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 impacts stream habitats, leading to 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 habitats and reduce pollution in the Bay and its tributaries.

The objectives of the Stormwater Management program are: protecting natural waterway environments; addressing the impacts of stormwater runoff by enhancing existing best management practices such as ponds, restoring streams previously damaged by excessive erosion and sedimentation, and installing other best management practices to capture runoff and allow for treatment to prevent impaired water quality. The County's Stormwater Management program is watershed-based and focuses on mitigating problems caused by development that was constructed prior to implementation of current stormwater management controls and on proactive planning in the developing portions of the County.

Residential and Commercial property owners pay a Water Quality Protection Charge (WQPC) to fund the Stormwater Management program. The WQPC funds are used to install new treatment facilities and retrofit existing facilities, maintain treatment facilities, monitor the effects of the treatment, ensure an active public education and engagement program, and ensure compliance with the multiple requirements of the permit issued to the County under the Clean Water Act, National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit. The WQPC, financing secured by the WQPC, as well as a State-facilitated long-term loan, are the main funding mechanisms for treatment facility projects.

The County's stormwater control requirements are established in the MS4 Permit, issued by the Maryland Department of the Environment (MDE). The third generation permit, issued in 2010, required watershed restoration of 20% of the County's impervious area not already controlled to the Maximum Extent Practicable, and the County has achieved that goal. A fourth generation permit is in development and its issuance is expected at the beginning of FY21.

The Stormwater Management capital program includes facility planning studies and the development of Watershed Restoration Action Plans, design and construction of stormwater retrofit projects (including low-impact development and green infrastructure), and stream restoration projects. These projects reduce pollution in streams and manage peak runoff flows to improve stream channel habitat and reduce sedimentation impacts from watershed development and urbanized areas.

Since FY04, the County has performed structural maintenance for qualified private stormwater management facilities such as ponds, sand filters, and underground facilities located on homeowner and condominium association and commercial properties. The WQPC funds the maintenance of these privately-owned structures as well as County-owned facilities. This program improves the long-term operational effectiveness of these facilities and increases their pollution removal efficiency. Inspection and routine maintenance of these facilities are funded in the operating budget, while major structural repairs that require extensive engineering design and permitting are funded in the CIP.

The Stormwater Management program, which was developed by the Department of Environmental Protection (DEP) to comply with the NPDES MS4 permit, continues to act as a model for jurisdictions throughout Maryland who are required to develop and implement a Stormwater Management program.

The CIP budget represents the resources necessary to complete the requirements anticipated in the next permit and maintain improvements already completed. Additionally, DEP continues to identify program efficiencies to allow for better informed decision making and restoration outcomes at reduced costs. These include the pursuit of lower-cost funding through the Maryland Water

Quality Revolving Loan Fund and the increased utilization of Public Private Contracts and Partnerships.

The FY21-26 CIP program for Stormwater Management continues the County's commitment to treat impervious surfaces within the County to the maximum extent practicable. Total six-year program expenditures are $112.2 million, a $7.2 million increase compared to the previously approved budget of $105.0 million.

The Department of Transportation (DOT) and the Maryland-National Park and Planning Commission also assist in achieving the County's stormwater management goals, and hold regular meetings with DEP staff looking for additional areas of cooperation.

HIGHLIGHTS

- Several individual stormwater management projects are consolidated into a single Countywide stormwater management program to streamline project administration.
- Use of Maryland Water Quality Revolving Loan funds will bring down program costs through lower interest financing.
- Continue to construct new stormwater management facilities and retrofit old stormwater controls to prevent property damage, improve water quality, and protect habitat.
- Continue to perform major structural repairs on public and private stormwater facilities accepted into the County's maintenance program.

PROGRAM CONTACTS

Contact Jim Stiles of the Department of Environmental Protection at 240.777.7789 or Richard H. Harris of the Office of Management and Budget at 240.777.2795 for more information regarding this department's capital budget.

CAPITAL PROGRAM REVIEW

A total of five projects are recommended for FY21-26 and are described in detail in the Project Description Forms. The Recommended FY21-26 Stormwater Management capital program totals $112.2 million, an increase of $7.2 million or 6.9 percent from the amended approved FY19-24 program of $105.0 million.

The stormwater management capital program will be funded primarily by long-term debt financing through the Maryland Water Quality Revolving Loan Fund and Current Revenue: WQPC. Previously issued WQPC-backed Bonds are also used, though no additional bonds will be issued. The stormwater management program assumes multiple awards of Maryland Water Quality Revolving Loan Funds over the six-year period, which replace WQPC Bonds as the primary source of funding for the program. Maryland Water Quality Revolving Loan Funds are a low-interest form of borrowing that brings down the overall cost of the program. The loans and bonds will cover expenditures incurred for the design and construction of additional stormwater facilities needed to comply with the requirements of the County's MS4 permit. Cost containment efforts have been aggressively pursued to avoid large increases in the WQPC.

Also included in the funding of the stormwater management projects is an assumption of $14.3 million in State Aid based on the State's interest in supporting stormwater management efforts throughout the state. Federal Aid will cover $3.0 million of the costs to mitigate Wheaton Regional Dam Flooding Mitigation.

Facility Planning: Stormwater Management
(P809319)

Category	Conservation of Natural Resources	Date Last Modified	01/08/20
SubCategory	Stormwater Management	Administering Agency	Environmental Protection
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	19,729	13,259	960	5,510	710	920	940	960	980	1,000	-
Other	295	295	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	20,024	13,554	960	5,510	710	920	940	960	980	1,000	-

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Current Revenue: General	5,000	5,000	-	-	-	-	-	-	-	-	-
Current Revenue: Water Quality Protection	14,087	7,617	960	5,510	710	920	940	960	980	1,000	-
State Aid	140	140	-	-	-	-	-	-	-	-	-
Stormwater Management Waiver Fees	797	797	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	20,024	13,554	960	5,510	710	920	940	960	980	1,000	-

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	560	Year First Appropriation	FY93
Appropriation FY 22 Request	940	Last FY's Cost Estimate	17,441
Cumulative Appropriation	14,687		
Expenditure / Encumbrances	13,741		
Unencumbered Balance	946		

PROJECT DESCRIPTION

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

provides for operation of automated fixed monitoring stations as required by the MS4 Permit.

COST CHANGE

Project increase due to addition of FY25 and FY26 to this on-going level of effort project, and estimated costs for watershed updates beginning in FY22.

PROJECT JUSTIFICATION

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

FISCAL NOTE

Expenditures in the outyears include expected costs to meet the requirements of the County's next MS4 permit. The scope of the next MS4 permit is subject to negotiation with the Maryland Department of Environment.

DISCLOSURES

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

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

Misc Stream Valley Improvements
(P807359)

Category	Conservation of Natural Resources	Date Last Modified	01/08/20
SubCategory	Stormwater Management	Administering Agency	Environmental Protection
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	6,118	4,838	1,090	190	130	60	-	-	-	-	-
Land	2	2	-	-	-	-	-	-	-	-	-
Site Improvements and Utilities	1	1	-	-	-	-	-	-	-	-	-
Construction	17,055	5,885	6,250	4,920	3,850	1,070	-	-	-	-	-
Other	2,335	2,335	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	25,511	13,061	7,340	5,110	3,980	1,130	-	-	-	-	-

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Current Revenue: Water Quality Protection	4,722	1,582	1,940	1,200	1,200	-	-	-	-	-	-
Long-Term Financing	9,175	65	5,200	3,910	2,780	1,130	-	-	-	-	-
State Aid	4,106	4,106	-	-	-	-	-	-	-	-	-
Stormwater Management Waiver Fees	1,490	1,290	200	-	-	-	-	-	-	-	-
Water Quality Protection Bonds	6,018	6,018	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	25,511	13,061	7,340	5,110	3,980	1,130	-	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	-	Year First Appropriation	FY73
Appropriation FY 22 Request	(2,582)	Last FY's Cost Estimate	25,713
Cumulative Appropriation	28,093		
Expenditure / Encumbrances	18,831		
Unencumbered Balance	9,262		

PROJECT DESCRIPTION

This project provides for design and construction of habitat restoration or stabilization measures for stream reaches having significant channel erosion, sedimentation, and habitat degradation. Developed areas constructed without current stormwater controls contribute uncontrolled runoff which results in eroded streambanks, excessive sediment, tree loss, and degraded habitat for fish and aquatic life. Stormdrain outfalls damaged from severe erosion are identified and, where possible, the outfalls are repaired - funded from the Outfall

Repairs project (No. 509948).

COST CHANGE

Project decrease due to transfer of future stream restoration work to CIP Project #808726 - Stormwater Management Retrofit Countywide.

PROJECT JUSTIFICATION

The project supports the requirements of the County's MS4 permit and addresses the goals of the Chesapeake Bay Watershed Agreement, Anacostia Watershed Restoration Agreement, and the County's adopted water quality goals (Chapter 19, Article IV). The project will stabilize and improve local stream habitat conditions where streams have been damaged by inadequately controlled stormwater runoff.

OTHER

Projects planned for design and construction include Glenstone and Booze Creek Repairs. The CIP project includes funding for the stream restoration study of Anacostia Watershed by the Army Corps of Engineers.

The Montgomery Parks Department of the Maryland-National Capital Park and Planning Commission (M-NCPPC) and the Montgomery Department of Environmental Protection (DEP) have agreed that M-NCPPC will serve as the lead agency for implementing stream restoration projects including long-term monitoring and maintenance that are located wholly or mostly on parks property in support of the County's MS4 permit. Previously, DEP had begun design work on the following stream restoration projects which meet these criteria: Clearspring Manor, Glenallan, Stoneybrook (Beach Drive to Montrose Avenue), and Grosvenor (Beach Drive to Rockville Pike). DEP has provided all design work for these projects to M-NCPPC for design completion, permitting, and construction under M-MNCPPC's Stream Protection: SVP (P818571) project. M-NCPPC has agreed that all MS4 credits generated from these projects will be credited towards the County's future MS4 permit with delivery of the restored impervious acres no later than Dec. 31, 2023. M-NCPPC will provide appropriate updates at key project milestones to ensure that MS4 credits are achieved in the timeframe required, in addition to providing the long-term monitoring and maintenance required for the County to maintain the impervious acreage credit. These projects are currently estimated to have a combined cost of $2.4M and will provide approximately 44 acres of credit; funding was provided under M-MNCPPC's Stream Protection: SVP (P818571) project. Parks will provide updated schedule and cost information on all projects for construction allocation funding beginning in FY 20, based on MDE's Water Quality Revolving Loan Fund cycle timeframes. M-NCPPC and DEP developed a Memorandum of Understanding that details how projects completed by M-NCPPC, funded with WQPC dollars, with MS4 credits going to DEP, will be handled. M-NCPPC will document all MS4 credits created through these projects in accordance with MDE requirements to obtain State approval for the permit credits. M-NCPPC recognizes that stream restoration projects with relatively small segments located on Parks property may be selected by the County's DBM contractor. If selected by the County's contractor and approved by DEP with concurrence by M-NCPPC, the contractor will need to obtain a Park Permit and comply with all M-NCPPC requirements.

FISCAL NOTE

This project assumes the award of Maryland Water Quality Revolving Loan Funds (Long-Term Financing) over the six-year period, which would replace Water Quality Protection Bonds as the primary source of funding for the program.

This CIP Project will be closed after the completion of the Booze Creek Repair project, expected in FY22. Any future stream restoration work shall be performed under CIP Project # 808726 - Stormwater Management Retrofit: Countywide.

DISCLOSURES

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

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

Stormwater Management Facility Major Structural Repair
(P800700)

Category	Conservation of Natural Resources	Date Last Modified	01/08/20
SubCategory	Stormwater Management	Administering Agency	Environmental Protection
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	13,125	5,205	1,430	6,490	1,290	990	1,050	1,050	1,060	1,050	-
Construction	30,273	12,063	2,740	15,470	3,570	3,700	2,100	2,100	2,000	2,000	-
Other	1	1	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	43,399	17,269	4,170	21,960	4,860	4,690	3,150	3,150	3,060	3,050	-

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Current Revenue: Water Quality Protection	15,805	9,485	810	5,510	1,630	1,290	650	630	660	650	-
Long-Term Financing	20,122	312	3,360	16,450	3,230	3,400	2,500	2,520	2,400	2,400	-
State Aid	399	399	-	-	-	-	-	-	-	-	-
Water Quality Protection Bonds	7,073	7,073	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	43,399	17,269	4,170	21,960	4,860	4,690	3,150	3,150	3,060	3,050	-

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	6,530	Year First Appropriation	FY07
Appropriation FY 22 Request	2,820	Last FY's Cost Estimate	27,994
Cumulative Appropriation	22,931		
Expenditure / Encumbrances	18,820		
Unencumbered Balance	4,111		

PROJECT 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 6,800 stormwater management facilities. Major structural repairs can include dredging and removing sediment, removal and replacement or relining of failing pipes and principal spillways, replacing failing riser structures, and repairing failing dam embankments. The repair work under this project is more significant than routine maintenance and requires engineering analysis and design and application for Federal, State, and/or local permitting.

COST CHANGE

The six-year cost increase is due to an increased number of major structural repair projects.

PROJECT JUSTIFICATION

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

Current projects include: Wheaton Branch overtopping protection, Persimmon Tree Ponds, Peachwood Pond, Briars Acres Pond, Railroad Branch Dam, Lake Hallowell dredging project, and Lake Whetstone Toe Drain repair.

FISCAL NOTE

This project assumes the award of Maryland Water Quality Revolving Loan Funds (long-term financing) over the six-year period, which would replace Water Quality Protection Bonds as the primary source of funding for the program. No State Aid is assumed for this project in FY21-26.

DISCLOSURES

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

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

Stormwater Management Retrofit: Countywide
(P808726)

Category	Conservation of Natural Resources	Date Last Modified	01/08/20
SubCategory	Stormwater Management	Administering Agency	Environmental Protection
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	52,232	20,672	3,520	28,040	5,070	5,040	4,680	3,420	5,900	3,930	-
Land	3	3	-	-	-	-	-	-	-	-	-
Site Improvements and Utilities	10	10	-	-	-	-	-	-	-	-	-
Construction	77,628	25,438	5,480	46,710	6,330	10,990	7,130	8,060	6,190	8,010	-
Other	3,889	3,889	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	133,762	50,012	9,000	74,750	11,400	16,030	11,810	11,480	12,090	11,940	-

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Contributions	60	-	60	-	-	-	-	-	-	-	-
Current Revenue: Water Quality Protection	22,540	11,549	2,551	8,440	2,440	1,000	1,000	1,000	2,000	1,000	-
Intergovernmental	1,000	1,000	-	-	-	-	-	-	-	-	-
Long-Term Financing	60,383	3,679	5,744	50,960	7,100	11,850	8,450	7,620	7,850	8,090	-
State Aid	18,594	3,699	645	14,250	1,660	3,000	2,180	2,680	2,060	2,670	-
Stormwater Management Waiver Fees	1,100	-	-	1,100	200	180	180	180	180	180	-
Water Quality Protection Bonds	30,085	30,085	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	133,762	50,012	9,000	74,750	11,400	16,030	11,810	11,480	12,090	11,940	-

OPERATING BUDGET IMPACT ($000s)

Impact Type		Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26
Maintenance		600	-	-	150	150	150	150
NET IMPACT		600	-	-	150	150	150	150

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	27,640	Year First Appropriation	FY87
Appropriation FY 22 Request	2,700	Last FY's Cost Estimate	59,805
Cumulative Appropriation	68,900		
Expenditure / Encumbrances	60,170		

APPROPRIATION AND EXPENDITURE DATA ($000s)	
Unencumbered Balance	8,730

PROJECT DESCRIPTION

This project provides for the design and construction of new and upgraded stormwater management facilities throughout the County under the County's Municipal Separate Storm Sewer System (MS4) Permit. Facilities include but are not limited to new or upgraded stormwater management ponds, Environmental Site Design (ESD) / Low-Impact Development (LID) facilities, and stream restorations.

COST CHANGE

The increase is due to the consolidation of the following Watershed Restoration CIP projects into this CIP project:

- Stormwater Management Design/Build/Maintain Contract (P801901),
- Stormwater Management Retrofit - Government Facilities (P800900),
- Stormwater Management Retrofit - Roads (P801300),
- Stormwater Management Retrofit - Schools (P801301),
- Watershed Restoration - Interagency (P809342), and
- Misc Stream Valley Improvements (P807359).

PROJECT JUSTIFICATION

This project is needed to comply with the County's MS4 permitting requirements and to implement the County's adopted water quality goals (COMCOR Chapter 19, Article IV) and protect habitat conditions in local streams. In addition, the project supports the goals of the Anacostia Watershed Restoration Agreement.

OTHER

This project assumes the award of Maryland Water Quality Revolving Loan Funds (long-term financing) over the six-year period, which would replace Water Quality Protection Bonds as the primary source of funding for the program. Expenditures in the out-years include expected costs to meet the requirements of the County's next MS4 permit. The scope of the next permit is subject to negotiation with the Maryland Department of Environment.

FISCAL NOTE

This project assumes the award of Maryland Water Quality Revolving Loan Funds (long-term financing) over the six-year period, which would replace Water Quality Protection Bonds as the primary source of funding for the program.

The Department of Environmental Protection will provide quarterly Program status updates to the Council. The work Program will be based on permits requirements, an assessment of priority needs and community input including feedback from stormwater partners.

DISCLOSURES

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

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

Wheaton Regional Dam Flooding Mitigation
(P801710)

Category	Conservation of Natural Resources	Date Last Modified	01/08/20
SubCategory	Stormwater Management	Administering Agency	Environmental Protection
Planning Area	Kensington-Wheaton	Status	Planning Stage

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	1,030	187	443	400	170	160	70	-	-	-	-
Construction	4,500	-	-	4,500	-	3,600	900	-	-	-	-
TOTAL EXPENDITURES	5,530	187	443	4,900	170	3,760	970	-	-	-	-

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Current Revenue: Water Quality Protection	2,530	187	443	1,900	170	1,090	640	-	-	-	-
Federal Aid	3,000	-	-	3,000	-	2,670	330	-	-	-	-
TOTAL FUNDING SOURCES	5,530	187	443	4,900	170	3,760	970	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	-	Year First Appropriation	FY16
Appropriation FY 22 Request	2,580	Last FY's Cost Estimate	5,530
Cumulative Appropriation	2,950		
Expenditure / Encumbrances	622		
Unencumbered Balance	2,328		

PROJECT DESCRIPTION

This flood mitigation project, located along Glenhaven Drive and Dennis Avenue in Wheaton, will excavate and expand the stream channel upstream of the Wheaton Regional Pond and modify the pond's riser structure. This project will be constructed in parallel with the Department of Transportation's (DOT) Dennis Avenue bridge replacement. The two projects will modify the current 100-year floodplain boundary just upstream of the pond. The post-project 100-year floodplain will not include the residential properties located in the current 100-year floodplain.

ESTIMATED SCHEDULE

The riser modification and channel design began in FY18 with the riser repair construction expected to start in FY22. The excavation of the channel will occur in coordination with DOT's culvert replacement in FY23 and FY24.

COST CHANGE

Faster than expected design resulted in acceleration of the design phase, though redesign in the Dennis Avenue Bridge Replacement project (P501701) will delay construction to FY22.

PROJECT JUSTIFICATION

An engineering analysis by the Department of Environmental Protection indicates that the effect of the riser structure associated with the Wheaton Regional Pond, the Dennis Avenue Culvert, and an undersized stream channel along Glenhaven Drive, cumulatively, will cause flooding of roads and private property during a 100-year storm event. Flooding of adjacent roads and private property has already occurred in 2006 and 2010. The County is seeking a map revision to the Federal Emergency Management Agency (FEMA) panel for this area to have the 100-year floodplain updated to reflect existing conditions.

FISCAL NOTE

This project will be done in conjunction with the DOT Dennis Avenue bridge replacement project (P501701). The County will also partner with the Maryland Emergency Management Agency (MEMA) to seek FEMA Pre-Disaster Mitigation Grant Program funding for the channel modifications.

COORDINATION

Department of Transportation, Federal Emergency Management Agency, Maryland Emergency Management Agency, and Dennis Ave Bridge M-0194 Replacement (No. 501701).