



# Comprehensive Flood Management Plan

(P802202)

Category	Conservation of Natural Resources	Date Last Modified	01/05/26
SubCategory	Stormwater Management	Administering Agency	Environmental Protection
Planning Area	Countywide	Status	Planning Stage

## EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Planning, Design and Supervision	6,926	816	4,452	1,658	508	1,150	-	-	-	-	-
Other	1,571	1,571	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	8,497	2,387	4,452	1,658	508	1,150	-	-	-	-	-

## FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY25	Est FY26	Total 6 Years	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	Beyond 6 Years
Current Revenue: General	1,300	465	835	-	-	-	-	-	-	-	-
Current Revenue: Water Quality Protection	7,197	1,922	3,617	1,658	508	1,150	-	-	-	-	-
TOTAL FUNDING SOURCES	8,497	2,387	4,452	1,658	508	1,150	-	-	-	-	-

## APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 27 Request	508	Year First Appropriation	FY22
Appropriation FY 28 Request	1,150	Last FY's Cost Estimate	7,241
Cumulative Appropriation	6,839		
Expenditure / Encumbrances	3,832		
Unencumbered Balance	3,007		

## PROJECT DESCRIPTION

This project supports the development of a Comprehensive Flood Management Plan (CFMP) for Montgomery County.

The CFPM will improve the County's ability to address flooding based on scientific and engineering data and use 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. The CFPM 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

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- include detailed hydrologic and hydraulic modeling, vulnerability assessments, and the development of adaptation/mitigation design plans.

Typical tasks in the development of specific watershed/sub-watershed assessments may include evaluations of current risk, future risk due to climate change, and assessment of risk due to aging assets. More specifically, the effort will 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 will include development of prioritized Capital Improvement Program projects and implementation schedules. The level of detail and budget required to accomplish these tasks will vary by watershed. There are 8 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, completed in May 2023, identified watersheds for detailed modeling in Phase 2 and provide an assessment of current County programs, policies, budgets, and other components of the County's flood management activities. Modeling of specific watersheds in Phase 2 and continued analysis of the County's flood-related programs, policies, etc. began in FY24. As a result of mapping delays, the project's expected completion year has been pushed back from FY27 to FY29.

## COST CHANGE

This project experienced unanticipated cost increases and schedule delays requiring a total increase of \$1.5 million over the previously approved budget. The pilot watershed study for Sligo Creek required more time and resources than originally anticipated. Similar increased effort is expected across the remaining ten watersheds, resulting in higher projected costs and extended schedules.

## 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 that 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 sub-watershed-based analysis of flooding, and a better understanding of the impact the County will experience from increased rainfall linked to climate change 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. An FY22 supplemental added Current Revenue: General for the amount of \$1,300,000. FY25 included a funding switch to reduce Intergovernmental and increase Current Revenue: WQP, including \$75,000 from prior appropriation. In FY26, \$1,500,000 shifted from the Implementation of the Comprehensive Flood Management Plan project. The project will continue to be funded by Current Revenue: WQP. FY27 funding switch to reduce Intergovernmental and increase Current Revenue: WQP by \$125,000.

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## 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, U.S. Army Corps of Engineers