limitations

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Table 2. City of Rockville 2014 - 2015 Programmatic Two-Year Milestones				
Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Urban Stormwater				
2014	Preserve the City's current stormwater management (SWM) utility fee structure.	<ul style="list-style-type: none"> •State legislature's elimination of exempted entities from the various fee statues. •State legislature's requirement for state and other government property owners to pay appropriate SWM utility fee bills. 	Public Works	Successfully lobby to preserve the City's equitable, polluter-pays fee structure implemented in 2008 and protect our property owners from double charges associated with a state-wide stormwater tax. Explore options to collect fees from other governmental institutions contributing stormwater to the City's collection system.
2016	Identify untreated impervious areas within Rockville City limits.	<ul style="list-style-type: none"> •GIS map layer for both public and private facilities highlighting impervious area treated and to what "treatment level" 	Public Works	Identify untreated impervious surface by geo-locating SWM facilities and their associated drainage areas. The City is approximately half way through mapping the public and private inventory of SWM facilities. Please note: the City is only identifying areas treated by facilities built after 1985.
TBD	Develop detailed NOI when MDE issues the Phase II MS4 General Permit.	<ul style="list-style-type: none"> •Participate in comment period for Draft Phase II MS4 NPDES permit when available. •Submit NOI to MDE. •Reporting tools 	Public Works	Develop a Notice of Intent (NOI) in response the new Phase II permits that demonstrates how the City of Rockville will efficiently and effectively achieve its requirements.

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City of Takoma Park

The WIP Report presents a description of state and local partners' approach to developing local scale strategies, BMP implementation levels, and programmatic milestones to achieve necessary reductions on a schedule to meet interim and final goals established by the State of Maryland.

Purpose of Phase II WIP report

The Phase II WIP report document is organized to clearly and logically address the specific plans underway by Takoma Park to meet the expectations established by EPA in its Phase II WIP guidance documents.

The City of Takoma Park Strategy

The City of Takoma Park intends to meet the Chesapeake Bay Total Maximum Daily Load (TMDL) through fulfilling the requirements of our current National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) – Phase II Permit.

We are expecting our future NPDES permit to require a **20% retrofit of impervious area** for which runoff is not currently managed, to the maximum extent practicable (MEP). Our plan is to achieve this goal mainly by employing Environmental Site Design (ESD) techniques in future Capital Improvement Projects (CIP) and Stormwater Management (SWM) projects. We also plan to promote other structural and nonstructural BMPs for retrofit projects. Additionally other **programmatic** means to achieve pollution reduction such as public education and outreach campaigns or through regulatory development will be intensified in the coming years.

Highlights of our WIP strategic plan are presented followed by description of implementation achievements up to conclusion of FY 13. (Dec 31, 2013). This report aims to illustrate that our interim objectives for Milestone 2013 have been realized and exceeded. A brief description of our schedule to achieve 2017 milestone, and beyond, is also provided.

The following calculations were presented in our Phase II WIP report to develop milestone objectives:

Total City Area: 1,280 Acres

Total Impervious Area: 397 Acres

Roads: 138 Acres

Buildings: 158 Acres

Parking Lots: 85 Acres

Sidewalks: 16 Acres

Total retrofit effort to meet goal of retrofitting 20% of untreated impervious area: 79 Acres

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Background

Since 2006, Takoma Park has planned, designed and installed several ESD Stormwater Best Management Practices (BMPs), mainly as Capital Improvement Projects funded through the Stormwater Management Fund (SWF). Appendix A lists all the BMPs installed by the City till date. The City's strategy to achieve the FY13 Milestone, Interim Target Loads (70% of Final Load by FY 2017) and Final Target Loads (FY 2025) were defined in two (2) categories of action as follows:

- ✚ **Implementation Actions category** which is defined as designed and installed BMP structural or non structural aimed at reducing pollution entering the waterways.
- ✚ **The Program Development category or "Programmatic Action"** is defined as measures that will increase our capacity and enhance the capability and thereby accelerating implementation actions in the medium-term future actions.

Our 2012 ESD- BMP retrofitting effort for impervious surfaces was 14 acres. These included permitted BMPs installed as part of private development efforts as well as BMPs installed by the City in public space. The details of those specific efforts are described in the Implementation Action section below.

Additionally, programmatic BMPs that were employed by the City for 2012 provided 13 acres of treated equivalent impervious area as follows:

- Total Regenerative Street Sweeping: 40 acres per Year at 0.13 Impervious acres Equivalent yields 5.2 acres
- Total Stream Restoration/Stabilization: 550 linear Feet (LF) at 0.01 impervious acres equivalent yields 5.5 acres
- Total Tree Planting: 5 acres on pervious urban land

The sum of impervious acres treated via ESD BMPs (14 Acres) and alternative restoration credit (13 acres) is 27 treated Acres toward the 79 acre goal, yielding 52 impervious acres yet to be treated by 2025. Table x. summarizes the ESD BMP bioretention projects completed to date.

2013 Milestones

Actions taken by the City in FY13, including both implementation actions and programmatic actions have resulted in additional treatment of 12 acres. For FY13, Takoma Park stormwater utility fee rates increase from \$48 per Single Family residential Unit per year to \$55 per Equivalent Residential Unit (ERU). Within this period we identified potential grant funding sources for stormwater retrofits projects under various stages of planning. The City successfully applied for a MDE grant for the bio-retention portion of the Ritchie and Oswego Avenue Traffic Calming project. That portion of the project was completed in May 2013 at an approximate cost of nearly \$110,000.

The City applied for Transportation Alternatives Program grant for the Flower Avenue Green Street Project. In addition to transit, safety and traffic calming benefits, this project will provide the opportunity to retrofit a significant area of impervious surfaces. The Flower Avenue Green Street Project is still in design phase due to which the number and location of ESDs is not yet finalized. We anticipate finalizing the design and location of ESDs within the next reporting period. Table 3 summarizes the completed bioretention facilities.

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Table 3. City of Takoma Park List of Completed Bio Retentions and Attributes			
Facility Name/Location	Area SF	Contributing Drainage Area (Acre)	Estimated Impervious Are (Acre)
Wildwood and Haverford_ward6	1090	0.60	0.15
Wildwood_Holton_ward6	755	0.53	0.1
Jackson and Wildwood1_Ward6	475	0.95	0.3
Anne and Kennewick1_ward6	1267	0.49	0.1
Jackson and Wildwood2_Ward6	316	0.55	0.15
Anne and Kennewick2_ward6	1463	0.61	0.2

A: Implementation Actions (Table 4):

1. Columbia and Poplar Avenue

A 570 square feet bio retention facility was installed at the intersection of Columbia and Poplar Avenue. It was constructed by removing existing asphalt road bed and is designed to treat a ½ inch storm event. The contributing drainage area for the facility is 3.7 acre, of which 1 acre is impervious area. This bio retention retrofits a medium density commercial/ residential area.

2. Hudson Avenue Bio Retention Retrofit.

Three (3) bio retention ponds were designed to treat the first inch of run-off. The total area of the facilities is 1,400 square feet. The estimated contributing drainage area is 2 Acres of which 0.5 acre is impervious.

3. Prince Georges Ave. and Circle Ave. Bio Retention Project

The facility encompasses 700 square feet in area. The bio-retention facility, as well as the surrounding area was landscaped using a variety of native plants and trees. The facility is designed to meet the water quality pollution removal for the first one-inch of storm runoff from the street and surroundings. This facility was designed with additional storage capacity similar to a dry pond; in FY 14 we plan to route additional run off for quality treatment from an adjacent area up to one acre of Impervious retrofit.

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The initial contributing total drainage area is 0.0.83 Acres of which 0.3 acre is estimated to be impervious.

4. Wabash Ave. Bio retention and Erosion Control Project

This project includes two bio retention facilities on both sides of the Wabash Avenue and Roanoke Avenue intersection, as well as a facility at the bottom of a paved path through sloping woods. The two bio retention facilities are 200 and 480 square feet in area. The lower facility is a 60 square feet filtering media around an existing inlet. Downstream from these facilities a total of 160 linear feet of rip rap lined swale was constructed. Rip rap lining was also provided along a path leading from the intersection to Sligo Creek Parkway as an erosion protection measure. These facilities are designed to treat the first 1 inch of run-off from a contributing drainage area estimated to be 2.1 Acres, of which 0.6 acre is impervious.

5. Circle Woods Stream Restoration and Stabilization Project

This project was undertaken to stabilize the stream bed where a 4-feet by 4-feet stormwater culvert daylights into the stream channel. The stream restoration program included stream bank and bed stabilization by rip rap placement and cross vane construction, as well as bioengineering and vegetation plantings. Approximately 400 linear feet of stream restoration was implemented. A permit was obtained through MDE and project implemented prior to June 15, 2013. Equivalent impervious area reduction (EIR), assumed at the rate of 1 acre per 100 LF of stream restored, is 4 Acre.

6. Ritchie Avenue and Oswego Avenue Bio-Retention

This project was made possible through a grant from the MDE.. It consists of 5 micro bio-retention areas, created by curb extension around a newly installed traffic circle. In addition to water quality improvements, this project also provide for traffic calming. The bio retention facilities collectively provide treatment for 0.39 acre of impervious area, treating 0.5 to 1.25 inch of runoff. However, the project added a net 0.17 acres of new sidewalk; therefore the net retrofitted impervious area acreage is 0.22 acres.

In addition, the City is currently working on two major projects Identified as providing a potential for providing additional treatment for existing impervious area. Progress made in FY2013 on these projects is presented below:

7. Ward Six Wildwood New Sidewalk Project - Seven (7) bio retention facilities and two (2) Filterra™ systems have been design and six Bio retention are constructed. As new sidewalks have been constructed within the Ward six area, determination of ESD attributable to additional impervious surface generated is underway.

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Table 4. City of Takoma Park Public Works Retrofit Environmental Site Design Best Management Practices (ESD BMPs) Project FY 13				
Name	BMP TYPE	No./AREA/Length	Est. Drainage Contributing Acres	Retrofitted Impervious area Acres
Flower Avenue Green Street	16 BMP ESD	Preliminary Design	Not Determined	Not Determined
Ward 6-Wildwood	6 Bio retention and 2 Filters	In process	Not Determined	1.1
Wabash Ave. 2 Bio/ Filter	1,070 SF Bio retention and Filter	160 LF swale	2.1	0.7
Hudson Avenue	1,400 SF Bio	3 bio –retention Interconnected	2.0	0.5
Columbia and Poplar	Bio retention	Completed	3.7	1.0
Circle Woods Park	Stream Bed Stabilization	400 LF	1 Acre per 100 LF	4.0
Ritchie and Oswego	5 Bio retention	1018 Sift	1	0.3
Prince Georges and Circle	Bio retention	727 Sift	0.83	0.15
Manor Circle	Bio retention	1656 Sift	0.87	0.15
Holton Lane At New Hampshire	Bio retention	343 Sift	0.33	0.3
TOTAL				8 Acres
 Equivalent Impervious Area Reduction Rates for various BMPs are estimate  Drainage area are approximations based on GIS and 2- ft topography				

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B. Programmatic Actions

Total Regenerative Street Sweeping estimated at 40 acres per Year at 0.13 Equivalent Impervious Acres yields 5 Acres.

Takoma Park's Urban Forest Division is planning to continue tree planting of 120+ public trees per year. Additionally, Takoma Park citizens have installed 50-100 trees per year on private property through a spring and fall program offered by the City. The equivalent impervious area reduction of 1 acre per hundred trees planted yields 1 Acre

The additional impact from work completed in FY13 added 8 additional acres receiving treatment and the equivalent of 6 acres treated from street sweeping and tree planting efforts bringing the total treated acres to 41, leaving 38 acres to be treated by 2025.

The Takoma Park City Council unanimously passed the Safe Grow Act of 2013, on July 22, 2013. The law restricts the use of cosmetic lawn pesticides on both private and public property throughout Takoma Park. This is the first time that a local jurisdiction of this size has used its authority to restrict pesticide use broadly on private and public property, exercising its responsibility to protect the health and welfare of its residents through its local government. This landmark legislation will protect residents of Takoma Park from involuntary poisoning, reduce the poisoning of pets and wildlife, and protect the watershed from harm posed by pesticides used to maintain the cosmetic appearance of lawns.

2014-2015 MILE STONES:

Programmatic Two-Year Milestones are shown in Table 5.

2017 MILE STONES:

- *Strategy: to achieve the Final Target Loads (2025) and Interim Target Loads (70% of Final by 2017), through continued Implementation and Programmatic Actions*
- The centerpiece of our strategy is to retrofit 20% of the impervious urban area with no stormwater treatment. Initial target of 79 untreated impervious acres was reduced to 40 acres, through installation of ESD treatment, by the end of FY13.
- Based on additional treatment area needed, the City will have to maintain a pace of installing treatment for 3 to 4 acres per year to meet the target impervious area reduction at the milestone 2017.
- We anticipate increased SW utility fees, supplemented by grant sources, will provide the required level of funding to achieve our target

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Table 5. City of Takoma Park 2014 - 2015 Programmatic Two-Year Milestones				
<i>DPW=Department of Public Works</i>				
<i>BMPs=Best Management Practices</i>				
Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
Funding				
July 31 2015	Operational/Capital Budget Stormwater Utility Fee Review	Evaluate and recommend CIP for utility fee modification and its approval	DPW	FY 2012 an increase Equivalent Residential Unit (ERU) stormwater utility fee from \$45 per Single Family residential Unit per year to
July 31 2015	New Funding Source development Grant Applications	Obtaining Grants from Maryland Department of the Environment and Department of Natural Resources for stream restoration and BMPs	DPW	Grants for Flower Avenue have already been approved. Altogether grant of 2.5 million has been received from different source. Ritchie and Oswego 5 Bio retention Ponds The project was completed in May 2013. Total project cost was \$110,000. Apply for Capital Improvement Grant for Sligo Mill/ Poplar Mill Stream Restoration Project
Program Development or Enhancement				
January 2015	Street Sweeping Increase Total Regenerative	Increase Street Sweeping	DPW	Currently Total Regenerative Street Sweeping: 40 Acres per Year
January 2015	Tree Planting by DPW Urban Forest Office	Continue expanding the urban forest by planting 120+ public trees per year	DPW	240 trees were planted on public right of way on FY 2013
January 2015	BMP Inspection /Maintenance Program	Inspect and maintain all our existing BMPs as needed	DPW	BMP is inspected and Maintained in house 2012-2013. Contract Providers to deliver the service
January	Complete Geographic Information System	GIS Layer of public and private BMPs with	DPW	A GIS layer of BMPs characteristics drainage area

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Table 5. City of Takoma Park 2014 - 2015 Programmatic Two-Year Milestones				
<i>DPW=Department of Public Works</i>				
<i>BMPs=Best Management Practices</i>				
Target Date	Milestone	Deliverable	Lead Agency	Comments/Status Updates
2015	(GIS) Layers for Public and Permitted BMPs	pollution removal efficiencies		for public bio-retention ponds completed in 2013
Tracking and Reporting				
July 2014	Aligning MS4 annual reporting w/Sept. 30 annual BMP progress reporting date	Sixth NPDES bi-annual report contains all BMPs completed and permitted	DPW	5th Annual NPDES report 2012
July 2014	Interim/Final Milestone Reporting Jan. 2015/Jan. 2016	Deliverable reports and tables and appendices	DPW	F2012-2013 narrative report to MC by July 2013 revised by Jan 2014
Outreach and Education				
July 2015	Mark a Drain Campaign	Outreach to recruit volunteers to mark 200 drains	DPW	In 2013, Mark A Drain campaign achieved 250 new message signs by BSA.
2014	Stormwater Management Workshop for Homeowners	Outreach to educate homeowner at Flower Avenue about BMPs	DPW	A similar workshop was conducted on September 2013
2015	Identify a BMP outreach program	Develop an outreach program to identify Public Private Partnership for potential BMP identification	DPW	Efforts include reaching out to civic groups
Local Watershed/ Project Planning				
July 2015	Site Identification for implementation opportunities	List of concept level feasible BMPs	DPW	Building a 5-year project CIP list includes identified ESD BMPs revised in 2013

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ATTACHMENT A.

CITY OF ROCKVILLE (COR)

2014 STORMWATER MANAGEMENT (SWM)

CAPITAL IMPROVEMENT PROGRAM (CIP)

Stormwater Management Program Overview

Description:

The Stormwater Management (SWM) Program Area provides funding to study, design and construct stormwater management facilities, stream restoration projects, storm drain rehabilitation projects and conveyance projects. These projects are identified through watershed assessments and the storm drain preventive maintenance program. They are designed to restore, protect and maintain the physical, chemical and biological integrity of City streams, as well as protect private property and eliminate downstream impacts. SWM facility retrofit projects are designed to slow down the flow of stormwater runoff, reducing erosion downstream and giving time for contaminants to filter out. Stream restoration and stabilization projects protect property and greatly reduce stream erosion and, therefore, greatly reduce the amount of nutrients and sediment entering local streams and, eventually the Chesapeake Bay. Projects in this program are funded through the Stormwater Management Fund.

The SWM Program Area supports the City's commitment to public service and public safety and fulfills our signatory support of the Maryland Chesapeake Bay 2000 Agreement. In addition, our current program ensures the City complies with its Federal Clean Water Act (CWA) permit requirements referred to as the National Pollutant Discharge Elimination Systems (NPDES) permit. The City anticipates more stringent SWM requirements as a result of an updated NPDES permit (anticipated in 2013) and new CWA pollutant load limits or Total Maximum Daily Loads (TMDL) for the Chesapeake Bay (established in December 2010), which will be incorporated into the City's new permit. If these more stringent requirements are incorporated into the new permit, the City may need to increase the number of projects constructed and the rate of project implementation.

Goals:

- To enhance the environment and maintain Rockville's image of being a pleasant and desirable City.
- To comply with NPDES permit requirements.
- To protect public and private property and infrastructure.
- To enhance Rockville streams by improving stream water quality and reducing stream bank erosion.
- To involve the community in the Department of Public Works SWM implementation, beginning in watershed management planning and continuing throughout project design and construction.
- To ensure SWM facilities are designed and maintained to preserve our streams and minimize the adverse effects of development on local and state ecosystems and waterways.
- To find opportunities to provide SWM to areas of the City developed without modern SWM.

Objectives:

- Plan, design and construct SWM facilities and stream restoration projects based on adopted watershed studies with community involvement, which will improve the aquatic habitat, reduce stream bank erosion and improve the quality of water in Rockville streams and the Chesapeake Bay. ★🌍
- Continue to investigate opportunities to integrate Environmental Site Design (ESD) into City watershed studies and explore options for project implementation, understanding that ESD is most applicable to smaller-scale development and retrofit projects. ★
- Plan, design and construct storm drain extensions and rehabilitation projects based on the preventive maintenance program, which will reduce neighborhood flooding and ensure structural integrity of existing underground piping infrastructure. ★

FY 2014 - 2018 SWM Appropriation and Funding Schedules

TABLE S-1. Appropriation Schedule

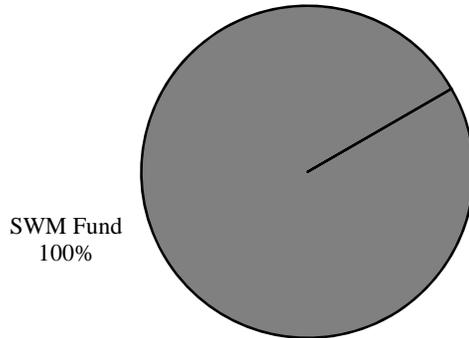
	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
<u>Glenora Tributary — Middle</u>	795,251	-	-	-	-	-	-	795,251
<u>Horizon Hill SWM Ponds</u>	2,468,700	-	-	-	-	-	-	2,468,700
<u>Storm Drain Rehab & Improvements</u>	1,310,000	380,000	380,000	380,000	380,000	391,400	on-going	3,221,400
<u>Stream Restoration</u>	280,000	50,000	400,000	940,000	-	1,210,000	on-going	2,880,000
<u>SWM Facility Improvements</u>	292,000	169,000	929,000	539,000	667,000	446,000	on-going	3,042,000
<u>Watts Branch — Upper Stream</u>	330,000	-	1,810,000	-	-	-	-	2,140,000
Total	5,475,951	599,000	3,519,000	1,859,000	1,047,000	2,047,400	on-going	14,547,351

TABLE S-2. Funding Schedule

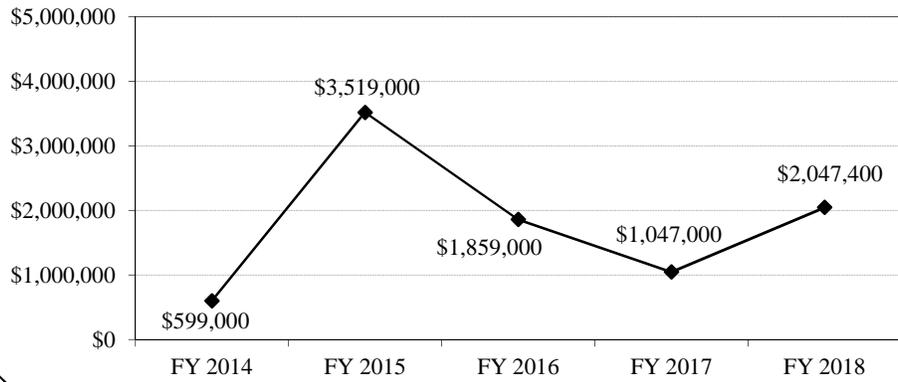
	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Stormwater Management Fund	5,447,951	599,000	380,000	380,000	1,047,000	837,400	on-going	8,691,351
Bond Proceeds (SWM)	-	-	3,139,000	1,479,000	-	1,210,000	on-going	5,828,000
Federal Grant (SWM)	28,000	-	-	-	-	-	-	28,000
Total	5,475,951	599,000	3,519,000	1,859,000	1,047,000	2,047,400	on-going	14,547,351

FY 2014 - 2018 Stormwater Management Funding Schedule

GRAPH S-1. FY 2014 New Funding of \$599,000



GRAPH S-2. FY 2014 - FY 2018 New Funding Schedule



FY 2014 Stormwater Management Appropriation Summary

TABLE S-3. Total FY 2014 Appropriations

	Capital Projects	Water	Sewer	SWM	Refuse	Speed	Current Total
Prior Year Appropriations	-	-	-	5,475,951	-	-	5,475,951
Less Expended as of 05/02/13	-	-	-	(809,468)	-	-	(809,468)
Prior Year Funds Carried Over	-	-	-	4,666,483	-	-	4,666,483
Add New Appropriations	-	-	-	599,000	-	-	599,000
Total	-	-	-	5,265,483	-	-	5,265,483

TABLE S-4. FY 2014 Appropriations by Project

	Capital Projects	Water	Sewer	SWM	Refuse	Speed	Current Total
<u>Glenora Tributary — Middle</u>	-	-	-	609,989	-	-	609,989
<u>Horizon Hill SWM Ponds</u>	-	-	-	2,205,827	-	-	2,205,827
<u>Storm Drain Rehab & Improvements</u>	-	-	-	1,469,413	-	-	1,469,413
<u>Stream Restoration</u>	-	-	-	300,630	-	-	300,630
<u>SWM Facility Improvements</u>	-	-	-	444,199	-	-	444,199
<u>Watts Branch — Upper Stream</u>	-	-	-	235,426	-	-	235,426
Total	-	-	-	5,265,483	-	-	5,265,483

FY 2014 - 2018 Stormwater Management Program Area Summary

TABLE S-5. Stormwater Management Fund Operating Cost Impact

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs
<u>Glenora Tributary — Middle</u>	13,100	-	-	-	-	-
<u>Horizon Hill SWM Ponds</u>	-	23,000	-	-	-	-
<u>Storm Drain Rehab & Improvements</u>	500	500	-	-	-	on-going
<u>Stream Restoration</u>	-	-	-	-	8,700	-
<u>SWM Facility Improvements</u>	18,000	-	5,000	7,000	-	on-going
<u>Watts Branch — Upper Stream</u>	-	-	-	27,400	-	-
Total	31,600	23,500	5,000	34,400	8,700	on-going

Project Name: Glenora Tributary — Middle
Project Number: 330-850-9C59
Program Area: Stormwater Management

Prior Appropriations: 795,251
 Add New Appropriations: -
 Add Future Appropriations: -
Current Project Total: 795,251
 Add Unfunded: -
Current Project Total with Unfunded: 795,251

Status of Prior Year Appropriations as of 05/02/13:

Prior Year Appropriations: 795,251
 Less Expended: 185,262
Prior Year Funds Carried Over: 609,989
 Add New Appropriations: -
Total FY 2014 Appropriations: 609,989
Percent Expended: 23%



Project Snapshot
 Original Project Total w/Unfunded: 690,000
 Current Project Total w/Unfunded: 795,251
 Percent Change: 15%
 Percent Completed: 25%
 Est. Completion Year: FY 2014

Description: This project funds repairs to specific stream valley erosion problems identified in the 2001 Watts Branch Watershed Study. Approximately 1,100 linear feet of stream between Hurley Avenue and the north end of Bouldercrest Court will be improved. The project will address significant erosion in the stream that is threatening private property and public infrastructure, as well as improve water quality. This will be accomplished by stabilizing the stream banks, rehabilitating storm drain outfalls, redirecting the stream channel in one location and constructing wetland improvements. Staff is working closely with the community and the Department of Recreation and Parks in the design and construction phase to reduce the impact on the forest, wetland and recreation areas.

Appropriation Schedule	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Plan/Design/Insp	205,251	-	-	-	-	-	-	205,251
Construction	590,000	-	-	-	-	-	-	590,000
Total	795,251	-	-	-	-	-	-	795,251

Funding Schedule	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Stormwater Mgmt Fund	795,251	-	-	-	-	-	-	795,251
Total	795,251	-	-	-	-	-	-	795,251

Unfunded Schedule	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	Total
Unfunded	-	-	-	-	-	-	-

Operating Cost Impact	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs
Stormwater Mgmt Fund	13,100	-	-	-	-	-

Explanation of impact: The completion of this project added \$13,100 to the FY 2014 operating budget for the management of non-native invasive species plants (\$8,100) and stream monitoring (\$5,000).

Schedule: Prior years work to be completed — Construction of stream restoration.

Status: Construction. This project was created mid-year in FY 2009. Construction completion is planned for spring 2014.

Coordination: Neighborhood Civic Associations; Adjacent Landowners; Maryland Department of Natural Resources; Army Corps of Engineers; Maryland Department of the Environment; Sewer Rehabilitation project (220-850-9G34) in Utilities Program Area.

Staff contact: Department of Public Works. Jim Woods, Civil Engineer II, 240-314-8521.

Project Name: Horizon Hill SWM Ponds
Project Number: 330-850-2C59
Program Area: Stormwater Management

Prior Appropriations: 2,468,700
 Add New Appropriations: -
 Add Future Appropriations: -
Current Project Total: 2,468,700
 Add Unfunded: -
Current Project Total with Unfunded: 2,468,700

Status of Prior Year Appropriations as of 05/02/13:
Prior Year Appropriations: 2,468,700
 Less Expended: 262,873
Prior Year Funds Carried Over: 2,205,827
 Add New Appropriations: -
Total FY 2014 Appropriations: 2,205,827
Percent Expended: 11%



Project Snapshot
 Original Project Total w/Unfunded: 650,000
 Current Project Total w/Unfunded: 2,468,700
 Percent Change: 280%
 Percent Completed: 9%
 Est. Completion Year: FY 2015

Description: This project funds the concept development, design and construction to the Horizon Hill Park stream valley, including modifying three existing stormwater management (SWM) dry ponds. SWM facilities are needed to protect private and public property from flooding, reduce stream erosion and filter contaminants from the runoff. This project will treat 80.5 acres of impervious surface (with a drainage area of 165.3 acres). The storm runoff flows directly to the stream without passing through modern SWM facilities. This project was recommended in the *2001 Watts Branch Watershed Study*. The project also will provide reforestation/afforestation, where appropriate. Staff is working closely with the community and the Department of Recreation and Parks in the design and construction phase to reduce the impact on the forest, wetland and recreation areas.

Appropriation Schedule	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Plan/Design/Insp	230,000	-	-	-	-	-	-	230,000
Construction	2,238,700	-	-	-	-	-	-	2,238,700
Total	2,468,700	-	-	-	-	-	-	2,468,700

Funding Schedule	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Stormwater Mgmt Fund	2,440,700	-	-	-	-	-	-	2,440,700
Bond Proceeds (SWM)	-	-	-	-	-	-	-	-
Federal Grant (SWM)	28,000	-	-	-	-	-	-	28,000
Total	2,468,700	-	-	-	-	-	-	2,468,700

Unfunded Schedule	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	Total
Unfunded	-	-	-	-	-	-	-

Operating Cost Impact	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs
Stormwater Mgmt Fund	-	23,000	-	-	-	-

Explanation of impact: The completion of this project will add \$23,000 to the FY 2015 operating budget to fund pond maintenance (\$20,000) and continued management of non-native invasive species plants (\$3,000).

Schedule: Prior years work to be completed — Construct SWM facilities.

Status: Construction. This project first appeared in the FY 2002 CIP. Construction completion is planned for fall 2015.
Funding Note: In FY 2011, the City received a \$28,000 Chesapeake Bay Trust Grant. Additionally, staff applied for a \$1 million grant through the Chesapeake & Atlantic Coastal Bays Trust Fund Capital Stormwater Program.

Coordination: Neighborhood Civic Associations; Adjacent Landowners; Development Review Committee; Army Corps of Engineers; Maryland Department of the Environment; Natural Resource Conservation Service; Department of Recreation and Parks.

Staff contact: Department of Public Works. Gabe Kosarek, Civil Engineer II, 240-314-8513.

Project Name: Storm Drain Rehab & Improvements
Project Number: 330-850-0A59
Program Area: Stormwater Management

Prior Appropriations: 1,310,000
 Add New Appropriations: 380,000
 Add Future Appropriations: 1,531,400
Current Project Total: 3,221,400
 Add Unfunded: -
Current Project Total with Unfunded: 3,221,400

Status of Prior Year Appropriations as of 05/02/13:

Prior Year Appropriations: 1,310,000
 Less Expended: 220,587
Prior Year Funds Carried Over: 1,089,413
 Add New Appropriations: 380,000
Total FY 2014 Appropriations: 1,469,413
Percent Expended: 7%



Project Snapshot
 Original Project Total w/Unfunded: N/A
 Current Project Total w/Unfunded: 3,221,400
 Percent Change: N/A
 Percent Completed: N/A
 Est. Completion Year: On-going

Description: This project funds the implementation of the Storm Drain Program, the goals of which are to ensure the integrity of existing storm drain infrastructure and eliminate localized flooding that can damage private or public property. The program consists of inspections of the storm drain infrastructure, design and construction of pipe extensions and surface drainage improvements, and structure and pipe rehabilitation or replacement. A pilot inspection program which is in its second year will provide the foundation to develop a Preventive Maintenance Program (PMP). The PMP will establish a sustainable program to systematically inspect and assess the condition of the City storm drain system and identify needed repairs. Inspections are performed by both City staff and contractors. Based on preliminary results from the pilot, it is anticipated that annual inspections will be completed on a 30-year cycle. Prioritization of the projects is based on multiple factors, including the immediate risk to public safety and public or private property, and the consequence of failure of existing infrastructure.

Appropriation Schedule	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Plan/Design/Insp	245,000	80,000	91,900	91,900	91,900	94,700	on-going	695,400
Construction	1,065,000	300,000	288,100	288,100	288,100	296,700	on-going	2,526,000
Total	1,310,000	380,000	380,000	380,000	380,000	391,400	on-going	3,221,400

Funding Schedule	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Stormwater Mgmt Fund	1,310,000	380,000	380,000	380,000	380,000	391,400	on-going	3,221,400
Total	1,310,000	380,000	380,000	380,000	380,000	391,400	on-going	3,221,400

Unfunded Schedule	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	Total
Unfunded	-	-	-	-	-	-	-

Operating Cost Impact	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs
Stormwater Mgmt	500	500	-	-	-	on-going

Explanation of impact: The completion of this project added \$500 in FY 2014, and will add \$500 in FY 2015 to fund maintenance of storm drain pipe extensions.

Schedule: Prior years work to be completed — Design and construct Denham Road/Maple Alley drainage improvement; construct Chancelet Court and Southlawn Lane drainage improvements; implement a preventive maintenance pilot inspection program. FY 2014 — Continue the preventative maintenance pilot inspection program; develop a PMP. FY 2015 through Future Years — Continue to assess and repair storm drains identified from the storm drain PMP.

Status: On-going. This project first appeared in the FY 2010 CIP. *Funding Note:* Annual funding from FY 2015 onward is based on an assumed amount of repairs and replacements. No funding is planned to address unknown significant conveyance issues.

Coordination: Neighborhood Civic Associations; Adjacent Landowners; Army Corps of Engineers; Maryland Department of the Environment; Rockville Intermodal Access - Baltimore Road project (350/420-850-8A11), Southlawn Lane project (420-850-6A11) and Asphalt Repair and Replacement project (420-850-0A11) in the Transportation Program Area; Southlawn Lane Water Main project (210-850-3E45) in the Utilities Program Area.

Staff contact: Department of Public Works. Gabe Kosarek, Civil Engineer II, 240-314-8513.

Project Name: Stream Restoration
Project Number: 330-850-2K59
Program Area: Stormwater Management

Prior Appropriations: 280,000
 Add New Appropriations: 50,000
 Add Future Appropriations: 2,550,000
Current Project Total: 2,880,000
 Add Unfunded: -
Current Project Total with Unfunded: 2,880,000

Status of Prior Year Appropriations as of 05/02/13:

Prior Year Appropriations: 280,000
 Less Expended: 29,370
Prior Year Funds Carried Over: 250,630
 Add New Appropriations: 50,000
Total FY 2014 Appropriations: 300,630

Percent Expended: 1%



Project Snapshot
 Original Project Total w/Unfunded N/A
 Current Project Total w/Unfunded: 2,880,000
 Percent Change: N/A
 Percent Completed: 1 N/A
 Est. Completion Year: On-going

Description: This project funds the design and construction of stream restoration projects. Stream restoration projects are identified and prioritized through the City watershed study and planning process or through identification of areas that pose an immediate risk to public safety and/or public or private property. The Dogwood Park Tributary, identified as a priority in the *2011 Cabin John Watershed Study*, is experiencing severe active erosion that is endangering the sanitary sewer infrastructure and private property in the Waddington Park neighborhood. The Rollins Avenue storm drain outfall has failed due to stream erosion that also is threatening a Chadsberry playground. On Aleutian Avenue, existing gabion baskets have corroded and are failing, risking the stability of Aleutian Avenue and a bike path. The Tower Oaks Tributary identified as a priority in the *2011 Cabin John Watershed Study* has multiple locations of stream erosion that threaten the stability of a storm drain outfall beneath Tower Oaks Blvd. Croydon Creek and Calvin Park Tributary have multiple locations of stream erosion and were identified as a priority in the *2012 Rock Creek Watershed Study*.

Appropriation Schedule	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Plan/Design/Insp	280,000	50,000	-	230,000	-	480,000	on-going	1,040,000
Construction	-	-	400,000	710,000	-	730,000	on-going	1,840,000
Total	280,000	50,000	400,000	940,000	-	1,210,000	on-going	2,880,000

Funding Schedule	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Stormwater Mgmt Fund	280,000	50,000	-	-	-	-	on-going	330,000
Bond Proceeds (SWM)	-	-	400,000	940,000	-	1,210,000	-	2,550,000
Total	280,000	50,000	400,000	940,000	-	1,210,000	on-going	2,880,000

Unfunded Schedule	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	Total
Unfunded	-	-	-	-	-	-	-

Operating Cost Impact	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs
Stormwater Mgmt Fund	-	-	-	-	8,700	-

Explanation of impact: The completion of the Dogwood Park stream restoration will add \$8,700 to the FY 2018 operating budget for on-going stream monitoring (\$5,000) and non-native invasive species plant management (\$3,700).

Schedule: Prior years work to be completed — Design stream restoration at Dogwood Park Tributary. FY 2014 — Design stream improvements at Rollins Avenue storm drain outfall and Aleutian Avenue stream. FY 2015 — Construct the stream improvements at Rollins Avenue and Aleutian Avenue. FY 2016 — Design stream restoration at Tower Oaks Tributary; construct stream restoration at Dogwood Park Tributary. FY 2018 — Design stream restoration at Croydon Creek and Calvin Park Tributary; construct stream restoration at Tower Oaks Tributary. Future Years — To be determined.

Status: On-going. This project first appeared in the FY 2012 CIP. The Tower Oaks Tributary and Croydon Creek Tributary projects have been prioritized due to a higher risk to public and private infrastructure. The Lower Wootton Stream Restoration project is now planned beyond FY 2018.

Coordination: Neighborhood Civic Associations; Adjacent Landowners; [Development Review Committee](#); Army Corps of Engineers; Maryland Department of the Environment; Natural Resource Conservation Service; Washington Sanitary Suburban Commission; Department of Recreation and Parks.

Staff contact: Department of Public Works. Jim Woods, Civil Engineer II, 240-314-8521.

Project Name: SWM Facility Improvements
Project Number: 330-850-2L59
Program Area: Stormwater Management

Prior Appropriations: 292,000
 Add New Appropriations: 169,000
 Add Future Appropriations: 2,581,000
Current Project Total: 3,042,000
 Add Unfunded: -
Current Project Total with Unfunded: 3,042,000

Status of Prior Year Appropriations as of 05/02/13:

Prior Year Appropriations: 292,000
 Less Expended: 16,801
Prior Year Funds Carried Over: 275,199
 Add New Appropriations: 169,000
Total FY 2014 Appropriations: 444,199

Percent Expended: 1%



Project Snapshot
 Original Project Total w/Unfunded: N/A
 Current Project Total w/Unfunded: 3,042,000
 Percent Change: N/A
 Percent Completed: N/A
 Est. Completion Year: On-going

Description: This project funds stormwater management (SWM) facility design, rehabilitation, revegetation, construction and decommissioning of stormwater management (SWM) facilities. SWM facility improvements are needed to provide flood control, improve water quality, improve aesthetic appearance, promote wildlife and restore facilities to normal operations. SWM facility projects are identified and prioritized through the City watershed study and planning process. Projects include retrofitting and/or modifications, dredging and revegetation of the following publicly maintained facilities: Potomac Woods, Aintree, Locks Pond Court, King Farm Watkins, Hungerford/Stoneridge, King Farm Irvington, Fallsgrove #2, RedGate Southwest, Fallsgrove #1A, Fallsgrove #1B, Fallsgrove #4, Northeast Park, Maryvale Park and Mt. Vernon.

Appropriation Schedule	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Plan/Design/Insp	292,000	169,000	84,000	122,000	60,000	150,000	on-going	877,000
Construction	-	-	845,000	417,000	607,000	296,000	on-going	2,165,000
Total	292,000	169,000	929,000	539,000	667,000	446,000	on-going	3,042,000

Funding Schedule	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Stormwater Mgmt Fund	292,000	169,000	-	-	667,000	446,000	on-going	1,574,000
Bond Proceeds (SWM)	-	-	929,000	539,000	-	-	on-going	1,468,000
Total	292,000	169,000	929,000	539,000	667,000	446,000	on-going	3,042,000

Unfunded Schedule	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	Total
Unfunded	-	-	-	-	-	-	-

Operating Cost Impact	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs
Stormwater Mgmt Fund	18,000	-	5,000	7,000	-	on-going

Explanation of impact: The completion of this project added \$18,000 in FY 2014, and will add \$5,000 in FY 2016 and \$7,000 in FY 2017 to the operating budget to fund minor repairs and routine maintenance.

Schedule: Prior years work to be completed — Modify, dredge and revegetate the following ponds: Potomac Woods, Aintree and Locks Pond Court. FY 2014 — Design dredging operations at King Farm Watkins pond. FY 2015 — Design dredging operations at Hungerford/Stoneridge pond; dredge and revegetate King Farm Watkins pond. FY 2016 — Design dredging operations at King Farm Irvington pond, Fallsgrove pond #2 and RedGate Southwest pond; dredge and revegetate Hungerford/Stoneridge pond. FY 2017 — Design dredging operations at Fallsgrove Ponds #1A, #1B and #4; dredge and revegetate King Farm Irvington pond, Fallsgrove pond #2 and RedGate Southwest pond. FY 2018 — Design dredging operations at Northeast Park pond, Maryvale Park Wetland Marsh and Mt. Vernon pond; dredge and revegetate Fallsgrove ponds #1A, #1B and #4. Future Years — To be determined.

Status: On-going. This project, formerly called SWM Facility Retrofit, first appeared in the FY 2012 CIP. The proposed projects have been adjusted to maximize water quality benefits by dredging the most sediment-laden SWM facilities first. The SWM facility retrofit at the Montgomery County Detention Center is now planned beyond FY 2018.

Coordination: Neighborhood Civic Associations; Adjacent Landowners; [Development Review Committee](#); Army Corps of Engineers; Maryland Department of the Environment; Natural Resource Conservation Service; RedGate Golf Course; Department of Recreation and Parks.

Staff contact: Department of Public Works. Jim Woods, Civil Engineer II, 240-314-8521.

Project Name: Watts Branch — Upper Stream
Project Number: 330-850-2E59
Program Area: Stormwater Management

Prior Appropriations: 330,000
 Add New Appropriations: -
 Add Future Appropriations: 1,810,000
Current Project Total: 2,140,000
 Add Unfunded: -
Current Project Total with Unfunded: 2,140,000

Status of Prior Year Appropriations as of 05/02/13:

Prior Year Appropriations: 330,000
 Less Expended: 94,574
Prior Year Funds Carried Over: 235,426
 Add New Appropriations: -
Total FY 2014 Appropriations: 235,426
Percent Expended: 4%



Project Snapshot
 Original Project Total w/Unfunded: 2,140,000
 Current Project Total w/Unfunded: 2,140,000
 Percent Change: 0%
 Percent Completed: 5%
 Est. Completion Year: FY 2016

Description: This project funds repairs to specific stream valley erosion problems identified in the *2001 Watts Branch Watershed Study*. Significant erosion in the stream valley outfalls is threatening private property and public infrastructure. The restoration will stabilize the stream banks, rehabilitate storm drain outfalls and redirect runoff away from private property. The work area is between Nelson Street and Gude Drive along the main stem of Watts Branch. This project will assess the entire stream and three eroded storm drain outfalls (10,400 linear feet total) near Azalea Drive, Aster Boulevard and Princeton Place, as well as assess the effectiveness of upstream stormwater measures. Staff will work closely with the Historic Preservation staff as additional investigations are performed to evaluate Native American artifacts within the project limits. In addition, staff will work closely with the Upper Watts Branch Citizens Task Force in the concept-refinement phase to evaluate project goals and construction access to minimize the impacts on the forest and active and passive recreation areas. Recommendations from this task force may affect the project's scope and budget.

Appropriation Schedule	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Plan/Design/Insp	330,000	-	90,000	-	-	-	-	420,000
Construction	-	-	1,720,000	-	-	-	-	1,720,000
Total	330,000	-	1,810,000	-	-	-	-	2,140,000

Funding Schedule	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	
Stormwater Mgmt Fund	330,000	-	-	-	-	-	-	330,000
Bond Proceeds (SWM)	-	-	1,810,000	-	-	-	-	1,810,000
Total	330,000	-	1,810,000	-	-	-	-	2,140,000

Unfunded Schedule	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs	Total
Unfunded	-	-	-	-	-	-	-

Operating Cost Impact	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	Future Yrs
Stormwater Mgmt Fund	-	-	-	27,400	-	-

Explanation of impact: Completion of this project will add \$27,400 to the FY 2017 operating budget to fund continued management of non-native invasive species plants (\$22,400) and on-going effectiveness monitoring (\$5,000).

Schedule: Prior years work to be completed — Design. FY 2015 — Construction.

Status: Design. This project first appeared in the FY 2002 CIP.

Coordination: Upper Watts Branch Citizens Task Force; Neighborhood Civic Associations; Adjacent Landowners; Army Corps of Engineers; Maryland Department of the Environment; Maryland Department of Natural Resources; Washington Suburban Sanitary Commission; Departments of Recreation and Parks and Community Planning and Development Services; Sewer Rehabilitation project (220-850-9G34) in Utilities Program Area.

Staff contact: Department of Public Works. John W. Hollida, Civil Engineer III, 240-314-8526.

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