May 11, 2026

Karen Henry, Director
Department of Public Works
Anne Arundel County
2662 Riva Road
Annapolis, MD 21403

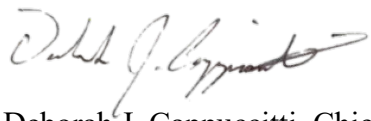
Dear Ms. Henry:

The Maryland Department of the Environment (MDE) has reviewed Anne Arundel County's (County) 2025 Annual Report for National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit (20-DP-3316, MD0068306). The submittal meets reporting requirements for the period July 1, 2024 - June 30, 2025. This is the fourth-year report for the County's current permit, issued on November 5, 2021. Full review details are provided in the attachments noted below. MDE wishes to bring the following to the County's attention:

- Anne Arundel County has restored 2,697 acres, or approximately 90% of the 2,998 impervious acres required in the permit, exceeding the Year 4 benchmark target of 80%. An additional 415 acres of restoration is planned for Year 5.
- The County has transitioned to the updated schema and shell as directed in the *Geodatabase Design and User's Guide 2.1* (2025 GDB Design and User's Guide), released in July 2025. The County is commended for this effort.
- The County demonstrated acceptable progress in maintaining and repairing stormwater best management practices (BMP). However, BMP inspection records were included for only 56%, or 9,178 of the 16,554 active BMPs. Provide a status update in the next Annual Report on triennially inspecting and maintaining inspection records for all BMPs.
- The County submitted Good Housekeeping Plans to meet permit requirements. Comments are provided in the attached *MS4 FY2025 Annual Report Review*.
- As a reminder, the County is required to submit a revised Salt Management Plan in the Year 5 (FY2026) Annual Report in accordance with MDE's comments on the 2024 SMP. Also, please continue tracking and reporting on the amount of salt/deicing material applied on roads per precipitation event.
- The Countywide Total Maximum Daily Load (TMDL) Stormwater Implementation Plan meets permit requirements. Please reference the comments in the attached Memorandum: *Anne Arundel County Countywide Total Maximum Daily Load (TMDL) Stormwater Implementation Plan*.
- The nine local sediment TMDL restoration plans included in the County's Sediment TMDL Restoration Plan Update draft has been conditionally approved by MDE and requires updates. Please reference the comments in the attached Memorandum: *Conditional Approval of Anne Arundel County Sediment TMDL Restoration Plan Update Review*.

MDE recognizes the effort required to implement a successful stormwater management program, which is essential in our mutual goal of restoring urban streams and the Chesapeake Bay. The County is commended for the continued commitment and accomplishments toward this objective. If you have any questions, please contact me at 410-537-3533 or have a member of your staff contact Gillian Adkins at 410-537-3338 or gillian.adkins@maryland.gov.

Sincerely,



Deborah J. Cappuccitti, Chief
Stormwater Program Review Division
Stormwater, Dam Safety, and Flood Management Program

Attachments:

MS4 FY2025 Annual Report Review
Anne Arundel County Countywide Total Maximum Daily Load (TMDL) Stormwater Implementation Plan
Conditional Approval of Anne Arundel County Sediment TMDL Restoration Plan Update Review

cc: Erik Michelsen, Anne Arundel County
Matt Gallagher, Anne Arundel County
Mary Andrews, Anne Arundel County

PART V. Annual Progress Reporting

- The Annual Report was received on December 26, 2025, and covers July 1, 2024, to June 30, 2025 (fiscal year or "FY" 2025).
- This is the fourth Annual Report under the National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit number 20-DP-3316 (MD0068306), issued on November 5, 2021.

PART IV. Standard Permit Conditions

A & B. Permit Administration and Legal Authority

- Anne Arundel County submitted an updated organizational chart outlining the various County departments and their individual permit responsibilities.
- The County maintained adequate legal authority for compliance with all permit conditions. There were no changes to the County Code that affected legal authority.

The County has met the requirements of PARTs IV. A & B.

C. Source Identification

- The County provided information in an MS4 Geodatabase, a supplemental storm drain geodatabase, and a supplemental industrial and commercial land use geodatabase.
- The County has transitioned to the updated schema and shell as directed in the *Geodatabase Design and User's Guide 2.1* (2025 GDB Design and User's Guide), released in July 2025. The County is commended for this effort.
- The County reported 16,554 active BMP records in the *BMP* feature class.
    - The County reported BMP drainage area records in the *BMPDrainageArea* feature class.
        - Continue working to populate *BMPDrainageArea* feature class and related fields in the *BMP* feature class. Currently, there are 105 active BMPs that have no associated drainage area record.
    - The County reported BMP inspection records in the *BMPInspections* table. Inspection records were included for 9,178 active BMPs.
        - Provide a status update in the next Annual Report on triennially inspecting and maintaining inspection records for all BMPs. Currently, there are 7,376 active BMPs that have no associated inspection record.
    - The County reported 91 BMPs with a failing status at the time of last inspection. Of these failed BMPs, eight have not been inspected in the last three fiscal years.
- The County reported 2,570 active alternative BMPs records in the *AltBMPPoint* (2,483 records), *AltBMPPolygon* (22 records), and *AltBMPLine* (226 records) feature classes.

- The County reported alternative BMP inspection records in the *AltBMPInspections* table.
- MDE reviewed the County's septic pumping program and restoration credit claimed, and provides the following:
  - In the MS4 Geodatabase, continue to list one record per year that credit was claimed with unique values for ALTBMP PT_ID, EIA_ANNUAL_CREDIT, and EIA_AVERAGE_CREDIT. The BMP_STATUS for the current year's entry should be "ACT", and past years' records should be "REM". Include the number of systems pumped in the PROJECT_DESCRIPTION or COMMENTS field. More guidance is provided in Appendix D of the 2025 GDB Design and User's Guide.
  - Please continue to report the annual permit (or EIA) average credit in the report narrative.
  - MDE coordinated internally and determined that no inspection records are required to be listed in the MS4 Geodatabase for SEPP BMPs.
  - Maintain records of pump-outs, such as receipts for reimbursing homeowners, in case of an MDE audit.

The County has met the requirements of PARTs IV. C. 1-6.

D. Management Programs

1. Stormwater Management (SWM)

- The County reported the number of concept, site development, final, and redevelopment plans that were approved and/or received in FY2025, as required. The County also documented the number of stormwater exemptions and waiver requests, stormwater construction inspections performed, and construction notices issued.
- The County detailed the initiative to inspect 630 facilities per month between Department of Public Works (DPW) and Inspections and Permitting (I&P) staff. In FY2025, the County inspected an average of 690 facilities a month, conducting a total of 8,345 first-year or triennial inspections. During inspections, the County issued 845 maintenance correction notices and 16 maintenance violation notices. Please continue working to ensure all BMPs are inspected on a triennial schedule and provide an update in the next Annual Report.
- As a reminder, the County must continue to submit to MDE any modification or changes to plan review policies, details, standard plans, ordinances, or design requirements for MDE's review and concurrence. In FY2025, the County issued three Blue Notice guidance documents after receiving approval from MDE, which included:

- Guidance on Hydrologic and Topographic Site Design
- Guidance on the design, construction, and maintenance of bioswales; and
- Guidance on Private Roads for Development Projects.

The County has met the requirements of PART IV. D. 1.

2. Erosion and Sediment Control

- The County submitted quarterly grading permit information in the *QuarterlyGradingPermit* feature class in the MS4 Geodatabase. In FY2025, the County issued 88 quarterly grading permits, 82 of which exceeded one acre of earth disturbance. The active sites comprised a total disturbed area of 458 acres.
  - Please confirm if these entries are correct and update as needed: The County reported six quarterly grading permits with identical information aside from slight differences to the latitude and longitude (QGP_IDs AA25QGP000047-52).
- Anne Arundel County maintains delegated authority for Erosion and Sediment Control enforcement through June 30, 2027. The County detailed progress towards numerous programmatic improvements in the FY2025 Annual Report based on prior recommendations from MDE.

The County has met the requirements of PART IV. D. 2.

3. Illicit Discharge Detection and Elimination (IDDE)

- The County maintains an ordinance that prohibits illicit discharges into the storm drain system and written standard operating procedures for implementing the IDDE program.
- In FY2025, field crews inspected 163 major and minor outfalls and detected dry-weather flow at eight outfalls. The County also responded to 20 illicit discharge complaints. Illicit discharges were detected at two outfalls, one of which remains under investigation. Provide an update on the unresolved illicit discharge case at outfall B11G7O00012 in the next Annual Report.
- During outfall inspections, field crews identified six outfalls with significant erosion or structural issues, four of which remain unresolved. Provide an update on the four outfalls that are pending repair in the next Annual Report.

The County has met the requirements of PART IV. D. 3.

4. Property Management and Maintenance

- A list of the 18 County-owned properties currently covered under the Maryland NPDES General Permit for Discharges of Stormwater Associated with Industrial Activity (Industrial Stormwater General Permit) was provided in the Annual Report.

- The County implemented street sweeping operations consistent with previous reporting years. In FY2025, the County swept a total of 6,674 lane miles, or 255 miles every two weeks, and collected 257 tons of material from County-maintained streets.
- In FY2025, the County increased the number of manual and mechanical storm drain cleanings. The County manually cleaned 4,907 structures and performed mechanical storm drain cleanings at 2,354 structures. A total of 39,585 linear feet of pipe were cleaned this reporting period, and 312 tons of litter and debris were removed.
- In FY2025, the County cleaned and restored a total of 35,619 feet of roadside inlet or outlet ditches and swales, an increase in County efforts when compared to the last reporting period. As a result, 70 tons of litter and 844 tons of roadside debris were collected.
- The County continued to reduce the use of pesticides, herbicides, fertilizers, and other pollutants associated with vegetation management.
- The County provided salt management training and pollution prevention training to 112 and 226 staff, respectively.
- The County submitted a Salt Management Plan (SMP) as required in the third-year Annual Report. As a reminder, the County is required to make updates to and resubmit the SMP in the fifth-year Annual Report due December 31, 2026.
- The County began reporting on the amount of deicing and anti-icing materials applied on roads per precipitation event and the monthly and annual pounds used per lane mile per inch of snow in the Annual Report. MDE finds the County's submission acceptable. Continue reporting this information in the next Annual Report.
    - The County reported that the Bureau of Highways was not equipped with the necessary technology to track salt brine use per pound per lane mile this reporting period. The County anticipates being able to report on this information in the fifth-year Annual Report. Provide a status update in the next Annual Report on the County's progress to track and report this information.
    - In FY2025, the County applied 13,671 tons of road salt and 99,115 gallons of liquid deicing materials, an increase from FY2024. The County notes that weather across the County has high spatial variability, which can create challenges when estimating how much salt is needed to protect public safety.
- In FY2024, the County began its assessment of County-owned properties to determine if a Good Housekeeping Plan (GHP) is required and submitted 10 draft GHPs to MDE for review. In FY2025, the County completed its assessment of applicable properties and developed an additional 73 GHPs. In addition, the County submitted an acceptable Countywide map that indicates the locations of properties with GHPs. The County's progress is sufficient to meet the permit requirements in Part IV.D.4.b. MDE asks that the County provide a status update on the following in the next Annual Report:

- The County indicated the submission of 73 GHPs for review in Appendix D of the Annual Report. The folder submitted to MDE contains 52 GHPs. Please submit the remaining 21 GHPs to MDE with the next Annual Report.
- In March 2024, MDE approved the County's pollution prevention training associated with GHPs. Countywide implementation of this training will begin in calendar year (CY) 2026. Provide a status update on the implementation of this training and report the total number of participants in the next Annual Report.

The County has met the requirements of PART IV. D. 4.

5. Public Education

- The County continues to conduct public outreach efforts, including operating a compliance hotline, implementing educational websites and social media sites targeting a variety of stormwater-related topics, and conducting the Watershed Stewards Academy. The County hosted numerous in-person and virtual outreach events, far exceeding the required 75 outreach efforts per year.

The County has met the requirements of PART IV. D. 5.

E. Stormwater Restoration

- The County has restored a total of 2,697 acres, or approximately 90% of the 2,998 impervious acres required in the permit, exceeding the Year 4 benchmark (2,398 acres or 80%). In FY2025, the County completed restoration projects treating a total of 466 acres. Restoration projects completed over the permit term include:
  - Stream Restoration (24 projects; 1046 acres)
  - Shoreline Management (21 projects; 546 acres)
  - Outfall Stabilization (13 projects; 414 acres)
  - Structural BMPs (41 projects; 321 acres)
  - Septic Connections to WWTP (129 projects; 170 acres)
  - Septic Denitrification (852 projects; 136 acres)
  - Land Cover Conversion BMPs (12 projects; 52 acres)
  - Environmental Site Design BMPs (14 projects; 11 acres)
- The County maintains annual alternative restoration practices and has exceeded the annual implementation levels required in the permit. These practices and associated FY2021-FY2025 average annual credits include:
  - Septic System Pumping (624 acres)
  - Catch Basin and Storm Drain Cleaning (53 acres)
  - Street Sweeping (40 acres)
- An additional 15 projects totaling 415 acres of restoration are planned for Year 5. These projects include:

  - Stream Restoration (six projects; 262 acres),
  - Structural BMPs (two project; 119 acres)
  - Outfall Stabilization (one project; 20 acres)
  - Shoreline Stabilization (two projects; 11 acres)
  - Land Cover Conversion BMPs (four projects; three acres).
- The County submitted extensive project files for six the stream restoration projects that are underway. These project files comply with the recommendations made by the Chesapeake Bay Program (CBP) expert panels. In the next Annual Report, please continue to provide supporting documentation verifying credits and pre- and post-restoration photos for stream restoration projects completed during FY2026. MDE recommends that site photos be taken from the same point of reference and at the same time of year, documenting site conditions pre- and post-restoration.

The County has met the requirements of PART IV. E.

F. Countywide Total Maximum Daily Load (TMDL) Stormwater Implementation Plan

- MDE completed a review of the updated Countywide TMDL Stormwater Implementation Plan submitted with the Annual Report. Comments are provided in a memorandum attached to this review, *Anne Arundel County Countywide Total Maximum Daily Load (TMDL) Stormwater Implementation Plan (April 8, 2026)*.
- MDE completed a review of the nine local sediment TMDL restoration plans included in the County's Sediment TMDL Restoration Plan Update submitted in Appendix B of the Annual Report. MDE grants conditional approval of the submitted plan and requires updates. Comments are provided in a memorandum attached to this review, *Conditional Approval of Anne Arundel County Sediment TMDL Restoration Plan Update Review (April 8, 2026)*.

The County has met the requirements of PART IV. F.

G. Assessment of Controls

- Anne Arundel County fulfilled the Assessment of Controls components for BMP Effectiveness, Watershed Assessment and Trends, and Bacteria and Chloride Monitoring by contributing to the Chesapeake Bay Trust's Pooled Monitoring Initiative.
- The County submitted its Watershed Assessment and Trends Biological data using MDE templates, as required. The data submitted is for CY2025, and the submission included the file *MS4 Biological Data Entry Workbook FY25 AACounty.xlsx.*
- Additional feedback on the submitted data will be provided in forthcoming correspondence.
- Baltimore Harbor PCB Source Trackdown Investigations:

  - Phase I PCB Source Trackdown Investigation Sampling and Analysis Plan (SAP) was submitted in the FY2025 Annual Report. Sampling will begin following review and approval of the SAP by MDE and the County submittal of the QAPP.
  - Phase II PCB Source Trackdown Investigation reports for the Sawmill Creek subwatershed (first and second round of monitoring) were submitted in the FY2023 and FY2024 Annual Reports. Both annual reports contain PCB source tracking results.
  - Phase II PCB Source Trackdown Investigation SAP for the third round of monitoring was submitted in the FY2024 Annual Report. Sampling has been completed, and lab analysis is underway. The investigation includes monitoring in the Cabin Branch and Marley Creek subwatersheds in addition to Sawmill Creek. No timeframe has been provided for the report's submission.
- Patuxent River PCB Source Trackdown Investigations:
  - Phase I PCB Source Trackdown Investigation SAP for the Patuxent River was submitted in August 2024 and approved by MDE on April 7, 2025. The County anticipates that sampling will begin in late Spring 2026. As a reminder, the PCB Source Trackdown Monitoring Data Report is due by the end of the permit term on November 5, 2026.
- MDE requests that the County please use the template ST_PCBMonitoring to submit PCB source tracking data in the future.
- MDE plans to update templates and the data-entry guide before FY2027. Please access this link for the updated version on and after July 1, 2026.

The County has met the requirements of PART IV. G.

H. Program Funding

- The County provided information on its budget and expenditure related to the implementation of the permit in the *FiscalAnalyses* table in the MS4 Geodatabase. The total annual cost for implementing the County's NPDES MS4 program was $49.3 million.
- The County provided a Watershed Protection and Restoration Program (WPRP) annual report for FY2025, as required. As a reminder, the County is required to submit an updated FAP and WPRP annual report with the next Annual Report.

The County has met the requirements of PART IV. H.

MEMORANDUM

To: Stormwater, Dam Safety, & Flood Management Program (SDSFM)

From: Watershed Protection Restoration and Planning Program (WPRPP)

Date: April 8, 2026

Subject: Anne Arundel County Countywide Total Maximum Daily Load (TMDL) Stormwater Implementation Plan

The Maryland Department of the Environment, Watershed Protection Restoration and Planning Program (WPRPP) has completed a review of Anne Arundel County's Countywide Stormwater TMDL Implementation Plan submitted with the FY25 Annual Report in December 2025.

WPRPP finds that the plan meets the essential components as required in PART IV.F.3 of the County's permit (Permit Number: 20-DP-3316 MD0068306). While the plan is of sufficient quality for the County to continue moving forward with the outlined implementation strategies, WPRPP recommendations for improvement of the Countywide plan and general comments are outlined below by TMDL pollutant.

I. Nutrient and Sediment

A. Anne Arundel County demonstrated progress toward meeting nutrient and sediment TMDL SW-WLAs through documentation of ongoing BMP implementation and annual reductions achieved. The progress tables provide a clear overview of the County's implementation and planning efforts.

B. WPRPP recognizes the County's correction of the computational error in previous iterations of the TIPP tool, which resulted in adjusted baseline loads and load reduction progress.

C. It has been noted that attainment schedules will be updated in future Countywide TMDL Implementation Plans, as needed, upon approval of the draft sediment TMDL implementation plan update submitted in Appendix B.

D. The Stormwater Management BMP treated acre values in the Current Progress TIPP tool scenarios have been revised compared to last year's submission. Please clarify why these values were updated.

II. Bacteria

A. Anne Arundel County demonstrated progress toward meeting bacteria TMDL SW-WLAs in the form of watershed-specific upland BMP implementation and retrofits, septic connections, as well as programmatic initiatives such as pet waste and Canada goose management. The County has opted into Chesapeake Bay Trust's Pooled Monitoring Program in lieu of conducting bacteria trend monitoring, looking to fund innovative monitoring methods that can aid in their future efforts. Additionally, the County summarized their implementation progress updates in a table in Appendix D.

III. PCB

A. Anne Arundel County continues to demonstrate its progress toward meeting PCB TMDL SW-WLA by conducting PCB source trackdown investigations. The County has conducted several Phase II investigations within the Sawmill Creek subwatershed of the Baltimore Harbor and is expanding investigations into Marley Creek and Cabin Branch. The County has also submitted an updated draft PCB implementation plan including Phase I source tracking monitoring plans for the Baltimore Harbor and Curtis Bay/Creek.

A PCB TMDL implementation plan for the Patuxent River including Phase I source tracking monitoring plans was previously updated and submitted to MDE in August 2024. The County is currently coordinating Phase I monitoring activities with Howard and Montgomery County. A QAPP is currently being developed and monitoring is planned for late Spring of 2026. The County anticipates submitting a report of the Phase I sampling and analysis results with the next annual report in December 2026.

The Department recognizes the effort required to implement a successful stormwater management and TMDL implementation program, which is essential in our mutual goal of restoring urban streams and the Chesapeake Bay. The County is commended for its commitment and accomplishments toward this objective. Any specific technical questions related to this review may be directed to Sophia Grossweiler at Sophia.Grossweiler@maryland.gov or Jeff White at Jeff.White@maryland.gov.

MEMORANDUM

To: Stormwater, Dam Safety, & Flood Management Program (SDSFM)

From: Watershed Protection, Restoration, and Planning Program (WPRPP)

Date: April 8, 2026

Subject: Conditional Approval of Anne Arundel County Sediment TMDL Restoration Plan Update Review

The Maryland Department of the Environment, Watershed Protection, Restoration, and Planning Program (WPRPP) has completed a review of the Sediment TMDL Restoration Plan Update submitted in Appendix B of the County's 2025 Annual Report in December 2025. This document consolidates previous individual watershed plans into one overarching plan. WPRPP finds that the update contains the essential components as required in PART IV.F.2 of the County's permit (Permit Number: 20-DP-3316, MD0068306).

This document is conditionally approved and will receive full approval upon receipt of a final draft that addresses the necessary editorial revisions outlined below.

Required Revisions:

- The quantity of stormwater management practices cited as contributing to the Current Progress sediment reduction in Section 6.6.1 does not align with the data presented in Table 6-11.
- The quantity of stormwater management practices cited as contributing to the Current Progress sediment reduction in Section 6.7.1 does not align with the data presented in Table 6-13.
- The statement in Section 6.8 regarding the County's receipt of MDE approval for the Other West Chesapeake Bay Sediment TMDL Restoration Plan incorrectly references the Little Patuxent River Watershed.
- Section 8.4 contains a duplicate sentence in the first paragraph.
- For document clarity, please ensure that all references to "IWPP" within the document are revised to "WPRPP."

General Comments:

- WPRPP commends the County's continued commitment to plan optimization and the significant effort devoted to the project prioritization exercise.

- WPRPP acknowledges and appreciates the clear outline of updated milestones and target year schedules in Table 7-10. The significant schedule changes are noted as being due to the transition to the Phase 6 Chesapeake Bay Watershed Model.

The Department recognizes the effort required to implement a successful stormwater management and TMDL implementation program, which is essential in our mutual goal of restoring urban streams and the Chesapeake Bay. The County is commended for its commitment and accomplishments toward this objective. Any specific technical questions related to this review may be directed to Sophia Grossweiler at Sophia.Grossweiler@maryland.gov or Jeff White at Jeff.White@maryland.gov.