Maryland Department of the Environment
Water Management Administration

Basis for Final Determination to Issue Anne Arundel County's
National Pollutant Discharge Elimination System
Municipal Separate Storm Sewer System Permit

MD0068306 11-DP-3316

December 2013

Introduction

The Maryland Department of the Environment (MDE) made a tentative determination to issue Anne Arundel County a National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system permit ("stormwater permit" or "MS4 permit") on May 2, 2013. The stormwater permit establishes specific conditions for regulating discharges from Anne Arundel County's storm drain system. Public notice of MDE's tentative determination appeared in the Capital and Maryland Gazette on June 12, 2013 and June 19, 2013, respectively, as required by Maryland's Administrative Procedures Act (APA). Additionally, MDE maintains an interested party list for the County's stormwater permit that includes federal, State, and local municipal officials as well as numerous citizens of Anne Arundel County and Maryland that were notified of the tentative determination.

Subsequent to the notification of the tentative determination, MDE received a request for a public hearing regarding Anne Arundel County's stormwater permit. The request came on July 9, 2013 from Ms. Elaine Lutz as a representative of Chesapeake Bay Foundation (CBF). In response, MDE held a hearing on August 7, 2013 to accept testimony and comment regarding the stormwater permit. Three individuals representing various environmental groups testified at the hearing and an official transcript of the proceedings, which has been furnished by the Hunt Reporting Company, is available on MDE's website.

After the hearing, the public record regarding Anne Arundel County's stormwater permit remained open until August 19, 2013 to accept further comment in accordance with the APA. Numerous comments were received from other local governments subject to NPDES stormwater permits, environmental advocacy groups, and citizens of Anne Arundel County and Maryland during this time. In aggregate, the comments offered various and often contrary perspectives on the major tenets of Anne Arundel County's stormwater permit. The issues receiving the most comments included water quality standards and total maximum daily loads (TMDLs), restoration criteria, MDE guidance, monitoring, stormwater program requirements, regulated permit area, cost, annual reporting, and recommended permit language. Each of these issues will be addressed below as part of MDE's Basis for Final Determination.

Background

Maryland has been delegated the authority by the United States Environmental Protection Agency (EPA) to administer the federal NPDES permit program through a Memorandum of Agreement (MOA) dated May 18, 1989. Final stormwater regulations, which were adopted by EPA in November 1990, according to 40 Code of Federal Regulations (CFR) §122.26, required owners of storm sewer systems serving populations greater than 100,000 to apply for Phase I NPDES municipal stormwater permits. Based on 1990 census data, Anne Arundel County was considered a Phase I municipality due to its population of over 427,230 at the time. The County submitted a two-year, two-part application and was issued an initial stormwater permit in December 1993. This first permit required the County to maintain legal authority to control storm drain system pollution; develop geographic information system mapping on a watershed basis; use a combination of chemical, physical, and biological monitoring to characterize urban stormwater; develop management programs to address runoff from new and significant redevelopment, construction site discharges, illegal storm drain system connections, and road maintenance operations; and provide education and outreach regarding stormwater pollution.

Anne Arundel County's stormwater permit was reissued in March 1999 and again in November 2004. In these permits, MDE used an iterative permitting approach where the assessment of water quality on a watershed basis was used to establish retrofitting requirements, including 10% of the County's impervious area in each five-year permit term. An application for a fourth permit was submitted in September 2009 as part of the County's fourth year annual report. This annual report served as the County's application to reissue the permit that is currently being considered.

As MDE developed a draft of the fourth stormwater permit for Anne Arundel County, more stringent requirements were specified. These included increasing existing impervious area treatment goals, supporting litter and trash reduction strategies, and implementing environmental site design (ESD) technologies for new and redevelopment projects to the maximum extent practicable (MEP). The County will also be required to develop and implement plans to address stormwater waste load allocations (WLAs) established under EPA approved TMDL estimates. Since the early drafting of this permit, MDE has held numerous meetings with individual citizens, environmental advocates, EPA, and other county government officials that are similarly affected by stormwater permits. These meetings resulted in the addition of more significant conditions to Anne Arundel County's stormwater permit, in large part due to a regional and growing focus on restoring Chesapeake Bay. More information on the NPDES stormwater permitting process in Maryland and MDE's iterative approach over the past several permit terms can be found in Anne Arundel County's stormwater permit fact sheet, which is available on MDE's website. In addition, relevant correspondence from EPA describing negotiations during the draft permit process is provided in the Attachment. These documents summarize a clear process that engaged stakeholders and EPA in order to develop a permit that will meet the water quality goals of the CWA.

The following is a discussion of the most substantive comments received and MDE's response to each.

Issue No. 1: Water Quality Standards and Total Maximum Daily Loads.

The goals of Anne Arundel County's stormwater permit are to control stormwater pollutant discharges, to improve water quality within the County's urban watersheds, and to work toward meeting water quality standards (WQS). In alignment with these goals, Section 402(p)(3)(B)(iii) of the Clean Water Act (CWA) requires the County to implement "…controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and systems, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." The County's permit also requires the development of implementation plans to achieve stormwater WLAs where there are EPA approved TMDLs. In this manner, compliance with the permit will result in a reduction of pollutant discharges from the County's storm drain system and a framework for achieving WQS.

Water Quality Standards. A majority of the comments received on Anne Arundel County's draft MS4 permit referred to compliance with State and federal WQS. A common claim of environmental groups was that the County's stormwater permit authorizes discharges that do not meet existing WQS or that may contribute pollutants to impaired waters, and therefore cannot be legally issued by MDE. For example, one environmental advocacy group stated that "[t]he final permit must expressly and clearly prohibit discharges that cause or contribute to violations of water quality standards." Furthermore, the regulations require each NPDES permit to place limitations on all pollutants or pollutant parameters that "…are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard." [40 CFR §122.33(d)(1)(i).]

The argument that the issuance of the draft stormwater permit violates the CWA is based on a citation of federal regulations regarding Prohibitions Applicable to State NPDES Programs [40 CFR §122.4(d) and (i) and §123.25]. Section 40 CFR 122.4 prohibits the issuance of an NPDES permit "[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States." Other commenters referenced 40 CFR §122.4(i) to suggest that Anne Arundel County's MS4 permit must comply with WQS. The first sentence of 40 CFR §122.4(i) reads "[n]o permit may be issued…[t]o a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards."

Nonetheless, at least one environmental advocacy organization recognized that "[t]here has been some uncertainty with respect to the matter of such a federal mandate." Comments recognize that the Ninth Circuit, in "Defenders of Wildlife v. Browner" [191 F.3d. 1159, 1164 (9th Cir. 1999)], found that WQS are not applicable to municipal stormwater discharges. Although environmental advocacy organizations seek to draw the Department's attention to the decision of EPA's Environmental Appeals Board, in "In re Gov't. of D.C. Municipal Separate Storm Sewer Sys." [10 E.A.D. 323, 341-43 (E.P.A 2002)], that decision specifically notes that it does not address the issues raised in "Browner."

Under Section 9-324(a)(1) of the Environment Article, the Department may only issue a permit if it complies with "[a]ll applicable State and federal water quality standards and effluent

limitations." MDE has interpreted the use of "applicable" to be consistent with the Clean Water Act and the "Browner" case. Therefore, WQS are not applicable to MS4 permits unless the Department requires them.

In its 2011 decision in "Assateague Coastkeeper et al. v. MDE", [200 Md. App. 665 (2011)], the Court of Special Appeals of Maryland rejected the argument that the first sentence in §122.4(i) functions as an absolute prohibition to new discharges. In this decision, the Court noted that the phrase "cause or contribute to the violation of WQS" is subject to more than one reasonable interpretation. *Id.* at 710. The Court also noted that when this occurs, deference should be given to an agency's interpretation of its own regulation. *Id.* at 714. In this case, EPA's interpretation that the issuance of a permit that results in a net reduction of the pollutants causing the impairment is permissible under 40 CFR 122.4(i) was upheld by the Court.

It is also important to recognize that the CWA does not completely prohibit discharges into an impaired waterway. In its decision in "Arkansas v. Oklahoma" [503 U.S. 91 (1992)], the U.S. Supreme Court noted that there was nothing in the CWA mandating a complete ban on discharges into an impaired waterway. The Supreme Court also noted that completely banning new discharges might impede the construction of projects designed to improve existing conditions. Likewise, the Supreme Court offered that the CWA gives EPA and the States broad authority to develop long-range, area wide programs to alleviate and eliminate existing pollution.

Prior to EPA's concurrence with MDE on Anne Arundel County's draft stormwater permit, EPA, MDE, Anne Arundel County and various stakeholder groups met regularly to ensure that an effective permit was written in compliance with the CWA. EPA and these groups reached consensus on the water quality standards language found in the permit under Part III. (Water Quality). This language specifies that Anne Arundel County must effectively prohibit pollutants in stormwater discharges or other unauthorized discharges as necessary to comply with receiving WQS. Additionally, all applicable WLAs for each approved TMDL must be met, including all other provisions within the permit and in any plans or schedules developed to fulfill those requirements. This section further stipulates that compliance with the conditions found within the permit constitutes compliance with §402(p)(3)(B)(iii) of the CWA and adequate progress toward meeting Maryland's receiving WQS and any EPA approved stormwater WLA. Several affected NPDES Phase I jurisdictions commented as well on WQS and expressed general approval with the language found in the proposed permit. These Phase I jurisdictions noted that without this language, the permittee would be in violation of the CWA immediately upon the permit's issuance because water quality exceedances currently exist.

Numeric Effluent Limits. There were also many comments regarding the lack of numeric effluent limits in Anne Arundel County's stormwater permit. For example, one environmental advocacy group stated that the requirement for including numeric effluent limits could be found in 40 CFR §122.44(d)(1)(iii) where it states that, "[w]hen the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant." A common argument from the environmental community has been that EPA's own guidance (see Wayland

and Hanlon, “Establishing TMDL WLAs for Storm Water Sources…”, 11/22/2002, and Hanlon and Keehner, “Revisions to the November 22, 2002 Memorandum…”, 11/12/2010) recommends that "…where the NPDES authority determines that MS4 discharges and/or small construction stormwater discharges have the reasonable potential to cause or contribute to water quality standards excursions, permits for MS4s and/or small construction stormwater discharges should contain numeric effluent limitations where feasible to do so."

MDE counters that the CWA provides the Department with the authority to require a permit for discharges composed entirely of stormwater. In 33 USC § 1342(p)(1)., the CWA defines the term “effluent limit” broadly to include best management practices (BMPs) that would restrict the quantities, rates, and concentrations of constituents within a discharge. 33 USC § 1342(11). Therefore, the 20% restoration requirement is an effluent limit as constructed within the permit. Thus, the restoration requirement is a BMP designed to provide treatment pursuant to the Department’s authority under the CWA with the goal of meeting WQS. In addition, as noted in Part IV.E. of the permit, “…40 CFR § 122.44… requires that BMPs and programs implemented pursuant to this permit must be consistent with applicable WLAs developed under EPA approved TMDLs.”

EPA has provided clarification regarding the use of BMPs for meeting CWA goals in later memoranda. For example, in its 2002 memo noted above, EPA recommended that for NPDES-regulated municipal discharges, “…effluent limits should be expressed as best management practices or other similar requirements, rather than as numeric effluent limits.” In its 2010 revisions to the 2002 memo, EPA advised that MS4 permits “…must contain effluent limits and conditions consistent with the requirements and assumptions of the WLAs in the TMDL” as required by 40 CFR §122.44(d)(1)(vii)(B). EPA advised that where the stormwater WLA of a TMDL is expressed in terms of a surrogate pollutant parameter, “…then the corresponding permit can generally use the surrogate pollutant parameter in the WQBEL [water quality based effluent limit] as well.” In its March 17, 2011 cover letter to the 2010 revisions, EPA further clarified its position stating that numeric effluent limitations should be considered “…as a significantly broader term than just end-of-pipe limitations, and could include limitations expressed as pollutant load reductions for parameters that are applied system-wide rather than to individual discharge locations…[and also that]…NPDES authorities have significant flexibility to establish numeric effluent limitations in stormwater permits.”

While flexibility is allowed in establishing effluent limitations in NPDES permits, MDE also recognizes that TMDL-related permit requirements and implementation plans must be “…consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA…” [40 CFR §122.44(d)(1)(vii)(B)]. In the County’s stormwater permit, MDE exercises flexibility by incorporating a system-wide requirement for restoring 20% of impervious surface areas, not already controlled to the MEP, as a "surrogate pollutant parameter objective". MDE achieves consistency with TMDLs by showing how the 20% restoration requirement directly correlates to meeting stormwater WLAs prepared by MDE and approved by EPA.

MDE, through its *Phase II Watershed Implementation Plan (WIP) for the Chesapeake Bay TMDL*, set forth a strategy to achieve the nutrient and sediment discharges to comply with the

Chesapeake Bay TMDL by upgrading large wastewater treatment plants to enhanced nutrient removal levels. [Phase II WIP, October 2012.][1] Although the bulk of the reductions needed to comply with the Bay TMDL will be achieved through upgrades to these wastewater treatment plants and implementation of BMPs by the agricultural sector, the WIP provides a WLA for urban stormwater [Phase II WIP, October 2012 at pp. 11- 21.] The approved strategy for meeting the nutrient and sediment WLAs from urban stormwater is to require, in Phase I NPDES MS4 permits, restoration of 20% of previously developed impervious land with little or no stormwater controls within the next five-year permit term. [Phase II WIP, October 2012 at pp. 14, 15, 17.]

Enforceable Plans and Deadlines. In addition to the want for meeting WQS and numeric effluent limitations, there was a collective concern from environmental advocates that Anne Arundel County's stormwater permit did not require enforceable plans with interim and final deadlines for meeting WLAs. For example, one organization stated that "[o]nly by including deadlines based on pollutant load reductions can MDE "ensure" compliance with water quality standards in impaired waterways with TMDLs, as required by CWA § 301." The permit must be revised to require the County's restoration plans to contain enforceable pollution reduction milestones and benchmarks. Many of these commenters also noted that it may not be feasible for Anne Arundel County to meet WQS in one permit term and in these instances, federal regulations provide that if WQS or WLA compliance cannot be achieved immediately, a "…permit may, when appropriate, specify a schedule of compliance leading to compliance with CWA and regulations." [40 CFR §122.47(a)]. Similarly, State law allows MDE to "…impose a compliance schedule as a condition of a permit for existing discharges which do not comply with permit conditions, effluent limits, or water quality standards." [COMAR §26.08.04.02.C(1).].

Provisions for compliance schedules can be found in Anne Arundel County's permit under Part IV.E. (Restoration Plans and Total Maximum Daily Loads). This section of the permit requires Anne Arundel County to conduct systematic assessments and develop detailed restoration plans for all watersheds within the County. For all EPA approved TMDLs, these restoration plans must include "...a detailed schedule for implementing all structural and nonstructural water quality improvement projects, enhanced stormwater management programs, and alternative stormwater control initiatives for meeting applicable WLAs…[that]…specify pollutant load reduction benchmarks and deadlines…[and]…include the final date for meeting applicable WLAs…" Also included in Part IV.E. are public notification and participation procedures, and requirements for the County to address any material comments from the public regarding the restoration plans before submitting to MDE for review and approval. Once approved, these plans, schedules, benchmarks and deadlines, and final date for meeting stormwater WLAs become enforceable under the permit. By requiring detailed compliance schedules, public participation, and oversight from MDE and EPA, the County's MS4 permit is in compliance with State and federal regulations regarding enforceable plans and deadlines, effluent limits, and WQS.

[1]The Phase II WIP and related documents, including appendixes and responses to comments, can be found at: http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/FINAL_PhaseII_WIPDocument_Main.aspx

Issue No. 2: Restoration Criteria.

The restoration of 20% of the County's impervious area that has little or no stormwater controls is a major requirement in the permit. Numerous comments from environmental advocacy groups demanded that ESD be used as the standard for acceptable impervious area restoration. The central argument was that federal MEP standards mandate the use of ESD in MS4 permits. Additionally, it was argued that State law mandates the use of ESD to the MEP when implementing stormwater management. Therefore, the permit must be revised to require that ESD be used to meet the 20% restoration goals.

One environmental advocacy group commented that "…this permit must institute or impose all the controls and the highest levels of management and treatment that are capable of being put into practice – most decidedly not standard practices. At the very least, this would mean expressing the strongest of preferences for ESD..." In support of this argument, this group pointed to the EPA's recently promulgated MS4 permit for the District of Columbia. This group argues that "...the permit should impose a higher performance standard in Anne Arundel County, similar to that chosen for the District of Columbia's permit and similar to that used in numerous states and local jurisdictions around the country: i.e. the on-site retention and treatment of at least the full 90th percentile, 24-hour storm event from a 72-hour antecedent dry period (about 1 inch of treatment)." Further, the group recommends that "[t]his performance-based approach should be done primarily through Environmental Site Design (ESD) or 'green infrastructure,' as recommended in many EPA guidance documents." However, the group further observes that "… ESD is not appropriate for all projects, areas, and circumstances, the preference for ESD should simply require that such measures are evaluated before less efficient, structural measures are implemented."

In its comments on another county's draft permit, one environmental group suggested that "[a] requirement for ESD would also bring the Draft Permit into conformance with EPA Region III's recommendation to MDE during the development of the Permit last year." In a November 29, 2012 letter to MDE (see Attachment), EPA stated: "EPA strongly supports expanded use of green infrastructure [ESD] to protect and restore waters…" and that EPA urged MDE to "…provide sufficient incentives in the permit… for the preferential use of such practices…"

MDE believes that there are incentives to utilize ESD practices for restoration in the permit and in the document, *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits* (MDE, June, 2011), cited herein as the "Guidance". The permit states that restoration of impervious surfaces shall be based on the treatment of the water quality volume (WQ_v) criteria and associated list of practices defined in the *2000 Maryland Stormwater Design Manual* (MDE, 2000 and 2009) and cited herein as the "Manual". While this allows structural treatment practices such as wet ponds, wetlands, infiltration, and filtration, the Guidance clearly shows that ESD practices will be given greater pollutant load reductions than other acceptable water quality treatment practices. In addition, practices like dry detention, dry extended detention, or hydrodynamic structures will not be considered and impervious areas draining to these will not be treated and will be required to be restored to the MEP. By granting greater pollutant reduction credit for ESD, and allowing flexibility to use other acceptable water quality treatment

facilities, restoration efforts in Anne Arundel County will be consistent with EPA incentives and other national programs such as that found in the District of Columbia's permit. In the November 29 letter referenced, EPA removed prior objections to the draft permit and supported in the Guidance. Therefore, this letter clearly shows that the permit conforms to EPA recommendations.

In February 2010, MDE issued an NPDES permit to Montgomery County (MD0068349) that does not require the use of ESD to satisfy restoration requirements. The most recent version of the Los Angeles County NPDES permit (NPDES NO. CAS004001, November 5, 2012), includes requirements for low impact development (LID – e.g., ESD) local ordinances for new development and redevelopment but not for restoration or retrofitting. It is important to note that the requirements and performance standards for these LID ordinances are similar to those required by Maryland. While EPA encourages its use, there is no federal mandate that ESD shall be used to meet NPDES permit requirements.

Similar to the comments concerning federal program requirements, several environmental groups argued that the Stormwater Management Act (Environment Article, Title 4, Subtitle 2) mandates the use of ESD for all stormwater management applications, including restoration and retrofitting. With the passage of the original Stormwater Management Act in 1982 and its subsequent revisions in 2007 and 2012, the General Assembly intended to "…reduce as nearly as possible the adverse effects of stormwater runoff…" (§4-201). However, the Act addresses the installation of stormwater management to serve future development and specifies that "…a person may not develop any land for residential, commercial, industrial, or institutional use without submitting a stormwater management plan…" (§4-204).

During the Baltimore City tentative determination process, the City noted in its comments that the legislative history of the Act does not mention MS4 permit requirements and that "…no one who commented on the legislation…suggested that the [Act] would result in a requirement that…permittees be required to implement [ESD] as part of MS4 compliance." Maryland's law and regulations have historically imposed stormwater management only for new development.

Another commenter on the restoration criteria stated that "[t]he [G]uidance's approach is the wrong one…because a narrow focus on reducing the three Bay pollutants ignores other pollutants that may be impairing local waters,…" This commenter added that "…the MEP standard requires MS4 jurisdictions to reduce their discharge of pollutants – all pollutants, not just three of them – to the maximum extent practicable."

MDE agrees that watershed restoration may not be achieved solely with water quality treatment practices. Therefore, the permit specifies that water quality treatment should be implemented in conjunction with other enhanced stormwater programs and alternative stormwater controls. Other permit requirements such as illicit discharge elimination, erosion and sediment control programs, implementation of the Stormwater Management Act for all new development and redevelopment construction, consistency with TMDLs, public education and participation initiatives, and ongoing BMP maintenance and monitoring efforts will collectively achieve the watershed restoration objectives intended in the permit. However, when water quality treatment practices are used as part of these strategies and initiatives, it is appropriate that MDE provide a

standard for design and performance. Therefore, MDE has established the standard for water quality treatment to be based on the WQ_v criteria using the list of practices defined in the Manual and this is specified in the permit.

With respect to concerns that the permit requirements do not take the condition of local waters into account, MDE believes that there is significant language in the permit that requires the County to address local water quality conditions. For example, Part IV.E., states that "… watershed assessments and restoration plans, shall include a thorough water quality analysis, identification of water quality improvement opportunities, and a schedule for BMP and programmatic implementation to meet stormwater WLAs included in EPA approved TMDLs." Because TMDLs are based on water quality conditions, the permit does take into account the condition of Maryland's waters. Furthermore, Part IV.E.2.b.i., specifies that restoration plans shall include a "…final date for meeting applicable WLAs and a detailed schedule for implementing all structural and nonstructural water quality improvement projects, enhanced stormwater management programs, and alternative stormwater control initiatives necessary for meeting applicable WLAs."

In summary, permit requirements for watershed assessments and restoration plans do consider local water quality conditions and will require the County to establish management strategies and detailed plans to show how water quality standards will be met. This will be achieved using acceptable stormwater BMPs for water quality treatment and stormwater program enhancements. There is incentive to use ESD for restoration, however, ESD may be used in conjunction with other proven water quality practices in order to achieve the clean water objectives of the permit. MDE believes that this allows a balanced approach where the County can set priorities based on local water quality conditions, while offering flexibility to implement various strategies based on site specific opportunities to achieve watershed restoration objectives.

Issue No. 3: MDE Guidance.

As discussed above, a major provision in Anne Arundel County's stormwater permit is the restoration of 20% of the County's impervious surfaces that have little or no stormwater controls. MDE has provided suggestions for how this requirement can be met in the Guidance. During the public hearing and open record period for Anne Arundel County's stormwater permit, MDE received many, varied, and often conflicting comments regarding the Guidance. MDE's reasoning and answers to the specific concerns from local governments and environmental groups are provided below.

Three Phase I jurisdictions were "…concerned that such a major aspect of the permit's requirements would be determined by and through a binding but not promulgated Guidance document subject to MDE's unilateral revision." This statement is incorrect as MDE initiated open discussions with all Phase I jurisdictions to solicit ideas and invite participation during the writing of this document. Meetings were held on August 24, 2010, September 16, 2010, October 21, 2010, November 17, 2010, January 20, 2011, and February 17, 2011 to discuss the draft Guidance. Comments received from the jurisdictions were incorporated before the Guidance was completed in June 2011. In the Fall of 2010, localities were sent surveys and were invited to provide suggestions and participate in the development of restoration criteria in the Guidance.

These activities document MDE's outreach to the regulated community and are contrary to the notion that the Guidance is "…subject to MDE's unilateral revision." In the future, MDE will engage the permittee if any substantive revisions are needed in the Guidance to reflect Chesapeake Bay Program (CBP) recommendations or new research.

The Phase I jurisdictions also claimed that "…MDE has decided that only those facilities built after 2002 are deemed treated to the MEP for purposes of determining the number of acres that must be restored under the MS4 permit." These jurisdictions disagreed "…with excluding stormwater facilities approved prior to 2002 that were designed to the MEP standard at that time." MDE addressed this on page 4 of the Guidance, which states: "BMPs implemented prior to 2002 can be credited for treatment of impervious area based on the volume treated in relation to the Manual's WQ_v [water quality volume], or one inch of rainfall. If BMPs were designed to a criterion less than the WQ_v, impervious area credits should be pro-rated based on the proportion of the volume treated." Where local policies, programs, and BMP implementation can document that water quality features have been used, then credit will be given. In instances where existing BMPs provide limited or no water quality features (e.g., dry ponds, detention facilities, hydro-dynamic structures), local governments should look at these areas as opportunities for water quality improvement through retrofitting them.

In addition, the three jurisdictions believed that the Guidance "…fails to give appropriate credit to alternative restoration options, some of which, like tree planting, provide many positive benefits associated with green, infiltration practices." The Guidance does discuss how alternative practices will be credited. The credits are based upon CBP practice efficiencies for the following: street sweeping; catch basin cleaning; storm drain vacuuming; nutrient management; the removal of impervious surfaces; the planting of trees, meadows, and forest buffers; stream restoration; shoreline stabilization; and septic system upgrades. Additionally, MDE will continue to work with local governments and the CBP's Urban Stormwater Work Group (USWG) to better define and establish credits for education, sub-soiling, trash removal, pet waste management, outfall stabilization, floodplain restoration, river bank stabilization, bio-reactor carbon filtering, and for the disconnection of illicit discharges.

The three jurisdictions also had concerns with the following language located in Part IV.E.2.a: "[e]quivalent acres restored of impervious surfaces, through new retrofits or the retrofit of pre-2002 structural BMPs, shall be based upon the treatment of the WQ_v criteria and associated list of practices defined in the [Manual]. For alternative BMPs, the basis for calculation of equivalent impervious acres restored is based upon the pollutant loads from forested cover." One concern with this language is that there is inconsistency because the Manual requires the treatment of the WQ_v (one inch of rainfall), whereas, the Guidance allows partial credit when less than one inch is treated.

MDE referenced the Manual to establish the WQ_v criteria as a baseline for assessing credits and performance and for the purpose of identifying the list of acceptable water quality treatment practices. However, the Guidance was written for the purpose of specifying how restoration should be performed and how credits may be granted. The "equivalent acres restored" language is in reference to credit toward impervious area restoration requirements and this is explained in the Guidance. Therefore, MDE does not agree that there is inconsistency between the Manual

and Guidance because "…equivalent acres restored" and impervious area restoration are not discussed in the Manual.

Another concern that the Counties had with the above referenced language was that the "...requirement that retrofits be based on the associated list of practices in the Design Manual is unclear." The Counties explained that the reason for the concern is that the reference to the Manual could be interpreted to mean that the permittee would be required to meet the criteria in the Manual for restoration. However, as discussed above, this was not MDE's intent. The Manual is referenced for acceptable practices, and the Guidance outlines acceptable criteria for restoration. There was also confusion over the definition of "alternative BMPs." The Guidance provides a list of acceptable alternative BMPs and the associated equivalent impervious acre credit for each practice.

Conversely, many environmental groups believed that MDE's Guidance does not meet the MEP standard for restoration practice implementation. One environmental advocacy group states that "…the [G]uidance would provide restoration credit for practices that are known to be ineffective or of only marginal effectiveness." This group adds that BMPs such as extended detention practices "…are significantly less effective than ESD at controlling stormwater pollution because they fail to address the core problem: overall runoff volume. While reduction of pollutant loadings is important, it is secondary to the enormous runoff volumes that destroy aquatic life and mobilize sediments and nutrients by eroding stream banks." This group's primary support against the use of extended detention facilities comes from the 2008 draft of the National Research Council's report, *Urban Stormwater Management in the United States* (National Academies Press, 2009) and cited herein as the "NRC report" that "…provides strong evidence – and a scientific consensus – that detention ponds fail to meet the full range of urban stream and watershed restoration objectives."

The NRC report describes this historical stormwater perspective on page 341: "[s]ome way was needed to control the quantity of water reaching the end of pipes during a runoff event, and on-site detention…became the standard for accomplishing this. Ordinances started appearing in the early 1970s, requiring developers to reduce the peaks of different size storms, such as the 10-year, 24-hour storm. The ordinances were usually intended to prevent future problems with peak flows by requiring the installation of flow control structures, such as detention basins, in new developments." The NRC report succinctly points out on pages 421 and 422 that "[t]he problem with the traditional approach is that (1) the majority of storms throughout the year are small and therefore pass through the detention facilities uncontrolled, (2) the criterion of reducing storm flow does not address the need for reducing total storm volume, and (3) the facilities are not designed to work as a system on a watershed scale. In many cases, the site-by-site approach has exacerbated downstream flooding and channel erosion problems as a watershed is gradually built out."

The NRC report suggests that a fundamental shift is needed in how stormwater management is implemented in order to achieve better water quality results. On page 535, the NRC report states that "[f]or MS4 operators, the concept of designing MS4s for both flood control conveyance (capital flood design) and for water quality protection (water quality design) involves a fundamental shift. Whereas flood control engineers design conveyance systems with return

frequencies of two years (streets), ten years (detention basins), 50 years, and 100 years (channels), the water quality design storm event is for a return frequency of six months to a year. The water quality design implicitly focuses on treating the first flush of runoff, which contains the highest load and concentration of pollutants and which occurs in the first half to one inch of runoff. In contrast, flood control designs are built to convey tens of inches of runoff."

MDE strongly concurs with the NRC report and used the same hydrologic analysis to push through new regulations in Maryland in 2000 that specifically address stream channel erosion and degradation. The State's historical perspective described in the Manual, page 1.10, states that "[t]raditionally, Maryland has attempted to provide some measure of channel protection by imposing the two-year storm peak discharge control requirement, which requires that the discharge from the two-year post development peak rates be reduced to pre development levels. However, recent research and experience indicate that the two-year peak discharge criterion is not capable of protecting downstream channels from erosion. In some cases, controlling the two-year storm may actually accelerate streambank erosion because it exposes the channel to a longer duration of erosive flows than it would have otherwise received."

The Manual was an effort to incorporate the significant experiences gained by the State's stormwater community and accommodate much needed improvements for managing urban runoff. Accordingly, MDE's regulations and the accompanying Manual were updated to require "…a unified approach for sizing stormwater BMPs in the State of Maryland to meet pollutant removal goals, maintain groundwater recharge, reduce channel erosion, prevent overbank flooding, and pass extreme floods." The ensuing criteria and treatment volumes correlate directly to the NRC's recommendations for the management of the smaller, more frequent storm events. Design features include the use of pre-treatment vegetation, wetland pockets and pools, flow reduction techniques, native plants, meadows, trees, permeable soils, and the creation of sinuous flow paths. These green techniques mimic the natural hydrologic process, soak up and store runoff, and improve water quality. Structural BMPs (e.g., dry ponds, detention ponds) that do not meet minimum water quality treatment standards described in Maryland's Manual cannot be used to meet permit restoration requirements.

Many of the comments from environmental groups used the terms "detention facility" and "extended detention facility" interchangeably. Technically speaking, there are significant differences between a detention facility and an extended detention facility. These differences are noted in the NRC report (see pp. 568 and 569), which defines detention as "[t]he temporary storage of stormwater runoff in a [BMP] with the goals of controlling peak discharge rates..." Conversely, the report confirms the utility of extended detention wet ponds as part of a systems approach to restoring urban watersheds. Page 395 of the NRC report states that: "[b]y holding a volume of stormwater runoff for an extended period of time, extended detention [BMPs] can achieve both water quality improvement and reduced peak flows. Generally the goal is to hold the flows for 24 hours at a minimum to maximize the opportunity of settling, adsorption, and transformation of pollutants. For smaller storm events (one- to two-year storms), this added holding time also greatly reduces the outflows from the [BMP] to a level that the stream channel can handle."

According to the NRC report, p.400, wet extended detention facilities that "...are designed with an aquatic bench around the edges to promote contact with plants…aids in reduction of flow velocities, provides growth surfaces for microbes, takes up pollutants, and provides filtering." Finally, when discussing unique opportunities for retrofitting in urban areas on page 459, the NRC report concludes that "[p]ublicly owned, consolidated [BMPs] should be strongly considered as there may be insufficient land to have small, on-site systems. The types of [BMPs] that are used in consolidated facilities - particularly detention basins, wet/dry ponds, and stormwater wetlands - perform multiple functions, such as prevention of streambank erosion, flood control, and large-scale habitat provision."

Maryland's Manual requires all extended detention facilities to have wet pool storage and management of the one-year, 24 hour storm as recommended in the NRC report. Extended detention wet ponds are acceptable for stormwater restoration. Furthermore, MDE encourages the retrofit of detention facilities or dry ponds to extended detention wet pond facilities as a strategy for reducing pollutants to Chesapeake Bay and meeting MS4 permit obligations. Where these opportunities present themselves, they should be explored fully. Maryland's Manual for stormwater BMP design and MDE's approach to retrofitting under the municipal permit program are completely aligned with the NRC report.

Many of the Guidance's recommendations and criteria are based on the proceedings of the CBP. Expert panels have been convened by the CBP to determine appropriate efficiencies for urban stormwater controls. The expert panelists represented different disciplines and geographic locations within the Bay watershed. The initial meetings involved a thorough review of available science on pollutant removal performance and runoff reduction capabilities of BMPs. Recommendations from the expert panels were vetted through other technical expert workgroups within the CBP. For example, the Urban Stormwater Retrofit panel's recommendations received final approval from the CBP Water Quality Goal Implementation Team on October 9, 2012. This document outlines a list of practices that are eligible for receiving pollutant load reductions when a given volume of runoff is treated. These are the same practices MDE has listed as acceptable water quality treatment BMPs in the Guidance. MDE has been active in several of these panels and continues to work with the CBP so that the standards for watershed restoration in Maryland are consistent with the CBP expert panel recommendations.

For many reasons, MDE believes that providing guidance on how significant restoration work is to be completed and judged for compliance is warranted. Prior to any guidance, MS4 jurisdictions determined their own accounting mechanisms that were varied and often inconsistent from jurisdiction to jurisdiction. With a permitting program that will cost local governments tens if not hundreds of millions of dollars, it is important that all jurisdictions be judged by the same set of rules for restoration. In addition, achieving water quality criteria and the Chesapeake Bay TMDL by a date certain needs to be established. Accordingly, the Guidance has been coordinated with Maryland's WIP and stipulates that "[i]mplementing water quality improvement projects on a certain percent of a locality's impervious surface area each permit term sets the schedule for meeting the Chesapeake Bay TMDL." Due to the wide range of challenges experienced by each jurisdiction, MDE believes that providing numerous options for water quality improvement will be necessary to meet WQS. Likewise, local governments can weigh the cost associated with implementing different practices and choose the most efficient

option for meeting pollutant load reductions. MDE believes that by developing a comprehensive list of practices and consistent accounting measures, the Guidance brings greater certainty to the local planning and budgeting processes.

In conclusion, MDE believes that the Guidance is needed and well-balanced. Where several MS4 jurisdictions believed that the restoration methods described were too severe, others, including numerous environmental advocates, believed that the restoration methods were too lenient. Additionally, numerous commenters from various perspectives asked for the fair and open promulgation of the Guidance. Because the stormwater permit and Guidance have been widely distributed and commented on as part of the issuance of Anne Arundel County's and other stormwater permits following Maryland's APA, MDE believes that all public reporting requirements have been met. Finally, references to the Guidance in the permit have been encouraged and supported by EPA, and will be sustained.

Issue No. 4: Stormwater Monitoring.

Many environmental groups believe that that Part IV.F (Assessment of Controls) of Anne Arundel County's stormwater permit, which requires that one outfall and one instream location be monitored, is insufficient. One comment stated that monitoring plans required by the permit "… propose to monitor only one small watershed for physical parameters and one small watershed for biological, chemical and physical parameters." and therefore, "[t]he minimal proposed monitoring is scientifically insufficient to support a complex permit, and to help determine the effectiveness of BMP and retrofit regimes over time – as is crucial for adaptive management." MDE believes that the intent of the watershed monitoring found in the Assessment of Controls section of the permit needs to be clarified, and that other sections of the stormwater permit require the extensive monitoring that numerous environmental groups are requesting.

The Department has previously noted during the Phase II WIP process that water quality monitoring cannot be tied directly to implementation. Rather the State has established parallel processes for tracking implementation and water quality monitoring. Although monitoring is required within the MS4 permits, it is specific monitoring designed as part of a larger State strategy. [Maryland Phase II WIP Comment Response Document at p. 70.]

Focused monitoring in a small watershed is extremely important for determining the effectiveness of individual restoration practices, for gathering the necessary feedback for adaptive management, and for calibrating models. This monitoring strategy is supported by the NRC's *Achieving Nutrient and Sediment Reduction Goals in the Chesapeake Bay: An Evaluation of Program Strategies and Implementation* (National Academies Press, 2011). Specifically, NRC recommends that "[t]argeted monitoring programs in representative urban and agricultural watersheds and subwatersheds would provide valuable data to refine BMP efficiency estimates, particularly at the watershed scale, and thereby improve Watershed Model predictions."

The focused watershed approach was first described for Maryland MS4 jurisdictions in an MDE report, *Maryland's National Pollutant Discharge Elimination System Municipal Stormwater Monitoring* (1997). CFR specifically defines chemical monitoring procedures for NPDES

stormwater permit applications, but does not mention biological and physical monitoring. Maryland's local governments argued that in many instances, biological and physical monitoring results are better indicators of small stream health. MDE agreed with this near-field or small stream approach, but maintained that chemistry is also important, especially for assessing far-field Chesapeake Bay restoration goals. MDE proposed long term monitoring requirements that were more aligned with the CWA's goal to "…restore and maintain the chemical, physical, and biological integrity of the nation's waters…" This was articulated in the MDE 1997 report as the "three-legged stool" approach.

Likewise, it was argued by local governments that infrequent chemical monitoring of numerous sites throughout a jurisdiction would not be as informative as intensive chemical monitoring of a few subwatersheds. While initial application requirements in CFR stipulated the monitoring of 3 storms per year from 5 sites located throughout a jurisdiction, MDE requires Anne Arundel County to monitor 12 storms per year at 2 monitoring sites. More intensive chemical, physical and biological monitoring in one watershed is recommended in MDE's 1997 report, where it states that by"[u]sing the overall goal of assessing water health as guidance, MDE believes that the most logical way to modify the NPDES long term monitoring program is to require all jurisdictions to contribute to the entire approach by providing all three legs of the monitoring stool. That is, each jurisdiction shall conduct chemical testing, biological, and physical stream assessment. Additionally, site selection will need to be orchestrated at the State level. As jurisdictions pare chemical monitoring sites for biological and physical assessments, it will be imperative to maintain an adequate number of residential, commercial, and industrial sites for State water chemistry needs." MDE also believes that it is fiscally prudent when all Phase I jurisdictions combine and share monitoring data.

Anne Arundel County's focused watershed monitoring program is located in the Church Creek watershed. Several control sites are monitored as well in support of this monitoring approach. According to its 2013 annual report, the County conducts base flow chemical monitoring at the Parole Plaza (e.g., Annapolis Towne Center) outfall and Church Creek in-stream stations. Biological monitoring is conducted in a 5 year rotation at 24 locations countywide with 44 samples taken at 4 stations in 2012.

Since the inception of the NPDES stormwater program, Maryland's MS4 jurisdictions have monitored more than 2,745 storm events along with an additional 1,605 sampling activities during baseflow conditions. These data allow a comprehensive characterization of the water chemistry of highway, commercial, industrial, and residential runoff. These storm events have been combined into a comprehensive statewide database and used for determining a list of commonly found stormwater pollutants, calculating event mean concentrations (EMCs), supporting the 1997 MDE report (and subsequent updates), calibrating numerous TMDLs (including the one for Chesapeake Bay), and contributing to the National Stormwater Quality Database, which uses 8,602 storms from across the nation to characterize urban runoff.

MDE believes that focused watershed monitoring is important for characterizing urban runoff and for understanding the effectiveness of stormwater BMPs. Maryland's MS4 jurisdictions implement restoration activities in these watersheds and use the monitoring data to develop BMP efficiencies that can be extrapolated to other similar restoration projects across each jurisdiction

through utilities such as the Maryland Assessment and Scenario Tool or "MAST".[2] These findings can be shared among the jurisdictions and have been used by the CBP as well. For example, the CBP's USWG relied heavily upon Maryland's MS4 monitoring community in the development of improved BMP efficiencies for street sweeping, stream restoration, stormwater treatment, and runoff reduction practices for inclusion in the Chesapeake Bay Model.

As Maryland's NPDES stormwater permits evolved to include more program requirements, monitoring and assessment requirements saw a commensurate increase. In addition to the comprehensive watershed monitoring provisions outlined above, Anne Arundel County's stormwater permit requires screening for illicit discharges to the municipal storm drain system, assessing water quality jurisdiction-wide, tracking the progress toward meeting stormwater WLAs in TMDLs, and surveying the effectiveness of Maryland's new stormwater law requiring ESD to the MEP. Below is a summary of additional monitoring required in the County's stormwater permit.

Anne Arundel County's stormwater permit requires an inspection and enforcement program to be implemented for illicit discharge detection and elimination. This ensures 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. Permit requirements include the field screening of at least 150 outfalls annually. According to Anne Arundel County's most recent annual report (2013), the County field screened 150 outfalls in 2012. Of these, four outfalls were found with dry weather flow that exceeded the threshold limit for one or more contaminants. An additional 14 sites were found to have structural and/or erosion problems. The County investigated 69 complaints including 35 involving illicit discharges. Of these 35 complaints, one was referred to another agency for enforcement while the other 34 were handled by the County's Department of Inspections and Permits.

Anne Arundel County's stormwater permit requires the County to systematically assess the water quality in all watersheds and use the resulting analyses to develop detailed restoration plans for meeting stormwater WLAs. Assessments must be performed at an appropriate watershed scale (e.g., Maryland's hierarchical 8 or 12-digit sub-basins) and must be based on EPA's approved TMDL analysis (or an equivalent and comparable County water quality analysis). These assessments are to determine current water quality conditions, include the results of a visual watershed inspection, identify and rank water quality problems, prioritize all structural and nonstructural water quality improvement projects, and specify pollutant load reduction benchmarks and deadlines that demonstrate progress toward meeting all applicable stormwater WLAs.

Anne Arundel County utilizes extensive monitoring at various locations within 12 different watersheds for its Watershed Assessment and Planning Program. In addition to the required biological monitoring as discussed above, Anne Arundel County conducts pre- and post-

[2] MS4 Permittees have submitted local WIPs which rely upon this monitoring data and projections, which can be found at:
http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/WIPPhaseIICountyDocuments.aspx
Supporting data based upon the permittee's MAST modeling of proposed BMPs can be found at:
http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/WIP_Phase_II_County_Strategy_Summaries.aspx

construction monitoring of water quality restoration projects including several step pool stormwater conveyance systems. This additional monitoring provides more data about the impacts of anthropogenic activity as well as any benefits of stream restoration on aquatic life.

Anne Arundel County's stormwater permit requires continued physical stream monitoring in the Picture Spring Branch watershed to assess the implementation of the latest version of the Manual, especially regarding stream channel erosion. Physical stream monitoring protocols include an annual stream profile and survey of permanently monumented cross-sections with baseline conditions for assessing areas of aggradation and degradation. As part of this assessment, a hydrologic and/or hydraulic model is required within the permit term to analyze the effects of rainfall, discharge rates, stage, and, if necessary, continuous flow on channel geometry.

Finally, Anne Arundel County's stormwater permit requires that all of the above data be submitted on an annual basis including: monitoring site locations; chemical monitoring results; TMDL pollutant load reductions; biological, habitat, and physical monitoring; illicit discharge detection and elimination sampling; and a narrative summary describing the results and a coordinated analysis of the data. MDE has developed a reporting database for the submittal of monitoring and program implementation data that appears as "Attachment A" in Anne Arundel County's stormwater permit. MDE believes that the stormwater monitoring provisions provided in Anne Arundel County's permit are sufficient for providing comprehensive water quality assessments and for supporting adaptive management decisions. Thus, MDE's stance is that this permit is in compliance with federal NPDES stormwater program requirements.

Issue No. 5: Maryland Stormwater Program Requirements

Anne Arundel County's MS4 permit requires that the County maintain an acceptable stormwater management program in accordance with the Environmental Article, Title 4, Subtitle 2, Annotated Code of Maryland. This includes compliance with the minimum requirements specified under the Code of Maryland Regulations (COMAR) 26.17.02. Some environmental groups provided recommendations related to stormwater program requirements in Part IV.D.1 of the permit. These recommendations included specific language related to inspection and maintenance, documentation of stormwater management waivers and exemptions, and ESD code review and modifications. MDE believes that the suggested language changes are already addressed under Maryland's stormwater program requirements and reinforced in the permit. Because State stormwater management law and regulations are incorporated by reference, these provisions are required and enforced under the Anne Arundel County MS4 permit.

The suggested language changes regarding stormwater maintenance included provisions that the County develop a maintenance plan for all County owned and operated stormwater management practices within 18 months of the effective date of the permit. This language is actually less stringent than State regulation. COMAR 26,17.02.09.E.(5)(n), (Contents and Submission of Stormwater Management Plans), requires an inspection and maintenance schedule prior to final stormwater management plan approval. Because County owned and operated facilities need to meet State regulation, a maintenance plan is already required to be developed during the plan

review process. Therefore, the suggested language is less stringent than COMAR and thus is unacceptable.

Additional permit language recommendations specified that the County "…shall provide for the inspection of all practices at least once every three years…," and "…submit documentation in its annual reports identifying the practices inspected, the number of maintenance inspections performed, the County's inspection schedules, the actions used to ensure compliance, and any other relevant information." This provision is already required in both the permit and in COMAR 26.17.02. Part IV.D.1. of the permit requires the County to maintain construction inspection information, and "[d]ocumentation identifying the ESD systems and structural stormwater management facilities inspected, the number of maintenance inspections, follow-up inspections, the enforcement actions used to ensure compliance, the maintenance inspection schedules, and other relevant information shall be submitted in the County's annual reports." In addition, the content of inspection reports, documentation of activities, and the minimum inspection frequency of at least once every three years is also provided in COMAR 26.17.02. Therefore, the requirements specified in both the permit and State regulations meet the intent of the suggested language changes.

Another recommendation under maintenance of stormwater management practices specifies that the County "…shall develop accountability mechanisms to ensure maintenance of stormwater control measures on non-County property." The permit does specify that preventative maintenance inspections shall be performed and enforcement actions be used to ensure compliance according to COMAR. In addition, COMAR 26.17.02.03.(c)(2) specifies that an acceptable stormwater management program shall have "…inspection and enforcement procedures that ensure the proper construction and maintenance of approved stormwater management measures." COMAR 26.17.02.10.D. specifies that "[t]he county or municipality responsible for inspection and enforcement of approved stormwater management plans may, for enforcement purposes use any one or a combination of the following actions…" These actions may include a notice of violation, a stop work order, a civil action or criminal prosecution. Therefore, the County already has the enforcement authority and accountability mechanisms necessary to pursue appropriate action to ensure the proper maintenance of stormwater practices.

Another comment related to Maryland's stormwater management program recommended that the permit require full documentation and evaluation of all stormwater management exemptions and waivers to ensure that there are no adverse effects to stream quality. This documentation is required in the permit under Part IV.D.1.b.iii. and iv. These requirements specify the documentation of the "[n]umber of stormwater exemptions issued", and the "[n]umber and type of waivers received and issued, including those for quantity control, quality control, or both…" In addition, COMAR 26.17.02.05.C specifies that waiver policies for individual developments "…reasonably ensure that a development will not adversely impact stream quality;" and "…that the cumulative effects of the waiver policy are evaluated." Therefore, the suggested language related to waivers and exemptions are required under COMAR and reinforced in the permit.

Additional language recommendations were related to the modification of County codes and ordinances to eliminate any impediments to implementing ESD to the MEP. As a State regulatory requirement, all local jurisdictions were required to adopt local ordinances that

comply with the Act by implementing ESD to the MEP for all new and redevelopment projects. Under Part IV.D.1.a.ii, the permit requires "[t]racking the progress toward satisfying the requirements of the Act and identifying and reporting annually the problems and modifications necessary to implement ESD to the MEP;" and … "[r]eport annually the modifications that have been made or need to be made to all ordinances, regulations, and new development plan review and approval processes to comply with the requirements of the Act." In addition, COMAR 26.17.02.08.B.(3) specifies that "[t]he use of ESD planning techniques and treatment practices specified in this section may not conflict with existing State law or local ordinances, regulations, or policies. Counties and municipalities shall modify planning and zoning ordinances and public works codes to eliminate any impediments to implementing ESD to the MEP according to the Design Manual." Therefore, the suggested language changes are already incorporated into the permit, as well as COMAR. The specific language in the permit directing the County to make necessary modifications for the successful implementation of ESD to the MEP meets the intent of the recommended language changes.

Issue No. 6: Regulated Permit Area.

Anne Arundel County's permit states that "[t]his permit covers all stormwater discharges from the municipal separate storm sewer system owned or operated by Anne Arundel County, Maryland." EPA in 40 CFR 122.26(b)(8) defines a "municipal separate storm sewer system" as "…a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body…having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes…; (ii) Designed or used for collecting or conveying storm water…". Additionally, MDE defines in the permit's fact sheet the entire geographic area of Anne Arundel County as the regulated permit area.

Three jurisdictions that are subject to Phase I permits questioned the boundaries of the regulated permit area. Specifically, they object "…to MDE's decision to expand the regulated permit area beyond the area served by the MS4 itself." They are concerned because "…other Phase I MS4s in the State have urban areas and rural areas, the latter of which may have no stormwater facilities or systems that feed into the municipally-owned MS4." Accordingly, these jurisdictions suggest that land outside of this defined conveyance system cannot be included in the MS4 permit.

Since the inception of the NPDES stormwater program, MDE has considered permit coverage to be jurisdiction-wide. This approach is based on specific permit provisions, such as erosion and sediment control and stormwater management programs, which are included in State statute and administered both locally and jurisdiction-wide. All private development within the borders of Anne Arundel County requires erosion and sediment control and stormwater management approval, and is subsequently inspected, maintained, and enforced under the County's authority. MDE believes that it is also logical that federal stormwater management regulations be implemented jurisdiction-wide.

The argument to limit regulated permit area takes a myopic view of the MS4 system and ignores the language set forth in 40 CFR 122.26(a)(1)(v). This section states that MDE may require an NPDES stormwater permit for discharges that "contribute to a violation of a water quality standard or is a significant contributor of pollutants to water of the U.S." Section 40 CFR 122.26(a)(1)(v) further provides that MDE may "designate discharges from municipal separate storm sewer systems on a system-wide or jurisdiction-wide basis." Additionally, in the November 16, 1990 preamble to the NPDES stormwater regulations, EPA suggested that permit coverage may include areas where jurisdictions have control over land use decisions. The amount and quality of stormwater entering an MS4 system are affected by planning and zoning decisions made by a jurisdiction. Accordingly, it is reasonable to expand the scope of the permit to the entire jurisdiction. Therefore, MDE will continue to define the regulated permit area as jurisdiction-wide and considers all provisions of this permit to apply to the geographic area of Anne Arundel County.

Issue No. 7: Implementation Cost.

In order to meet the conditions of its permit, Anne Arundel County is responsible for developing, implementing, and maintaining various municipal programs related to the reduction of pollutants entering its storm drain system. Accordingly, the County must allocate resources (e.g., financial and personnel) to support these efforts and affect improvements in the quality of receiving waters. Several other MS4 jurisdictions have expressed concern over the costs related to implementing future permits, and especially if the level of restoration is equivalent to that found in this draft stormwater permit. These jurisdictions commented that "…the newest round of permits represents a major increase in regulatory requirements and in management costs…" and they argue that EPA and the State "…will be integral in ensuring that these BMPs and management programs are funded." These jurisdictions point out that it would be unfair to expect each permittee to bear the responsibility for funding the program.

MDE recognizes that the costs associated with implementing permit requirements will be significant. In order to help establish adequate funding mechanisms, the Maryland General Assembly amended the Stormwater Management Act to create the Watershed Protection and Restoration Program in April 2012. This program required each Phase I MS4 jurisdiction to establish a system of stormwater remediation fees and a local watershed protection and restoration fund (WPRF) by June 30, 2013 to offset some of the costs associated with permit implementation. The WPRF pays for restoration projects and public education and outreach to improve water quality. The WPRF may also be used to pay for the operation and maintenance of existing stormwater management programs and facilities and for local stormwater management planning activities. The collection of stormwater fees for this dedicated fund will help alleviate some of the financial burden on local programs and MDE recommends that all permittees continue to develop additional sources of revenue to maintain adequate funding in the future.

Issue No. 8: Annual Reports and Public Participation.

Restoration plans must be submitted within the first year of the permit term for MDE approval. Numerous environmental advocates believe that these plans are major permit modifications that are subject to public participation requirements under the CWA. "Plans and schedules that are

required under the permit meet the legal definition of 'effluent limitations,' even when developed in the first instance by the County and submitted to MDE for approval. As such, they must be incorporated as enforceable permit terms through a major permit modification process."

MDE does not dictate how a permittee meets effluent limits contained within the permit. This is consistent with the Department's approach for other NPDES permits (e.g., wastewater treatment plants). The effluent limits in the permit are represented as a jurisdiction-wide surrogate pollutant parameter (see Issue No. 1). This requires the restoration of 20% of impervious areas that have not already been restored to the MEP. Each jurisdiction has the ability to tailor restoration activities to address unique local challenges and site specific water quality conditions by using the acceptable practices identified in the Guidance.

Neither the 20% restoration requirement nor the five year permit term schedule is being modified through the submittal of local restoration plans. MDE believes that the development and submittal of restoration plans are annual reporting requirements under CFR § 122.42(c) and do not constitute major permit modifications. NPDES annual reports require the County to submit information on "…the status of implementing the components of the stormwater management program that are established as permit conditions." Numerous other permit conditions require the submittal of information into MDE so that MS4 stormwater program implementation can be tracked, assessed, and enforced. MDE does, however, have the discretion as Director of the NPDES program in Maryland to "modify or revoke and reissue the permit accordingly…" should evidence supporting a modification be presented through annual reporting, new information or regulations, alterations, or other conditions found in CFR § 122.62(a) and (b).

MDE believes that it is important to involve the public as much as possible during the development of local restoration plans and has incorporated language into the permit that will ensure this process. For example, Part IV.E.3. requires Anne Arundel County to provide copies of watershed assessments and restoration plans to the public, post notice of these assessments and restoration plans in local newspapers and the County's web site, allow for a 30 day comment period before finalizing assessment and restoration plans, and provide a summary of how the County will address any material comment received from the public. Numerous commenters expressed a desire for greater transparency and access to annual reports. MDE agrees and included language to Part V.A.1. that requires the County to "...submit annual reports on or before the anniversary date of this permit and post these reports on the County's website."

Issue No. 9: Recommended Permit Language Changes.

Numerous environmental advocacy groups in Anne Arundel County have not only commented on the County's draft stormwater permit but have submitted suggested (permit) language changes for MDE's consideration. The changes being recommended to the County's permit repeat many of the arguments submitted during the commenting period regarding water quality standards, local stormwater management program operations, restoration plans, impervious surface restoration, trash and litter, monitoring, transparency, public participation and major modifications.

MDE believes that, while the changes to the permit are well-intentioned, they do not necessarily represent a better permit or one that is in closer agreement with the CWA. Both MDE and EPA believe that numerous meetings among the stakeholders leading up to the tentative determination were useful in developing an effective permit that is in compliance with State and federal laws and regulations. An EPA letter (October 22, 2013) to MDE, regarding another Phase I MS4 permit in Maryland with similar permit language, states that "...this permit and the MS4 program have been the subject of extensive discussions among EPA, MDE, [the] County, and various stakeholder groups over the last two years. As a result of these discussions, numerous changes have been made to this MS4 permit to ensure that: it meets regulatory requirements; is enforceable; and achieves the water quality objectives of the Clean Water Act (CWA)."

MDE believes that engaging the local environmental community is important, especially when it comes to the development of restoration plans for meeting stormwater WLAs and achieving WQS. In fact, the permit requires extensive public participation in Part IV.E.3., including the posting of public notices in newspapers and on the County's websites, procedures for providing copies of watershed assessments and restoration plans to interested parties, a minimum 30 day comment period before the finalization of the assessments and restoration plans, and finally, how the County will address any material comment received from the public. Once Anne Arundel County's restoration plans have gone through the public participation process and have been finalized, they must be submitted to MDE for review and approval. EPA has also indicated a desire to review all restoration plans that are subject to MDE review and approval.

Once approved by MDE, these implementation plans, schedules, benchmarks and deadlines, and final dates for stormwater WLA attainment will become enforceable under the County's MS4 permit. Maryland takes the enforcement of MS4 permits seriously and has made them the regulatory backbone for meeting Chesapeake Bay TMDL implementation by 2025. Additionally, the October 22, 2013 letter from EPA has "…made it clear during its reviews of state NPDES programs, including recent audits of several local MS4 permits, that compliance of MS4 permits is, and will continue to be, an enforcement priority."

The County's most recent NPDES MS4 permit expired on November 8, 2009, over four years ago. While the MS4 permit has been administratively continued, the more stringent requirements for restoring 20% of the County's impervious area have been negated for far too long. Not only is this the case in Anne Arundel County but for all Phase I and Phase II MS4 permits across the State. MDE believes that the current version of Anne Arundel County's draft MS4 permit meets all State and federal laws and regulations, and includes the necessary flexibility and enforcement provisions for the successful implementation of stormwater management programs for restoring local water resources and Chesapeake Bay. EPA concurs in its October 22, 2013 letter when it writes, "[c]urrently, there is a significant MS4 permit backlog in Maryland and there is a need to move from permit drafting to implementation to achieve our shared water quality goals. The…County permit is an excellent template to advance the stormwater program. EPA and MDE should monitor the effectiveness of this generation of MS4 permits and, if areas of enhancement are noted, they should be addressed during the next cycle of permit reissuance."

Conclusion

Anne Arundel County's permit is a major step forward to meet the water quality objectives of the CWA. Prior permits have required the County to possess adequate legal authority, monitor stormwater discharges, and implement comprehensive management programs. New requirements in the permit will include restoring 20% of the County's impervious area, reducing trash and litter, and developing restoration plans to meet stormwater WLAs for impaired waters. Restoration plans will be enforced according to MDE approved schedules and performance standards for these efforts are specified that encourage the use of ESD. The permit also requires that the County maintain an acceptable stormwater management program and comply with the Act by implementing ESD technologies for new and redevelopment projects to the MEP.

MDE appreciates the efforts of those involved in the permit's development and recognizes that some comments reflect strong differences of opinion regarding the County's permit. However, MDE believes that the permit exceeds both the CWA and CFR requirements. Additionally, changes have been made during the negotiation process with EPA and environmental groups to clarify and/or strengthen provisions related to water quality standards, restoration plans, and TMDLs. The EPA has supported MDE in the issuance of the permit and concluded that the permit is an excellent template to advance the NPDES municipal stormwater program.

MDE believes that the permit 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 Anne Arundel County to control storm drain system pollution. The permit will be issued as final on February 12, 2014 after which the public has 30 days to request a judicial review.

Attachments

Supporting Documentation for MDE's Basis for Final Determination to Issue Anne Arundel County's National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit

The attached letters from the U.S. Environmental Protection Agency (EPA) to the Maryland Department of the Environment (MDE) describe the permit negotiation process that engaged Anne Arundel County and the environmental community. The documents summarize the changes MDE made to the permit during these negotiations and shows the EPA's support for the issuance of the new permit. In addition, a list of individuals, organizations, and local governments that participated in the public comment period is provided.

1. U.S. Environmental Protection Agency letter from David B. McGuigan, Associate Director, Office of NPDES Permits and Enforcement, Water Protection Division, to Jay Sakai, Director, Water Management Administration, re: Prince George's County Phase I Municipal Separate Storm Sewer (MS4) Permit (MD0068284) (October, 22, 2013).

2. U.S. Environmental Protection Agency letter from Jon M. Capacasa, Director, Water Protection Division, to Jay Sakai, Director, Water Management Administration, re: Specific Objection to Prince George's County Phase I Municipal Separate Storm Sewer (MS4) Permit (MD0068284) (November 29, 2012).

3. List of comments submitted to MDE during the public comment period.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

OCT 2 2 2013

Mr. Jay Sakai, Director
Water Management Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

Re: Prince George's County Phase I Municipal Separate Storm Sewer (MS4) Permit (MD0068284)

Dear Mr. Sakai:

This letter is a follow-up to our discussions of September 30, 2013, among representatives from the U.S. Environmental Protection Agency (EPA or the Agency), the Maryland Department of the Environment (MDE), and Prince George's County (PGC) regarding the PGC Phase I MS4 permit referenced above. As you know, this permit and the MS4 program have been the subject of extensive discussions among EPA, MDE, PGC, and various stakeholder groups over the last two years. As a result of these discussions, numerous changes have been made to this MS4 permit to ensure that: it meets regulatory requirements; is enforceable; and achieves the water quality objectives of the Clean Water Act (CWA).

On May 18, 2012, EPA received the draft which would serve as a basis for the above-referenced NPDES permit. This permit was reviewed pursuant to 40 C.F.R. § 123.44 and the Memorandum of Agreement (MOA) between MDE and EPA Region III (May 22, 1989). Extensive discussions on this draft occurred between EPA and MDE, and on June 14, 2012, EPA sent written comments and a marked-up version of the Prince George's County permit to MDE requesting that changes be made to the draft permit. On June 15, 2012, to provide additional time to bring the discussions to a conclusion, EPA issued a general objection/time extension request to provide the full 90 days for review.

Discussions between MDE and EPA continued during the time extension and, at the expiration of our 90-day review period on August 16, 2012, EPA issued a specific objection to the issuance of the PGC permit pursuant to 40 C.F.R. §§ 123.44(b)(1) and (c)(1) and Section III.A of the MOA. In the specific objection, EPA found that several substantive requirements for MS4 permits, as required by the federal Clean Water Act, 33 U.S.C. §§ 1251 *et seq.* (CWA), and its implementing regulations, had not been incorporated into the PGC permit. Specifically, EPA found that requirements in the permit were deficient in the following areas: Water Quality Standards Language; Anacostia Trash Total Maximum Daily Load (TMDL) Requirements; Chesapeake Bay TMDL Compliance; Backsliding; and Industrial/Commercial Monitoring.

Subsequently, EPA, MDE, and other stakeholders held numerous calls and meetings to address the issues identified as deficient by EPA. Based upon these communications, MDE agreed to make several significant and substantive changes to the draft permit to address EPA and stakeholder concerns. MDE submitted a final revised draft permit and fact sheet to EPA on November 11, 2012. On November 29, 2012, EPA withdrew its objection since the revised permit adequately addressed the deficiencies identified by EPA and that the draft permit was consistent with EPA regulatory requirements, including enforceability considerations.

The PGC permit that was public noticed on April 19, 2013 by MDE is a significant advance regionally in MS4 permit development based upon the concept of watershed restoration. The permit establishes a clear path forward for both local and Chesapeake Bay water quality restoration through the development and implementation of Watershed Restoration and TMDL Implementation plans. Most importantly, the permit establishes clear enforceable requirements through the incorporation of implementation schedules for structural and non-structural controls. Additionally, the enforceability of these plans is supported by guidance regarding the quantification of restoration efforts and comprehensive annual reporting requirements. EPA also noted, with interest, PGC's willingness to fully engage stakeholders in the development of Watershed Restoration and TMDL plans. Stakeholder participation is critical to the success of water quality restoration and effective stormwater management. EPA fully supports PGC efforts in this area.

With respect to concerns that the county raised about past enforcement discretion exercised by the state, EPA has made it clear during its reviews of state NPDES programs, including recent audits of several local MS4 permits, that compliance of MS4 permits is, and will continue to be, an enforcement priority. Accordingly, we expect each State to ensure full compliance with all permit provisions and, where necessary, to undertake appropriate enforcement actions.

Currently, there is a significant MS4 permit backlog in Maryland and there is a need to move from permit drafting to implementation to achieve our shared water quality goals. The PGC permit is an excellent template to advance the stormwater program. EPA and MDE should monitor the effectiveness of this generation of MS4 permits and, if areas of enhancement are noted, they should be addressed during the next cycle of permit reissuance. As we have discussed, EPA will continue to support MDE's efforts to implement an effective MS4 permitting and enforcement program.

If you have any questions, please contact me at (215) 814-2158.

Sincerely,

David B. McGuigan, Ph.D.
Associate Director
Office of NPDES Permits and Enforcement
Water Protection Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

NOV 2 9 2012

Mr. Jay Sakai, Director
Water Management Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

Re: Specific Objection to Prince George's County Phase I Municipal Separate Storm Sewer (MS4) Permit (MD0068284)

Dear Mr. Sakai:

This letter supplements my letter to you dated August 8, 2012, in which the U.S. Environmental Protection Agency (EPA or the Agency) objected to the Maryland Department of the Environment's (MDE) above-referenced draft permit. Since the time of EPA's objection, our agencies have had several clarifying discussions to address remaining concerns, both by phone and in person on September 5 and October 4, 2012 respectively, in addition to numerous email exchanges, in order to come to resolution on the objection issues. As you know, our respective agencies have now reached agreement on the issues identified in our August 8, 2012 letter, and we believe that the revised permit and fact sheet package MDE submitted to us on November 11, 2012 reflects those agreements and resolves the objection issues. By this letter, EPA is removing its objection to the draft Prince George's County MS4 permit with the understanding that the commitments below will be met in the final permit and its implementation.

Water Quality Standards Attainment Language

EPA had objected to the draft permit because it did not contain language prohibiting water quality exceedances. Rather, the permit conditioned the contamination or alteration of waters of the state with the maximum extent practicable (MEP) standard. In support of the objection, EPA cited specific permit provisions contained in Part VI.A of the draft permit.

In response to this concern, MDE has submitted revised permit language which was recommended by EPA. The new language states that, "the permittee must manage, implement and enforce a stormwater management program (SWMP) in accordance with the Clean Water Act (CWA) and corresponding stormwater National Pollutant Discharge Elimination System (NPDES) regulations, 40 C.F.R Part 122, to meet the following requirements: (1) Effectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 as necessary to comply with Maryland's receiving water quality standards; (2) Attain applicable wasteload allocations (WLAs) for each established or approved Total Maximum Daily Load (TMDL) for each receiving water body…; and (3) Comply with all other provisions and requirements contained in this permit, and in plans and schedules developed in fulfillment of this

permit.

EPA considers this revised language satisfactory to resolve this portion of the objection.

Anacostia Trash TMDL

EPA had also objected to the draft permit because it failed to include specific requirements related to the Anacostia Trash TMDL, which includes a WLA for Prince George's County. EPA suggested language to MDE for use in the permit to resolve this concern. The revised permit now includes language requiring the permittee to: (1) inventory and evaluate current trash and recycling programs; (2) develop and implement a public education and outreach strategy with specific performance goals and deadlines; (3) develop a work plan that is consistent with the TMDL, as required by 40 C.F.R. § 122.44(d)(1)(vii)(B) - including a detailed schedule for implementing the controls necessary to attain the annual trash removal allocation of 170,628 pounds and trash reduction benchmarks; (4) develop accounting methods to quantify annual trash reduction; and (5) report annually on the progress toward implementing the trash reduction strategy.

EPA considers this revised language satisfactory to resolve this portion of the objection.

Chesapeake Bay TMDL

EPA had further objected to the draft permit because it failed to explicitly state what actions the permittee had to take to comply with the Chesapeake Bay TMDL. In Part VI.A, the revised permit states that it "is requiring compliance with the Chesapeake Bay TMDL through the use of a strategy that calls for the restoration of 20% of previously developed impervious land with little or no controls within this five year permit term..." The permit expands on this requirement by specifying that in Part IV.E.2.a, "Equivalent acres restored of impervious surfaces, through new retrofits or the retrofit of pre-2002 structural Best Management Practices (BMPs), shall be based upon the treatment of the Water Quality Volume (WQ_v) criteria and associated list of practices defined in the *2000 Maryland Stormwater Design Manual.* For alternate BMPs, the basis for calculation of equivalent impervious acres restored is based upon the pollutant loads from forested cover." EPA believes that more clarity is needed in the permit regarding the relationship between the WQ_v criteria and the design manual in the restoration language in Part IV.E.2.a. Therefore, we recommend the following change to the language:

> "Equivalent acres restored of impervious surfaces, through new retrofits or the retrofit of pre-2002 structural BMPs, shall be based upon the treatment of the WQ_v criteria and performance criteria of the associated list of practices contained in Chapters 3 and 5 of ~~defined in~~ the *2000 Maryland Stormwater Design Manual* and amendments thereto."

In addition, Part IV.E.2, entitled "Restoration Plans", details the process which the permittee must adhere to in order to achieve the 20% reduction through its restoration planning, which includes a final date for meeting applicable WLAs. In Part IV.E.2.b.i, EPA recommends

the language modification below to ensure that the permit condition correlates with the benchmarks required in the annual report (See Part V.A.1.e).

> "Include the final date for meeting applicable WLAs with associated annual pollutant reduction benchmarks and a detailed schedule for implementing all Chesapeake Bay TMDL requirements, including but not limited to: stormwater structural and nonstructural water quality improvement projects, enhanced stormwater management programs, and alternative stormwater control initiatives necessary for meeting applicable WLAs;"

We further request that the initial sets of Restoration Plans developed under the permit be submitted to EPA for review and comment so that we can provide oversight to this important element of the permit. As we have discussed, we also expect that MDE will incorporate significant milestones from these Plans as measurable permit terms and conditions for the next renewal cycle.

EPA strongly supports expanded use of green infrastructure to protect and restore waters while creating more environmentally and economically sustainable communities. EPA expects that the restoration requirement in Maryland MS4 permits will be achieved through the use of a variety of green infrastructure retrofitting solutions, such as infiltration practices, green roofs, rain gardens, rainwater harvesting, grass swales/filters, etc. Given the undisputed multiple benefits associated with green infrastructure, as well as general long-term financial benefits, EPA encourages the use of green approaches to stormwater management. Green practices have been proven through multiple studies to reduce stormwater runoff volume and help lessen the amount of pollutants entering surface waters untreated. We urge that MDE provide sufficient incentives in the permit and its administration (such as the green landscaping incentive in the DC MS4 permit) for the preferential use of such practices in meeting the permit terms and to solicit public comment on additional means to accomplish that end.

If the foregoing language modifications are completed, EPA will consider the revised language satisfactory to resolve this portion of the objection.

Backsliding

EPA objected to the draft permit because it contained provisions which were required to be completed during the last permit term – effectively providing the permittee with additional time to complete items that were overdue. The term "backsliding" includes permit conditions which are less stringent than the comparable terms of the previous permit. Backsliding is prohibited in NPDES permits unless specific conditions are satisfied. *See* Section 402(o) of the CWA, 33 U.S.C. § 1342(o). Such conditions did not apply to this permit. EPA provided a marked version of the permit to identify portions of the draft permit where backsliding was occurring. The revised permit addressed all of EPA's requested changes; therefore we consider this portion of the objection to be resolved.

Industrial/Commercial Monitoring

EPA objected to the draft permit on the basis that it failed to require the permittee to maintain an inventory of industrial and commercial sites which had the potential to contribute pollutants to the storm sewer system. EPA provided proposed language in a marked-up version of the permit which recommended how this condition could be incorporated into the permit. The Source Identification section (Part IV.C) of the revised permit now requires that the permittee identify industrial and commercial land use sites that it determines have the potential to contribute significant pollutants. In addition, Part IV.D.3.b requires that annual visual surveys of those commercial and industrial areas be conducted.

EPA considers this revised language satisfactory to resolve this portion of the objection.

Recommendations

In addition to the concerns raised above, EPA included two recommendations in its objection letter – the need for inclusion of employee training language and the request for removal of the phrase "maximum extent practicable" (MEP) from portions of the permit. Part IV.D.5.b.v of the revised permit contains the condition that the maintenance program that is developed by the County ensures that all County staff receive adequate training in pollution prevention and good housekeeping practices. Furthermore, where EPA requested, most references to the phrase MEP were removed. EPA was pleased that MDE also considered both of these recommendations and included appropriate language in the revised permit.

Next Steps

During our recent meeting, we discussed how MDE expected to rely on the Prince George's County permit as a template for the remaining expired Phase I MS4 permits to be reissued by MDE. In addition, EPA understands that the Baltimore City MS4 permit, which was previously published for public notice/comment, will be revised to also include the changes to which our agencies have agreed in this Prince George's County permit template. We look forward to reviewing those draft permits.

EPA expects that MDE will proceed to tentative determination and public notice of the permit as the next step in the renewal process. If there are any significant changes to the permit as a result of comments received during the public comment period, a revised permit must be submitted to EPA for review.

If you have any questions, please contact me, or Evelyn MacKnight, Chief, NPDES Permits Branch, at (215) 814-5717.

Sincerely,

Jon M. Capacasa, Director
Water Protection Division

cc: Brian Clevenger, MDE
Samuel Wynkoop, Prince George's County

Anne Arundel County MS4 permit comments submitted to MDE

ORGANIZATION SENDING COMMENTS	SIGNATURE, CO-SIGNATURES, AND/OR AFFILIATED ORGANIZATIONS	DATE RECEIVED	DOCUMENTS RECEIVED
Anne Arundel County DPW	Christopher J. Phipps, Director	8/16/2013	Letter (2 pgs)
Harford County DPW	Tim Whittie, Director DPW	8/14/13	Letter w/Comments (2 pgs)
Charles County Department of Planning & Growth Management	Steven Ball, Planning Director	8/15/13	Letter w/Comments (2 pgs)
Earthjustice	Jennifer Chavez (Earthjustice) on behalf of Anacostia Riverkeeper, Baltimore Harbor Waterkeeper / Blue Water Baltimore, Patuxent Riverkeeper, Potomac Riverkeeper, and Severn Riverkeeper	8/19/13	Letter (26 pgs) (Includes suggested permit language by NRDC) 18 pdf documents
WATERKEEPERS® Chesapeake	Mike Bolinder on behalf of member programs that include: Potomac Riverkeeper, Baltimore Harbor Waterkeeper, Patuxent Riverkeeper, Assateague Coastkeeper, Lower Susquehanna Choptank, Gunpowder, Miles/Wye, Severn, and West Rhode Riverkeepers	8/19/13	Letter (2 pgs)
Anacostia Watershed Society	Bruce Gilmore	8/7/13	Comments (11 pgs)
Chesapeake Bay Foundation (CBF)	Alison Prost (CBF)	8/19/13	Letter (13 pgs) Language changes to permit same as NRDC and Earthjustice
West/Rhode Riverkeeper, Inc.	Bob Gallagher, Chair	8/16/13	Letter (1 pg)