Flood Control Study
(P802202)

Category	Conservation of Natural Resources	Date Last Modified	03/14/22
SubCategory	Stormwater Management	Administering Agency	Environmental Protection
Planning Area	Countywide	Status	Planning Stage

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Planning, Design and Supervision	1,300	-	100	1,200	1,200	-	-	-	-	-	-
TOTAL EXPENDITURES	1,300	-	100	1,200	1,200	-	-	-	-	-	-

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Current Revenue: General	1,300	-	100	1,200	1,200	-	-	-	-	-	-
TOTAL FUNDING SOURCES	1,300	-	100	1,200	1,200	-	-	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 23 Request	-	Year First Appropriation	FY22
Appropriation FY 24 Request	-	Last FY's Cost Estimate	-
Cumulative Appropriation	1,300		
Expenditure / Encumbrances	-		
Unencumbered Balance	1,300		

PROJECT DESCRIPTION

This project concerns the development of a Comprehensive Flood Management Strategy and watershed/sub-watershed specific Flood Management Plans.

The Flood Management Strategy will improve the County's ability to address flooding based on scientific and engineering data and a comprehensive, coordinated approach to identify potentially affected residents and businesses, particularly underserved communities and businesses that are least prepared to respond to and recover from flooding events. To understand the resources required to develop comprehensive solutions, the Strategy will, among other things:

- gather data on historic flooding in the County, including input from affected communities;
- examine the potential impacts of climate change and other significant factors that can cause flooding in the County, including the effect of updated rainfall predictions
- provide recommendations for regulatory, policy, and organizational changes necessary for the County to comprehensively plan for, respond to, and recover from flooding events; and
- identify the process for undertaking detailed hydrologic and hydraulic modeling, vulnerability assessments, and developing

adaptation/mitigation design plans, including identifying needed data and an approach to prioritizing the order in which such studies should be done.

Typical tasks in the development of Flood Management Plans for specific watersheds/sub-watersheds may include evaluations of current risk, future risk due to climate change, and assessment of risk due to aging assets. More specifically, the effort could include identifying areas at risk of flooding, quantifying that risk, developing mitigation alternatives, and conducting cost-benefit analyses, including evaluation of impacts to disadvantaged communities. Additional results may include development of prioritized CIP projects and implementation schedules. The level of detail and budget required to accomplish these tasks will vary by watershed, of which there are eight major watersheds and almost 150 smaller watersheds in the County.

This study will complement the state's efforts under Stormwater Management Law, Environment Article 4-201.1, which requires the Maryland Department of the Environment (MDE) to report on the most recent precipitation data available, investigate flooding events since 2000, and update Maryland's stormwater quantity management standards for flood control.

ESTIMATED SCHEDULE

Phase 1 will identify watersheds that need attention and develop an overall strategy and is expected to be complete by fall 2022. Development of subwatershed plans will begin when the subwatersheds are identified, expected in early 2023.

PROJECT JUSTIFICATION

Flooding incidents in Montgomery County have been increasing in frequency and severity for several years. The built environment also affects flooding. An April 2021 report from the Office of Legislative Oversight (OLO) identified an upward trend of urban flooding in the County, from two to four occurrences a year before 2010 to 11 to 39 occurrences per-year since 2010, and the severity has increased in terms of property damage and loss of life. According to the U.S. Environmental Protection Agency, precipitation in Maryland has increased by about 5 percent in the last century but precipitation from extremely heavy storms has increased in the eastern United States by more than 25 percent since 1958.

To determine the best way to address flooding problems, the County needs a systematic watershed and subwatershed-based analysis of flooding and the impact of increased rainfall in the County dues to climate changes and other significant contributing factors.

FISCAL NOTE

In addition to County support, the Department of Environmental Protection will pursue outside funding to fund these efforts. FY22 supplemental in Current Revenue: General for the amount of $1,300,000.

COORDINATION

Department of Permitting Services, Office of Emergency Management and Homeland Security, Department of Transportation, Montgomery County Fire and Rescue Service, Maryland-National Capital Park and Planning Commission, Maryland Department of the Environment; United States Army Corps of Engineers