

T&E COMMITTEE #3
February 25, 2010

Worksession

MEMORANDUM

February 23, 2010

TO: Transportation, Infrastructure, Energy & Environment Committee

FROM: *KL* Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Worksession: FY11-16 Capital Improvements Program (CIP) Conservation of Natural Resources:**

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

FY11-16 STORMWATER MANAGEMENT CIP

NOTE: Council Staff is supportive of the FY11-16 Stormwater Management CIP as Recommended by the County Executive. However Council Staff has included discussion of several issues including:

- **Large expenditure increases recommended to address the new NPDES-MS4 permit requirements.**
- **Changes in funding (away from G.O. bonds, current revenue, and waiver fees to Water Quality Protection Fund (WQPF) bonds and WQPF current revenue)**
- **Continued cost increases in SM structural maintenance needs as more facilities come under County maintenance.**
- **Ramped up work on Low Impact Development (LID) and Environmentally Sensitive Design (ESD) new and retrofit projects at County Government facilities, schools, and private property.**

Summary

Storm water 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 DOT to address storm drain outfall repair issues as well as with the Washington Suburban Sanitary Commission (WSSC) when WSSC infrastructure work is needed as well. DEP also inspects and provides structural maintenance of most MCPS and M-NCPPC storm water facilities.

The following officials and staff are expected to attend the worksession:

- Robert Hoyt, Director, Department of Environmental Protection (DEP)
- Steven Shofar, Chief of Watershed Management, DEP
- Gladys Balderrama, Manager, Administrative Services, DEP
- Daniel Harper, Manager, Watershed Restoration, DEP
- Amy Stevens, Manager, SWM Facilities Maintenance, DEP
- Jacqueline Carter, Office of Management and Budget (OMB) CIP Coordinator
- John Greiner, Senior Management and Budget Specialist, OMB

An excerpt from the Executive's Recommended FY11-16 CIP is attached on ©1-11. **The Executive is recommending a massive increase in the 6 year program (from \$30.86 million to over \$106 million). This increase is reflective of the County's efforts to meet the aggressive new NPDES permit requirements (discussed in more detail later in this memorandum).** The following table shows the recommendation by fiscal year compared to the Approved and Amended FY09-14 CIP.¹

	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	30,906	5,906	4,771	4,771	5,096	5,156	5,206		
FY09-14 Amended	30,364	5,789	4,346	4,771	5,096	5,156	5,206		
change from approved	(542)	(117)	(425)	-	-	-	-		
FY11-16 CE Recommended	106,275			8,880	11,445	20,695	21,305	23,955	19,995
change from amended	75,911			4,109	6,349	15,539	16,099		
percent change from amended	250.0%			86.1%	124.6%	301.4%	309.2%		

The bulk of the increased dollars are in two projects: SM Retrofit – Government Facilities and SM Retrofit – Countywide. The Facility Planning: SM project and the SM Facility Major Structural Repair project are also recommended to increase substantially. Overall there are six ongoing projects and one project recommended for final closeout: Montclair Manor Flood Mitigation. The ongoing projects are discussed in more detail later.

The sources of funds for the Amended FY09-14 CIP and the FY11-16 Recommended CIP) are shown in the following chart.

	FY09-14 Amended	FY11-16 CE	\$\$\$ Change	% Change
Totals	30,364	106,275	75,911	250.0%
GO Bonds	5,622	-	(5,622)	-100.0%
Current Revenue	2,438	-	(2,438)	-100.0%
State Aid	4,980	4,980	-	0.0%
SWM Waiver Fees	3,728	-	(3,728)	-100.0%
Water Quality Protection Charge - Bonds	-	94,270	94,270	n/a
Water Quality Protection Charge	13,596	7,025	(6,571)	-48.3%

¹ During last year's FY10 Capital Budget and FY09-14 CIP amendment review, the Executive recommended and the Council approved a \$42,000 reduction in the Facility Planning: SM project (in current revenue) for FY10 for fiscal reasons. An additional \$500,000 was recommended by the Executive as part of his "Round 2" cuts. These cuts were approved by the Council in early February.

The biggest change in six-year funding involves the new use of 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.

However, as with General Obligation Bonds, the County is assuming to use WQPF funds to fund items with a long-expected life (approximately 20 years). In the case of Storm Water Management CIP, all of the construction work is assumed to be eligible; leaving WQPF current revenue funding for facility planning work only.

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

Background

The T&E Committee has been briefed several times over the past couple of years (most recently last November) on the current draft NPDES permit. Some general information presented at that meeting is reproduced below.

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 most recently 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 most recent permit period ended July 5, 2006 although its provisions remain in effect until the new permit is issued. The new permit is expected to be issued very soon. Legal challenges delayed implementation of the draft permit. However, DEP has been ramping up its planning efforts during FY10 in expectation that the permit would likely be issued during FY10 and with similar requirements to those in the draft permit.

New Requirements

The draft permit has a number of new and/or expanded provisions intended to make Montgomery County's storm water management program a model for other permittees in the state and the country. The major changes from the prior permit include:

- An increase of the watershed restoration required of the uncontrolled impervious area from 10% to 30% within the five year permit.

- Compliance with changes in the Maryland Stormwater Design Manual which includes more emphasis on environmentally sensitive design (ESD) and low impact development (LID) techniques.
- A trash and litter reduction strategy to meet the Potomac Trash Free Treaty goal of zero trash in the Potomac by 2013. *The 4th annual trash summit was held on October 28, 2009.*
- Implementation plans for projects, programs, and policies to reduce pollutants to meet total maximum daily loads (TMDLs).
- Public comment and input for development of the trash and litter strategy and for all TMDL implementation plans.
- Inclusion of Montgomery County Public Schools as a “co-permittee.” *(DEP is working with MCPS on a memorandum of understanding to clarify requirements and responsibilities.)*

Cost Implications

The cost implications for implementation of these changes are substantial. In prior discussions, DEP provided a rough estimate of \$108 million (above existing CIP and Operating Budget efforts) over the five-year period. The Recommended CIP includes about a \$75 million increase over the next six years. Operating Budget recommendations will be forthcoming by March 15.

Funding will be sought from Federal and State sources as well as local partners. However, much of the County’s additional expenditures have been assumed to be funded out of the County’s Water Quality Protection Fund (WQPF).²

For FY11, WQPF debt service to cover recommended expenditures is estimated to be about \$413,000 and the WQPF current revenue requirement will be \$925,000, for a total of \$1,338,000. This is equivalent to about \$5.75 on the WQPF charge rate, using FY10 figures. (For the FY10 approved budget, \$1 on the WQPC raises about \$233,500 in current revenue.) However, the largest portion of the WQPC goes to fund DEP operating expenditures associated with maintaining and improving water quality and satisfying the new NPDES permit. Thus, any changes in the charge for FY11 will also depend greatly upon the recommended operating budget for the WQPF, which will be included in the County Executive’s recommended operating budget, to be released on March 15.

² The WQPF is funded via an annual charge on property tax bills to all residential properties and “associated non-residential properties” (properties that drain into facilities that also serve residential properties). The charge is based on the rate per equivalent residential unit (ERU) of imperviousness. The ERU was calculated to be an average of 2,406 square feet for detached residential properties. For FY10, the Council approved an ERU rate of \$45.50. Detached homes pay 1 ERU. Townhouses pay 1/3 of an ERU. Multi-family and associated non-residential properties are billed as multiples of the ERU based on actual imperviousness.

Implementation

Council Staff asked DEP how it intends to implement such a major ramp-up in work over the next couple of years. DEP staff noted that DEP already has engineering and construction contracts in place that can be utilized for the FY11 -12 increases. Additional contracts will be needed in the outyears 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 3 staff positions (2 engineers & 1 planning specialist) in FY10 to initiate project designs. Four additional engineering and contract management staff are planned for FY11.

Project Review

Facility Planning: SM (PDF on ©2)

	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	2,980	855	425	425	425	425	425		
FY09-14 Amended	2,438	738	-	425	425	425	425		
change from approved	(542)	(117)	(425)	-	-	-	-		
FY11-16 CE Recommended	7,025			925	1,200	1,350	1,350	1,100	1,100
change from approved	4,587			500	775	925	925		
percent change from approved	188.1%			117.6%	182.4%	217.6%	217.6%		

This project funds evaluations of watershed needs and identifies alternatives to address these needs including possible CIP projects. This project provides approximately 30% design completion to projects generated from this program.

The Executive is recommending a total of \$7.03 million over the six-year period (an increase of 188.1% over the amended six-year level. The project has historically been funded with General Fund current revenue but is now recommended to be funded in FY11 and beyond with Water Quality Protection Fund current revenue dollars.

The \$4.6 million increase will provide for a feasibility study of the Anacostia River tributaries in partnership with the US Army Corps of Engineers, watershed assessments to meet the new NPDES permit requirements, and feasibility studies to identify Low Impact Development (LID) and other storm water management retrofit opportunities at County schools.

Council Staff recommends approval of the project as recommended by the County Executive.

Misc. Stream Valley Improvements (PDF on ©3-4)

	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	8,370	1,395	1,395	1,395	1,395	1,395	1,395		
FY11-16 CE Recommended	8,370			1,395	1,395	1,395	1,395	1,395	1,395
change from approved	-			-	-	-	-		
percent change from approved	0.0%			0.0%	0.0%	0.0%	0.0%		

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 \$8.37 million over the six-year period (approximately \$1.4 million per year); the same as previously approved.

Funding changes are recommended however:

- The approved project included some stormwater management waiver fees (\$1.4 million over six years). The recommended project assumes no revenue from these fees since the number of waivers and the fees received have dwindled over time as policies have evolved to require more on-site storm water management for new developments.
- Similarly, G.O. bonds used to account for approximately 40% of costs in this project. As with other projects in this program, the Executive is recommending shifting funding to Water Quality Protection Fund revenue (both WQPF bonds and WQPF current revenue).

A list of work to be done is noted on the PDF.

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.

Council Staff recommends approval of the project as recommended by the County Executive.

Stormwater Management Facility Major Structural Repair (PDF on ©5)

	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	6,450	1,000	1,050	1,050	1,100	1,100	1,150		
FY11-16 CE Recommended	9,250			1,300	1,350	1,600	1,650	1,650	1,700
change from approved	2,800			250	250	500	500		
percent change from approved	43.4%			23.8%	22.7%	45.5%	43.5%		

This project provides for the design and construction of major structural repairs to County maintained stormwater management facilities. Four years ago this project was created to address work (previously funded out of the Operating Budget) that cannot be accomplished in a single fiscal year because of the time required to obtain Federal and State permits. Smaller less complex projects are still funded out of the Operating Budget.

The Executive is recommending a six-year total of \$9.25 million (an increase of \$2.8 million). This increase is needed in order to: provide repairs to County storm water management facilities, which because of ICC construction can be cost-effectively coordinated with the Maryland State Highway Administration if done now; to address a growing inventory of

facilities expected to be maintained by the County, as well as to more accurately budget for the kind of work that is being identified through inspections and complaints.

The approved project is funded completely from WQPF current revenue. The recommended project assumes WQPF bonds as the sole funding source for FY11 and beyond.

Projects to be done in FY11 and FY12 are noted on the PDF.

Council Staff recommends approval of the project as recommended by the County Executive.

SM Retrofit: Government Facilities (©6)

	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	3,546	591	591	591	591	591	591		
FY11-16 CE Recommended	27,975			3,475	4,900	4,900	4,900	4,900	4,900
change from approved	24,429			2,884	4,309	4,309	4,309		
percent change from approved	688.9%			488.0%	729.1%	729.1%	729.1%		

This project provides for the design and construction of Low Impact Design (LID) stormwater management devices at County facilities. The Executive is recommending a six-year total of \$27.98 million funded completely with WQPC bonds. The approved project assumed WQPC current revenue.

In order to meet the requirements of the new NPDES MS4 permit, a number of new subprojects have been added to this project. These projects are listed on the PDF. Overall, DEP has an inventory of potential projects for 55 County government facilities. The outyear dollars are estimates based on a cost \$137,000 per impervious acre for roadway projects and \$200,000 per impervious acre for government buildings and schools. DEP is currently engaged in substantial planning work to meet the reporting requirements of the new permit (plans required to MDE within one year of permit issuance). If this more detailed planning identifies substantial cost differences from the above assumptions, then an amendment to the project can be done.

Council Staff recommends approval of the project as recommended by the County Executive.

SM Retrofit: Countywide (©7-8)

	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	6,810	1,135	1,135	1,135	1,135	1,135	1,135		
FY11-16 CE Recommended	52,010			1,785	2,425	11,000	11,500	14,400	10,900
change from approved	45,200			650	1,290	9,865	10,365		
percent change from approved	663.7%			57.3%	113.7%	869.2%	913.2%		

This project provides for the design and construction of stormwater management retrofit projects countywide. The list of projects to be done is included on the PDF.

The Executive is recommending a total of \$62.01 million over the six-year period (a huge increase compared to the approved six-year cost of \$6.8 million). As with other projects, this

project is recommended to utilize WQPC bonds for virtually all project costs (with the exception of some State aid assumed across the six-year period).

As with the SM Retrofit: Government Facilities project, in order to meet the requirements of the new NPDES MS4 permit, a number of new subprojects have been added to this project. This will result in the retrofit of approximately 75 to 80% of the uncontrolled impervious surfaces required by the NPDES permit.

Council Staff recommends approval of the project as recommended by the County Executive.

Watershed Restoration – Interagency (C9-10)

	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	2,750	930	175	175	450	510	510		
FY11-16 CE Recommended	1,645				175	450	510	510	
change from approved	(1,105)			(175)	(275)	(60)	-		
percent change from approved	-40.2%			-100.0%	-61.1%	-11.8%	0.0%		

This project is an ongoing series of subprojects that are being constructed in cooperation with the US Army Corps of Engineers.

For FY11-16 the Executive is recommending \$1.65 million in expenditures. Expenditures by the Corps of Engineers do not show up in the PDF. The Corps pays 65% to 75% of the total costs. No FY11 expenditures are assumed because of project delays experienced by the Corps of Engineers. A feasibility study is underway by the Corps of Engineers (County share of costs included in the Facility Planning: SM project) which will identify specific projects for FY12 and beyond.

Council Staff recommends approval of the project as recommended by the County Executive.

FY11-16 STORM DRAINS CIP

NOTE: Council Staff is supportive of the FY11-16 Stormwater Management CIP projects recommended by the County Executive subject to final CIP reconciliation in May. Council Staff suggests the Committee add one additional project which is ready for inclusion in the CIP but which the Executive did not recommend for fiscal reasons.

Summary

DOT manages the County storm drain 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 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 drain program. An informational brochure on the program is attached on ©22-23.

Bruce Johnston and Michael Mitchell of DOT are expected to attend the worksession as are Adam Damin and Jacqueline Carter of the Office of Management and Budget.

An excerpt from the Executive's Recommended FY11-16 CIP is attached on ©12-21. The Executive is recommending \$14.1 million for FY11-16, an increase of more than 80 percent from the Amended FY09-14 CIP. The following table shows the recommendation by fiscal year compared to the original Approved FY09-14 CIP and the Amended CIP.

Stormdrains CIP (in 000s)									
	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	7,906	1,526	1,276	1,276	1,276	1,276	1,276		
FY09-14 Amended	7,785	1,526	1,155	1,276	1,276	1,276	1,276		
change from approved	(121)	-	(121)	-	-	-	-		
FY11-16 CE Recommended	14,171			2,746	3,831	3,166	1,476	1,476	1,476
change from amended	6,386			1,470	2,555	1,890	200		
percent change from amended	82.0%			115.2%	200.2%	148.1%	15.7%		

The only amendments since the FY09-14 CIP was approved involved reductions totaling \$121,000 of current revenue funding in the Facility Planning: Storm Drains project.³

For the FY11-16 CIP, the County Executive is recommending a substantial increase of \$6.4 million (82%) over the amended CIP. The six-year increase in expenditures is primarily the result of two new projects recommended for inclusion in the CIP (Henderson Avenue Storm Drain & Roadway Improvement and Maple Avenue Storm Drain & Roadway Improvement) and new phases of work in the existing Town of Chevy Chase Storm Drain Improvements project.

³ As part of the FY09-14 CIP amendment review last year, the Executive recommended and the Council approved a \$25,000 reduction in funding in FY10 for fiscal reasons. More recently, the Executive recommended a reduction of \$96,000 in FY10 as part of his FY10 "Round 2 Savings Plan" that was later approved by the Council.

There is also an increase in the level of effort in the Storm Drain General project (from \$600,000 to \$800,000 per year).

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

	Six-Year Total	% of Total
FY11-16 Recommended Total	14,171	
GO Bonds	12,563	88.7%
Current Revenue	1,475	10.4%
State Aid	-	0.0%
Intergovernmental	133	0.9%

Most of the program continues to be funded with G.O. bonds with Facility Planning: Stormdrains still funded with current revenue. Some storm drain projects can involve State or other outside participation. Within the recommended CIP, the two new projects mentioned above include some revenue from WSSC.

Project Review

Facility Planning: Stormdrains (PDF on ©13)

	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	1,500	250	250	250	250	250	250		
FY09-14 Amended	1,379	250	129	250	250	250	250		
change from approved	(121)	-	(121)	-	-	-	-		
FY11-16 CE Recommended	1,475			225	250	250	250	250	250
change from approved	96			(25)	-	-	-		
percent change from approved	7.0%			-10.0%	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% 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 \$225,000 in FY11 and then \$250,000 per year for FY12 through FY16 all with current revenue funding. The FY11 amount is \$25,000 less than assumed in the FY09-14 CIP. The other years are the same as approved.

Council Staff asked DOT staff for additional detail regarding this project and this information is summarized below.

- Candidate projects for facility planning work in FY11 and FY12 are Aberdeen Place and Chicago Avenue. The survey and design costs for Aberdeen Road/Place and for Chicago Avenue will be approximately \$65,000 each. The potential construction costs for Aberdeen Road/Place and for Chicago Avenue are approximately \$160k, and \$140k, respectively. These projects will be implemented from the Storm Drain General project

once design is completed.

- A large portion of funds from this project cover the costs of responding to Drainage Assistance Requests (DARs), background research, data collection, survey, and concept alternative evaluation. And requests continue to be received on a regular basis.
- Since submission of budget requests (PDFs), DOT has received requests for a number of other locations:
 - Hilltop Community (Silver Spring), where drainage improvements for a number of streets (Park Valley Rd, Sussex Rd, Sunnyside Rd, Parkside Rd, and Park Crest Dr) need to be further studied and designed. The project also needs to be coordinated with the Division of Highway Services and with DEP.
 - Wehawken Road/Waukesha Road (Glen Echo Heights), where current drainage patterns impact a number of properties, and where Division of Highway Services plans to resurface the roads in FY11.
 - Manchester at Bradford (Top of Park Community) in Silver Spring. Drainage from public roads impacts a condominium community.
 - Laverock Court/Ayr Lane (Bethesda). Runoff from Ayr Lane cuts a swat through two private properties on Laverock Court on its way to the existing drainage system.
 - Since December, DOT has received a number of DARs for sump pumps that perpetually discharge onto public roads and sidewalks. The urgency of need is heightened in winter months when such runoff freezes on the road.

At the moment, all these projects are targeted for implementation with funds from the Storm Drain General project in FY11-12, based on the urgency of need and then the order received. However, because of lack of facility planning dollars for the remainder of FY10 further investigation and research to scope out this work will need to wait until FY11.

Glen Echo Heights - 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 within already approved Water Quality Protection Fund resources. These items appear to be less controversial in the community and offer the County an opportunity for DEP staff to pilot some LID work.

Since the study conducted for that community in 2007, DOT's Division of Highway Services has addressed a number of maintenance requests and has also scheduled the resurfacing/pavement reconstruction of most of the streets in that community. DEP has worked on implementing Rain Gardens at a few locations.

As mentioned earlier, DOT has also received individual requests for drainage improvements for various locations in that community. Nearly all of these requests/needs were noted in the 2007 study. Two such requests were addressed in 2008 (Iroquois Rd and Tuscarawas Rd). A temporary remedy was implemented for a minor problem on Wapakoneta Road in 2009. Efforts were also initiated for the needed improvements on Wehawken Road/Waukesha Road, but the project is on hold pending cooperation of a property owner and pending FY11 funds become available.

Wapakoneta Road Improvements - In addition to the Wehawken Road/Waukesha Road project mentioned above (that is expected to have more planning occur in FY11/12, another area of Glen Echo Heights along Wapakoneta Road (between Namakagan Road and Walhonding Road) has completed planning work and is ready to move into design. According to DOT staff, one dwelling gets very severely impacted with every storm event. Four other properties also are affected, especially during larger storm events. The entire block of 22 residences submitted a near-unanimous petition requesting drainage and road improvements. Some photographs showing existing conditions are attached on ©34-37.

Work identified to be done would be based on a ten-year storm interval and includes: reconstruction and resurfacing of the roadway curb and gutters, inlets and drainpipes, and Bio retention facilities. The estimated costs and funding, if the project were move into design immediately in FY11 are shown below:

Wapakoneta Road Improvements				
	Six-Year	FY11	FY12	FY13
Planning/Design/Supervision	350	215	30	105
Land	350		350	
Site Improvements and Utilities	10			10
Construction	715			715
Estimated Cost	1,425	215	380	830
G.O. Bonds	1,395	215	380	800
Intergovernmental	30			30

Due to fiscal constraints, the County Executive did not include this project in the Recommended FY11-16 Budget.

Given that this project is ready for inclusion in the CIP and is strongly supported by the affected community (unlike DOT's more comprehensive study of Glen Echo Height's needs that was done several years ago and which was highly controversial in the broader Glen Echo Heights community) but that the parameters of the Council's CIP reconciliation needs are still not clear, Council Staff recommends that the T&E Committee recommend inclusion of this project in the CIP with the understanding that, if required, this project schedule may be delayed or the dollars not included in the CIP.

Note: Since land acquisition is involved, if the project is funded by the Council, it should be categorized as a road project to avail the County of the "quick take" process which would expedite the project implementation and be less costly.

Outfall Repairs (PDF on ©18)

Outfall Repairs									
	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	2,556	426	426	426	426	426	426		
FY09-14 CE Recommended	2,556			426	426	426	426	426	426
change from approved	-			-	-	-	-		
percent change from approved	0.0%			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.

For FY11-16, the County Executive recommends a total of \$2.6 million (\$426,000 in each of the next six years). This level of funding is the same as approved.

A list of work to be done is noted on the PDF.

Storm Drain General (PDF on ©19)

Storm Drain General									
	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	3,600	600	600	600	600	600	600		
FY09-14 CE Recommended	4,800			800	800	800	800	800	800
change from approved	1,200			200	200	200	200		
percent change from approved	33.3%			33.3%	33.3%	33.3%	33.3%		

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 FY11-16, the County Executive recommends a total of \$4.8 million (\$800,000 per year). This annual level of effort is \$200,000 greater than in the Approved FY09-14 CIP. The PDF notes this increase is to address “increasing construction contract costs.”

In addition to candidate projects mentioned earlier within the Facility Planning Storm Drains project expected to move forward in FY11 and/or FY12, DOT expects to address the following specific drainage issues during FY11: Tucker Lane, Muncaster Road, and Midvale Road. Details for each project were provided by DOT staff and are reproduced below:

Tucker Lane involves a relatively minor drainage problem: small stagnation on the road shoulder. It requires the cooperation of a property owner. Scope involves installation of underground drainage system and pipe culvert outfalling on a private property. Estimated cost: \$35,000.

Muncaster Road: a number of properties along the west side of the road are affected by runoff from properties along the east side of the road and to a lesser extent by runoff from the roadway, itself. Implement a diversion drainage channel. Estimated cost: \$80,000.

Midvale Road: Runoff from the street impacts a number of properties that are situated below the roadway elevation. Extend existing storm drain system to minimize roadway runoff reaching impacted properties. Estimated cost: \$65,000.

Over the past two 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 continues this practice by assuming an FY11 appropriation of \$1.6 million (to cover \$800,000 in expenditures for each of the first two years of the CIP).

Town of Chevy Chase Storm Drain Improvements (PDF on ©20-21)

Town of Chevy Chase Storm Drain Improvements									
	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	250	250							
FY11-16 CE Recommended	1,450			690		760			

This project was first approved by the Council as an amendment to the FY07-12 CIP. It provided for the evaluation of conditions within 14 drainage areas within the Town of Chevy Chase. Design of improvements to four of the drainage areas was accomplished within the Facility Planning: Storm Drains project during FY07. Construction of improvements to these four drainage areas as well as further evaluation of the other 10 drainage areas was then included within the project and completed during FY09. It was noted at the time that additional resources would be considered for this project in the future as additional work is identified in the other drainage areas.

Phase 1 work (addressing the most severe issues) was completed in August 2008. Some before and after photographs are attached on ©24 and 25. Phase 2 will start and conclude in FY11. Because of fiscal constraints, Phase 3 work is recommended to follow in FY13 instead of FY12. The Executive is recommending a total of \$1.45 million in FY11-13 for these final two phases.

Council Staff recommends approval of this project as recommended. However, the Council should consider moving the Phase 3 work from FY13 to FY12 if funds are available at reconciliation.

Henderson Avenue Storm Drain & Roadway Improvement (PDF on ©14-15)

Henderson Avenue Storm Drain & Roadway Improvement									
	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	-								
FY11-16 CE Recommended	2,270			325	1,945				

This project was first discussed by the Committee two years ago during the FY09-14 CIP review. This project had gone through facility planning, but was not included in the Executive's Recommended CIP for fiscal reasons and the Council concurred.

This project includes comprehensive roadway and storm drain improvements along Henderson Avenue from Georgia Avenue to the entrance to Wheaton Regional Park (approximately 2,200 linear feet). The project includes reconstruction/resurfacing of the roadway surface, curb and gutters, storm drain inlets and pipes, bio-retention facilities, and other work. The relocation of approximately 1,800 feet of sanitary sewer and six manholes would also be required and some property acquisition is anticipated as well. The project would benefit 40 homes which currently experience severe flooding of yards, driveways, and the road during rain storms. Some photographs showing existing conditions are attached on ©26-28.

A preliminary cost estimate of \$3.2 million was developed with most of that cost (\$2.8 million) funded with GO bonds and the rest (\$400,000) from WSSC. The new cost estimate is \$2.27 million which reflects lower costs assumed for WSSC as well as for the rest of the project.

Because of the project's estimated cost (above \$500,000) the project would move forward as a stand-alone project (rather than within the Storm Drain General project).

Given the level of problem this project would address and the fact that the project was ready to move forward two years ago but deferred for fiscal reasons, Council Staff supports approval of this new project as recommended by the County Executive.

Maple Avenue Storm Drain & Roadway Improvement (PDF on ©16-17)

Maple Avenue Storm Drain & Roadway Improvement									
	Six-Year	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
FY09-14 Approved	-								
FY11-16 CE Recommended	1,620			280	410	930			

This project provides for approximately 1100 feet of storm drain improvements along Maple Avenue from Tilbury Street to Maryland Avenue (east of Wisconsin Avenue in the Bethesda Central Business District). The project would benefit 24 homes in the community by alleviating stagnating water on the sidewalk and inundation of five dwellings on Maple Avenue and at least one dwelling on Rosedale Avenue as a result of sidewalks and front yards being lower than the roadway. Some photographs showing existing conditions are attached on ©28-34.

Council Staff recommends approval of the project, but would note that if the Council must later defer expenditures to balance the CIP at reconciliation in May, that this new project would be a lower priority than either the ongoing Town of Chevy Chase work or the new Henderson Avenue project which was ready for inclusion two years ago but deferred for fiscal reasons.

Attachments

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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 proactive in nature, focusing 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 the early 1970s, the County has applied increasingly stringent stormwater management controls to new development. State and County laws make developers responsible for providing controls to manage stormwater runoff from new developments. Developers can meet these requirements by building an on-site control facility serving only the developer's property, or by constructing a stormwater facility serving that property and other County drainage while receiving reimbursement from the County for that those costs not directly related to the developer's property. Developers may request a waiver of

on-site control requirements from the County when on-site stormwater management is determined by the Department of Permitting Services to be infeasible or impractical. In these cases, developers pay stormwater waiver fees which the County uses to upgrade or add new stormwater controls and for stream restoration projects in watersheds draining developed areas.

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. 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.

HIGHLIGHTS

- Undertake the planning and implementation of stormwater controls, public outreach, stream monitoring, and other actions needed to comply with the County's new 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 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 Dan Harper of the Department of Environmental Protection at 240.777.7709 or John Greiner of the Office of Management and Budget at 240.777.2765 for more information regarding this department's capital budget.

CAPITAL PROGRAM REVIEW

Six ongoing projects are recommended for FY11-16 and described in detail in the Project Description Forms. The Recommended FY11-16 Stormwater Management Program totals \$106.275 million, an increase of \$75.411 million or 244 percent from the amended approved FY09-14 program of \$30.864 million. This increase, which will be funded entirely by the WQPC and long-term debt financing to be secured by the WQPC, covers the planning, design, and construction of additional stormwater facilities needed to comply with the requirements of the County's new MS-4 permit.

Facility Planning: SM -- No. 809319

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Stormwater Management
Environmental Protection
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

December 30, 2009
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	13,420	5,505	890	7,025	925	1,200	1,350	1,350	1,100	1,100	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	42	42	0	0	0	0	0	0	0	0	0
Total	13,462	5,547	890	7,025	925	1,200	1,350	1,350	1,100	1,100	0

FUNDING SCHEDULE (\$000)

Current Revenue: General	5,000	4,610	390	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	7,525	0	500	7,025	925	1,200	1,350	1,350	1,100	1,100	0
Total	13,462	5,547	890	7,025	925	1,200	1,350	1,350	1,100	1,100	0

DESCRIPTION

This project provides funds for facility planning and feasibility studies to evaluate watershed conservation needs and identify remedial project alternatives for stormwater management, stormwater retrofit, low impact design (LID), and stream restoration projects. In addition, facility planning serves as a transition stage for a project. Selected projects vary in type including: preparation of watershed conservation plans assessing stream erosion and habitat; inventories of alternative stream restoration and retrofit projects; complementary non-structural measures to help mitigate degraded stream conditions in rural and developed watersheds; and hydrologic, hydraulic, and water quality monitoring and analyses as required to quantify impacts of watershed development and projects to be implemented. Facility planning is a decision-making process that investigates critical project elements such as: usage forecasts; economic, social, environmental, and historic impact analyses; public participation; potential non-County funding sources; and detailed project cost estimates. Facility planning represents planning and preliminary design and develops a program of requirements in advance of full programming of a project.

COST CHANGE

Cost increase is to meet the requirements of the County's new National Pollutant Discharge Elimination System (NPDES) stormwater permit for municipal stormwater discharges (MS-4) which requires watershed assessments.

JUSTIFICATION

Facility planning supports requirements for watershed assessments required in the County's National Pollutant Discharge Elimination System (NPDES) stormwater permit for municipal stormwater discharges. There is a continuing need for the development of accurate cost estimates and an exploration of alternatives for proposed projects. This project establishes the facilities planning data and alternatives analyses 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.

OTHER

Ongoing projects are in the Muddy Branch, Great Seneca Creek, and Anacostia watersheds. Projects planned for FY11-12 include: completion of a study to identify stormwater retrofit opportunities at County school properties; initiation of watershed studies in the Patuxent River, Upper and Lower Potomac River small tributaries, and Little Monocacy River watersheds; and Phase II of the Anacostia Watershed Restoration Study. This project also provides for operation of an automated fixed monitoring station required by the NPDES permit.

FISCAL NOTE

Programmed General Fund current revenue replaced with Water Quality Protection Charge revenue.

OTHER DISCLOSURES

- 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.
- * Expenditures will continue indefinitely.

APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY93	(\$000)
First Cost Estimate	FY11	13,462
Current Scope		
Last FY's Cost Estimate		8,137

Appropriation Request	FY11	925
Appropriation Request Est.	FY12	1,200
Supplemental Appropriation Request		0
Transfer		0

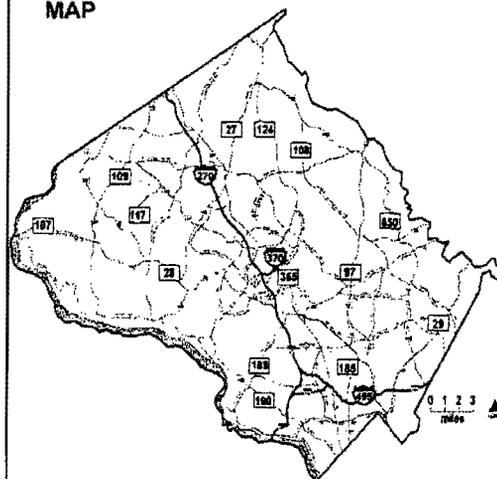
Cumulative Appropriation	6,437
Expenditures / Encumbrances	6,014
Unencumbered Balance	423

Partial Closeout Thru	FY08	0
New Partial Closeout	FY09	0
Total Partial Closeout		0

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

MAP



Misc Stream Valley Improvements -- No. 807359

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Stormwater Management
Environmental Protection
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 08, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	4,150	0	970	3,180	530	530	530	530	530	530	0
Land	64	0	34	30	5	5	5	5	5	5	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	7,132	0	1,972	5,160	860	860	860	860	860	860	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	11,346	0	2,976	8,370	1,395	1,395	1,395	1,395	1,395	1,395	*

FUNDING SCHEDULE (\$000)

Federal Aid	0	0	0	0	0	0	0	0	0	0	0
G.O. Bonds	801	0	801	0	0	0	0	0	0	0	0
State Aid	2,788	0	1,258	1,530	255	255	255	255	255	255	0
Stormwater Management Waiver Fees	233	0	233	0	0	0	0	0	0	0	0
Water Quality Protection Bonds	6,840	0	0	6,840	1,140	1,140	1,140	1,140	1,140	1,140	0
Water Quality Protection Charge	684	0	684	0	0	0	0	0	0	0	0
Total	11,346	0	2,976	8,370	1,395	1,395	1,395	1,395	1,395	1,395	0

OPERATING BUDGET IMPACT (\$000)

Maintenance				294	14	28	42	56	70	84
Net Impact				294	14	28	42	56	70	84

DESCRIPTION

This project designs and constructs habitat restoration or stabilization measures for stream reaches having severe channel erosion, sedimentation, and habitat degradation. Absent modern stormwater controls, the stream environment is impacted by excessive stream flow volumes and velocities which severely erode stream banks and cause excessive sedimentation, loss of trees, loss of habitat for fish and aquatic life, and/or local flooding damage. Damaged storm drain outfalls in project areas are identified and assessed to determine repair needs. Where possible, outfalls are repaired as part of stream restoration projects and funded from the Outfall Repairs project (PDF No. 509948). When feasible, outfall discharges are redirected to create small constructed wetlands which provide new habitat and mitigate discharge impacts. Stream erosion impacts sanitary sewers crossing the stream, exposing sewer lines and manholes. Exposed and damaged sewer lines can be fish barriers and can leak raw sewage into streams or allow infiltration of stream baseflow into the sewer system, potentially causing substantial increases in wastewater treatment costs. The Department of Environmental Protection identifies damaged sewer lines as part of the project, and the Washington Suburban Sanitary Commission makes sewer repairs during project construction.

COST CHANGE

Increase due to the addition of FY15 and FY16 (less FY09 partial closeout) to this ongoing project.

JUSTIFICATION

The project will stabilize and improve local stream habitat conditions where streams have been damaged by inadequately controlled stormwater runoff. This project supports the Chesapeake Bay initiatives and the Anacostia Watershed Restoration Agreement, addresses the County's municipal National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit requirements, and implements the County's adopted water quality goals (Chapter 19, Article IV). Corrective measures constructed or coordinated under this project include stream bank stabilization, channel modifications, storm drain outfall or sanitary sewer repairs, and habitat restoration to improve fish and other biological resources, while reducing sediment and nutrient loading caused by excessive streambank erosion. Watershed studies, conducted under the Facility Planning: SM project (PDF No. 809319), identify and prioritize stream reaches in need of restoration and protection.

OTHER

Remedial project activities are primarily located in areas developed prior to the County's Stormwater Management law.

Phased project groupings planned for FY11-12 are as follows. Construction FY11: Donnybrook tributary, Hollywood Branch I. Design FY11 and construction FY12: Breewood tributary. Design FY12: Cold Spring tributary, Snowdens Mill, and Stonybrook tributary.

FISCAL NOTE

Programmed G.O. bonds and Water Quality Protection Charge revenue replaced with Water Quality Protection bonds.

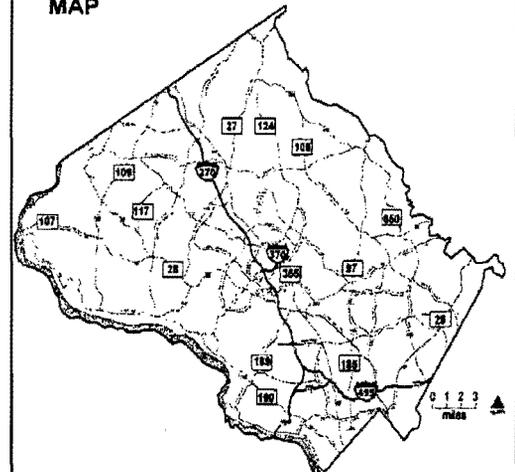
APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY73	(\$000)
First Cost Estimate	FY11	11,346
Current Scope		
Last FY's Cost Estimate		9,149
Appropriation Request	FY11	1,395
Appropriation Request Est.	FY12	1,395
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		2,976
Expenditures / Encumbrances		813
Unencumbered Balance		2,163
Partial Closeout Thru	FY08	12,601
New Partial Closeout	FY09	593
Total Partial Closeout		13,194

COORDINATION

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

MAP



Misc Stream Valley Improvements -- No. 807359 (continued)

OTHER DISCLOSURES

- 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.
- * Expenditures will continue indefinitely.

SM Facility Major Structural Repair -- No. 800700

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Stormwater Management
Environmental Protection
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 08, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	3,425	252	398	2,775	390	405	480	495	495	510	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	8,825	1,237	1,113	6,475	910	945	1,120	1,155	1,155	1,190	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	12,250	1,489	1,511	9,250	1,300	1,350	1,600	1,650	1,650	1,700	*

FUNDING SCHEDULE (\$000)

Water Quality Protection Bonds	9,250	0	0	9,250	1,300	1,350	1,600	1,650	1,650	1,700	0
Water Quality Protection Charge	3,000	1,489	1,511	0	0	0	0	0	0	0	0
Total	12,250	1,489	1,511	9,250	1,300	1,350	1,600	1,650	1,650	1,700	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 1,700 stormwater management facilities to keep the facilities operating safely and as hydrologically intended for flood and erosion control and pollutant removal. Older stormwater facilities require more extensive maintenance as ponds fill with sediment, pipes rust, concrete structures crack and deteriorate, and dam embankments develop leaks. Major storms such as hurricanes can also cause extensive damage to stormwater management facilities. Such problems require extensive engineering analysis and design, necessitate the use of heavy construction equipment, and take many months to design and repair.

COST CHANGE

Increase FY11-12 costs to provide for repairs to County-maintained stormwater management facilities affected by construction of the Inter-County Connector (ICC). This will allow the Department of Environmental Protection to take advantage of a one-time opportunity for savings and other benefits by coordinating these repairs with the simultaneous retrofit of stormwater ponds by the Maryland State Highway Administration as part of ICC construction. Increase FY13-16 for program growth due to the age of the stormwater management facilities in the program and the addition of FY15 and FY16 to this ongoing project.

JUSTIFICATION

This project provides for major structural repairs. It is limited to funding repairs at those few, generally large, 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. Regularly recurring maintenance and limited repair work, which can be achieved within a shorter time frame and have estimated repair costs of less than \$25,000, are funded through the Water Quality Protection Fund in the operating budget.

OTHER

FY11 projects include: Montgomery Autopark, Brookville Department of Transportation Depot, Hunters Woods/Blue Smoke Court, and Gunners Lake. FY12 projects include: B'Nai Israel, Colony Pond, and Lake Wheatstone.

FISCAL NOTE

Programmed Water Quality Protection Charge revenue replaced with Water Quality Protection Bonds.

OTHER DISCLOSURES

- * Expenditures will continue indefinitely.

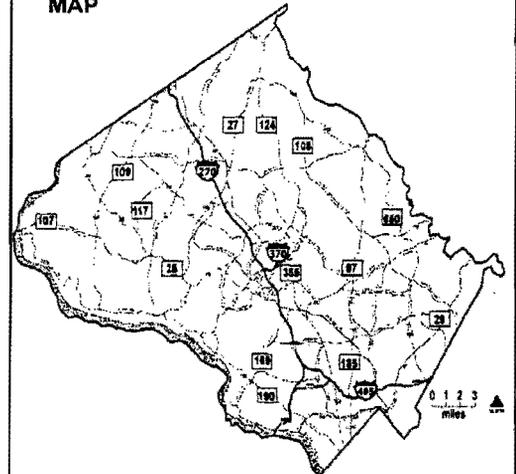
APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY07	(\$000)
First Cost Estimate	FY11	12,250
Current Scope		
Last FY's Cost Estimate		7,400
Appropriation Request	FY11	1,300
Appropriation Request Est.	FY12	1,350
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		3,000
Expenditures / Encumbrances		1,987
Unencumbered Balance		1,013
Partial Closeout Thru	FY08	0
New Partial Closeout	FY09	0
Total Partial Closeout		0

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

MAP



SM Retrofit - Government Facilities -- No. 800900

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Stormwater Management
Environmental Protection
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 08, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	11,369	203	276	10,890	1,390	1,900	1,900	1,900	1,900	1,900	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	17,788	0	703	17,085	2,085	3,000	3,000	3,000	3,000	3,000	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	29,157	203	979	27,975	3,475	4,900	4,900	4,900	4,900	4,900	*

FUNDING SCHEDULE (\$000)

Water Quality Protection Bonds	27,975	0	0	27,975	3,475	4,900	4,900	4,900	4,900	4,900	0
Water Quality Protection Charge	1,182	203	979	0	0	0	0	0	0	0	0
Total	29,157	203	979	27,975	3,475	4,900	4,900	4,900	4,900	4,900	0

OPERATING BUDGET IMPACT (\$000)

Maintenance				1,884	69	167	265	363	461	559
Net Impact				1,884	69	167	265	363	461	559

DESCRIPTION

This project provides for the design and construction of Low Impact Design (LID) stormwater management devices at County facilities such as buildings, parking garages, schools, and roads that were constructed without stormwater management controls. LID stormwater devices include "Green Roofs," bioretention areas, rain gardens, tree box inlets, and other types of devices that promote water filtering and groundwater discharge. Adding new stormwater controls in developed areas which lack such controls is required in the County's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Discharge Permit.

COST CHANGE

Cost increase due to increased project scope to meet the requirements of the new NPDES Municipal Separate Storm Sewer System (MS-4) permit and the addition of FY15 and FY16 to this ongoing project. To help comply with the new MS-4 requirement to control stormwater on 20% of impervious surfaces not currently treated, additional subprojects have been programmed from the Department's inventory of potential stormwater retrofit projects for government facilities. These include, in addition to the projects listed below under "Other," the Wheaton Police Station, Bushy Drive Recreation Center, Colesville Park and Ride, Board of Elections, Silver Spring Regional Center, Western County Outdoor Pool, Germantown MARC Rail Park and Ride, Kingsview Park and Ride, Germantown Recreation Center, Fire Station 25 in Aspen Hill, Greencastle Park and Ride, Wheaton Woods public right of way, Grenoble Drive, Laytonsville Elementary School, Steven Knolls School, and other projects still to be determined.

JUSTIFICATION

This project will improve water quality and enhance local streams. The project supports the goals of the Chesapeake Bay tributary strategy initiatives, addresses the National Pollutant Discharge Elimination System (NPDES) discharge permit requirements, and implements the County's adopted water quality goals (Chapter 19, Article IV). The County's new NPDES Municipal Separate Storm Sewer System (MS-4) permit requires that the County provide stormwater controls for 20% (about 5,200 acres) of impervious surfaces not currently treated "to the maximum extent practicable," with an emphasis, where possible, on the use of low impact design (LID) devices. This project will be responsible for controlling stormwater, largely through the use of LID, on a significant portion of the impervious area needed to satisfy the permit requirement. An inventory of potential projects was developed for 55 County government facilities. An inventory of Montgomery County Public Schools (MCPS) school sites is being developed under the Facility Planning: SM project (PDF No. 809319) starting in FY10.

OTHER

FY11 projects include Aspen Hill and Kensington Park libraries, Longwood Community Center, Little Falls Library, Arcola Avenue/Amherst Avenue, Breewood Manor neighborhood roads, Lockwood Drive, Donnybrook Drive, Ridgeview Middle School, and Cold Spring Elementary School. FY12 projects will be selected from Department of Environmental Protection project inventories.

FISCAL NOTE

Programmed Water Quality Protection Charge revenue replaced with Water Quality Protection bonds.

OTHER DISCLOSURES

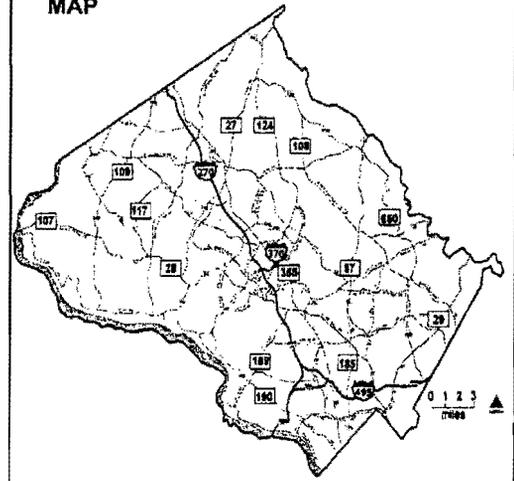
- * Expenditures will continue indefinitely.

APPROPRIATION AND EXPENDITURE DATA		
Date First Appropriation	FY09	(\$000)
First Cost Estimate		
Current Scope	FY11	29,157
Last FY's Cost Estimate		3,546
Appropriation Request	FY11	3,475
Appropriation Request Est.	FY12	4,900
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		1,182
Expenditures / Encumbrances		687
Unencumbered Balance		495
Partial Closeout Thru	FY08	0
New Partial Closeout	FY09	0
Total Partial Closeout		0

COORDINATION

Department of General Services
Department of Transportation
Montgomery County Public Schools
Maryland-National Capital Park and Planning Commission
Department of Permitting Services

MAP



SM Retrofit: Countywide -- No. 808726

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Stormwater Management
Environmental Protection
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 08, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	14,567	0	192	14,375	500	675	3,000	3,200	4,000	3,000	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	42,257	0	4,622	37,635	1,285	1,750	8,000	8,300	10,400	7,900	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	56,824	0	4,814	52,010	1,785	2,425	11,000	11,500	14,400	10,900	*

FUNDING SCHEDULE (\$000)

Fed Stimulus (State Allocation)	212	0	212	0	0	0	0	0	0	0	0
Federal Aid	299	0	299	0	0	0	0	0	0	0	0
G.O. Bonds	317	0	317	0	0	0	0	0	0	0	0
State Aid	7,193	0	3,743	3,450	575	575	575	575	575	575	0
Water Quality Protection Bonds	48,560	0	0	48,560	1,210	1,850	10,425	10,925	13,825	10,325	0
Water Quality Protection Charge	243	0	243	0	0	0	0	0	0	0	0
Total	56,824	0	4,814	52,010	1,785	2,425	11,000	11,500	14,400	10,900	0

OPERATING BUDGET IMPACT (\$000)

Maintenance				7,180	89	221	781	1,360	2,090	2,639
Net Impact				7,180	89	221	781	1,360	2,090	2,639

DESCRIPTION

This project provides for the design and construction of stormwater management retrofit projects. The Department of Environmental Protection (DEP) conducts assessments of watershed management needs and related facility planning evaluations of retrofit project alternatives under Facility Planning: SM (PDF No. 809319). Based upon the results of these evaluations, specific retrofit projects are designed and constructed. Adding new stormwater controls in developed areas which lack such controls is required in the County's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Discharge Permit. Where feasible, designs of retrofit projects include wetland features to add habitat and help address wetland goals of the Chesapeake Bay 2000 Agreement. In small drainage areas, retrofit projects may also include biofiltration, bioretention, or stormwater filtering devices.

COST CHANGE

Cost increase due to increased scope to meet the requirements of the new NPDES Municipal Separate Storm Sewer System (MS-4) permit and the addition of FY15 and FY16 (less FY09 partial closeout) to this ongoing project. To help comply with the new MS-4 requirement to control stormwater on 20% of impervious surfaces not currently treated, additional subprojects have been programmed through FY16 from the Department's inventory of potential stormwater retrofit projects. These include, in addition to the projects listed below under "Other," new retrofit projects in the Rock Creek, Paint Branch, Northwest Branch, Cabin John Creek/Watts Branch, Muddy Branch, and Great Seneca Creek watersheds.

JUSTIFICATION

This project will improve water quality and improve and protect habitat conditions in local streams. The project supports the goals of the Chesapeake Bay tributary strategy initiatives and the Anacostia Watershed Restoration Agreement; addresses County municipal National Pollutant Discharge Elimination System (NPDES) discharge permit requirements; and implements the County's adopted water quality goals (Chapter 19, Article IV). The County's new NPDES Municipal Separate Storm Sewer System (MS-4) permit requires that the County provide stormwater controls for 20% (about 5,200 acres) of impervious surfaces not currently treated "to the maximum extent practicable." This project will be responsible for controlling stormwater on a large proportion of the impervious area needed to satisfy this permit requirement. Inventories of potential projects have been conducted under the Facility Planning: SM project in the Paint Branch, Rock Creek, Cabin John Creek, Hawlings River, Watts Branch, and Northwest Branch watersheds.

OTHER

Construction FY11 - National Institutes of Health, Brookville Depot, Pueblo Court, Knightsbridge/Chase Ridge, Hunters Woods (Blue Smoke Court), Fallsberry, and Verizon. Construction FY12 - Falls Reach, Dumont Oaks II, and other projects to be determined.

FISCAL NOTE

Programmed G.O. bonds and Water Quality Protection Charge revenue replaced with Water Quality Protection bonds. FY10 funding in the amount of \$212,000 for the Germantown Estates Stormwater Management Retrofit subproject provided under an American Recovery and Reinvestment Act (ARRA) stimulus grant through the Maryland Department of the Environment's 2008 Water Quality State Revolving Fund Amended Intended Use Plan.

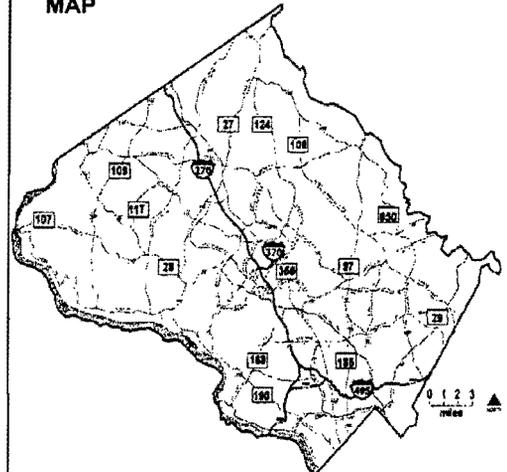
APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY87	(\$000)
First Cost Estimate		
Current Scope	FY11	56,824
Last FY's Cost Estimate		9,977
Appropriation Request	FY11	1,785
Appropriation Request Est.	FY12	2,425
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		4,814
Expenditures / Encumbrances		1,106
Unencumbered Balance		3,708
Partial Closeout Thru	FY08	11,645
New Partial Closeout	FY09	623
Total Partial Closeout		12,268

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

MAP



SM Retrofit: Countywide -- No. 808726 (continued)

OTHER DISCLOSURES

- 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.
- * Expenditures will continue indefinitely.

Watershed Restoration - Interagency -- No. 809342

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Stormwater Management
Environmental Protection
Colesville-White Oak

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 08, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	2,919	2,426	133	360	0	100	60	100	100	0	0
Land	129	2	127	0	0	0	0	0	0	0	0
Site Improvements and Utilities	289	0	214	75	0	75	0	0	0	0	0
Construction	2,550	0	1,340	1,210	0	0	390	410	410	0	0
Other	1	1	0	0	0	0	0	0	0	0	0
Total	5,888	2,429	1,814	1,645	0	175	450	510	510	0	0

FUNDING SCHEDULE (\$000)

G.O. Bonds	527	0	527	0	0	0	0	0	0	0	0
Stormwater Management Waiver Fees	3,686	2,429	1,257	0	0	0	0	0	0	0	0
Water Quality Protection Bonds	1,645	0	0	1,645	0	175	450	510	510	0	0
Water Quality Protection Charge	30	0	30	0	0	0	0	0	0	0	0
Total	5,888	2,429	1,814	1,645	0	175	450	510	510	0	0

OPERATING BUDGET IMPACT (\$000)

Maintenance				234	0	0	0	30	78	126
Net Impact				234	0	0	0	30	78	126

DESCRIPTION

This project provides for the design and construction of stormwater management retrofit and stream restoration projects which manage stormwater runoff and enhance aquatic habitat and biological resource quality in County streams. The projects are done under interagency agreements with the U.S. Army Corps of Engineers (COE). The first two agreements, which were signed in 1992 and 1997, were limited to subwatersheds within the Anacostia watershed. In FY04, the COE 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 will be managed by the U.S. Army Corps of Engineers with assistance from the Department of Environmental Protection and Maryland-National Capital Park and Planning Commission.

ESTIMATED SCHEDULE

Construction on the Northwest Branch is expected to start in FY10. The FY11-16 schedule for this project has slipped by one year due to delays encountered by the Corps of Engineers. A Phase III feasibility study agreement for Muddy Branch and Great Seneca Creek is underway within the Facility Planning: SM project (PDF No. 809319) which will identify individual project sites for inclusion in the project beginning in FY12.

JUSTIFICATION

This project will improve local stream water quality, protect waterway conditions, and enhance wildlife and aquatic habitats in the Montgomery County segments of the Sligo Creek, Northwest Branch, Paint Branch, and Little Paint Branch tributaries within the interjurisdictional Anacostia River watershed and in the Muddy Branch, Great Seneca, and other Mid-Potomac River subwatersheds. The project supports the goals of the Chesapeake Bay initiatives, the Anacostia Watershed Restoration Agreement, and addresses the County's municipal National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit requirements.

"Anacostia River Basin Reconnaissance Study," Corps of Engineers; "Anacostia River and Tributaries District of Columbia and Maryland, Integrated Feasibility Report and Final Environmental Impact Statement," Corps of Engineers, July 1994; "Anacostia River and Tributaries, District of Columbia and Maryland, Northwest Branch Watershed, Montgomery County, Feasibility Report and Integrated Environmental Impact Statement," Corps of Engineers, July 2000; and "Anacostia River Watershed Restoration Plan," Corps of Engineers, February 2010. The Great Seneca Creek/Muddy Branch Feasibility Study is scheduled for completion in September 2010.

OTHER

This project is funded through a Federal cost-share agreement, 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. Expenditures displayed above reflect County payments to the Corps of Engineers for design/construction activities and in-kind services.

FISCAL NOTE

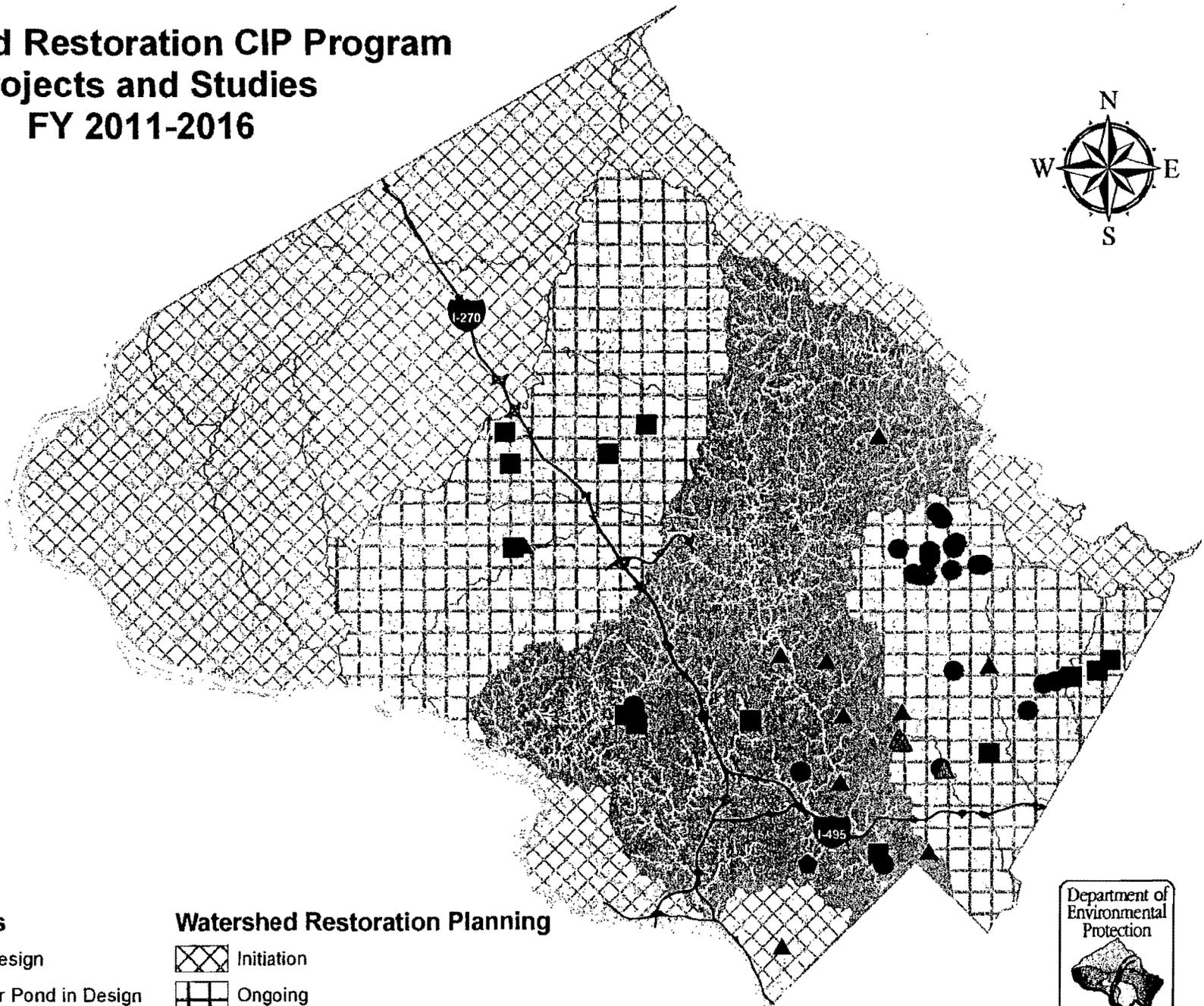
Programmed G.O. bonds and Water Quality Protection Charge revenue replaced with Water Quality Protection bonds.

APPROPRIATION AND EXPENDITURE DATA	COORDINATION	MAP
Date First Appropriation	U.S. Army Corps of Engineers	See Map on Next Page
First Cost Estimate	Maryland-National Capital Park and Planning Commission	
Current Scope	Department of Permitting Services	
Last FY's Cost Estimate	Department of Transportation	
Appropriation Request		
Appropriation Request Est.		
Supplemental Appropriation Request		
Transfer		
Cumulative Appropriation		
Expenditures / Encumbrances		
Unencumbered Balance		
Partial Closeout Thru		
New Partial Closeout		
Total Partial Closeout		

Watershed Restoration CIP Program Projects and Studies FY 2011-2016



31-11



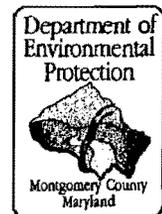
Legend

CIP Project Types

- ▲ LID Project in Design
- ◆ New Stormwater Pond in Design
- Stormwater Pond Retrofit in Design
- Stream Restoration in Design
- (with three horizontal lines) [Symbol]

Watershed Restoration Planning

- ▨ Initiation
- ▧ Ongoing
- Completed



Storm Drains

CAPITAL PROGRAM REVIEW

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.

HIGHLIGHTS

- Construct new storm drain and roadway improvement projects on Henderson and Maple Avenues to prevent property damage and improve water quality.
- Construct second and third phases of the Town of Chevy Chase Storm Drain Improvement project to improve drainage.

PROGRAM CONTACTS

Contact Holger Serrano of the Department of Transportation at 240.777.7235 or Adam Damini of the Office of Management and Budget at 240.777.2794 for more information regarding this department's capital budget.

The Storm Drainage program for FY11-16 includes four ongoing and two new projects. The overall cost of the recommended six-year program is \$14.2 million, representing a \$6.3 million or 79.8 percent increase from the FY09-14 Amended Program of \$7.9 million. The cost increase is due primarily to the addition of the two new storm drain projects, Construction of the second and third phases of the Town of Chevy Chase Storm Drain Improvements, and an increase in the level of effort for the Storm Drain General project.

Facility Planning: Storm Drains -- No. 508180

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Storm Drains
Transportation
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 08, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	5,086	3,386	225	1,475	225	250	250	250	250	250	0
Land	119	119	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	32	32	0	0	0	0	0	0	0	0	0
Other	2	2	0	0	0	0	0	0	0	0	0
Total	5,239	3,539	225	1,475	225	250	250	250	250	250	*

FUNDING SCHEDULE (\$000)

Current Revenue: General	5,138	3,438	225	1,475	225	250	250	250	250	250	0
G.O. Bonds	101	101	0	0	0	0	0	0	0	0	0
Total	5,239	3,539	225	1,475	225	250	250	250	250	250	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

Cost increase due to addition of FY 15-16 to this ongoing level of effort program, offset by other adjustments to fiscal capacity.

JUSTIFICATION

Evaluation, justification, and cost-benefit analysis are completed by DOT as necessary. In the case of participation projects, the preparation of drainage studies and preliminary plans will be prepared by the requestor's engineer and reviewed by DOT.

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 benefit cost ratio. In the case of public safety or severe damage to private property, the 5:1 benefit (damage prevented) cost 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: Town of Glen Echo, Village of Chevy Chase, Whittier Blvd, Marymont Rd, Springloch Rd, Arrowood Dr.

Candidate Projects for FY 11 and FY 12: Aberdeen Place, Chicago Ave.

OTHER DISCLOSURES

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

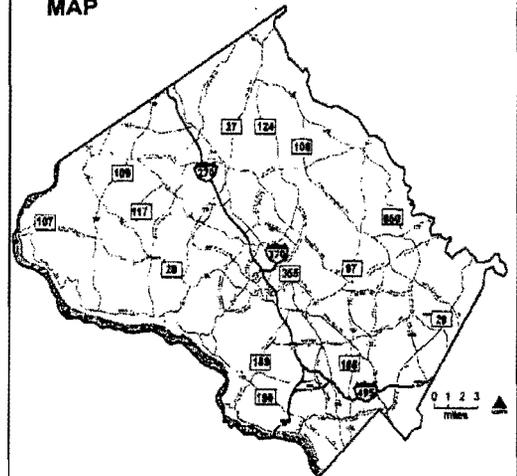
APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY01	(\$000)
First Cost Estimate		
Current Scope	FY11	5,239
Last FY's Cost Estimate		4,859
Appropriation Request	FY11	130
Appropriation Request Est.	FY12	250
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		3,859
Expenditures / Encumbrances		3,742
Unencumbered Balance		117
Partial Closeout Thru	FY08	0
New Partial Closeout	FY09	0
Total Partial Closeout		0

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)

MAP



Henderson Avenue Storm Drain & Roadway Improvement -- No. 501108

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Storm Drains
Transportation
Kensington-Wheaton

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 09, 2010
No
None.
Final Design Stage

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	365	0	0	365	150	215	0	0	0	0	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	3	0	0	3	3	0	0	0	0	0	0
Construction	1,902	0	0	1,902	172	1,730	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	2,270	0	0	2,270	325	1,945	0	0	0	0	0

FUNDING SCHEDULE (\$000)

G.O. Bonds	2,247	0	0	2,247	302	1,945	0	0	0	0	0
Intergovernmental	23	0	0	23	23	0	0	0	0	0	0
Total	2,270	0	0	2,270	325	1,945	0	0	0	0	0

OPERATING BUDGET IMPACT (\$000)

Maintenance				4	0	0	1	1	1	1
Net Impact				4	0	0	1	1	1	1

DESCRIPTION

This project provides for reconstruction of full depth pavement and construction of storm drain improvements along Henderson Avenue from east of Georgia Avenue to its terminus at Wheaton Regional Park. The specific improvements include construction of storm drain system, curb and gutters, bio retention facilities, and reconstruction/resurfacing of the roadway surface within a typical 25-foot roadway section.

CAPACITY

The storm drain design is based on the ten-year storm frequency interval.

ESTIMATED SCHEDULE

Design to be completed in the fall of 2010. Utility relocations to commence in the winter of 2010 and take approximately six months to complete. Construction to start in the summer of 2011 and take approximately 12 months to complete.

JUSTIFICATION

The community has experienced severe flooding of the road, yards, driveways, and garages during rain storms and has repeatedly requested storm drain improvements. The community submitted a petition to the Office of the County Executive to request improvements to the poor drainage condition in the area and deteriorated pavement of Henderson Avenue. As a result of the petition, the design of this project started under Facility Planning: Storm Drains (CIP No. 508180). This project is to alleviate inundation and stagnating water on private properties along Henderson Avenue from east of Georgia Avenue to its terminus at Wheaton Regional Park (approximate length of 2200 linear feet). The installation of proposed storm drain system is followed by the reconstruction/resurfacing of the pavement section. The project would benefit all 40 residences in the community, which are impacted by storm events.

OTHER

The project has been designed under Facility Planning: Storm Drains (CIP No. 508180). Intergovernmental represents Washington Suburban Sanitary Commission's share of utility adjustment costs.

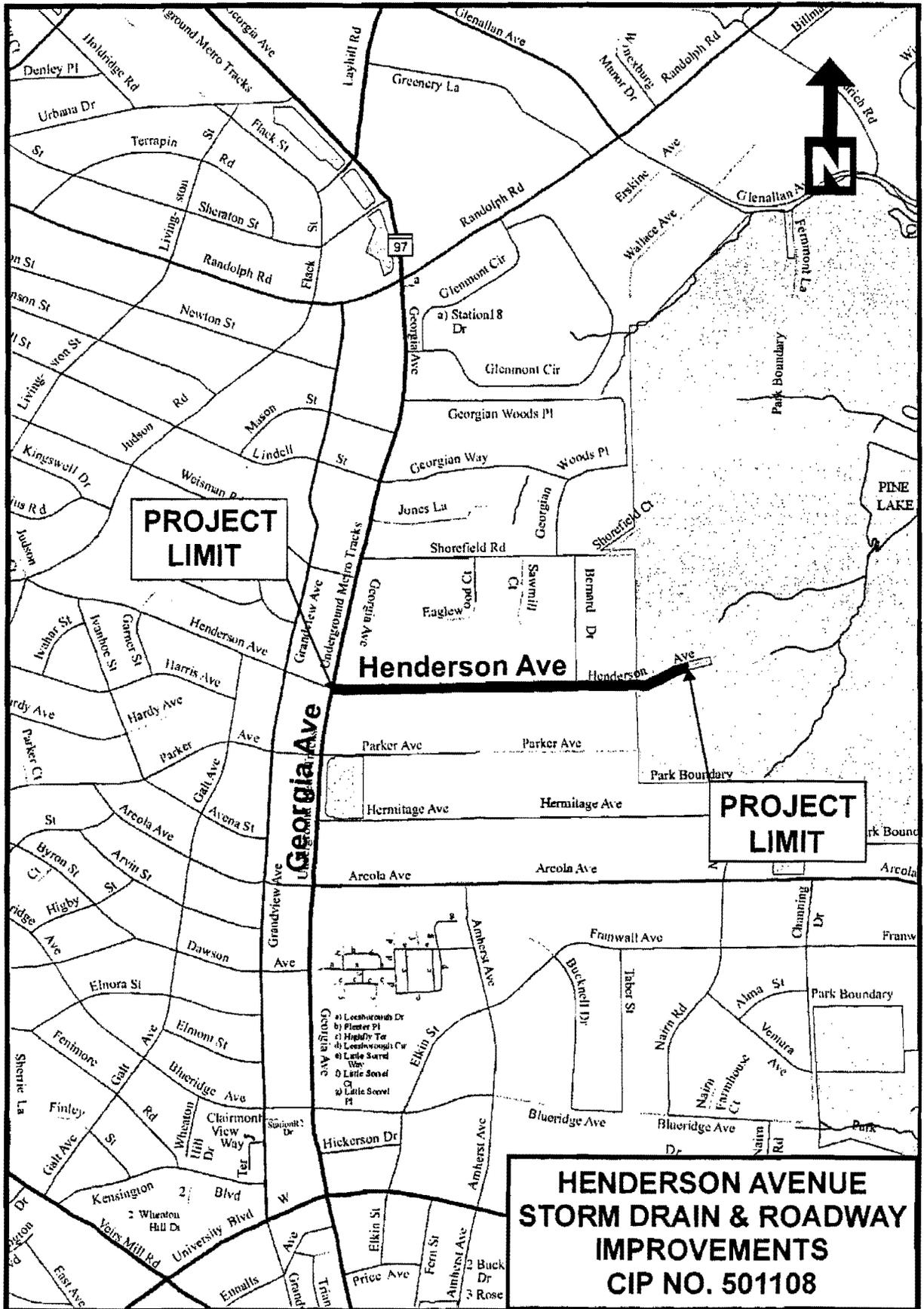
FISCAL NOTE

Intergovernmental revenue is from the Washington Suburban Sanitary Commission for its agreed share of water and sewer relocation costs.

OTHER DISCLOSURES

- A pedestrian impact analysis has been completed for this project.

APPROPRIATION AND EXPENDITURE DATA	COORDINATION	MAP												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Date First Appropriation</td> <td>FY11</td> <td>(\$000)</td> </tr> <tr> <td>First Cost Estimate</td> <td>FY11</td> <td>2,270</td> </tr> <tr> <td>Current Scope</td> <td></td> <td></td> </tr> <tr> <td>Last FY's Cost Estimate</td> <td></td> <td>0</td> </tr> </table>	Date First Appropriation	FY11	(\$000)	First Cost Estimate	FY11	2,270	Current Scope			Last FY's Cost Estimate		0	Maryland-National Capital Park and Planning Commission Department of Parks Maryland State Highway Administration (MSHA) Department of Transportation Department Technology Services Department of Permitting Services Washington Suburban Sanitary Commission Washington Gas Pepco Verizon	See Map on Next Page
Date First Appropriation	FY11	(\$000)												
First Cost Estimate	FY11	2,270												
Current Scope														
Last FY's Cost Estimate		0												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Appropriation Request</td> <td>FY11</td> <td>2,270</td> </tr> <tr> <td>Appropriation Request Est.</td> <td>FY12</td> <td>0</td> </tr> <tr> <td>Supplemental Appropriation Request</td> <td></td> <td>0</td> </tr> <tr> <td>Transfer</td> <td></td> <td>0</td> </tr> </table>	Appropriation Request	FY11	2,270	Appropriation Request Est.	FY12	0	Supplemental Appropriation Request		0	Transfer		0		
Appropriation Request	FY11	2,270												
Appropriation Request Est.	FY12	0												
Supplemental Appropriation Request		0												
Transfer		0												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Cumulative Appropriation</td> <td></td> <td>0</td> </tr> <tr> <td>Expenditures / Encumbrances</td> <td></td> <td>0</td> </tr> <tr> <td>Unencumbered Balance</td> <td></td> <td>0</td> </tr> </table>	Cumulative Appropriation		0	Expenditures / Encumbrances		0	Unencumbered Balance		0					
Cumulative Appropriation		0												
Expenditures / Encumbrances		0												
Unencumbered Balance		0												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Partial Closeout Thru</td> <td>FY08</td> <td>0</td> </tr> <tr> <td>New Partial Closeout</td> <td>FY09</td> <td>0</td> </tr> <tr> <td>Total Partial Closeout</td> <td></td> <td>0</td> </tr> </table>	Partial Closeout Thru	FY08	0	New Partial Closeout	FY09	0	Total Partial Closeout		0					
Partial Closeout Thru	FY08	0												
New Partial Closeout	FY09	0												
Total Partial Closeout		0												



Maple Avenue Storm Drain & Roadway Improvements -- No. 501100

Category	Conservation of Natural Resources	Date Last Modified	January 09, 2010
Subcategory	Storm Drains	Required Adequate Public Facility	No
Administering Agency	Transportation	Relocation Impact	None.
Planning Area	Bethesda-Chevy Chase	Status	Planning Stage

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	620	0	0	620	280	90	250	0	0	0	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	10	0	0	10	0	0	10	0	0	0	0
Construction	990	0	0	990	0	320	670	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	1,620	0	0	1,620	280	410	930	0	0	0	0

FUNDING SCHEDULE (\$000)

G.O. Bonds	1,510	0	0	1,510	280	300	930	0	0	0	0
Intergovernmental	110	0	0	110	0	110	0	0	0	0	0
Total	1,620	0	0	1,620	280	410	930	0	0	0	0

OPERATING BUDGET IMPACT (\$000)

Maintenance				3	0	0	0	1	1	1
Net Impact				3	0	0	0	1	1	1

DESCRIPTION

This project provides for reconstruction of full depth pavement and construction of storm drain improvements along Maple Avenue from Tilbury Street to about 200 linear feet east of Maryland Avenue (approximate length of 1100 linear feet). The specific improvements will include reconstruction and resurfacing of the roadway, curb and gutters within a 22-foot roadway section, storm drain system (inlets and drain pipes), and adjustment of existing inlets.

CAPACITY

The storm drain design is based on the ten-year storm frequency interval.

ESTIMATED SCHEDULE

Design is expected to commence in the summer of 2010 and be completed by the Fall of 2011. Construction is expected to start in the Spring of 2012 and take approximately 12 months to complete.

JUSTIFICATION

The community has experienced severe flooding of the sidewalks, yards, driveways, garages and basements during rain storms and has requested storm drain improvements. This project is to alleviate stagnating water on the sidewalk and inundation of dwellings along Maple Avenue from Tilbury Street to Maryland Avenue. The installation of proposed storm drain system is followed by the reconstruction/resurfacing of the pavement section. The project would benefit all 24 residences in the community.

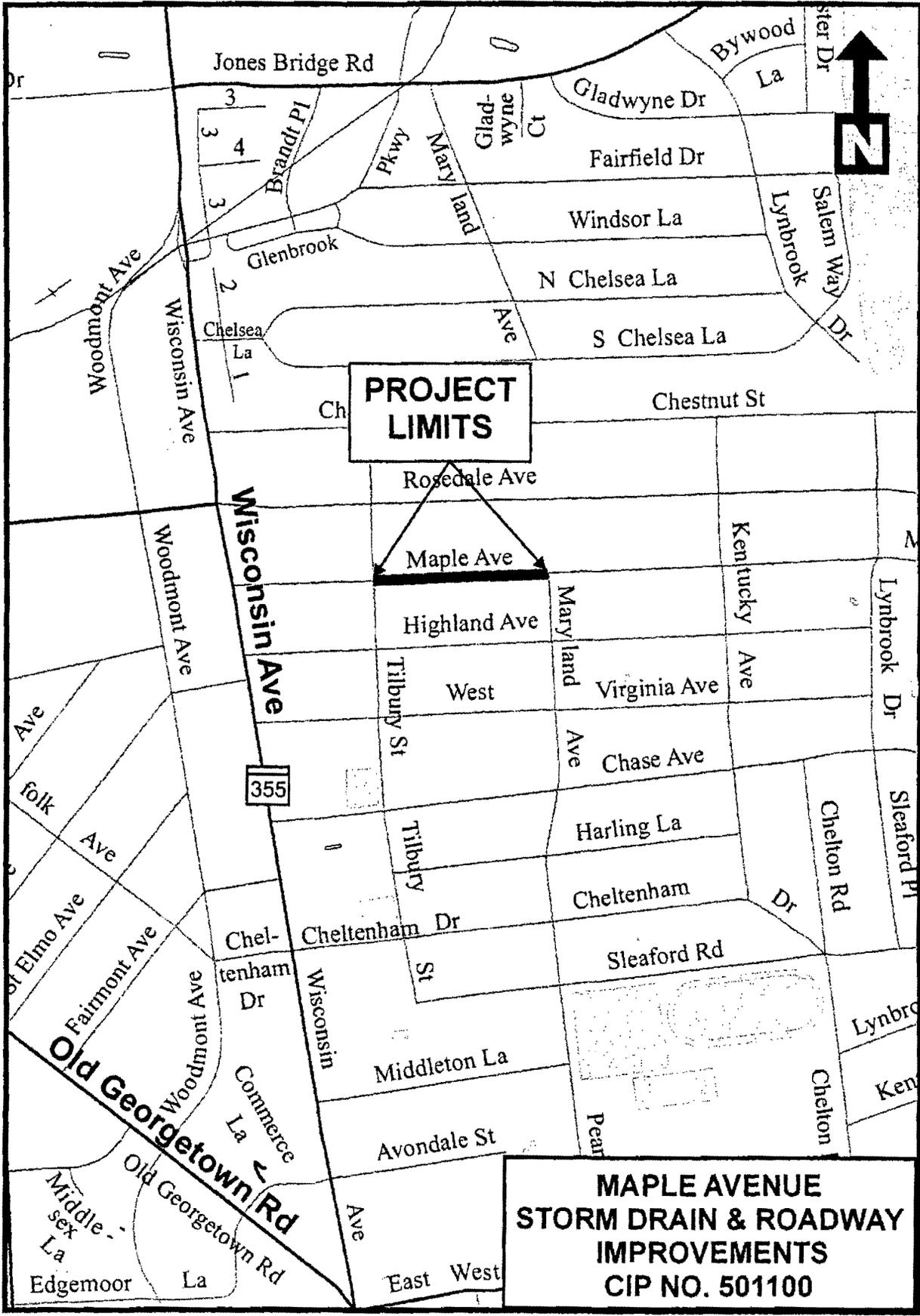
FISCAL NOTE

Intergovernmental revenue is from the Washington Suburban Sanitary Commission for its agreed share of water and sewer relocation costs.

OTHER DISCLOSURES

- A pedestrian impact analysis has been completed for this project.

APPROPRIATION AND EXPENDITURE DATA	COORDINATION	MAP																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Date First Appropriation</td> <td style="text-align: center;">FY11</td> <td style="text-align: right;">(\$000)</td> </tr> <tr> <td>First Cost Estimate</td> <td style="text-align: center;">FY11</td> <td style="text-align: right;">1,620</td> </tr> <tr> <td>Current Scope</td> <td style="text-align: center;">FY11</td> <td style="text-align: right;">1,620</td> </tr> <tr> <td>Last FY's Cost Estimate</td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>Appropriation Request</td> <td style="text-align: center;">FY11</td> <td style="text-align: right;">280</td> </tr> <tr> <td>Appropriation Request Est.</td> <td style="text-align: center;">FY12</td> <td style="text-align: right;">1,340</td> </tr> <tr> <td>Supplemental Appropriation Request</td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>Transfer</td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>Cumulative Appropriation</td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>Expenditures / Encumbrances</td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>Unencumbered Balance</td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>Partial Closeout Thru</td> <td style="text-align: center;">FY08</td> <td style="text-align: right;">0</td> </tr> <tr> <td>New Partial Closeout</td> <td style="text-align: center;">FY09</td> <td style="text-align: right;">0</td> </tr> <tr> <td>Total Partial Closeout</td> <td></td> <td style="text-align: right;">0</td> </tr> </table>	Date First Appropriation	FY11	(\$000)	First Cost Estimate	FY11	1,620	Current Scope	FY11	1,620	Last FY's Cost Estimate		0	Appropriation Request	FY11	280	Appropriation Request Est.	FY12	1,340	Supplemental Appropriation Request		0	Transfer		0	Cumulative Appropriation		0	Expenditures / Encumbrances		0	Unencumbered Balance		0	Partial Closeout Thru	FY08	0	New Partial Closeout	FY09	0	Total Partial Closeout		0	<p>Maryland-National Capital Park and Planning Commission Department of Transportation Department of Permitting Services Washington Suburban Sanitary Commission Washington Gas Pepco Verizon</p>	<p>See Map on Next Page</p>
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Partial Closeout Thru	FY08	0																																										
New Partial Closeout	FY09	0																																										
Total Partial Closeout		0																																										



Outfall Repairs -- No. 509948

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Storm Drains
Transportation
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 08, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	2,405	733	268	1,404	234	234	234	234	234	234	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	3,794	2,479	163	1,152	192	192	192	192	192	192	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	6,209	3,222	431	2,556	426	426	426	426	426	426	*

FUNDING SCHEDULE (\$000)

G.O. Bonds	6,209	3,222	431	2,556	426	426	426	426	426	426	0
Total	6,209	3,222	431	2,556	426	426	426	426	426	426	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

Cost increase due to addition of FY 15-16 to this on-going level of effort program.

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 FY09: 2600 Loma St, 6101 Broad St, Brookside Dr, 13103 Quail Creek Ct, 7920 Declaration Dr, 4301 Banff Spring Ct, 3 Whipoorwill Ct, 3963 Wendy Ct, Wexford Dr, Denfeld Ave, 10300 Parkwood Dr, 8829 Ridge Dr, 11705 Ibsen Dr, 9200 Harrington Rd.

Scheduled for repairs (FY10 - beyond): 4500 Tournay Rd, Sweetbirch Dr, 7329 Oskaloosa Dr, 10605 Willowbrook Dr, 103 Bluff Terr, Pinehurst at Beech, 6207 Cromwell Dr, Woodman Ave, Bucknell Dr.

OTHER DISCLOSURES

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

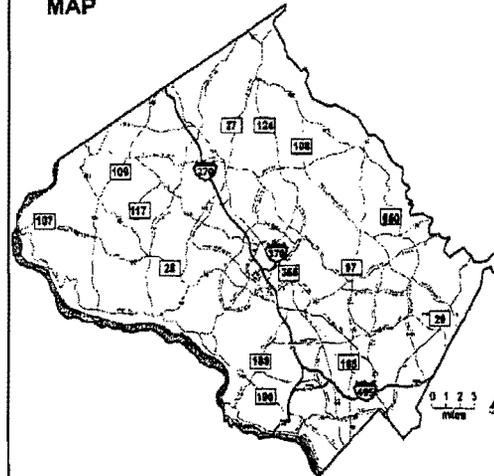
APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY99	(\$000)
First Cost Estimate	FY11	6,209
Current Scope		
Last FY's Cost Estimate		5,357
Appropriation Request	FY11	426
Appropriation Request Est.	FY12	426
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		3,653
Expenditures / Encumbrances		3,599
Unencumbered Balance		54
Partial Closeout Thru	FY08	0
New Partial Closeout	FY09	0
Total Partial Closeout		0

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

MAP



Recommended

Storm Drain General -- No. 500320

Category
Subcategory
Administering Agency
Planning Area

Conservation of Natural Resources
Storm Drains
Transportation
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

January 09, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	2,618	444	74	2,100	350	350	350	350	350	350	0
Land	62	62	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	8,478	5,778	0	2,700	450	450	450	450	450	450	0
Other	1	1	0	0	0	0	0	0	0	0	0
Total	11,159	6,285	74	4,800	800	800	800	800	800	800	*

FUNDING SCHEDULE (\$000)

G.O. Bonds	10,769	5,969	0	4,800	800	800	800	800	800	800	0
Intergovernmental	228	154	74	0	0	0	0	0	0	0	0
State Aid	162	162	0	0	0	0	0	0	0	0	0
Total	11,159	6,285	74	4,800	800	800	800	800	800	800	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 benefit (damage prevented) cost 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

Cost increase due to addition of FY 15-16 to this on-going program and increasing construction contract costs.

OTHER

On 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 08 and 09: Linden Ln, Eldrid Dr, Johnson Ave, Longdraft Rd, Warfield Rd, Springloch Rd, Whittier Blvd, Arrowood Rd, Marymont Rd, 77th St, 76th St, Kennett St, Roosevelt St, Whightman Rd, Red Lion Rd, Jones Bridge Ct, Delmont Ln.

Projects to be completed in FY 10: Tucker Ln, Muncaster Rd, Midvale Rd.

OTHER DISCLOSURES

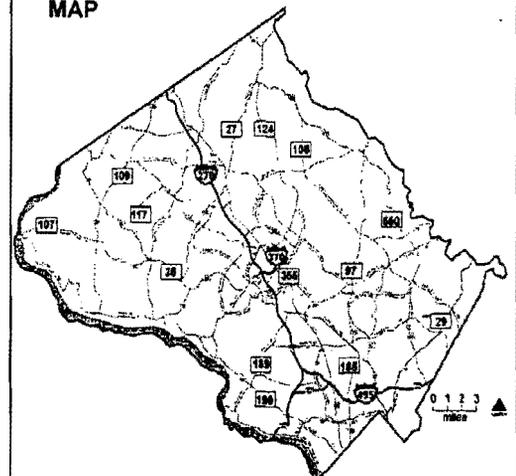
- A pedestrian impact analysis will be performed during design or is in progress.
- The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.
- * Expenditures will continue indefinitely.

APPROPRIATION AND EXPENDITURE DATA		
Date First Appropriation	FY03	(\$000)
First Cost Estimate		
Current Scope	FY11	11,159
Last FY's Cost Estimate		8,759
Appropriation Request	FY11	1,600
Appropriation Request Est.	FY12	0
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		6,359
Expenditures / Encumbrances		8,300
Unencumbered Balance		59
Partial Closeout Thru	FY08	0
New Partial Closeout	FY09	0
Total Partial Closeout		0

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

MAP



Town of Chevy Chase Storm Drain Improvements -- No. 500808

Category	Conservation of Natural Resources	Date Last Modified	January 09, 2010
Subcategory	Storm Drains	Required Adequate Public Facility	No
Administering Agency	Transportation	Relocation Impact	None.
Planning Area	Bethesda-Chevy Chase	Status	Final Design Stage

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY09	Est. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	1,090	884	61	145	70	0	75	0	0	0	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	2,160	855	0	1,305	620	0	685	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
Total	3,250	1,739	61	1,450	690	0	760	0	0	0	0

FUNDING SCHEDULE (\$000)

G.O. Bonds	3,250	1,739	61	1,450	690	0	760	0	0	0	0
Total	3,250	1,739	61	1,450	690	0	760	0	0	0	0

DESCRIPTION

This project provides for the evaluation of the drainage conditions within the Town of Chevy Chase and construction in the four most critical sectors. The Town is divided into fourteen drainage areas (sectors). Design for four sectors was completed in the Facility Planning: Storm Drain project. Ten sectors will be evaluated in two additional phases and if the existing facilities are found to be inadequate, design will be developed for the necessary drainage improvements. Phase 2 will implement the needed drainage improvements in the northwest part of the town. Phase 3 will address the remaining areas along the east side of the town.

ESTIMATED SCHEDULE

Design for phase 2 complete. Construction for phase 2 is expected to commence by the summer of 2010 and take approximately 12 months to complete. Design and construction of phase 3 to be completed in 2013.

COST CHANGE

Increase is due to the construction of drainage improvements in the remainder of the town (phase 2 and phase 3 construction).

JUSTIFICATION

Private properties and portions of the roadways within the Town of Chevy Chase are inundated during every rainfall event. This project was initiated at the request of the Town of Chevy Chase to address these severe drainage deficiencies.

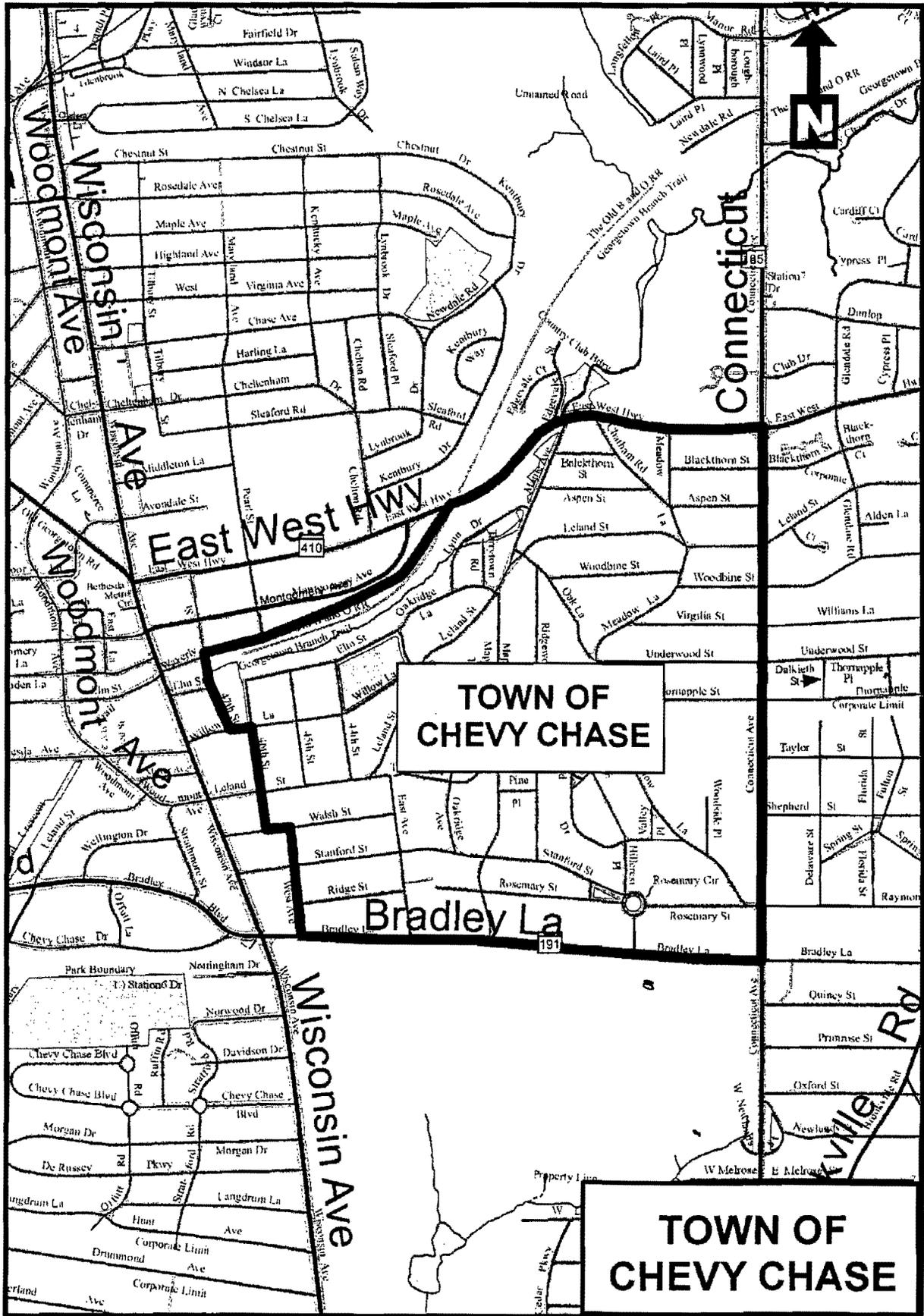
Construction for the 4 sectors in FY 08 included improvements along East Avenue, Oakridge Avenue, Maple Avenue, Thomapple Street, Stanford Street, Chatham Road, Meadow Lane, Blackthorn Street, Woodbine Street, Leland Street, and Aspen Street. These improvements are complete. Evaluation of the drainage conditions in the remainder of the town was completed in FY 09.

OTHER DISCLOSURES

- A pedestrian impact analysis has been completed for this project.

APPROPRIATION AND EXPENDITURE DATA	COORDINATION	MAP																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Date First Appropriation</td> <td style="text-align: center;">FY08</td> <td style="text-align: right;">(\$000)</td> </tr> <tr> <td>First Cost Estimate</td> <td></td> <td></td> </tr> <tr> <td>Current Scope</td> <td style="text-align: center;">FY11</td> <td style="text-align: right;">3,250</td> </tr> <tr> <td>Last FY's Cost Estimate</td> <td></td> <td style="text-align: right;">1,800</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Appropriation Request</td> <td style="text-align: center;">FY11</td> <td style="text-align: right;">690</td> </tr> <tr> <td>Appropriation Request Est.</td> <td style="text-align: center;">FY12</td> <td style="text-align: right;">0</td> </tr> <tr> <td>Supplemental Appropriation Request</td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>Transfer</td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Cumulative Appropriation</td> <td></td> <td style="text-align: right;">1,800</td> </tr> <tr> <td>Expenditures / Encumbrances</td> <td></td> <td style="text-align: right;">1,792</td> </tr> <tr> <td>Unencumbered Balance</td> <td></td> <td style="text-align: right;">8</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Partial Closeout Thru</td> <td style="text-align: center;">FY08</td> <td style="text-align: right;">0</td> </tr> <tr> <td>New Partial Closeout</td> <td style="text-align: center;">FY09</td> <td style="text-align: right;">0</td> </tr> <tr> <td>Total Partial Closeout</td> <td></td> <td style="text-align: right;">0</td> </tr> </table>	Date First Appropriation	FY08	(\$000)	First Cost Estimate			Current Scope	FY11	3,250	Last FY's Cost Estimate		1,800				Appropriation Request	FY11	690	Appropriation Request Est.	FY12	0	Supplemental Appropriation Request		0	Transfer		0				Cumulative Appropriation		1,800	Expenditures / Encumbrances		1,792	Unencumbered Balance		8				Partial Closeout Thru	FY08	0	New Partial Closeout	FY09	0	Total Partial Closeout		0	Facility Planning: Storm Drains Town of Chevy Chase Department of Permitting Services Washington Suburban Sanitary Commission Washington Gas Utility Companies	See Map on Next Page
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Recommended



TOWN OF CHEVY CHASE

Bradley La

TOWN OF CHEVY CHASE

Drainage Programs

The Montgomery County Department of Transportation (MC-DOT) has two drainage 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 Requests

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 MC-DOT's Division of Highway Services at 240-777-6000.



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 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.



When requesting drainage assistance, please include the following information:

- ▶ The location where the drainage problem is occurring.
- ▶ A brief statement describing the drainage problem and where the water originates and where it goes (photographs are helpful).
- ▶ Your name, home address, and telephone number where you can be contacted.
- ▶ Permission authorizing a site visit by County staff on your property, if applicable.
- ▶ Your availability to meet the County staff at the site during the site visit, if necessary.
- ▶ Community or Homeowner Association, name of representative and telephone number, if applicable.

Forward Drainage Assistance Request to:

Division of Transportation Engineering
101 Monroe Street
EOB, 9th floor
Rockville, Maryland 20850-2540

ATTN: Michael F. Mitchell, P.E.
Program Manager
Drainage Assistance Request Program

FAX: 240-777-7277
michael.mitchell@montgomerycountymd.gov

Evaluation Process

Response by DTE will begin after receiving your request. After all the necessary information about the request is received, the following steps are taken:

- Investigate the nature and cause of the problem.
- Determine if it should be included as a DAR Project, or
- Refer to another appropriate agency responsible for this issue.
- If a DAR project, calculate the size of the watershed, where the water originates and surface water flow characteristics.
- Verify the number of properties being affected and extent of damage being caused by runoff, as well as cost/benefit ratio.
- Review the existing drainage system in the area and potential needs for upgrades.
- Determine availability of Right-of-Way or easements and needs for easements.
- Determine if the problem can have a "spot solution" or a comprehensive Capital Improvement Project (CIP) is needed.
- If a "spot solution," schedule work with HMS Contract's Unit.
- If a CIP, prioritize and include in the list of projects for recommendation as CIP projects for County Executive and County Council approval.
- Notify the citizen what action is being taken.

Other Water Runoff Related Referrals

- Private drainage problems such as flooding of private property by runoff from private property (runoff is NOT from County-maintained property)

Montgomery County Soil Conservation Service (Technical Assistance Only)
301-590-2855

- 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



Division of Transportation Engineering's website:
<http://www.montgomerycountymd.gov/content/dpwt/capital/dcd/>

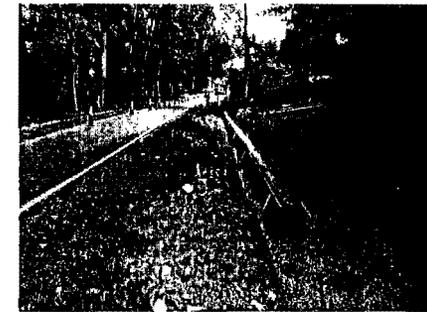
FOR MAINTENANCE ISSUES CALL 240-777-6000

For drainage problems where the water runoff originates from private property and flows onto private property, see list of other referral agencies.



Isiah Leggett
County Executive

Montgomery County Drainage Programs



**Guidelines for Requesting Assistance
for
Storm Drainage from Properties Owned
by Montgomery County**

Arthur Holmes, Jr.
Director, MC-DOT

Αλτερνατιβε φορματo φορ τηo doxyμεντ αρε α
παιλαβλε
υπον ρεθυσot βψ χαλλιγγ 240-777-7221

Town of Chevy Chase

(Bradley Boulevard at East Ave.)



Before

1

Town of Chevy Chase

(Bradley Boulevard at East Ave.)

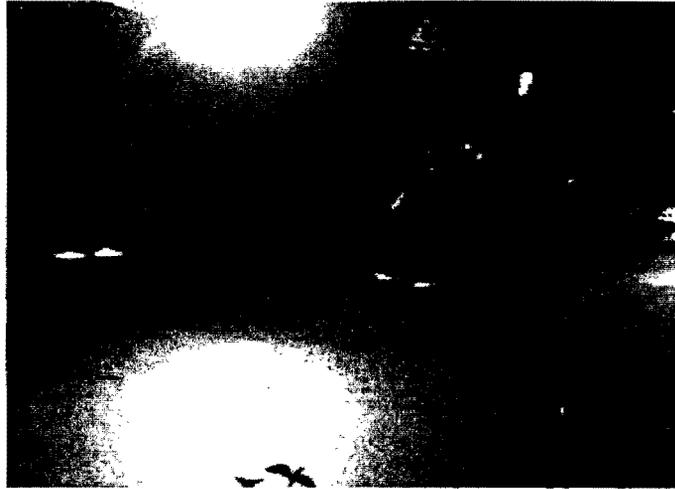


After

2

Town of Chevy Chase

(East Ave. and Stanford Street)



Before

3

Town of Chevy Chase

(East Ave. and Stanford Street)



After

4

Henderson Avenue



5

Henderson Avenue



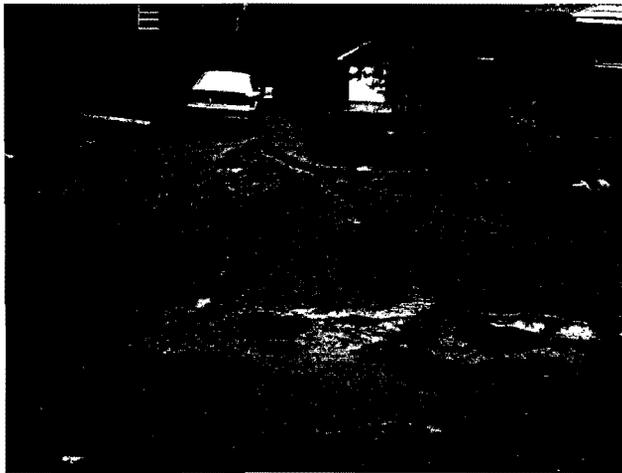
6

Henderson Avenue



7

Henderson Avenue



8

Henderson Avenue



9

Maple Avenue



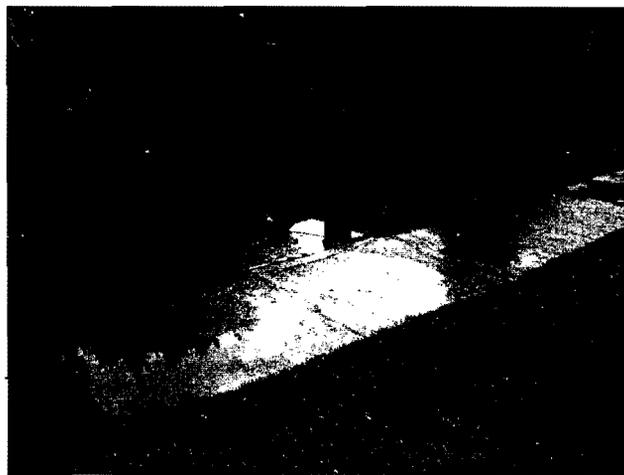
10

Maple Avenue



11

Maple Avenue



12

Maple Avenue



13

Maple Avenue



14

Maple Avenue



15

Maple Avenue



16

Maple Avenue



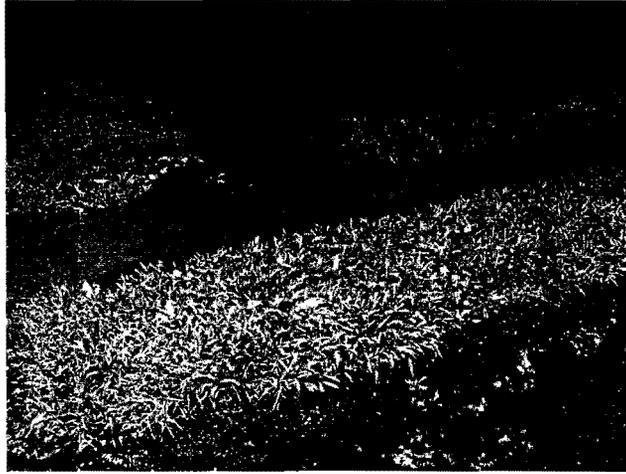
17

Maple Avenue



18

Maple Avenue



19

Maple Avenue



20

Maple Avenue



21

Wapakoneta Road



22

Wapakoneta Road



23

Wapakoneta Road



24

Wapakoneta Road



25

Wapakoneta Road



26

Wapakoneta Road



27

Wapakoneta Road



28