

**Maryland Department of the Environment
National Pollutant Discharge Elimination System
Montgomery County Municipal Stormwater Permit
Response to Formal Comments – February 2009**

I. Introduction

In October 2008, the Maryland Department of the Environment (MDE) reached a tentative determination to reissue a National Pollutant Discharge Elimination System (NPDES) municipal stormwater permit to Montgomery County, Maryland. A public hearing to accept formal testimony regarding MDE's decision was held on November 19, 2008. Written comments were also accepted through December 2, 2008 on the County's draft NPDES stormwater permit. This document represents MDE's response to the testimony received at the public hearing and written comments submitted afterward.

A common introduction to both the public hearing testimony and written comments received regarding Montgomery County's stormwater permit mentioned the effects of excess stormwater runoff from urban areas. Stormwater was described collectively as the "... biggest form of pollution affecting the Anacostia River..." carrying trash and accumulated pollutants and causing flooding in low-lying areas of various watersheds throughout the County. Compelling photographic evidence was submitted to MDE regarding how excess runoff causes severe stream bank erosion in tributaries such as Little Falls, Cabin Branch, Whetstone Run, Great Seneca Creek, and both Branches of the Anacostia River. It becomes fairly easy for all organizations, individuals, and government agencies to agree that urban stormwater is a problem that must be addressed.

In both public hearing testimony and written submissions, the majority of commenters mentioned similar themes and concerns about Montgomery County's draft permit. Many cited the direct impacts to streams from runoff volume and pollutants, general concern that not enough is being done to address continually degrading stream systems, and called on MDE to obligate the County to comply with the most stringent permit conditions possible. Specific issues emerged as well. These included compliance with water quality standards; total maximum daily load (TMDL) schedules; antidegradation; watershed restoration; trash; monitoring; management programs like erosion and sediment control, stormwater management, and illicit discharges; and public participation. In addition to a response to the comments regarding the general direction of Montgomery County's NPDES stormwater permit, each of the specific issues is discussed in more detail below.

II. Maryland NPDES Municipal Stormwater Permits

Maryland's municipal storm drain system permit program continues to evolve, building on the cumulative efforts of all NPDES stormwater permittees to implement best management practices (BMPs), evaluate the efficacy of those practices, and improve performance over time by feeding the knowledge gained into continued system improvements. This cumulative effort within all NPDES jurisdictions, generally, and Montgomery County, specifically, is emblematic of the "adaptive management" approach endorsed by the U.S. Environmental Protection Agency (EPA). The technology-driving focus of the program has shifted over time to better incorporate our evolving knowledge and focus on water quality. Adapting its municipal stormwater permit program to meet Maryland's water quality objectives is a challenge that MDE has met head-on

in this permit. Montgomery County's NPDES permit will continue to push program implementation harder toward water quality improvement than any effort to date.

Many commenters suggested that both the Clean Water Act (CWA) and the Code of Federal Regulations (CFR) compel MDE to mandate that specific, numeric effluent limits be met in Montgomery County's permit. A common point of view received was "[t]he Permit must require compliance by the end of the permit term for those pollutants identified as at risk of violating water quality standards..." One comment also suggested that MDE is prohibited from issuing the permit "... until a demonstration that compliance with WQS (water quality standards) will be met." Water quality based effluent limits, it was pointed out, have been demanded in NPDES permits for over 30 years and must be used in the County's stormwater permit.

The CWA recognizes fundamental differences between municipal stormwater and other so-called point source discharges and does not mandate that EPA or any delegated state impose effluent limitations of any type (numeric or narrative) on discharges from municipal storm sewer systems. Rather, Section 402(p)(3)(B)(iii) of the CWA states that municipal storm sewer system permits must require stormwater controls to reduce the discharge of pollutants "to the maximum extent practicable" (MEP). By regulation at 40 CFR §122.44, EPA further requires that BMPs and programs implemented pursuant to the permit must be consistent with applicable waste load allocations (WLAs) developed under EPA approved TMDLs. The overall goals of Maryland's NPDES municipal stormwater permit program are to control stormwater pollutant discharges by implementing the BMPs and programs required by the permit, show progress toward meeting WLAs developed under EPA approved TMDLs, and contribute to the attainment of water quality standards.

Futhermore, it would be cost prohibitive and, in MDE's view, a poor use of scarce resources to monitor thousands of stormwater outfalls to verify compliance with any numeric water quality standards that might be established. It is far more effective to concentrate water quality protection resources on implementing BMPs and other stormwater controls and use limited monitoring and water quality modeling to verify compliance with WLAs set under the TMDL process. MDE believes that this water quality assessment approach combined with continuous improvement and program refinement (adaptive management) are the keys to long-term success and the current draft permit establishes the requirements for achieving this goal.

Montgomery County was first issued an NPDES municipal stormwater permit in March 1996. This original permit, and the one reissued to the County in July 2001, broke new ground for how stormwater program efforts were monitored and watershed restoration would be implemented. MDE believes that this current municipal stormwater permit will force Montgomery County to make major strides toward controlling urban runoff better than ever before. New conditions such as trash abatement jurisdiction-wide and requiring an additional twenty percent of the County's impervious area to be restored are major additions. Additionally, a firm commitment for TMDL implementation according to the plan that the County is required to develop within one year of permit issuance is the strongest evidence yet of what MDE believes will move these programs forward toward the ultimate goal of meeting water quality standards.

Section III. J. of Montgomery County's permit acknowledges the flexibility allowed by the CWA to use an iterative approach to reduce the discharge of pollutants to the maximum extent practicable. MDE believes that the County's permit lays out a specific process where

implementation plans are required to be developed subsequent to a TMDL being approved by the EPA. These plans will require those "benchmarks" suggested by commenters necessary to meet WLAs specified by approved TMDLs. Compliance schedules are required as well and will allow MDE to determine whether sufficient progress toward meeting water quality standards is being made.

III. Specific Issues

A. Water Quality Standards and TMDLs: Numerous commenters requested that Montgomery County's permit incorporate links to Maryland's water quality standards and TMDLs. Some suggestions included requiring the Montgomery County storm drain system to meet water quality standards within the permit term and not issuing the permit until it is demonstrated that the standards can be met.

As discussed above, MDE believes requiring Montgomery County's storm drain system to meet water quality standards in one permit term is unreasonable. Certainly, water quality standards form the basis of Maryland's permitting programs. MDE is responsible for establishing water quality standards and monitoring to determine if standards are being met. Water bodies not meeting water quality standards are placed on an impaired waters list. For each impaired water body, MDE is responsible for developing a TMDL. The comprehensive water quality models used for TMDL development set pollution thresholds and determine WLAs (for industry, urban runoff, farms, et al.) that are necessary for meeting water quality standards.

In large metropolitan jurisdictions like Montgomery County, urban stormwater is often a significant portion of a TMDL's allocation. The CWA requires that all EPA approved TMDLs be addressed in NPDES discharge permits. The current iteration of Montgomery County's permit has made TMDLs the guiding principle for all management efforts. Because TMDLs are directly linked to Maryland's water quality standards, meeting them is now explicitly stated throughout Montgomery County's stormwater permit.

B. TMDL Schedules: Many commenters requested that schedules be provided for meeting TMDLs by the end of the permit term and that MDE should set interim schedules and benchmarks, not Montgomery County.

There are currently TMDLs in Montgomery County requiring stormwater discharge reductions of sediment by 46%, nitrogen and phosphorus by 79%, and bacteria by 96%. As stated previously, it is impracticable to believe that these reductions can take place over a five-year permit term, especially in the instance of bacteria where DNA testing has shown that a significant portion of this load emanates from wildlife. CFR accounts for infeasible limitations placed on stormwater at 122.44(k) where it instructs that BMPs and not numeric effluent limits be required.

Nevertheless, MDE sees the clear value in requiring the County to establish timeframes for taking the steps needed to meet applicable TMDLs. To this end, the permit proposed under the Tentative Determination required the County to prepare implementation plans including timeframes for certain benchmarks toward achieving applicable WLAs. In light of the comments received as a result of public testimony and written comments, a change has been made to include deadlines to meet not only benchmarks *but WLAs themselves* in implementation plans

applicable to TMDLs. The referenced change can be found in PART III.J.2.a and is being made to provide consistency with PART III.J.1.of the permit.

MDE believes that TMDL benchmarks and schedules are most appropriately set by Montgomery County. Municipal professionals have intimate knowledge of local watershed management plans; the type and frequency of BMPs necessary to achieve pollutant reductions; budgets and other funding mechanisms; and appropriate construction timeframes. Schedules based on anything less by the State would be arbitrary. Furthermore, the permit has provided extensive opportunities for public participation in the development of these plans in concert with County personnel. As implementation occurs and monitoring and modeling data provide feedback, annual schedules can be validated and improved to ensure timely compliance with water quality standards.

The implementation plan is subject to MDE review and approval. MDE will ensure that the plan meets all permit requirements, is aggressive, and sets appropriate benchmarks to achieve WLAs as quickly as possible. MDE will also review each annual assessment to ensure that benchmarks are being achieved and if not, that appropriate revisions to the plan are made and implemented so that benchmarks and WLAs are achieved as originally planned.

C. Antidegradation Policy: Some commenters requested that Montgomery County use its authority for approving erosion and sediment control and stormwater management plans to ensure that new discharges will not degrade high quality receiving waters.

There are three Tier II or high water quality stream segments in Montgomery County requiring antidegradation review of discharge permits. Antidegradation regulations in Maryland stem from the CWA and are directly tied to the issuance of NPDES discharge permits. This permit requires the use of Environmental Site Design (ESD) to the MEP, consistent with the Maryland Stormwater Management Act of 2007 (Part III. E.1.b). It also requires in Part III. F. that the County carry out watershed assessments of each watershed and “*specify how restoration efforts will increase progress toward meeting any applicable WLAs included in EPA approved TMDLs*”. Finally, Part G. specifies requirements for restoring watersheds to the MEP using ESD and other practices.

In addition, MDE routinely reviews and approves (or denies) County water and sewer plans and amendments of those plans and has proposed new requirements for the Stormwater General Permit for Construction Activities. Both of which give MDE the authority it needs to ensure the protection of high quality waters through MD regulations requiring that: “*an applicant for proposed amendments to county plans or discharge permits for discharge to Tier II waters that will result in a new, or an increased, permitted annual discharge of pollutants and a potential impact to water quality, shall evaluate alternatives to eliminate or reduce discharges or impacts. If impacts are unavoidable, an applicant shall prepare and document a social and economic justification. The Department shall determine, through a public process, whether these discharges can be justified.*” (COMAR 26.08.02.04-1)

Taken together, the permit requirements, MDE’s county plan review, MDE’s review of notices of intent (NOIs) to discharge stormwater and administration of the antidegradation regulations are protective of the State’s high quality waters and meet antidegradation requirements.

D. Watershed Assessment and Restoration: Comments were received stating that the watershed assessment section of the permit needed more enforceable language and deadlines, expanded links to water quality standards, better reference to the restoration and control assessment sections, and increased public participation.

MDE believes that the permit clearly defines the level of effort expected for watershed assessment, restoration, and assessment of controls. The permit requires implementation of practices, established by the County's watershed assessment efforts, to control stormwater discharges for twenty percent of existing impervious surfaces not already treated to the MEP. The permit requires measurable and steady reductions in pollutants and implementation plans to meet WLAs through an adaptive management process. Additionally, the permit requires the County to use chemical, biological, and physical monitoring to document progress toward meeting its watershed restoration goals and any applicable WLAs developed under EPA approved TMDLs. These efforts coupled with management program implementation represents the maximum use of existing technologies within the economic capability of the permittee and will result in further progress toward eliminating the discharge of pollutants.

E. Anacostia Trash Treaty: Comments were received stating that the permit conditions for trash and litter abatement are not stringent or prescriptive enough and are not in compliance with water quality regulations. Other comments questioned why the permit focuses only on the Anacostia River and not the entire Potomac River and mentioned that the permit must be consistent with the requirements of the Potomac River Watershed Trash Treaty (Treaty), including the establishment of deadlines.

By reference, the Treaty and the Trash Free Potomac Watershed Initiative 2006 Action Agreement (Agreement) are incorporated into the permit. Therefore, the goals of the Treaty and the Agreement can be considered conditions of the permit. These goals include the development of a Trash Reduction Strategy for the Anacostia River as a model for other major watersheds. Other goals of the agreement include increasing public awareness about trash issues, recruiting businesses and organization to participate in developing an Action Plan, strengthening the collaboration between jurisdictions, and evaluating best trash management practices and technologies. Much of this work will be done jurisdiction-wide.

The permit goes further than the Agreement by requiring MDE's approval of Montgomery County's work plan and the submittal of an annual report detailing the County's trash and litter elimination efforts. MDE does not believe that it should prescribe the precise methods and technologies to be incorporated in the County work plan and that requiring MDE's approval is sufficient. The County currently implements a breadth of trash reduction strategies and knows best which are working and where improvements are needed. In addition, the Treaty calls for annual meetings to discuss and evaluate measures and actions, recognizing the need for a more fluid process.

As stated in Maryland's 2006 TMDL Implementation Guidance for Local Governments "[t]he desire to maintain local control over decisions is a basic principle whether that local control is of a State relative to the federal government, or local jurisdictions relative to the State. When complex decisions regarding water quality arise among states, it is ideal for the affected states to resolve the issue without forfeiture of control to federal authorities. The same can be assumed among local jurisdictions." (5-42)

Portions of Montgomery County's streams and rivers drain into the watersheds of the Anacostia, Monocacy, Upper and Lower Patuxent, and the Potomac River directly. It is infeasible to simultaneously develop trash reduction strategies and work plans specific to each watershed. Once the work plan is developed for the Anacostia, it can be used as the model for other watersheds, as noted in the Agreement.

F. Stormwater Monitoring: Many commenters believed that more extensive monitoring should be conducted in order to measure the progress toward meeting TMDLs. It was also suggested that all BMPs that are installed be monitored as well.

Montgomery County's permit follows NPDES requirements for representative monitoring. The County's storm drain system includes more than 3,000 major outfalls dispersed across 494 square miles. Monitoring every outfall and BMP would be cost prohibitive and siphon scarce resources from the implementation of management programs that improve water quality. The CWA acknowledges this need for balance and requires that municipalities conduct representative monitoring of storm drain systems and then extrapolate those data system-wide.

MDE has an extensive history of working with local municipalities and stakeholders for determining an appropriate level of monitoring. One result has been the pooling of chemical monitoring data from Maryland's 11 Phase I municipalities into a statewide monitoring effort. With shared resources, Maryland's NPDES stormwater community is now capable of monitoring the full spectrum of urban landscape, and by sharing data between jurisdictions, the aggregate results can be used by each municipality for its own program evaluation purposes and water quality modeling. These data along with State monitoring were integral in the development of Montgomery County's TMDLs. MDE will require that a commensurate amount of monitoring be required in Montgomery County's permit in order to ensure that existing TMDLs can be judged consistently with how they were developed.

G. Management Programs - General: Comments received indicated that management programs are narrative effluent limitations that contain essential requirements intended to reduce the discharge of pollutants to the MEP and must be subject to review by both the regulating entity and the public. Additionally, the permit must expressly declare that each management program is an integral part of the permit and that each and every requirement of the program be wholly incorporated. Conversely, comments were received stating that MDE should not federalize State and voluntary requirements.

The CWA does not mandate that EPA or any delegated state impose effluent limitations of any type (numeric or narrative) on discharges from municipal storm sewer systems [see 33 U.S.C. Sec. 1342 (p)]. Section 402(p)(3)(B)(iii) of the CWA states that municipal storm sewer system permits must require stormwater controls to reduce the discharge of pollutants to the MEP. By regulation at 40 CFR §122.44, EPA further requires that BMPs and programs implemented pursuant to the permit must be consistent with applicable WLAs developed under EPA approved TMDLs. The overall goals of Maryland's NPDES municipal stormwater permit program are to control stormwater pollutant discharges by implementing the BMPs and programs required by the permit, show progress toward meeting WLAs developed under EPA approved TMDLs, and contribute to the attainment of water quality standards.

EPA has repeatedly expressed a preference for regulating stormwater permits by way of BMPs and programs, rather than imposing either technology-based or water quality-based numeric effluent limitations. Therefore, management programs, designed to control stormwater discharges to the MEP, are required to be implemented and maintained for the term of this permit. These include, for example, implementing the stormwater management design policies, principles, methods, and practices in the *2000 Maryland Stormwater Design Manual* and the provisions of Maryland's *Stormwater Management Act of 2007*. Similarly, an approved erosion and sediment control program is to be maintained in accordance with the Maryland's sediment control law. Additionally, the County is required to continue to implement its program to reduce pollutants associated with road maintenance activities and implement a public education and outreach program to reduce stormwater pollutants. MDE believes that these management programs include appropriate management practices, control techniques, and design and engineering methods to reduce the discharge of pollutants to the MEP.

Maryland has well defined stormwater, erosion and sediment control, and industrial permitting and compliance monitoring programs. From a holistic perspective, program requirements are embodied in State law and regulations specific to the individual programs, and there is no need to restate entire statutes and regulations in this permit. In essence, all of these management program requirements are incorporated into the permit by virtue of its requirement that the permittee maintain an acceptable program.

MDE reviews program activity as part of the annual reporting process and as specified by State statute or regulation specific to the program activity. For example, the delegation of erosion and sediment control enforcement authority is granted for a maximum two-year period and continuation of authority is based upon evaluation by MDE. Maryland's sediment control law and regulations establish the general provisions for evaluating local programs for the purpose of delegating enforcement authority. Similarly, Maryland's stormwater management law and regulations establish the general provisions for evaluating local stormwater programs. Program activity measures directly related to the BMPs implemented and source reduction efforts (e.g., tons of material removed from storm drain inlets, number of illicit discharge sources found and eliminated, and changes in recycling rates) will also be used to monitor program implementation and progress.

Management Programs - Erosion and Sediment Control: Comments were received stating that the permit should include measurable goals to ensure effective and prioritized erosion and sediment control inspections. Comments also indicated that the permit does not specify what information is required for earth disturbances exceeding one acre or more. Additionally, a commenter cited a 1990 study that found the sediment removal efficiency of six sediment traps and basins evaluated in Maryland to be just 65%.

Through the delegation process, a determination is made whether the County is capable of enforcing erosion and sediment control requirements. Information to be submitted for earth disturbances exceeding one acre is contained in Attachment A of the permit and is specific to grading permit information. This information is used by MDE, in part, to ensure that general permit coverage is being obtained by the local development community. The 1990 study was conducted for MDE by the Metropolitan Washington Council of Governments and served as the basis for doubling the storage volume of sediment traps and basins, as well as other design improvements made during the development of the *1994 Standards and Specifications for Soil*

Erosion and Sediment Control. MDE has recently committed to immediately initiate an evaluation and revision of these standards to be completed by May 2010.

Management Programs - Stormwater: Comments were received regarding the adverse impacts of stormwater on water supply and wastewater infrastructure. Numerous comments were received regarding the need for managing runoff and that flow should be controlled before stream restoration or stabilization. Commenters also suggested that the permit should establish standards regarding land use, new development, and significant redevelopment.

MDE agrees that uncontrolled stormwater has an adverse impact on water supply and wastewater infrastructure and that there is a need for further runoff reduction. Under proposed stormwater management regulations, post development runoff volumes for new development will roughly mimic forested runoff conditions and the watershed restoration requirements should go a long way toward reducing flows. MDE also agrees that efforts should be made to control flows, where practicable, as a prelude to stream restoration or stabilization.

The permit requires the County to cooperate with the Maryland National Capital Park and Planning Commission during the development and completion of the Water Resource Element (WRE) of the County's comprehensive land planning process as required by the Maryland Economic Growth, Resource Protection and Planning Act of 1992 (Article 66B, Annotated Code of Maryland). During the 2006 legislative session, the General Assembly enacted House Bill 1141 Land Use – Local Government Planning (HB 1141). This bill requires local jurisdictions to include, through the WRE, future plans for water supply, wastewater, and stormwater into their comprehensive plans and should effectively deal with local land use issues. Additionally, the stormwater management design policies, principles, methods, and practices in the *2000 Maryland Stormwater Design Manual* and the provisions of Maryland's *Stormwater Management Act of 2007* establish standards for new development and redevelopment.

Management Programs - Illicit Discharge Detection and Elimination: Comments were received indicating that illicit discharge detection and elimination efforts should be focused where TMDLs exist, outfall reconnaissance investigation should be used, smaller diameter outfalls should be evaluated, and industrial operations should be inspected by Montgomery County. Additionally, commenters thought that the permit should include provisions for reducing discharges associated with the application of fertilizers, herbicides, and pesticides to the MEP.

The County is required to implement an inspection and enforcement program to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated. The permit includes requirements for field screening outfalls and provisions for developing alternative approaches for identifying and eliminating illicit discharges. Regarding industrial operations, MDE has well established permitting and enforcement processes to control the discharges from industrial facilities. MDE believes that having two agencies enforce industrial discharge permits would be duplicative and County resources could be better used to implement the management programs required by the permit. Similarly, regulatory programs, administered by the Maryland Department of Agriculture, exist for the control of pesticide and herbicide application. The public education requirements of the permit should be sufficient to deal with public application of fertilizer, herbicides, and pesticides.

H. Public Participation: Some commenters suggested that there is insufficient opportunity in the permit for public participation.

MDE believes ample opportunity for public comment and participation has been provided during the development of the permit and will continue throughout the entire term. A public informational meeting for the reissuance of Montgomery's County permit was held on November 29, 2005. At least five meetings were held between this date and February 26, 2007 with various government agencies and interested parties. Additional meetings and opportunities for comment were made available throughout 2007 and 2008. Testimony received during the public hearing for the tentative determination of the permit, held on November 19, 2008 acknowledged the incorporation of public comment into the current permit.

The permit requires the submittal of an annual report detailing the implementation status of the management programs found in Part III. The annual reports also include information on monitoring, watershed restoration, grading permits, program effectiveness, and a wealth of other information. Annual reports from 2001-2005 can be found on Montgomery County's website. Copies of the County's first two permits and the most recent annual report review are available on MDE's website.

In addition to the annual report, the permit provides ample opportunities for public participation, both explicitly and implicitly. Part III.4. explicitly requires the County to create a public participation process for the development of a trash reduction strategy including a public comment period. Part III.F. states that a public information component will be included in watershed assessments. Part II.J.2.e. includes a public notice and a comment period for TMDL implementation plans.

Part III.E.1.b. requires compliance with the *Stormwater Management Act of 2007*. These provisions include avenues for public participation throughout the sediment control and stormwater management plan approval processes. As described in Part IV.C., all information submitted for the reapplication of this permit is included in the County's fourth annual report and therefore, available to the public.

Almost any information not directly available as a condition of the permit can be requested through MDE or Montgomery County. MDE welcomes and appreciates public comments and suggestions throughout the development and term of all its permits and believes this is reflected in the process of the last three years and the current permit conditions.

IV. Summary

MDE appreciates the efforts of those involved in the permit's development and recognizes that some comments reflect strong differences of opinion regarding how best to approach Montgomery County's stormwater activities. However, the permit exceeds both the CWA and CFR requirements and as previously noted, a change has been made to clarify that deadlines are intended to meet benchmarks and WLAs in implementation plans applicable to TMDLs. While MDE acknowledges that improvement can always be realized, it is believed that the water quality necessary to achieve WLAs for stormwater will be accomplished through the program refinements established in this permit.

The permit requires an additional twenty percent of the County's impervious area to be restored, a strategy for a trash free Potomac River by 2013 to be developed within one year and implemented, and TMDL implementation plans to be developed within one year and carried out according to the County's schedule in order to meet stormwater WLAs established for impaired waters. All of these requirements are in addition to existing countywide management programs and ongoing monitoring efforts and will go a long way toward making Montgomery County's NPDES municipal stormwater program arguably one of the best in the country.

MDE believes that the permit is a major step forward for Montgomery County's NPDES municipal stormwater program and clearly demonstrates that Maryland is taking strong, comprehensive action to further reduce polluted stormwater runoff. Therefore, MDE has reached a final determination to issue an NPDES permit to Montgomery County to control storm drain system pollution. The permit will be issued as final unless MDE receives a request for a contested case hearing by March 19, 2009.