



Storm Drains

PROGRAM DESCRIPTION AND OBJECTIVES

The Department of Transportation (DOT) involvement in the County Conservation of Natural Resources program is mandated by Section 2-55 (d) 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, and 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 Drains program involves County, developer, and homeowner participation in the construction of storm drainage facilities. Construction of storm drainage facilities provides a public benefit by reducing drainage problems, flooding, property damage, and contributing to the orderly development of the County. In participation projects, the County and the developer or the homeowner agree to share the costs of storm drainage facilities in which the benefit of storm drainage extends beyond the developer's or homeowner's own property. The County pays only for that portion of the project which benefits properties other than the developer's or homeowner's, not to exceed 50 percent of the total cost. Homeowners can satisfy their portion of the cost-share through in-kind contributions.

STORMWATER MANAGEMENT COORDINATION

In February 2010, the Maryland Department of the Environment issued the County a National Pollutant Discharge Elimination System (NPDES) Permit. This permit requires that the County develop and implement a Stormwater Management program to prevent harmful pollutants from being washed or dumped into the Municipal Separate Storm Sewer Systems (MS4). DOT partners with the Department of Environmental Protection (DEP) in implementing the MS4 Permit by 1) constructing Stormwater Management (SWM) retrofit programs which have been developed through DEP's MS4 planning studies, 2) providing opportunities for curb bump-outs and road narrowing where feasible to permit implementation of Low-Impact Development (LID) SWM provisions within the right-of-way, 3) seeking DEP guidance on prioritization of storm drain outfall repairs, and 4) coordinating with DEP on storm drain projects developed in the Storm Drain General and Facility Planning Storm Drain programs to identify opportunities for enhancements which would assist in meeting the requirements of the MS4 permit.

In recognition of the Stormwater Management added value to the Storm Drains projects, Storm Drains have historically been funded through Water Quality Protection Bonds and Current Revenue: Water Quality Protection.

PROGRAM CONTACTS

Contact Dan Sheridan of the Department of Transportation at 240.777.7283 or Payne Tarkenton of the Office of Management and Budget at 240.777.2758 for more information regarding this department's capital budget.

CAPITAL PROGRAM REVIEW

The Storm Drains program for FY27-32 includes four ongoing projects totaling \$61.9 million. This represents a \$27.1 million or 77.9% increase from the Amended FY25-30 program of \$34.8 million. This increase is largely driven by shifting approximately \$4.7 million

annually in FY27 through FY32 from DOT operating expenditures to the Storm Drain Culvert Replacement project in order to relieve pressure on the Water Quality Protection Charge rate. Other project changes consist of revisions to the annual funding and expenditure amounts and the addition of FY31 and FY32 to the program.



Facility Planning: Storm Drains

(P508180)

Category	Conservation of Natural Resources	Date Last Modified	12/15/25
SubCategory	Storm Drains	Administering Agency	Transportation
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Planning, Design and Supervision	12,099	8,204	685	3,210	535	535	535	535	535	535	-
Land	147	147	-	-	-	-	-	-	-	-	-
Construction	57	57	-	-	-	-	-	-	-	-	-
Other	5	5	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	12,308	8,413	685	3,210	535	535	535	535	535	535	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Current Revenue: General	4,103	4,103	-	-	-	-	-	-	-	-	-
Current Revenue: Water Quality Protection	8,022	4,128	684	3,210	535	535	535	535	535	535	-
Federal Aid	82	81	1	-	-	-	-	-	-	-	-
G.O. Bonds	101	101	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	12,308	8,413	685	3,210	535	535	535	535	535	535	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 27 Request	535	Year First Appropriation	FY81
Appropriation FY 28 Request	535	Last FY's Cost Estimate	11,234
Cumulative Appropriation	9,098		
Expenditure / Encumbrances	8,527		
Unencumbered Balance	571		

PROJECT 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 Capital Improvements Program (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

Minor annual cost adjustment and the addition of FY31 and FY32 to this level of effort project.

PROJECT JUSTIFICATION

Evaluation, justification, and cost-benefit analysis are completed by DOT as necessary. In the case of participation projects, drainage studies and preliminary plans will be prepared by the requestor's engineer and reviewed by DOT. Traffic signals, streetlights, crosswalks, bus stops, ADA ramps, bikeways and other pertinent issues are being considered in the design of the project to ensure pedestrian safety.

OTHER

Before being added as a subproject, 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 a 5:1 cost-benefit damage prevented ratio. In the case of public safety or severe damage to private property, the 5:1 cost-benefit damage prevented ratio can be waived. Drainage assistance requests are evaluated on a continuing basis in response to public requests. DOT maintains a database of complaints. Recent construction projects completed include: Nadine Drive, Bucknell Drive, Centerhill Street, Gayfields Drive, Briggs Chaney Road, Montgomery Village Avenue, Glenallan Avenue, Lily Stone Drive, Glenwood Road, Carissa Lane, Beech Tree Road, Windsor Lane. Candidate Projects for FY26 and FY27: Colesville Road, Hildarose Drive, Jamestown Road, Drumm Avenue, Honesty Way, and Grandview Avenue.

DISCLOSURES

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

COORDINATION

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



Outfall Repairs

(P509948)

Category	Conservation of Natural Resources	Date Last Modified	12/15/25
SubCategory	Storm Drains	Administering Agency	Transportation
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Planning, Design and Supervision	7,260	4,569	333	2,358	393	393	393	393	393	393	-
Land	16	16	-	-	-	-	-	-	-	-	-
Construction	11,728	6,452	1,484	3,792	632	632	632	632	632	632	-
Other	3	3	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	19,007	11,040	1,817	6,150	1,025	1,025	1,025	1,025	1,025	1,025	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Current Revenue: Water Quality Protection	4,325	2,641	40	1,644	274	274	274	274	274	274	-
G.O. Bonds	5,357	5,357	-	-	-	-	-	-	-	-	-
Long-Term Financing	1,289	1,289	-	-	-	-	-	-	-	-	-
Water Quality Protection Bonds	8,036	1,753	1,777	4,506	751	751	751	751	751	751	-
TOTAL FUNDING SOURCES	19,007	11,040	1,817	6,150	1,025	1,025	1,025	1,025	1,025	1,025	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 27 Request	2,050	Year First Appropriation	FY99
Appropriation FY 28 Request	-	Last FY's Cost Estimate	16,973
Cumulative Appropriation	12,857		
Expenditure / Encumbrances	12,398		
Unencumbered Balance	459		

PROJECT 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

Minor annual cost adjustment and the addition of FY31 and FY32 to this level of effort project.

PROJECT JUSTIFICATION

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

OTHER

The number of outfall locations being repaired per year varies based on the severity of the erosion and damage, the complexity of the design, and the complexity of the needed restorative construction work. Completed outfalls in FY25-26: Kerry Court and Littleton Street. Potential outfall projects FY26-27: Garrett Park Road, Lily Stone Drive, Green Meadow Road, Green Hill Drive, Ottenbrook Terrace, Kensington Parkway, and Lamberton Drive.

FISCAL NOTE

FY22 amendment to reduce Long Term Financing and replace it with WQP Bonds. FY23 funding switch between Long Term Financing and CR: WQPC to fund expenditures incurred in FY19 under the MDE loan that will not materialize and reprogramming of expenditures originally under CR: WQPC with WQP Bonds. In FY23-FY28, Long Term Financing based on the Maryland Water Quality Revolving Loan Fund (WQRLF) from MDE was replaced with WQP Bonds due to limited eligibility of projects within this CIP under the revolving fund. Funding switches in FY25 to fund all programmed spending in this fiscal year with CR: WQPC and in FY26 to fund all programmed spending with Water Quality Protection Bonds (WQP Bonds). Funding switch between Long Term Financing and Current Revenue: Water Quality Protection Charge (CR: WQPC) during the upload of actuals due to deposit from the Maryland Department of Environment (MDE) larger than expected.

DISCLOSURES

Expenditures will continue indefinitely.

COORDINATION

Montgomery County Department of Environmental Protection, Maryland-National Capital Park and Planning Commission, Maryland Department of the Environment, United States Army Corps of Engineers, Montgomery County Department of Permitting Services, Utility Companies, and Miscellaneous Stream Valley Improvements (CIP No. 807359)



Storm Drain Culvert Replacement (P501470)

Category	Conservation of Natural Resources	Date Last Modified	12/15/25
SubCategory	Storm Drains	Administering Agency	Transportation
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Planning, Design and Supervision	13,584	2,204	550	10,830	1,805	1,805	1,805	1,805	1,805	1,805	-
Site Improvements and Utilities	18	18	-	-	-	-	-	-	-	-	-
Construction	49,797	18,882	1,971	28,944	4,824	4,824	4,824	4,824	4,824	4,824	-
Other	2	2	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	63,401	21,106	2,521	39,774	6,629	6,629	6,629	6,629	6,629	6,629	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Current Revenue: Water Quality Protection	30,980	10,836	1,700	18,444	3,074	3,074	3,074	3,074	3,074	3,074	-
G.O. Bonds	1,500	1,500	-	-	-	-	-	-	-	-	-
Water Quality Protection Bonds	30,921	8,770	821	21,330	3,555	3,555	3,555	3,555	3,555	3,555	-
TOTAL FUNDING SOURCES	63,401	21,106	2,521	39,774	6,629	6,629	6,629	6,629	6,629	6,629	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 27 Request	6,629	Year First Appropriation	FY14
Appropriation FY 28 Request	6,629	Last FY's Cost Estimate	31,191
Cumulative Appropriation	23,627		
Expenditure / Encumbrances	21,716		
Unencumbered Balance	1,911		

PROJECT DESCRIPTION

This program will provide for the replacement of failed storm drain pipes and culverts. The County's storm drain infrastructure is aging and many of the metal pipe culverts installed from 1960 through the 1990's have reached the end of their service life. An asset inventory with condition assessments has been developed to better forecast future replacement needs. Going forward, funding will be programmed for both systematic and emergency replacement of these pipes and culverts. Program scope includes: storm water pipe and culvert replacement of both metal and concrete less than six (6) feet in roadway longitudinal length; headwalls, end sections, replacement, or extension of culverts to assure positive flow of stormwater and channeling of stormwater into existing ditch lines or structures. Repairs also include roadside pipe and culvert end treatment safety improvements to eliminate safety hazards. This project will not make major changes to the location or size of existing storm drainage facilities. Structures greater than six-foot-roadway-

longitudinal length are repaired under the Bridge Renovation Program (CIP No. 509753).

COST CHANGE

Cost increase to reflect additional capital expenditures funded in the past through the operating budget plus the addition of FY31 and FY32 to this level of effort project.

PROJECT JUSTIFICATION

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

FISCAL NOTE

Funding switches in FY25 and FY26 between Water Quality Protection Bonds and Current Revenue Water Quality Protection Charge to use available fund balance. Maryland Water Quality Revolving Loan Fund (WQRLF) from the Maryland Department of Environment (MDE) was replaced with Water Quality Protection Bonds due to limited eligibility of projects within this CIP under the revolving fund.

DISCLOSURES

Expenditures will continue indefinitely.

COORDINATION

WSSC Water, Other Utilities, Montgomery County Department of Housing and Community Affairs, Montgomery County Public Schools, Maryland - National Capital Park and Planning Commission, Montgomery County Department of Permitting Services, Regional Services Centers, Community Associations, Montgomery County Pedestrian Safety Advisory Committee, Commission on People with Disabilities.



Storm Drain General

(P500320)

Category	Conservation of Natural Resources	Date Last Modified	12/15/25
SubCategory	Storm Drains	Administering Agency	Transportation
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Planning, Design and Supervision	8,740	6,095	287	2,358	393	393	393	393	393	393	-
Land	342	187	-	155	25	26	26	26	26	26	-
Construction	30,352	15,909	4,696	9,747	1,627	1,624	1,624	1,624	1,624	1,624	-
Other	491	1	-	490	80	82	82	82	82	82	-
TOTAL EXPENDITURES	39,925	22,192	4,983	12,750	2,125	2,125	2,125	2,125	2,125	2,125	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Current Revenue: Water Quality Protection	7,027	5,735	1,292	-	-	-	-	-	-	-	-
Federal Aid	2,275	2,275	-	-	-	-	-	-	-	-	-
G.O. Bonds	9,169	9,169	-	-	-	-	-	-	-	-	-
Intergovernmental	122	122	-	-	-	-	-	-	-	-	-
Long-Term Financing	2,012	2,012	-	-	-	-	-	-	-	-	-
State Aid	162	162	-	-	-	-	-	-	-	-	-
Stormwater Management Waiver Fees	101	101	-	-	-	-	-	-	-	-	-
Water Quality Protection Bonds	19,057	2,616	3,691	12,750	2,125	2,125	2,125	2,125	2,125	2,125	-
TOTAL FUNDING SOURCES	39,925	22,192	4,983	12,750	2,125	2,125	2,125	2,125	2,125	2,125	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 27 Request	4,250	Year First Appropriation	FY03
Appropriation FY 28 Request	-	Last FY's Cost Estimate	36,075
Cumulative Appropriation	27,175		
Expenditure / Encumbrances	23,763		
Unencumbered Balance	3,412		

PROJECT DESCRIPTION

This project provides the flexibility to construct various sub-projects that might otherwise be delayed for lack of funds or difficulty in acquiring right-of-way. This project provides for right-of-way acquisition and construction for storm drain projects resulting from the

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

CAPACITY

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

COST CHANGE

Minor annual cost adjustment and the addition of FY31 and FY32 at a new funding level for this level of effort project.

OTHER

On participation projects, cost sharing between the County and either homeowners or developers varies and is based upon a signed Letter of Understanding. Completed Projects in FY24 and FY25: Nadine Drive, Bucknell Drive, Centerhill Street, Gayfields Drive, Briggs Chaney Road, Montgomery Village Avenue, Glenallan Avenue, Glenwood Road, Lily Stone Drive, Carissa Lane, Beech Tree Road, and Windsor Lane. Candidate Projects for FY26 and FY27: Colesville Road, Hildarose Drive, Jamestown Road, Drumm Avenue, and Honesty Way.

FISCAL NOTE

FY22 amendment and funding switch to reduce Long-Term Financing and replace it with Water Quality Protection Bonds. FY23 Federal Aid for \$2,275,000 includes American Rescue Plan Act State and Local Fiscal Recovery Funds to fund 10 storm drain projects. FY23 funding switch between Current Revenue: WQPC and Long-Term Financing to record a small credit received from MDE related to FY19 expenditures and funding switch between Current Revenue and Bonds from the WQPC fund. In FY23-FY28, long-term financing based on the Maryland Water Quality Revolving Loan Fund (WQRLF) from the Maryland Department of Environment (MDE) and Current Revenue: Water Quality Protection Charge were replaced with Water Quality Protection Bonds due to limited eligibility of projects within this CIP under the revolving fund. Funding switch in FY24 to move \$1 million from WQPC Bonds to CR WQPC to use available cash balance. Funding switches in FY25 and FY26 between WQPC Bonds and CR WQPC to remove remaining funding from the MDE loan. Funding switch in the upload of actuals between Intergovernmental and Stormwater Management Waiver Fees for \$101,000.

DISCLOSURES

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

COORDINATION

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