

**Maryland Department of the Environment
Water Management Administration**

**Basis for Final Determination to Issue Baltimore City's
National Pollutant Discharge Elimination System
Municipal Separate Storm Sewer System Permit**

MD0068292 11-DP-3315

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Introduction

The Maryland Department of the Environment (MDE) made a tentative determination to issue Baltimore City a National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system permit (stormwater permit or MS4 permit) on May 14, 2012. The stormwater permit establishes specific conditions for regulating discharges from Baltimore City's storm drain system. Public notice of MDE's tentative determination appeared in the Baltimore Sun on June 12, 2012 and June 19, 2012 as required by Maryland's Administrative Procedures Act (APA). Additionally, MDE maintains an interested party list for Baltimore City's stormwater permit that includes federal, State, and local municipal officials; and numerous citizens of Baltimore and Maryland. Individuals on this list were notified of the tentative determination on June 13, 2012.

Subsequent to the notification of the tentative determination, MDE received two separate requests for a public hearing regarding Baltimore City's stormwater permit. One request came on June 18, 2012 from Ms. Christine Meyers on behalf of the Baltimore Harbor Waterkeeper, and the other on June 26, 2012 from Mr. Bruce Gilmore on behalf of the Maryland Stormwater Consortium. In response, MDE held a hearing on August 7, 2012 to accept testimony and comment regarding the stormwater permit. Fourteen individuals representing various environmental groups testified at the hearing and an official transcript of the proceedings, which has been furnished by For The Record, Inc., is available on MDE's website.

After the hearing, the public record regarding Baltimore City's stormwater permit remained open until September 21, 2012 to accept further comment in accordance with the APA. Numerous comments were received from Baltimore City, other local governments subject to NPDES stormwater permits, environmental advocacy groups, and citizens of Baltimore and Maryland during this time. In aggregate, the comments offered various and often contrary perspectives on the major tenets of Baltimore City's stormwater permit. Water quality standards and total maximum daily loads (TMDL), regulated permit area, MDE guidance, restoration criteria, stormwater monitoring, trash and litter, implementation cost, permit oversight, and annual reporting were the permit issues receiving the most comments. 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, Baltimore City was considered a Phase I municipality due to its population of over 700,000 at the time. The City submitted a two-year, two-part application and was issued an initial stormwater permit in November 1993. This first permit required the City 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.

Baltimore City's stormwater permit was reissued on February 8, 1999 and again on January 3, 2005. In these permits, MDE used an iterative permitting approach, where the assessment of water quality on a watershed basis was used to establish additional retrofitting requirements, including ten percent of the City's impervious area in each five-year permit term. An application for a fourth permit was submitted in 2009 as part of the City's fourth year annual report. Prior to the tentative determination, MDE 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 Baltimore City's stormwater permit, in large part due to a regional and growing focus on restoring Chesapeake Bay.

In early 2013, MDE entered into negotiations with EPA, environmental advocates, and other local governments on other county NPDES stormwater permits. These negotiations resulted in further refinement of the conditions found within each of those stormwater permits and are reflected in Baltimore City's final permit that is being reissued here. Both MDE and EPA believe that these numerous meetings among the stakeholders 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 one of these other Phase I MS4 permits 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)." These revisions, which are discussed below, are included in the City's permit to provide clarification of various requirements and ensure consistent implementation of the stormwater program.

New requirements in Baltimore City's stormwater permit include 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 City will also be required to develop and implement plans to address stormwater waste load allocations (WLAs) established under EPA approved TMDL estimates. More information on the NPDES stormwater permitting process in Maryland and MDE's iterative approach over past several permit terms can be found in Baltimore City's stormwater permit fact sheet that is available on MDE's website.

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

The goals of Baltimore City's stormwater permit are to control stormwater pollutant discharges, to work toward meeting water quality standards (WQS), and to improve water quality within the City's urban watersheds. To achieve these goals, and as required by Section 402(p)(3)(B)(iii) of the Clean Water Act (CWA), the City's permit requires "...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 City must also develop 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 City's storm drain system.

Water Quality Standards. A majority of the comments received referred to compliance with State and federal WQS. A common claim of environmental groups was that the City'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 organization observed that "[t]he Draft Permit's failure to ensure compliance with water quality standards and total maximum daily loads violates state and federal law." Further, this organization requested that the permit be revised to ensure that discharges from the City's storm drain system that "...cause or contribute to the violation of water quality standards are prohibited..." Similarly, another environmental organization stated that "[t]he permit must contain a stated prohibition against discharges which cause or contribute to the violation of applicable State water quality standards." In this second case, the organization requested that MDE require compliance with WQS because federal regulations prohibit the issuance of an NPDES permit "...when the imposition of conditions cannot ensure compliance with applicable water quality standards..." and because State law requires that all discharges under a permit must meet State WQS. A third environmental advocacy organization added that "...no NPDES permit may be issued to a new discharger...if the discharge will contribute to the violation of water quality standards, as is the case when new discharges of pollutants are made to waters impaired for those same pollutants."

Contrary to this, several affected NPDES Phase I jurisdictions expressed general approval with the language originally found in Part VI.A. of the proposed permit, **Discharge Prohibitions and Receiving Water Limitations**. This language, which is now found in Part III (**Water Quality**), is similar to Washington, D.C.'s MS4 permit and clarifies that compliance with the permit constitutes adequate progress toward meeting WQS. These Phase I jurisdictions also noted that without this language, the permittee would be in violation with the CWA immediately upon the permit's issuance. Because no Phase I storm drain system complies with these standards currently, compliance with any permits issued would be impossible if this language is changed.

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) & §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 comments relied upon 40 CFR §122.4(i) to suggest that the Baltimore City MS4 permit must comply with WQS. The first sentence of §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.

Moreover, 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 this first sentence 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 places in EPA and the States broad authority to develop long-range, area wide programs to alleviate and eliminate existing pollution.

It also was argued by several environmental advocacy organizations that issuance of the stormwater permit constitutes a violation of State WQS. As one commenter stated, “...Maryland

State law is quite clear...all discharges under a permit must meet state water quality standards.” This commenter also observed that MS4 permits are not the same as industrial NPDES permits which cover fewer outfalls, and have well-defined, predictable discharges and treatment techniques. Therefore, the commenter accepted that meeting water quality standards within the context of an MS4 permit may take several permit cycles to accomplish. In these cases, the commenter suggested that the permit may “... specify a schedule of compliance leading to compliance with CWA and regulations.” [40 CFR §122.47(a).] and MDE “...may 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 26.08.04.02C(1).]

Part IV.E. (**Restoration Plans and Total Maximum Daily Loads**) of the stormwater permit requires Baltimore City to conduct systematic assessments and develop detailed restoration plans for all watersheds within the City. These restoration plans must include an implementation schedule for meeting WLAs and WQS, and must be approved by MDE. Once approved, these plans and schedules become enforceable under the permit. By requiring compliance schedules for meeting applicable WQS, MDE believes that the City’s MS4 permit is in compliance with State regulations.

MDE recognizes that the connection between permit compliance and WQS can be strengthened and more prominent. Therefore, as a result of further negotiations with EPA, the language referencing compliance with WQS has been removed from **Discharge Prohibitions and Receiving Water Limitations** and a new Part III entitled **Water Quality** has been added. This new section consists of EPA approved language and clearly specifies that Baltimore City 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, and all other provisions within the permit and in any plans or schedules developed to fulfill those requirements must be complied with. This section further recognizes 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.

Numeric Effluent Limits. There were also many comments regarding the lack of numeric effluent limits in Baltimore City’s stormwater permit. For example, one environmental advocacy group stated that “[t]he final permit must incorporate all applicable WLAs...and expressly require attainment of the WLAs and any associated Implementation Plans for such TMDL WLAs.” A common argument from the environmental advocacy 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 permitting authorities (e.g., MDE) use numeric effluent limitations where feasible adding that “...the final Baltimore City MS4 permit must include clear and enforceable permit terms that are expressed as numeric effluent limitations whenever feasible.” Another environmental advocacy group cited federal regulations, stating that the permit’s effluent limitations 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)].

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 twenty percent 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 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. Where the TMDL includes WLAs for stormwater sources that provide numeric pollutant load or *numeric surrogate pollutant parameter objectives*, the WLA should, where feasible, be translated into numeric WQBELs in the applicable stormwater permits.” [emphasis added] 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...” Also, “...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 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 City’s stormwater permit, MDE exercises this flexibility by incorporating the system-wide restoration of impervious surface area as an appropriate numeric effluent limitation. Not only is this an acceptable numeric limitation, but it is also consistent with the 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 ENR levels. [Phase II WIP, October 2012.]¹ Although the bulk of the reductions needed to comply with the Bay

¹The 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

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 controls within the next five-year permit term. [Phase II WIP, October 2012 at pp. 14, 15, 17.] Likewise, in the TMDLs for sediment in the Gwynns Falls, Jones Falls, and Patapsco River Lower North Branch watersheds, EPA approved WLAs are based on reducing the sediment load from existing urban lands. In each of these TMDLs, the WLAs are expressed numerically in tons per year and percent reduction of existing urban lands where there is failing or no stormwater management. For example, the Gwynns Falls NPDES Stormwater WLA for sediment requires an overall reduction of 40.1% of existing urban lands.

Enforceable Plans and Deadlines. In addition to the want for WLAs and numeric effluent limitations, there was a collective concern from environmental advocates that the Baltimore City stormwater permit did not require enforceable plans with final and interim deadlines for meeting effluent limitations. For example, one organization argued that "...the final permit must require that TMDL implementation plans include deadlines for final attainment of WLAs..." and that these plans comply with State regulation concerning compliance schedules for discharge permits (COMAR 26.08.04.02.C.2). Further, another organization stated that "[t]he permit should clearly specify that City [*sic.*] must use the watershed assessment and restoration plans required in Part [IV] E to articulate specific annual pollution loading reductions (benchmarks) and enforceable interim milestones that will be achieved by certain deadlines, necessary to meet the MS4's share of the WLAs." This organization noted that the City's permit did not include a deadline for meeting WLAs nor require that the restoration plans required under Part IV.E.2 include deadlines for meeting the WLAs. It was also stated that implementation plans required by the permit did not quantify the numeric benchmarks or interim standards as required by State regulation [COMAR 26.08.04.02-1.(A)(3)]. Likewise, it was noted that where a schedule of compliance is included as a permit condition, then State regulations (COMAR 26.08.04.02-1) require that "...quantitative limits shall be set for the interim period as well as for the period following the final compliance date." Finally, this organization stated that "[c]onsidering the clear requirements under Maryland and federal law for deadlines and quantified interim standards, it would be arbitrary, capricious and otherwise contrary to law for MDE to issue a final permit to Baltimore City that does not address these legal deficiencies."

With respect to enforceable plans and compliance schedules, the proposed stormwater permit does require enforceable plans with final and interim deadlines that are consistent with EPA approved WLAs. For example, in Part IV.E.2., the permit requires that the implementation of restoration efforts for 20% of the City's impervious surface area be completed by the end of the permit term, which is consistent with Maryland's Phase II WIP (see above). This section also requires the City to submit restoration plans, which include implementation schedules and benchmarks, and must include the final date for meeting for each EPA approved stormwater WLA. However, and as noted by the City in its comments, MDE "...may impose a compliance schedule as a condition of a permit for existing discharges..." [COMAR 26.08.04.02.C(1)] and that quantitative limits may be inappropriate in discharge permits [see COMAR 26.08.04.02-

1A(1)]. With respect to the City's stormwater permit, MDE has imposed compliance schedules as permit conditions where appropriate. In these permit conditions, schedules are required to achieve compliance within the applicable periods established in effluent limitations or water quality standards. Accordingly, Baltimore City's stormwater permit requires schedules, benchmarks, final compliance dates, and attainment of the Chesapeake Bay TMDLs by 2025. MDE believes that these conditions meet State and federal requirements for enforceable plans and final and interim deadlines.

Issue No. 2: Restoration Criteria.

The restoration of twenty percent of the City's impervious area that has little or no stormwater controls is a major requirement in Baltimore City's permit. Numerous comments from environmental advocacy groups demanded that ESD be used as the standard for any 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 twenty percent restoration goals.

One environmental advocacy group commented that the permit "...fails to meet the [federal] MEP standard because it does not require the use of environmental site design practices" and that "[o]nly ESD meets the Clean Water Act's mandate to control urban stormwater to the maximum extent practicable." In support of this argument, this group pointed to the 2008 decision of the Pollution Control Hearings Board (PCHB) of Washington State (Puget Soundkeeper Alliance et al. v. State of Washington Dep't of Ecology, PCHB Nos. 07-021 et seq., August 2008) that states "...in order to reduce pollution in urban stormwater to the maximum extent practicable...it is necessary to aggressively employ LID [i.e., low impact development or ESD] practices in combination with conventional stormwater management methods" and that the permit at issue failed to meet the MEP standard because "...it fail[ed] to require more extensive use of [ESD] techniques." However, MDE's review of the final decision indicated that the PCHB of Washington State required that individual permittees use LID techniques where feasible in conjunction with conventional stormwater management methods. No direct mandate to require ESD was imposed by PCHB.

Another environmental group added that the permit should impose a more stringent standard of capturing and treating one inch of rainfall using ESD practices and controls "...pursuant to both the Stormwater Act of 2007 and...similar to that used in numerous states and local jurisdictions around the country..." This group also added that "...attaining such a standard may not be practicable for every site or situation..." Likewise, several environmental groups have commented that State law mandates the use of ESD for all stormwater management scenarios. One group argued that only ESD techniques were able to mimic predevelopment hydrology, which is "...a technical performance standard required under Maryland and federal policy and law." This group added that "...ESD should be used in stormwater management programs whenever possible..." Another environmental group recommended the use of ESD "where possible" and suggested that where ESD could not be used, the permit encourage the use of techniques like hydrodynamic separators, sub-surface sand filters, trash boxes, and sub-surface detention vaults.

In the publication, *Incorporating Green Infrastructure Concepts into Total Maximum Daily Loads (TMDLs)* (EPA, October 2008), EPA summarizes how green infrastructure, or ESD, can be incorporated into the permitting process. More specifically, EPA encourages implementing ESD to reduce runoff and pollutant loadings attributed to and/or included as performance standards in NPDES permits affecting future growth. For example, 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 “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) 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 Baltimore City 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 supported the Guidance. Therefore, this letter clearly shows that the permit conforms to EPA recommendations.

More recently, MDE issued an NPDES permit to Montgomery County (MD0068349) in February 2010 that does not require that ESD be used to satisfy restoration requirements. Also, the most recent version of the Los Angeles County NPDES permit (NPDES NO. CAS004001, November 5, 2012), includes requirements for local LID 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).

Baltimore City notes 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." Clearly, Maryland's law and regulations have historically imposed stormwater management for new development and there is nothing in either that suggests otherwise.

With respect to more stringent standards for treating one inch of rainfall, MDE recognizes that the performance standards for restoration efforts in the permit need to be clarified. Therefore, MDE has revised the requirements for restoration plans as found originally in Part III.E.2. The original requirements, which encouraged the use of ESD, did not provide performance standards for restoration efforts. Instead, the requirement identified MDE's Guidance as discussed above for any applicable standards. This section of the permit, which has been relocated to Part IV.E.2, still encourages ESD, but also now requires that restoration efforts be based on the WQ_v criteria and list of practices defined in the Manual.

Issue No. 3: MDE Guidance.

A major provision in Baltimore City's stormwater permit is the restoration of 20% of the City's impervious surfaces that have little or no controls. MDE has provided direction for how this requirement can be met in the Guidance. During the public hearing and open record period for Baltimore City's stormwater permit, MDE heard many, varied, and often conflicting comments regarding the Guidance. 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." They 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 also disagreed "...with excluding stormwater facilities approved prior to 2002 that were designed to the MEP standard at that time." Finally, 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."

Many environmental groups believed that the Guidance does not meet the MEP standard for restoration practice implementation. One environmental advocacy group states that "the Draft Permit allows Baltimore City to meet its 'restoration' requirement through the use of non-ESD practices that have been proven to be less effective." 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 document, *Urban Stormwater Management in the United States* (National Academies Press, 2009) and cited herein as the "NRC report", on stormwater which "...provides strong evidence – and a scientific consensus – that detention ponds fail to meet the full range of urban stream and watershed restoration objectives." Both the

Phase I jurisdictions and environmental groups requested that MDE revise the planning and restoration requirements or rescind the Guidance altogether.

For many reasons, MDE believes that providing direction on how significant restoration work is to be completed and judged for compliance is warranted. First, 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. Second, achieving water quality criteria and the Chesapeake Bay TMDL by a certain date 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." Third, local governments can be as varied as Baltimore City, which was incorporated in 1797 and developed for some years, and outlying counties, where new development continues currently. MDE believes that providing as many options as possible will be necessary to meet WQS. In fact, and as stated in the introduction to the Guidance "[a] primary goal of this guidance is to expand the list of traditional urban BMPs with a suite of alternative water quality practices." Likewise, "[l]ocal governments can weigh the cost associated with implementing different practices and choose the most efficient option for meeting pollutant load reductions." Finally, as also stated in the Guidance, MDE believes that "[b]y developing a comprehensive matrix of practices and consistent accounting measures, the [Guidance] brings greater certainty to the local planning and budgeting processes." MDE's reasoning and answers to each of the specific concerns noted above from local governments and environmental groups are provided below.

Numerous MS4 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 claim is not true as MDE met with all Phase I jurisdictions 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. Following these meetings, comments received from the MS4 jurisdictions were incorporated before the Guidance was completed in June 2011. Additionally, MDE circulated surveys to localities soliciting input on this Guidance in the Fall of 2010, specifically pertaining to restoration criteria, and again in the Fall of 2012 regarding the stormwater permit's "Attachment A" database, geographical information system (GIS), and annual report submittals. 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 four of the Guidance, which clearly states that "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." Credit will be given wherever local policies, programs, and BMP implementation can document that water quality features have been used. 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.

Localities also believe 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 filter, 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 2000 Maryland Stormwater Design 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 because 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 advocates believe that the Guidance does not meet the MEP standard for restoration practice implementation. One environmental advocacy group states that the draft permit "...allows Baltimore City to meet its 'restoration' requirement through the use of non-ESD practices that have been proven to be less effective." Again, the 2008 draft of the NRC report was cited as the scientific basis for this argument. A major theme that runs through the document is that traditional stormwater management practices implemented to reduce urban flooding often provide limited water quality benefits, cause stream channel erosion, and can exacerbate flooding.

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 identified shortcomings in Maryland’s program through the 1990s and an increased emphasis on water quality and resource protection have contributed to a basic philosophical change in how stormwater management is conducted in the State. 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 BMP’s (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 environmental groups’ comments 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. In the NRC report (see pp. 568 and 569), detention is defined as “[t]he temporary storage of stormwater runoff in an [BMP] with the goals of controlling peak discharge rates and providing gravity settling of pollutants”, and extended detention is defined as “[a] stormwater design feature that provides for the gradual release of a volume of water in order to increase settling of pollutants and protect downstream channels from frequent storm events. When combined with a pond, the settling time is increased by 24 hours.”

Extended detention wet ponds are included in MDE’s Manual and are an acceptable practice 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. These detention facilities represent a dedicated and usually publicly-owned place in the landscape where local governments may implement restoration strategies. Where these opportunities present themselves, they should be explored fully.

The NRC 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.”

In addition to the recharge, water quality, and overbank flood protection volumes, Maryland's Manual requires that the one-year, 24 hour storm be managed as recommended in the NRC report. Additionally, all extended detention facilities in Maryland are required to have wet pool storage. 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 performance and maintenance of the former can be overseen more effectively by a local government entity. 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 for stormwater BMP design and MDE's approach to retrofitting under the municipal permit program are completely aligned with the NRC report.

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 Guidance was 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 Baltimore City's stormwater permit following APA, MDE believes that the Guidance has met all public reporting requirements. Finally, the inclusion of the Guidance in the permit has been encouraged and supported by EPA, and MDE will sustain the reference to the Guidance in the permit.

Issue No. 4: Stormwater Monitoring.

Many environmental commenters believe that the Part IV.F (**Assessment of Controls**) section of Baltimore City's stormwater permit, which requires that one outfall and one instream location be monitored, is insufficient. One environmental group stated that "...specific monitoring requirements direct the MS4s to comprehensively monitor only one water body (and, for that water body, only at one outfall and associated in-stream station)..." and that "[t]his requirement is insufficient to track the performance of the permittee's restoration programs and consistent attainment of water quality standards and TMDLs." 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 a 1997 MDE report, *Maryland's National Pollutant Discharge Elimination System Municipal Stormwater Monitoring*. While it specifically defines chemical monitoring procedures for NPDES stormwater permit applications, CFR 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 Baltimore City 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 “[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.”

Since the inception of the NPDES stormwater program, Maryland's MS4 jurisdictions have monitored more than 2,745 storm events with an additional 1,605 sampling sites of in-stream baseflow conditions. This allows a comprehensive characterization of the water chemistry of highway, commercial, industrial, and residential runoff. This information has been combined into a comprehensive statewide database and used for determining a parameter list of commonly found stormwater pollutants, calculating event mean concentrations (EMCs), supporting MDE 1997 objectives and calibrating numerous TMDLs including the one for Chesapeake Bay. This information comprises a significant portion of 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 the focused 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 MS4 jurisdictions in Maryland 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, Baltimore City'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 City's stormwater permit.

Baltimore City's stormwater permit requires an inspection and enforcement program to be implemented to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated. Permit requirements include the field screening of at least 150 outfalls annually. During an earlier permit term, MDE and the City came to an agreement on an alternative illicit discharge detection and elimination program that requires inspections across the entire municipal separate storm drain system, including pipes less than 36". In its most recent annual report, the City documented that 1,889 inspections were conducted and 151 suspected illicit connections to the storm drain system were found. Of these, 87 of the suspected illicit connections and discharges were resolved, 47 stopped altogether, 7 are still pending resolution, and 7 are under ongoing investigations.

Baltimore City's stormwater permit requires the City 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 based on EPA's approved TMDL analysis or an equivalent and comparable City water quality analysis. The 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

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

progress toward meeting all applicable stormwater WLAs. Baltimore City's most recent annual report documented that biological assessments and stream monitoring have occurred in all of the City's five watersheds in support of the water quality analyses and watershed assessment requirements of the permit. Likewise, the 2010 annual report documented that 853 stream sampling stations had been monitored for nutrients, metals, and bacteria in support of the water quality analyses and watershed assessment requirements of the permit.

Baltimore City's stormwater permit requires continued physical stream monitoring in the Stony Run 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, Baltimore City'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 Baltimore City's stormwater permit. MDE believes that the stormwater monitoring provisions provided in Baltimore City's permit are sufficient for providing comprehensive water quality and TMDL assessments, are contributing to the necessary feedback loop for making adaptive management decisions, and are in accordance with federal NPDES stormwater program requirements.

Issue No. 5: Trash and Litter.

Baltimore City's permit includes an additional management program to improve water quality by reducing trash and litter discharges to receiving waters. Two of Baltimore City's major water bodies, the Middle and Northwest Branches of the Patapsco River, are impaired by trash. Within one year of permit issuance, the City is required to evaluate all current trash and litter control programs and public outreach efforts, and identify where these programs can be improved. In that same time frame, the City must also develop public education and outreach campaigns with specific goals and deadlines to augment these programs. Additionally, within one year of EPA's approval, the City must develop work plans and compliance schedules for trash reduction consistent with the proposed trash TMDLs for the Middle and Northwest Branches.

While there was genuine concern that the City's permit will not result in quantifiable improvements in water quality, there were few comments specific to trash and litter. Generally, many of the environmental advocacy groups supported the addition of this management program to the permit. For example, one group commented that "[t]he trash reduction requirements and public education initiative are laudable steps towards tackling an intractable problem." However, there were comments on how this section could be improved, especially with respect to benchmarks and compliance goals. For example, one group requested that the permit define "...a level of trash input which is considered acceptable..." and include specific goals for

measuring compliance. Recognizing that this requirement is a work in progress, another group deferred detailed comments, adding that “[t]he public must be given the opportunity to comment and testify at hearings regarding any programs developed to implement these provisions.”

There is no defined limit of trash input in the City’s permit. However, it important to note that the trash TMDLs, which are under development for both the Middle Branch and Northwest Branch, will establish WLAs for trash in these watersheds. Once approved, the City must develop work plans that are consistent with these TMDLs. These plans must include detailed implementation schedules, trash reduction benchmarks, a description of methods used, and a final date by which the WLAs will be met. Prior to their approval by MDE, the City’s work plans will be open for public input as required under applicable State and local laws and regulations. Absent any approved TMDLs, MDE believes that the permit must remain flexible and allow the City to allocate resources (e.g., personnel and financial) as needed to improve existing programs.

Issue No. 6: Regulated Permit Area.

Baltimore City’s permit states that “[t]his permit covers all stormwater discharges from the municipal separate storm sewer system owned or operated by Baltimore City, 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 Baltimore City 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, administered locally, and jurisdiction-wide. All private development within the borders of Baltimore City requires erosion and sediment control and stormwater management approval, and is subsequently inspected, maintained, and enforced under the City’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 Baltimore City.

Issue No. 7: Implementation Cost.

In order to meet the conditions of its permit, Baltimore City is responsible for developing, implementing, and maintaining various municipal programs related to the reduction of pollutants entering its storm drain system. Accordingly, the City must allocate resources (e.g., financial and personnel) to support these efforts and affect improvements in the quality of receiving waters. Also, both the City and other MS4 jurisdictions expressed concern over the costs related to implementing their permits, and have asked MDE to consider these costs as the permit reissuance process moves forward.

Several local jurisdictions, including Baltimore City, provided comments on the funding needed to meet permit requirements and how State and federal governments should share responsibilities for these costs. In its comments, Baltimore City estimates that by the year 2030, more than 70% of the City’s households will be unable to afford basic utilities (e.g., water, sewer). Further, the City adds that these estimates, which use projected costs of the stormwater program and water and sewer utilities over the next 18 years, do not include costs associated with meeting obligations of the WIP. Similar concerns were voiced by three counties that stated “...the newest round of permits represents a major increase in regulatory requirements and in management costs.” These jurisdictions also 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. To help share some of this burden, 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 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 other local programs and MDE suggests that all permittees, including Baltimore City, develop additional sources of revenues 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 City 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 twenty percent 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 twenty percent restoration requirement nor the five year permit term schedule are being modified through the submittal of local restoration plans. MDE believes that the effluent limits in the permit are represented as a jurisdiction-wide surrogate pollutant parameter (see Issue No. 1). This includes the requirement for the restoration of 20% of impervious areas that have not already been restored to the MEP. Neither the 20% restoration requirement nor the five year permit term schedule are 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 City 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 Baltimore City 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 City's website, allow for a 30 day comment period before finalizing assessment and restoration plans, and provide a summary of how the City 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 City to "submit annual reports on or before the anniversary date of this permit and post these reports on the City's website."

Conclusion

As stated in the associated fact sheet, Baltimore City's permit is another step forward for the City's NPDES municipal stormwater program. Conditions require the City to possess adequate legal authority, monitor stormwater discharges, and implement comprehensive management programs. Several new requirements have been added to the permit as a result of ongoing negotiations between MDE, EPA, local jurisdictions, and environmental advocacy groups in the development of other Phase I permits. These changes include increasing impervious area treatment goals, reducing trash and litter to impaired waters, and implementing ESD technologies for new and redevelopment projects to the MEP. The City must also develop and implement plans to address stormwater WLAs associated with EPA approved TMDLs.

Comments received during the public hearing and the extended public comment period covered a wide variety of issues including compliance with existing WLAs and water quality standards, the regulated permit area, MDE's Guidance, restoration criteria, monitoring, trash and litter, financial impacts, and permit oversight and reporting. In some cases, these comments offered contrary perspectives. For example, one commenter admitted that the MEP standard is an iterative process and then admonished MDE for using that very same approach. Other comments, when taken literally, would be quite impossible to address. For example, there were many repeated comments that MDE not issue this permit unless there were guarantees that all WQS would be met upon its issuance. Similarly, there were a number of requests that MDE require all BMPs, program elements, and outfalls to be monitored chemically. Likewise, there were suggestions made by other Phase I jurisdictions that MDE allow the permittee to determine what constitutes MEP with respect to implementing required programs.

MDE appreciates the efforts of those involved in the permit's development and recognizes that some comments reflect strong differences of opinion regarding the City's permit. However, MDE believes that the permit exceeds both the CWA and CFR requirements. Additionally, changes have been made to clarify and/or strengthen provisions related to water quality standards, restoration plans, and TMDLs. MDE believes that the water quality improvements necessary to achieve WLAs for stormwater will be accomplished through the program refinements established in this and future permits.

The permit requires twenty percent of the City's impervious area to be restored and establishes performance standards for these efforts that encourage the use of ESD. Additionally, the permit requires restoration plans to be developed and carried out according to MDE approved schedules in order to meet stormwater WLAs established for impaired waters. All of these requirements are in addition to existing management programs and ongoing monitoring efforts. MDE believes that the permit is a major step forward for Baltimore City's NPDES municipal stormwater program and clearly demonstrates that Maryland is taking strong, comprehensive action to further reduce polluted stormwater runoff. Therefore, MDE has reached a final determination to issue an NPDES permit to Baltimore City to control storm drain system pollution. The permit will be issued as final on December 27, 2013 after which the public has 30 days to request a judicial review.

Attachments

Supporting Documentation for MDE's Basis for Final Determination to Issue Baltimore City'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 Baltimore City 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

NOV 29 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

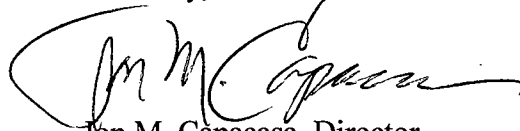
During our recent meeting, we discussed how MDE expected to rely on the Prince George’s County permit as a template for the remaining expired Phase I MS4 permits to be reissued by MDE. In addition, EPA understands that the Baltimore City MS4 permit, which was previously published for public notice/comment, 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,

A handwritten signature in black ink, appearing to read "Jon M. Capacasa". The signature is fluid and cursive, with a large initial "J" and "M".

Jon M. Capacasa, Director
Water Protection Division

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



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

OCT 22 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



Baltimore City MS4 permit comments submitted to MDE

ORGANIZATION SENDING COMMENTS	SIGNATURE, CO-SIGNATURES, AND/OR AFFILIATED ORGANIZATIONS	DATE RECEIVED	DOCUMENTS RECEIVED
Baltimore City DPW	Alfred H. Foxx, Director	9/21/12	Letter (6 pgs)
Harford County DPW	Tim Whittie, Director DPW	9/21/12	Letter w/Comments (8 pgs)
Charles County Commissioners	Candice Quinn Kelly, President	9/17/12	Letter w/Comments (8 pgs)
Frederick County Comissioners	Blaine R. Young, President w/cover letter by Ms. Lisa Ochsenhirt, AquaLaw	9/21/12	Letter w/Comments (9 pgs)
Natural Resources Defense Council	Ms. Rebecca Hammer (NRDC) on behalf Anacostia Riverkeeper, Anacostia Watershed Society, Assateague Coastal Trust/Assateague Coastkeeper, Audubon Naturalist Society, Chesapeake Bay Foundation, Clean Water Action Community & Environmental Defense Services, Friends Of Lower Beaverdam Creek , Maryland Chapter, Sierra Club, Mattawoman Watershed Society, and the Patuxent Riverkeeper	9/21/12	Letter w/Comments (33 pgs) (Includes suggested permit language by NRDC & 137 attached references)
WATERKEEPERS® Chesapeake	Mike Bolinder on behalf of 14 member programs that include: Potomac Riverkeeper, Baltimore Harbor Waterkeeper, Patuxent Riverkeeper, Assateague Coastkeeper, Lower Susquehanna Choptank, Gunpowder, Miles/Wye, Severn, and West Rhode Riverkeepers	9/21/12	Letter (3 pgs)
Anacostia Watershed Society	Dana Minerva	9/21/12	Comments (9 pgs)
Chesapeake Bay Foundation (CBF)	Alison Prost (CBF)	9/21/12	Letter (16 pgs) Attachment (5 pgs)
Bluewater Baltimore	Petition w/321 signatures & Science & Technical Advisory Committee	9/21/12	Letter (12 pgs) & Letter (12 pgs)
1,000 Friends of Maryland	Dru Schmidt-Perkins	9/20/12	Letter (2 pgs)
Baltimore Harbor Waterkeeper	Christine M. Meyers, Jennifer C. Chavez	9/21/12	Letter (25 pgs)
Anacostis Riverkeeper, Potomac Riverkeeper	Ed Merrifield, Potomac RIVERKEEPER, Mike Bolinder Anacostia RIVERKEEPER, Jennifer C. Chavez, EarthJustice	9/21/12	Letter (2 pgs)
Waterfront Partnership of Baltimore	Laurie Schwartz, President	9/20/12	Letter (5 pgs)