



Committee: T&E
Committee Review: Completed
Staff: Keith Levchenko, Senior Legislative Analyst
Purpose: preliminary decisions – straw vote expected
Keywords: #StormDrainsCIP, DOT, Drainage

AGENDA ITEM #8
April 21, 2020
Worksession

SUBJECT

FY21-26 Capital Improvements Program – Conservation of Natural Resources: Storm Drains

EXPECTED ATTENDEES

- Dan Sheridan, Design Section Chief, Division of Transportation Engineering, Department of Transportation

FISCAL SUMMARY

FY21-26 versus Amended FY19-24 Expenditures (in 000's)

	Six-Year Total	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
FY19-24 Amended	16,836	2,806	2,806	2,806	2,806	2,806	2,806		
FY21-26 CE Rec	16,836			2,806	2,806	2,806	2,806	2,806	2,806
change from amended (\$,%)	- 0.0%			-	-	-	-		
Committee Rec	20,016			3,336	3,336	3,336	3,336	3,336	3,336
change from amended (\$,%)	3,180 18.9%			530	530	530	530		
change from CE Rec (\$,%)	3,180 18.9%			530	530	530	530	530	530

- All projects recommended by the County Executive to continue at the same annual funding levels as approved.
- No new "stand alone" projects.
- The T&E Committee supported Council Staff's recommendation to increase the level of effort in the Facility Planning: Storm Drains project (+\$30,000 per year) and the Storm Drain Culvert Replacement project (+\$500,000 per year) subject to final review of the Water Quality Protection Fund and charge during the Council's Operating Budget review.
- Low-interest long-term financing from the Maryland Water Quality Revolving Loan Fund continues to be the dominant funding source with Water Quality Protection Charge current revenue also used (See Page 3). **No General Obligation Bonds or General Fund Current Revenue are assumed for the Stormwater Management CIP.**

OTHER ISSUES

- Increases in drainage assistance requests have led to backlogs within the Facility Planning: Storm Drains project and the Storm Drain: General project.
- The Storm Drain Culvert Replacement project is substantially underfunded per the Eighth Report of the Infrastructure Maintenance Task Force (see ©24)
- At the T&E Committee meeting, Council Staff noted Councilmember Friedson's memo to the Committee recommending doubling the level of effort in the Storm Drain: General project in FY21 to address the current backlog. In addition to the increases recommended in the other projects,

Council Staff suggested working further with DOT and OMB with regard to what additional level of work could be absorbed in the Storm Drain: General project and forwarding that recommendation to the T&E Committee later this spring.

*NOTE: Subsequent to the T&E Committee meeting, DOT staff suggested a 10 percent increase in FY21 (from \$854,000 to \$940,000) and a 20 percent increase in FY22 and beyond (from \$854,000 to \$1.0 million) was manageable and would assist with reducing the current backlog. **Council Staff is supportive of this increase.***

COMMITTEE RECOMMENDATION

- Approve the Storm Drain CIP with the increased expenditures recommended by Council Staff.
NOTE: These expenditure increases may be revisited by the T&E Committee and Full Council as part of the consideration of the Fiscal Plan for the Water Quality Protection Fund during the Operating Budget review of the DEP budget later this spring.

This report contains:

- T&E Committee 3/2/2020 Council Staff Report (Storm Drain excerpt) Pages 1-9, ©1-8, ©18-26
- DOT Presentation Slides 3/2/2020 Slide #s1-15

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Excerpt

Storm Drains
CIP

T&E COMMITTEE #3&4
March 2, 2020

Worksession

MEMORANDUM

February 26, 2020

TO: Transportation & Environment Committee

FROM: *KL* Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Worksession: FY21-26 Capital Improvements Program (CIP) Conservation of Natural Resources: Agenda Item #3: Storm Drains and Agenda Item #4: Stormwater Management**

NOTE: Both the Storm Drains CIP and the Stormwater Management CIP are funded via the Water Quality Protection Fund. Therefore, any potential expenditure changes in these programs do not affect the County's affordability calculations with regard to G.O. bonds or general current revenue. Instead, these projects, either through current revenue or debt repayment impact the Water Quality Protection Charge and the charge per "equivalent residential unit" to be assessed for FY21.

- **Storm Drains**
Highlights:
 - All projects recommended to continue at the same annual funding levels as approved.
 - No new "stand alone" projects.
 - Backlogs being experienced in several projects
 - **Council Staff recommends increasing levels of effort in some projects.**
- **Stormwater Management: Approve as Recommended by the County Executive**
 - Six-year program is up by \$7.2 million (6.9 percent)
 - Increase recommended in the SM Facility Major Structural Repair project
 - Multiple projects recommended to be consolidated into the Stormwater Retrofit: Countywide project.
 - Still waiting on State action on the County's NPDES-MS4 permit.
 - **Council Staff supports approval of the County Executive's recommendations**

NOTE: Council Staff has asked DEP and DOT to provide summary presentations of their programs, including some specific "before and after" examples of recently completed work funded out of these various CIP projects.

The following officials and staff will be attending this meeting:

Storm Drains CIP

- Dan Sheridan, Design Section Chief, Division of Transportation Engineering, Department of Transportation
- Mary Beck, OMB CIP Manager
- Veronica Jaua, OMB Fiscal and Policy Analyst

Stormwater Management CIP

- Patty Bubar, Deputy Director, Department of Environmental Protection (DEP)
- Frank Dawson, Chief, Watershed Restoration Division, DEP
- Jim Stiles, Chief, Design and Construction Section, DEP

Attachments

- County Executive's Recommended FY2126 CIP (Storm Drains) (©1-8)
- County Executive's Recommended FY21-26 CIP (Stormwater Management) (©9-17)
- Storm Drain-related Public Hearing Testimony (©18-23)
- Infrastructure Task Force Report (February 2020) Excerpt (©24)
- February 21, 2020 Memorandum from Councilmember Andrew Friedson to T&E Committee Members (©25-26)

AGENDA ITEM #3: FY21-26 STORM DRAINS CIP

Summary

The Department of Transportation (DOT) Division of Transportation Engineering manages the County storm drains program. Properly functioning storm drains remove excess water from the roads, ensuring safer road conditions while also protecting roads from water damage. Properly functioning storm drains also protect adjacent properties from water runoff damage. Work is identified through requests for assistance that come from property owners as well as from government agencies. DOT works in partnership with the state and other municipalities when state roads and/or municipal properties are involved.

DOT staff will provide a brief presentation of the storm drains program.

An excerpt from the Executive's Recommended FY21-26 CIP for storm drains is attached on ©19-27. The Executive is recommending \$16.8 million for FY19-26 (the same amount as the Approved FY19-24 CIP) for four Storm Drain projects. No new projects are recommended. The following table shows the recommendation by fiscal year compared to the latest Approved FY19-24 CIP.

Table #1
Storm Drains CIP (in 000s)

	Six-Year	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
FY19-24 Latest Approved	16,836	2,806	2,806	2,806	2,806	2,806	2,806		
FY21-26 CE Recommended	16,836			2,806	2,806	2,806	2,806	2,806	2,806
percent change from approved	0.0%			0.0%	0.0%	0.0%	0.0%		

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

Table #2
Storm Drains CIP (in \$000s)

	FY19-24 Total	FY21-26 Total	\$\$\$ Change	% Change
Total	16,836	16,836	-	0.0%
Long-Term Financing	13,220	13,500	280	2.1%
Water Quality Protection Charge	3,616	3,336	(280)	-7.7%

The chart shows that Long-Term Financing (paid with Water Quality Protection Charge current revenue) is the dominant funding source for this program. There is also some Water Quality Protection Charge current revenue included as well. Some storm drain projects can involve State or other outside participation, although none of these sources are assumed in the Approved or Recommended CIP at this time.

Public Hearing Testimony (see ©18-23)

The Council received public hearing testimony from the President of the Civic Association of River Falls (CARF) in Potomac expressing support for drainage projects to address flooding experienced in this community in July 8, 2019 and again on August 6. DOT did some clearing of debris after the July flood and are currently doing additional planning work to develop a comprehensive solution for this area.

The Council also heard from a resident of the Laurel Hill neighborhood in Bethesda (near Bradley Boulevard and Seven Locks Road) which has been working with DOT for some time on drainage issues in their area. The resident supports increased funding for storm drain projects to address these issues.

DOT staff will be available to discuss these and other issues at the Committee worksession.

Project Review

Facility Planning: Storm Drains (PDF on ©2-3)

Facility Planning: Storm Drains

	Six-Year	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
FY19-24 Latest Approved	1,740	290	290	290	290	290	290		
FY21-26 CE Recommended	1,740			290	290	290	290	290	290
change from approved	-			-	-	-	-		
percent change from approved	0.0%			0.0%	0.0%	0.0%	0.0%		

This project provides for the investigation and analysis of various storm drainage assistance requests (DARs) initiated by private citizens and public agencies. Non-capital maintenance work (such as cleaning out storm drains) is referred immediately for quick turnaround. For capital work,

depending on the complexity of the project, in-house staff or consultants design projects to a 35 percent design level. At that point, projects that cost over \$500,000 become stand-alone projects if approved. Projects costing less than \$500,000 are constructed in the Storm drain: General project.

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

According to DOT staff, there has been an uptick in the number of requests in recent years with 205 drainage assistance requests in FY19 and 106 drainage assistance requests in FY20 to date. DOT responds (email or phone call) to requests within 48 hours with a goal of doing site visits/evaluations within two weeks. DOT's goal is to establish a plan of action within two weeks of a site evaluation. However, the severity of the issues and the volume of work has lengthened the timeframe for inspections and evaluations. The actual design work can take 6 months to a year depending on the complexity of the project.

The County Executive is recommending \$290,000 annually in FY21 and beyond (the same annual level of funding in the FY19-24 approved project), funded entirely with Water Quality Protection Charge current revenue funding. These dollars cover both in-house staff and consultant services.

The annual level of effort in this project was \$250,000 as far back as FY09 but was increased to its current level of \$290,000 in FY17 (a 16 percent increase). At the same time, as noted earlier, the DARs have risen in volume and the solutions have gotten more complex and expensive leading to a backlog in planning work after the initial site visits are completed.

Council Staff recommends stepping up the annual level of effort in this project by \$30,000 per year (about a 10 percent increase) beginning in FY21 to help address the planning backlog. The impact of this (and increases being considered in other projects) on the Water Quality Protection Fund and Charge will need to be revisited during the DEP Operating Budget review later this spring.

Outfall Repairs (PDF on ©4-5)

		Outfall Repairs							
	Six-Year	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
FY19-24 Latest Approved	2,772	462	462	462	462	462	462		
FY21-26 CE Recommended	2,772			462	462	462	462	462	462
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. In addition to planned projects (see below), DOT also receives and coordinates efforts for one or two requests per month from various sources, including DOT, DHS, DEP, WSSC, and M-NCPPC.

Projects completed in FY19 and FY20 include:

Daniel Road-This project included grading, reconstruction of a storm drain structure, plunge pools, and stream bed improvements adjacent to 2901 Daniel Road. Construction cost \$73,728.21

Hatherleigh Drive-This project included grading, reconstruction of a storm drain structure, and stream bed improvements adjacent to 10205 Hatherleigh Drive. The invoice for the final construction cost has not been submitted by the contractor yet. The estimated construction cost is \$15,000.

Bennington Drive -This project included grading, reconstruction of a storm drain structure, slope repair with coir matting, installation of rip rap, installation of a swale approximately 2-3 feet off Bennington Drive, planting of trees and shrubs and stream bed improvements across from 618 Bennington Drive. Construction cost \$71,432.36

Charred Oak at Hollyoak (Site One) - This project included grading, installation of a storm drain structure, storm drainpipe, rock sills, step pools and planting of trees and shrubs and stream bed improvements adjacent to 9112 Charred Oak. Construction cost \$159,981.88.

Charred Oak Site Two- This project included grading, installation of a storm drain structure, storm drainpipe, rock sills, step pools and planting of trees and shrubs and stream bed improvements between 9100 and 9104 Charred Oak. Construction cost \$73,678.88.

Menlo Avenue – This project included the installation of a new inlet, replacement of an existing storm drain pipe, extension of the storm drain outfall to an existing stream, and the installation of a plunge pool and stabile outfall between 10217 and 10219 Menlo Avenue. Construction cost is \$30,291.00.

Kemp Mill Road – This project included the installation plunge pools, step pool, rock, and outfall stabilization between 12201 and 12203 Kemp Mill Road. Construction cost is \$33,992.40.

DOT staff has noted that, “there are currently 13 outfalls qualifying for repair that are considered non-emergency requiring survey, design, permitting, and MNCPPC coordination when time and budget allows.”

For FY21-26, the County Executive recommends an annual expenditure level of \$462,000, which is the same annual level as in the approved CIP. Funding is split between Water Quality Protection Charge current revenue and Long-Term Financing. The Executive recommends a two-year appropriation (\$924,000) to give DOT more flexibility in year one of the CIP.

Storm Drain Culvert Replacement (PDF on ©6)

		Storm Drain Culvert Replacement							
	Six-Year	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
FY19-24 Latest Approved	7,200	1,200	1,200	1,200	1,200	1,200	1,200		
FY21-26 CE Recommended	7,200			1,200	1,200	1,200	1,200	1,200	1,200
change from approved	-			-	-	-	-	-	-
percent change from approved	0.0%			0.0%	0.0%	0.0%	0.0%		

This project provides for the replacement of failed storm drain pipes and culverts that are less than 6 feet in roadway longitudinal length.¹ The project does not make major changes to the location or size of the existing storm drain facilities. The work done out of this project includes systematic work and emergency work. DOT defines this work as follows:

***Systematic work** would be characterized as the repairs of fatigued and/or damage to the storm drain infrastructure, that is most likely reported by residents to MC311 or other agencies within the County Government. Those repairs or storm drain replacements are subsequently scheduled to be performed as funding allows. These projects sometimes require permit acquisition and coordination.*

***Emergency work** would be characterized as reported failures that require immediate attention for the safety of the public. Staff moves swiftly to ensure that the site is made safe. Critical coordination efforts begin as plans are then made for repairs.*

Emergency work, by definition, is unforeseen and therefore when this type of work arises, it is funded out of the same annual level of effort in this project as the systematic work unless supplemental funding is sought.

For FY21-26, the County Executive recommends the \$1.2 million per year; the same annual level of expenditures as in the Approved FY19-26 CIP. The project is funded entirely with Long-Term Financing.

In the FY15-20 CIP, funding was included in this project for an asset inventory and condition assessment. According to DOT this work is now 85 percent complete.

The Eighth Report of the Infrastructure Maintenance Task Force (February 2020) includes the results of the survey work to date (see ©24) and identifies a backlog of \$47.3 million and an “Acceptable Annual Replacement Cost” of \$4.04 million. The current level of effort is about 30 percent of that level.

DOT has identified the following work completed and/or scheduled in this project:

FY19

*Turkey Foot Culvert Replacement
Wembrough Storm Drain Repairs
Kinster Drive Culvert Replacement
Falling Creek Road Culvert Repair
River Road Culvert Replacement
Hidden Valley Storm Drain Repairs
Aldershot Storm Drain Replacement
Memory Lane Storm Drain Repair*

FY 20

*Belfast Road Culvert Replacement
Fenway Road Culvert Replacement
Spicewood Lane Culvert Replacement
Gridley Lane Culvert Lining*

¹ Structures longer than 6 feet in longitudinal length would continue to be addressed in the Bridge Renovation Program project (No. 509753).

*Randolph Rd. @ Burkhart St. Storm
Drain Repairs*

Avoca Lane Storm Drain Repairs

*Cherry Grove Drive Storm Drain
Replacement*

FY 21

8409 Garland Ave. Storm Drain Repairs

Germantown Road Culvert Lining

*4703 DeRussey Parkway Storm Drain
Repairs*

*7303 Rollingwood Drive Storm Drain
Repairs*

Alderton Drive Culvert Replacement

*Other projects will be added as determined in coordination with Transportation
Engineering.*

Given the large backlog of replacement work for storm drain pipes and culverts as identified in the Infrastructure Task Force Report, Council Staff suggests that the T&E Committee consider phasing in a higher annual level of effort in the Storm Drain Culvert Replacement project. This additional funding would also provide DOT more flexibility to deal with emergencies in a timely manner. As a placeholder, Council Staff suggests increasing the annual level of effort by \$500,000 per year.

Council Staff recommends that the funding come from the Water Quality Protection Fund (long-term financing if available or Water Quality Protection Charge Current Revenue or Bonds) The T&E Committee can consider what level of increased funding to support as part of its review of the Water Quality Protection Fund during its Operating Budget review of the Department of Environmental Protection later this spring.

Storm Drain General (PDF on ©7-8)

Storm Drain General									
	Six-Year	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
FY19-24 Latest Approved	5,124	854	854	854	854	854	854		
FY21-26 CE Recommended	5,124			854	854	854	854	854	854
change from approved	-			-	-	-	-		
percent change from approved	0.0%			0.0%	0.0%	0.0%	0.0%		

This project includes any storm drain projects costing less than \$500,000, as well as funding to address "spot" projects that can be addressed relatively quickly throughout the year. 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 FY21-26, the County Executive recommends an annual funding level of \$854,000 which is the same as in the Approved CIP. A two-year appropriation has been provided for this project through the last several CIP cycles to provide flexibility to DOT to plan and complete projects through its work order contractor without having to have artificial delays waiting for the next fiscal year to begin. In past years, DOT has noted that it has exhausted its past two-year appropriations (\$1.7 million) early in Year Two.

A list of work completed in FY18 and FY19 is noted on the PDF and some additional details are provided below:

Windmill Lane- This project was able to be expedited due to a safety concern with a tree. The project included the installation of a headwall, 42" PVC pipe, a rock sill, and rip rap to remedy erosion problem between 924 and 928 Windmill Lane. Construction cost \$91,256.51.

Ashburton Lane-This project included the modification of an existing manhole, installation of a new inlet and the installation of new storm drainpipe at the intersection of Ashburton Lane and Belhaven Road. The invoice for the final construction cost has not been submitted by the contractor yet. The estimated construction cost is \$35,000.

Aubinoe Farm Drive-The project included grading and backfilling the eroded areas, reconstruction of the headwall, installation of rip rap, and the installation of standard duty mulch mats across from 6313 Berkshire Drive. The invoice for the final construction cost has not been submitted by the contractor yet. . The estimated construction cost is \$25,000.

Stable Lane-The project included grading and backfilling the eroded areas, reconstruction of a storm drain structure, installation of rip rap, and the installation step pools adjacent to 10609 and 10617 Stable Lane. Construction cost \$124,358.07.

Ogden Court-The project included the installation of storm drainpipe, a concrete channel, a net inlet and rip rap between 5817 and 5819 Ogden Court. Construction cost is \$37,300.80.

Lockridge Drive-The project included the installation of riffle grade controls, cross vanes, rock sills the planting of shrubbery in the median north of the intersection of Lockridge Drive and Lombardy Road. The construction cost is \$72,764.00

Quincy Street-The project included the installation and relocation of 6" PVC pipe in the right of way and sump pump connections from 118 Quincy Street to 203 Oxford Street. \$30,790.

2nd Avenue/Lanier Drive-The project included installation of an inlet, a bioswale, an underdrain pipe and reconstruction of the curb and gutter and one driveway apron. Construction cost is \$38,920.46

At the Committee meeting, DOT will present some "before and after" examples of work completed. Several future projects are also listed. However, DOT has noted that additional projects can be completed in this project once planning is complete.

DOT has noted that "There are currently 10 storm drain projects and three curb requests that qualify for the program but are considered non-emergency and stable and will be completed on a priority basis."

On February 21, Councilmember Friedson sent a memorandum to Councilmembers supporting a doubling of the annual level of effort in this project (see ©25-26). The level of effort in this project was most recently increased in FY17 (from 800,000 to 854,000 per year). The Committee can discuss with DOT the implications of doubling funding in this project. **Given the backlog of work in the Storm Drain: General project, Council Staff agrees that the Committee should consider an increased annual level of effort in this project but would like to work further with DOT on what additional level of work could be absorbed in FY21 and whether a phase-in to a higher level of effort is needed.**

Council Staff recommends that the funding come from the Water Quality Protection Fund (long-term financing if available or Water Quality Protection Charge Current Revenue) The Committee can revisit the level of increase for this effort when it takes up the DEP Operating Budget (and the Water Quality Protection Fund) later this spring.

AGENDA ITEM #4: FY21-26 STORMWATER MANAGEMENT CIP

Summary

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

An excerpt from the Executive's Recommended FY21-26 CIP is attached on ©1-9. Overall, there are nine ongoing projects and one new project. As shown in the following chart, the Executive is recommending an increase of \$7.2 million (6.9%) in the six-year program (from \$105 million to \$112.2 million). This follows major changes in the program two years ago which included a substantial reduction in six-year spending.²

Table #1
Stormwater Management CIP (in \$000s)

	Six-Year	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
FY19-24 Latest Approved	104,990	27,430	23,240	14,810	14,870	14,000	10,640		
FY21-26 CE Recommended	112,230			21,120	26,530	16,870	15,590	16,130	15,990
change from Approved	7,240			6,310	11,660	2,870	4,950		
percent change from Approved	6.9%			42.6%	78.4%	20.5%	46.5%		

For the FY19-24 CIP two years ago, DEP was assuming to complete the acreage requirement for retrofit work associated with the 2010-2015 permit by 2020 (it in fact did so by December 2018) and begin work to meet the expected requirements of the next permit. (see discussion later in this memorandum). In addition, a new Design/Build/Maintain contract approach was recommended by the Executive (and later approved by the Council with some additional requirements) to replace the current design-bid-build process for the bulk of the retrofit work to be done in the six-year period.

² The FY17-22 Amended CIP for this program was \$345.5 million. This prior high level of spending was reflective of the County's efforts to implement its work associated with the County's 2010 to 2015 National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit and the later Consent Decree with the Maryland Department of the Environment to complete the permits impervious acreage retrofit requirements after the conclusion of the permit period.



Storm Drains

PROGRAM DESCRIPTION AND OBJECTIVES

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

The DOT Storm Drains Capital Program consists of the construction of storm drainage structures such as curbs, gutters, drainage inlets, pipes, 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 drainage 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). The DOT is partnering with the County's 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 the Water Quality Protection Charge. In FY19, going forward, Water Quality Protection Bonds were replaced with long-term financing based on the Maryland Water Quality Revolving Loan Fund (WQRLF) from the Maryland Department of Environment (MDE) to finance water quality improvement projects with low-interest loans which are less costly than bond sales. Funding schedules in project description forms (PDFs) reflect MDE's cost eligibility rules.

PROGRAM CONTACTS

Contact Dan Sheridan of the Department of Transportation at 240.777.7283 or Veronica Jaua of the Office of Management and Budget at 240.777.2782 for more information regarding this department's capital budget.

CAPITAL PROGRAM REVIEW

The Storm Drainage program for FY21-26 includes four ongoing projects. The overall cost of the recommended six year program is \$16.8 million, representing the same level of funding as the FY19-24 Amended Program.



Facility Planning: Storm Drains (P508180)

Category Conservation of Natural Resources
SubCategory Storm Drains
Planning Area Countywide
Date Last Modified 01/03/20
Administering Agency Transportation
Status Ongoing

Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
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EXPENDITURE SCHEDULE (\$000s)

Planning, Design and Supervision	7,917	5,788	389	1,740	290	290	290	290	290	290	-
Land	142	142	-	-	-	-	-	-	-	-	-
Construction	40	40	-	-	-	-	-	-	-	-	-
Other	5	5	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	8,104	5,975	389	1,740	290	290	290	290	290	290	-

FUNDING SCHEDULE (\$000s)

Current Revenue: General	4,103	4,103	-	-	-	-	-	-	-	-	-
Current Revenue: Water Quality Protection	3,900	1,771	389	1,740	290	290	290	290	290	290	-
G.O. Bonds	101	101	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	8,104	5,975	389	1,740	290	290	290	290	290	290	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 21 Request	290	Year First Appropriation	FY81
Appropriation FY 22 Request	290	Last FY's Cost Estimate	7,524
Cumulative Appropriation	6,364		
Expenditure / Encumbrances	6,035		
Unencumbered Balance	329		

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

Increase due to the addition of FY25 & FY26 to this on-going 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 sub-project, concept studies are evaluated based on the following factors: public safety; damage to private property; frequency of event; damage to public right-of-way; environmental factors such as erosion, general public benefit, availability of right-of-way; and 5:1 cost benefit 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: Crown Street, Grafton Street, Lanier Drive, Ogden Court, Ashburton Lane, Mintwood Street, Woodland Drive, Stable Lane and Charred Oak Drive. Candidate Projects for FY21 and FY22: Tranford Road, Windmill Lane, and Conway Drive.

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
SubCategory Storm Drains
Planning Area Countywide

Date Last Modified 12/31/19
Administering Agency Transportation
Status Ongoing

Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
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EXPENDITURE SCHEDULE (\$000s)

Planning, Design and Supervision	4,374	2,763	489	1,122	187	187	187	187	187	-
Land	12	12	-	-	-	-	-	-	-	-
Construction	6,440	4,515	275	1,650	275	275	275	275	275	-
Other	3	3	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	10,829	7,293	764	2,772	462	462	462	462	462	-

FUNDING SCHEDULE (\$000s)

Current Revenue: Water Quality Protection	1,823	667	364	792	132	132	132	132	132	-
G.O. Bonds	5,357	5,357	-	-	-	-	-	-	-	-
Long-Term Financing	2,540	160	400	1,980	330	330	330	330	330	-
Water Quality Protection Bonds	1,109	1,109	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	10,829	7,293	764	2,772	462	462	462	462	462	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 21 Request	924	Year First Appropriation	FY99
Appropriation FY 22 Request	-	Last FY's Cost Estimate	9,905
Cumulative Appropriation	8,057		
Expenditure / Encumbrances	7,583		
Unencumbered Balance	474		

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

Increase due to the addition of FY25 & FY26 to this on-going 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 FY18-19: Elsmere Road, Brentford Drive, Hollyoak Drive, Charred Oak Drive, Woodbine Road, Kemp Mill Road and Lockridge Drive. Scheduled for repairs (FY20 - beyond): Daniel Road, Glen Road, Whisperwood Road, Margate Road, and Shiloh Church Road.

FISCAL NOTE

In FY19, Water Quality Protection Bonds were replaced with long-term financing based on the Maryland Water Quality Revolving Loan Fund (WQRLF) to finance water quality improvement projects with low interest loans which are less costly than bond sales. Funding schedule reflects MDE's cost eligibility rules.

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 Miscellaneous Stream Valley Improvements (CIP No. 807359).



Storm Drain Culvert Replacement (P501470)

Category	Conservation of Natural Resources	Date Last Modified	12/31/19
SubCategory	Storm Drains	Administering Agency	Transportation
Planning Area	Countywide	Status	Ongoing

Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
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EXPENDITURE SCHEDULE (\$000s)

Planning, Design and Supervision	2,625	1,200	345	1,080	180	180	180	180	180	180
Construction	14,873	7,822	931	6,120	1,020	1,020	1,020	1,020	1,020	1,020
Other	2	2	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	17,500	9,024	1,276	7,200	1,200	1,200	1,200	1,200	1,200	1,200

FUNDING SCHEDULE (\$000s)

Current Revenue: Water Quality Protection	4,000	4,000	-	-	-	-	-	-	-	-
G.O. Bonds	1,500	1,500	-	-	-	-	-	-	-	-
Long-Term Financing	9,600	1,124	1,276	7,200	1,200	1,200	1,200	1,200	1,200	1,200
Water Quality Protection Bonds	2,400	2,400	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	17,500	9,024	1,276	7,200	1,200	1,200	1,200	1,200	1,200	1,200

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 21 Request	1,200	Year First Appropriation	FY14
Appropriation FY 22 Request	1,200	Last FY's Cost Estimate	15,100
Cumulative Appropriation	10,300		
Expenditure / Encumbrances	9,038		
Unencumbered Balance	1,262		

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 due to the addition of FY25-26 to this ongoing 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

In FY19, Water Quality Protection Bonds were replaced with long-term financing based on the Maryland Water Quality Revolving Loan Fund (WQRLF) to finance water quality improvement projects with low-interest loans which are less costly than bond sales.

DISCLOSURES

Expenditures will continue indefinitely.

COORDINATION

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



Storm Drain General (P500320)

Category	Conservation of Natural Resources	Date Last Modified	01/03/20
SubCategory	Storm Drains	Administering Agency	Transportation
Planning Area	Countywide	Status	Ongoing

Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
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EXPENDITURE SCHEDULE (\$000s)

Planning, Design and Supervision	4,417	2,070	823	1,524	254	254	254	254	254	254
Land	103	103	-	-	-	-	-	-	-	-
Construction	15,178	10,965	613	3,600	600	600	600	600	600	600
Other	1	1	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	19,699	13,139	1,436	5,124	854	854	854	854	854	854

FUNDING SCHEDULE (\$000s)

Current Revenue: Water Quality Protection	2,852	1,600	448	804	134	134	134	134	134	134
G.O. Bonds	9,169	9,169	-	-	-	-	-	-	-	-
Intergovernmental	223	223	-	-	-	-	-	-	-	-
Long-Term Financing	5,619	311	988	4,320	720	720	720	720	720	720
State Aid	162	162	-	-	-	-	-	-	-	-
Water Quality Protection Bonds	1,674	1,674	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	19,699	13,139	1,436	5,124	854	854	854	854	854	854

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 21 Request	1,708	Year First Appropriation	FY03
Appropriation FY 22 Request	-	Last FY's Cost Estimate	17,991
Cumulative Appropriation	14,575		
Expenditure / Encumbrances	13,496		
Unencumbered Balance	1,079		

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. Right-of-way is acquired under the Advanced Land Acquisition Revolving Fund (ALARF).

CAPACITY

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

COST CHANGE

Increase due to the addition of FY25 & FY26 to this on-going 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. Some funds from this project will go to support the Renew Montgomery program. Completed Projects in FY18 and FY19: Crown Street, Grafton Street, Lanier Drive, Ogden Court, Ashburton Lane, Mintwood Street, Woodland Drive, Charred Oak Drive, and Stable Lane. Potential Future projects: Tranford Road, Windmill Lane and Conway Road.

FISCAL NOTE

In FY19, Water Quality Protection Bonds were replaced with long-term financing based on the Maryland Water Quality Revolving Loan Fund (WQRLF) to finance water quality improvement projects with low-interest loans which are less costly than bond sales. Funding schedule reflects MDE's cost eligibility rules. The FY21 appropriation has been programmed to cover both FY21 and FY22 project expenditures; consistent with past practice for this project.

Storm Drains

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 & 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).

KL

**TESTIMONY BEFORE THE MONTGOMERY COUNTY COUNCIL
IN SUPPORT OF INCREASED FUNDING FOR DRAINAGE CONTROL
PROJECTS**

FEBRUARY 5, 2020

Thank you for the opportunity to testify this afternoon in support of increasing the budget to fund desperately needed DOT storm runoff drainage improvement projects to reduce the ever-worsening damage caused by storm water runoff.

My name is Tom Coogan and I am a resident of the Laurel Hill neighborhood in Bethesda near Bradley Boulevard and Seven Locks Road. We and our neighbors, many of whom are longtime County taxpayers, have seen our property literally washed away as a result of uncontrolled runoff, largely the result of County roads that lack adequate storm water control. For almost a decade we have been working with DOT officials to address our concerns. DOT along with DEP and Maryland State officials have met with us and all acknowledge the severity of the problem; however, there has not ^{been} had adequate funding to perform the necessary work. Fortunately, with the assistance of Councilmember Friedson and his assistant, Aaron Kraut, we and our neighbors are cautiously optimistic that this year DOT may finally have adequate funding to correct this longstanding problem in our neighborhood.

So I am here today not only for my family and my neighbors but for all residents in the County who are suffering from damage to their homes and property due to inadequate funding of drainage control projects. This problem has been plaguing many of us for many, many years, and has gone unresolved due to lack of funding. We and our neighbors deserve better, other County residents deserve better, and DOT deserves more funding. Over the past decade, whether the result of increased building, infrastructure deterioration, or climate change, storm water runoff has been destroying private and public property and polluting our waterways. Just on our property, for example, raging torrents of water from an unmaintained County drainage easement have swept away the foundation of a massive retaining wall next to our house, toppled enormous trees, undermined a large footbridge, and left our property flooded. Photographs to illustrate the damage are included in my written testimony.







The damage caused by storm water runoff is not limited to private property. Rushing water causes drains to get clogged, sidewalks and roads to be damaged, and eventually streams and rivers to be polluted, all of which not only harms our neighborhood, which is next to Cabin John Creek, but everyone in the County who pays for that damage.

We and our neighbors hope that the County Council will increase funding for drainage improvements in the capital budget that is before you, and that the County Executive will support those increases in future budget recommendations. Thank you for your consideration of our request, for your time and attention, and for your service to our community.

Thomas D. Coogan
7926 Bradley Boulevard
Bethesda, MD 20817

(KL) 76

**Statement of Eugene Ebner
President, Civic Association of River Falls (CARF)
February 5, 2020**

My name is Eugene Ebner and I am President of the Civic Association of River Falls. Thank you for the opportunity to address the Montgomery County Council on the impact of last summer's storms, subsequent flooding in the River Falls community and the steps needed to ensure that those impacts are mitigated and funded.

On July 8, 2019 the River Falls community experienced a major flood event from an extreme storm followed by another storm of shorter duration on August 6, 2019, which resulted in additional flooding, though not as severe as the first storm.

During the initial flood, a portion of the River Falls neighborhood incurred significant street flooding of several feet of water, making those roads impassable and resulting in the partial submergence of parked cars, some of which floated away. There was also major property damage to a number of homes on those streets, including loss of personal property and the extensive flooding of basements.

Homes and streets in the neighborhood impacted by these floods include (but are not limited to) portions of River Falls Drive, Coach Street and Horseshoe Lane located between Hackamore Drive and Brickyard Road, as well as portions of Hackamore Drive, Stable Lane, and Little MacArthur Blvd.

Flooding on Horseshoe Lane also resulted in the submerging of the River Falls Community Center Association's swimming pool, tennis courts, and portions of the clubhouse. These facilities are available for use not only by Association members, but also by other Montgomery County communities for swim meets and related events. As a result of the flooding, the swimming pool and clubhouse incurred significant damage.

Statement of Eugene Ebner, CARF (continued)

Since the occurrence of the first storm on July 8, it is our understanding that the Montgomery County Department of Transportation (DOT) Division of Highway Services inspected and took steps to clear drains in our neighborhood. We should note however, that even after the County cleared the drains of debris, that action alone was not sufficient because the neighborhood still experienced subsequent flooding issues as evidenced by the smaller August 6 storm previously mentioned.

In addition, we were informed that the DOT Division of Transportation Engineering conducted an initial on-site survey of our community's drainage system infrastructure thereafter, and decided to undertake a further comprehensive hydrologic and hydraulic study and analysis of our neighborhood's draining issues. We urge that this study be completed expeditiously and be made public as soon as possible.

We know that there are many competing demands for resources in the County Budget. However, given the flooding impacts described above and the DOT's analysis and findings regarding on-going drainage issues in our neighborhood, we strongly urge that the County's Budget include the additional funding required for the continued assessment and implementation of essential drainage system improvements and flood mitigation projects for River Falls in the County's Capital Improvement Program (CIP) and future budgets.

Specifically, we request that these resources be allocated on a priority basis for River Falls towards the identification in the CIP of specific immediate, near, and long-term follow-on infrastructure and related projects to solve the problems identified in the DOT drainage analysis and that a timetable be established, specifying when those projects will be implemented and completed.

The County's efforts on behalf of our community are necessary and greatly appreciated. We look forward to hearing back from you as soon as possible as to how and when these issues will be addressed and resolved.

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2	Capital Project	Major Element	Notes	Acceptable Life Span (Years)	Inventory	Units	How much/many should be replaced annually	Average Cost	Acceptable Annual Replacement Cost	FY20 Approved	FY21 Request	Future Funding Level	Backlog	Criticality Rating
18	Infrastructure Revit. Sidewalk	Sidewalks Repairs		30	1,668	miles	56	\$74,000	\$4,114,400	\$3,350,000	\$2,250,000	Higher	\$82,288,000	4
19	Infrastructure Revit. Curb & Gutter	Curb & Gutter Repairs		30	3,336	miles	111	\$105,000	\$11,676,000	\$3,350,000	\$2,250,000	Higher	\$233,520,000	4
20	Street Tree Preservation	Neighborhood Block Pruning		10	500,000	each	50,000	\$375	\$18,750,000	\$3,100,000	\$3,100,000	Same	\$187,000,000	4
21	County Maintained Storm Drain	Storm Drain	Survey is 85% completed, as of 2019. Size under 5'	40-75	Pipes 12,130 Culverts 1,366	each	Pipes 303 Culverts 18	Pipes \$10,725 Culverts \$43,250	\$4,041,000	\$1,200,000	\$1,200,000	Higher	\$47,300,000	4
22	Guardrail Projects	Guardrails & End Treatments		30	100	miles	3.5	\$316,800	\$1,108,800	\$25,000	\$25,000	Same	\$15,840,000	3
23	Streetlighting	Pole & luminaire fixtures		25	29,500	street lights	1180	\$1,575	\$1,858,000	\$100,000	\$90,000	Same	\$23,231,250	4
24	Traffic Signals	County owned signalized intersections		25	278	signals	11	\$300,000	\$3,300,000	\$1,725,000	\$1,725,000	Same	\$33,360,000	5

2

24



MONTGOMERY COUNTY COUNCIL
ROCKVILLE, MARYLAND

ANDREW FRIEDSON
COUNCILMEMBER
DISTRICT 1

February 21, 2020

TO: T&E Committee Members
FROM: Councilmember Friedson
SUBJECT: Storm Drain General Capital Budget (P500320)

Dear Colleagues,

In summer 2019, two intense rainstorms within 30 days severely flooded County neighborhoods and homes, causing significant property damage and disruption. The storms of July 8, 2019, August 6, 2019, and other more isolated events underscored the inadequacy of County-maintained storm drain systems just as we can expect to experience increasingly intense rainstorms because of climate change.

To meet the demands of this new reality, we must focus more of our attention and resources on upgrading the County's storm drain systems. The Eighth Report of the County's Infrastructure Maintenance Task Force released this month shows a \$47.3 million backlog in maintenance of County-maintained Storm Drains. According to the report, even if we were able to eliminate the backlog, the County would need to spend \$4 million annually to keep the entire storm drain and culvert inventory in acceptable condition. The proposed FY21 Appropriation Request for the Storm Drain General project (P500320), which funds storm drain retrofits, is \$1.708 million.

I ask the T&E Committee to recommend increasing the FY21 Appropriation for the Storm Drain General project (P500320) by \$1.708 million to a total of \$3.416 million. Doubling the appropriation for this project in FY21 would allow DOT to do more storm drain retrofits and storm drain additions, especially in older County neighborhoods where existing storm drains were simply not designed to handle the amount of water we saw in last year's severe storms and will see with increasing frequency.

We heard compelling testimony during the CIP and capital budget public hearings in support of more funding for storm drains from community leaders in the Laurel Hill neighborhood of Bethesda and the River Falls neighborhood of Potomac. My office has received correspondence from residents in many other communities where basements and garages were flooded, streets and sidewalks were made impassable, and – in the case of Belfast Road – where a failed culvert led to a sinkhole that cut off the only route into or out of a neighborhood.



MONTGOMERY COUNTY COUNCIL
ROCKVILLE, MARYLAND

ANDREW FRIEDSON
COUNCILMEMBER
DISTRICT 1

I know you are equally committed to ensuring the safety of our residents. I believe this additional and much-needed funding can help more neighborhoods before the next big storm hits. Thank you for your consideration of this request.

CC: Keith Levchenko, Senior Legislative Analyst, Montgomery County Council



Montgomery County *Department of Transportation*

www.montgomerycountymd.gov/mcdot



MONTGOMERY COUNTY MARYLAND
DEPARTMENT OF TRANSPORTATION

FY21-26 Storm Drain CIP T&E Worksession

March 2nd, 2020

MC DOT

Division of Transportation Engineering and Division of Highway Services

- Tim Cupples – Chief of Transportation Engineering
- Richard Dorsey – Chief of Highway Services
- Melissa Garner – Chief of Support Services Section
- Dan Sheridan – Chief of Planning and Design Section

Storm Drain CIP Programs

- Facility Planning: Storm Drains (CIP# P508180)
 - Provides for the investigation and analysis of various DAR's initiated by county residents and public agencies.
- Storm Drain General (CIP# P500320)
 - Provides for the right-of-way acquisition and construction for storm drain projects resulting from the Drainage Assistance Request program (DAR)
- Outfall Repairs (CIP# P509948)
 - Provides for the repair of existing storm drain outfalls into stream valleys as selected from county residents and public agency DAR requests
- Storm Drain Culvert Replacement (CIP# P501470)
 - Replaces failed storm drains and culverts which have reached the end of their useful service life; on both an emergency (have failed), and preventive basis.

Belfast Road Culvert Replacement (CIP 501470)



Fenway Road Culvert Replacement (CIP 501470)



MEMORY LANE

Storm Drain / Outfall Repair (CIP 501470)



Ashburton Lane Storm Drain General (CIP 500320)



WOODBINE ROAD

Storm Drain Repair (CIP 500320)



Charred Oak Drive at Hollyoak Drive Storm Drain (CIP 500320)



Before



During



After

BENNINGTON DRIVE

Outfall Repair (CIP 509948)



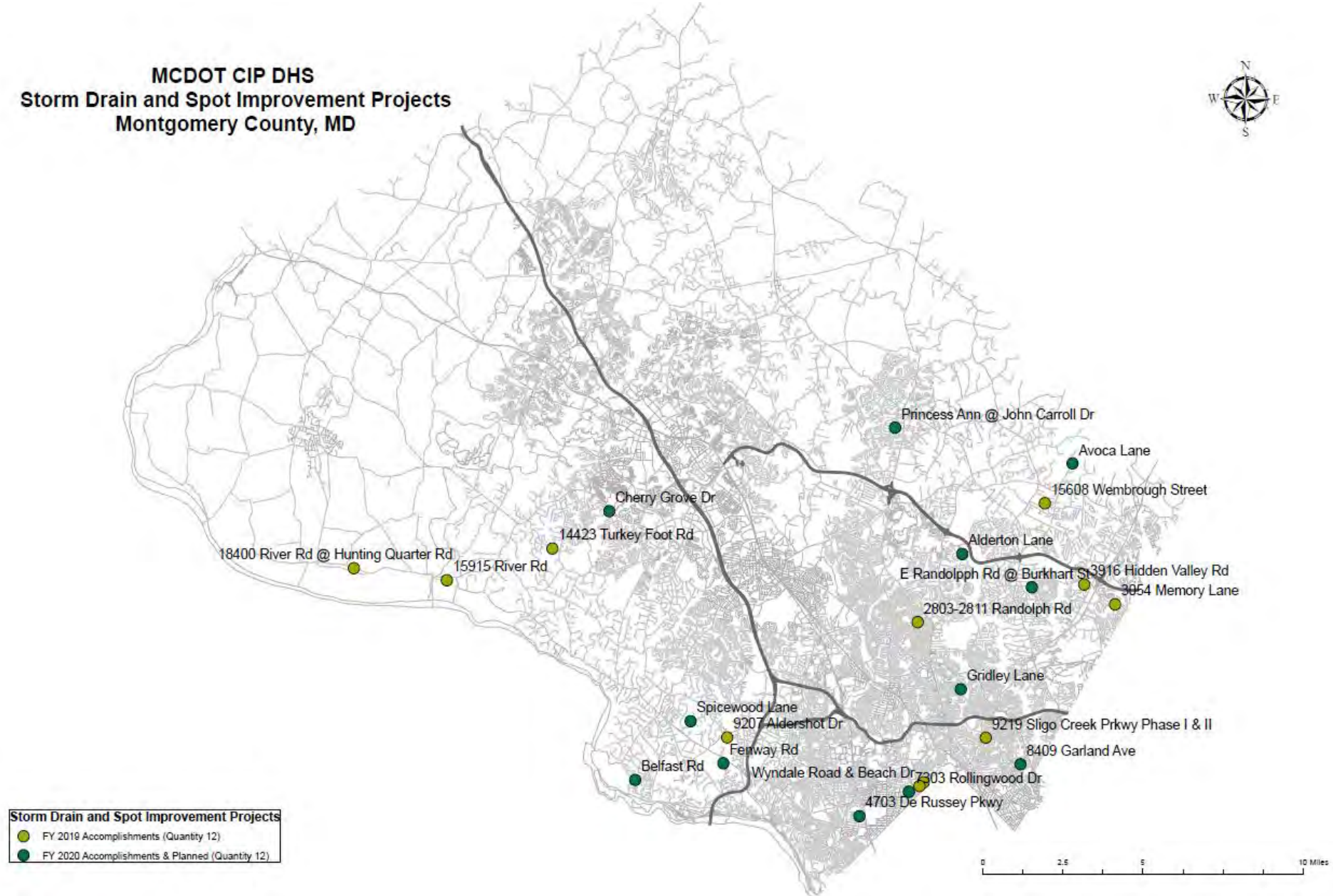
DANIEL ROAD OUTFALL REPAIR (CIP 509948)



Storm Drain Culvert Replacement

- a. All available CIP funding is expended annually. Emergency response beyond available CIP funding is charged to the operating budget.
- b. Costs range from \$15K to \$900K.
- c. See map on next slide for work accomplished.
- d. Increased backlog

**MCDOT CIP DHS
Storm Drain and Spot Improvement Projects
Montgomery County, MD**



Drainage Repair Service Requests

- Highway Services Drainage Repair Service Requests (SR's)
 - FY17: 1459
 - FY18: 813
 - FY19: 2292
 - FY20: (through Feb) 1139
- Transportation Engineering Drainage Assistance Request
 - FY17: 89
 - FY18 : 106
 - FY19: 205
 - FY20: (through mid-Feb.): 106

Stand-Alone Projects

- No projects identified that exceed the threshold for stand-alone projects.
- Highway services response is on an emergency basis.