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Via Electronic Mail and Hand Delivery

Mr. Brian Clevenger
Manager, Sediment, Stormwater & Dam Safety Program
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230
bclevenger@mde.state.md.us

**RE: Comments on Draft MS4 Permit No. 11-DP-3315 / MD0068292 for
Baltimore City, Maryland**

Dear Maryland Department of the Environment (MDE):

These comments are submitted on behalf of Blue Water Baltimore, Inc., which is a grassroots environmental organization dedicated to restoring the quality of Baltimore's rivers, streams and Harbor to foster a healthy environment, a strong economy, and thriving communities. Specifically, the Baltimore Harbor WATERKEEPER program of Blue Water Baltimore is dedicated to stopping water pollution in the Baltimore Harbor watershed through the use of advocacy, enforcement, and education. Members of Blue Water Baltimore use and enjoy waters adversely affected by the Baltimore City Municipal Separate Storm Sewer ("MS4") discharges, including the Jones Falls¹, Gwynns Falls and Direct Harbor within the Baltimore

¹ Stony Run is also a subwatershed of the Jones Falls/ Baltimore Harbor.

Harbor/ Patapsco River watershed and the Herring Run² within the Back River watershed. Earthjustice is a non-profit environmental law firm.

The fundamental purpose of the Baltimore City MS4 permit is to help “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1311(a). For the reasons discussed in these comments, the permit (hereafter “Draft Permit”) must be revised in order to achieve this goal and to meet minimum legal requirements for issuing stormwater National Pollutant Discharge Elimination System (“NPDES”) permits.

I. INTRODUCTION

A. Cleaning Up Baltimore Harbor and the Patapsco and Back River Watersheds Will Require Clear and Enforceable Terms in the MS4 Permit

The final permit for the Baltimore City MS4 must clearly and unequivocally mandate reductions of stormwater pollution and illicit discharges through the City’s stormwater system. Currently, due in part to the lack of specific and enforceable requirements in the existing permit, stormwater pollution regularly fouls the Baltimore Harbor, Jones Falls, Gwynns Falls, the Back River and its tributaries, and the Patapsco River.³ The costs of stormwater runoff are paid by Baltimore’s residents and visitors, who endure unsavory and unsightly surface water conditions, unsafe conditions for water-contact recreation, and health risks associated with subsistence fishing.⁴ The burdens of excessive stormwater pollution and uncontrolled stormwater flows are also borne by Baltimore’s native wildlife, whose health and survival depends on clean water.

The deplorable state of Baltimore’s water bodies is one of the clearest indications that weak and vague permits issued by MDE in the past simply have not worked. Without clear water quality-based requirements in the permit, many of the considerable resources that will be expended on Baltimore City’s stormwater management program will go to waste. It is therefore imperative to the people, environment and wildlife of Baltimore City, and of downstream communities, that the Draft Permit be significantly revised to include permit terms that go beyond guidance and aspiration.

B. This Permit Is the Regulatory Backbone for the Chesapeake Bay TMDLs and Associated Watershed Implementation Plans (WIP)

² Moores Run is also a subwatershed of the Herring Run/ Back River.

³ Draft Permit Att. B., listing waters not meeting water quality standards and consequently covered by EPA-approved TMDLs for bacteria, chlordane, nutrients, and sediments.

⁴ See Tina Meyers, Baltimore Harbor Waterkeeper, Transcript of Testimony on Draft Permit (delivered August 7, 2012); attached as Exhibit A; Judd Anderson, Baltimore Rowing Club, Transcript of Testimony on Draft Permit (delivered August 7, 2012) attached as Exhibit B; Gibson and McClafferty, Identifying Populations at Risk for Consuming Contaminated Fish in Three Regions of Concern, Results for Baltimore Region of Concern (March 29, 2005), attached as Exhibit C.

The Baltimore City MS4 permit is part of the regulatory backbone identified in the “Accountability Framework” for implementing the Chesapeake Bay TMDLs, consistent with the legal requirements of the Clean Water Act (“CWA”). *See* EPA, Final Chesapeake Bay Total Maximum Daily Load, 7-1 (Dec. 29, 2010) (hereafter Bay TMDL). This permit and others like it are meant to serve as the primary difference between Bay TMDL and prior Bay agreements, which lacked enforcement and accountability measures and consequently failed to achieve their goals while wasting taxpayer dollars. Indeed, the Maryland General Assembly demonstrated commitment to implementing the Bay TMDLs when it recently adopted legislation doubling the Bay Restoration Fund fee as well as implementing a stormwater utility fee for use in complying with local MS4 permits. It is therefore imperative that MDE help maintain the public’s confidence by ensuring, through its stormwater NPDES permitting authority, that the funds generated by fees on Maryland property owners are used strategically and effectively. The Final Permit must therefore include a clear and enforceable provision for implementing the wasteload allocations included in the Bay TMDL for nutrients and sediments in stormwater discharges to the Baltimore Harbor/ Patapsco River and Back River. Draft Permit Att. B, Bay TMDL Appx. R. This is especially important in light of MDE’s statements that the Baltimore City permit will be used as a template for the remaining Phase I jurisdiction permits in the State of Maryland.

C. Adding Clear and Enforceable Terms in the MS4 Permit is Imperative if Real Water Quality Improvements Are to be Achieved

Congress adopted a national permitting program in order to bridge the gap between the states’ adoption of water quality standards, and the continuing lack of tangible improvements in water quality. As discussed more fully below, permits issued for point-source stormwater discharges are required to *ensure* that the pollution reductions needed to implement Maryland’s water quality standards are actually achieved. *See Gov’t of the Dist. of Columbia, MS4 System*, 10 E.A.D. 323, 335 and 342-43 (2002). Accordingly, the final MS4 permit must be an enforceable regulatory instrument that ensures compliance with water quality standards, not an aspirational guidance document. To this end, MDE should draw from existing guidance and studies discussed below, which identify the critical elements of writing successful stormwater permits.

In its guidance specifically designed to address stormwater permits in the Chesapeake Bay and Mid-Atlantic region, EPA recommended the following:

Issuing Permits with Clear and Measurable Provisions: It is critical that all permit provisions be clear, objective, specific, measurable, and enforceable. Permits should incorporate clear performance standards, include measurable goals or quantifiable targets for implementation and include specific deadlines for compliance. Doing so will clarify expectations for permittees and also allow permitting authorities to more easily assess compliance. These are not elements to be delegated to permittees as part of their stormwater management program planning or updating processes. Practicability determinations are the obligation of the permitting authority not the permittee. Vague phrases such as “as feasible” and ‘as possible’ and ‘practicable’ are to be avoided in a permit because such caveats allow subjective interpretation, result in inconsistent implementation by permittees, and create difficulties in permit authority oversight and enforcement.

The permit writer's role is to determine what is necessary to achieve in effluent controls and to develop clear, enforceable language that conforms to these determinations.

EPA, "Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed" at 5 (July 2010) (emphasis added), attached as Exhibit D.

Similarly, drawing from an in-depth study of stormwater programs, EPA Region 9 and its consultants at Tetra Tech, Inc. concluded:

A clear, well-written permit and plan are critical for successful implementation of a storm water management program. This requires the permitting authority to describe the required actions clearly in a permit and the permittee to clearly articulate how it will meet these requirements in a storm water plan. The Phase I MS4 evaluations conducted by Tetra Tech have found that the more advanced storm water programs generally have more detailed, well-written permits and plans.

Kosco, *et al.*, Lessons Learned From In-Field Evaluations of Phase I Municipal Storm Water Programs (2002), attached as Exhibit E. As a result of this study, EPA recognized that "[w]ithout specific, measurable elements, almost any activity an MS4 takes could be deemed to be in compliance with the permit." Laura Gentile and John Tinger, U.S. E.P.A. Region IX, Storm Water Phase I MS4 Permitting: Writing More Effective, Measurable Permits, 135 (February 2003), attached as Exhibit F. Yet numerous provisions in the Draft Permit reflect this fundamentally-flawed approach.

More recently, EPA has provided updated guidance on "providing numeric water quality-based effluent limitations in NPDES permits for stormwater discharges." The memo states:

EPA now recognizes that *where the NPDES authority determines that MS4 discharges and/or small construction storm water discharges have the reasonable potential to cause or contribute to water quality standards excursions, permits for MS4s and/or small construction stormwater discharges should contain numeric effluent limitations where feasible to do so.* EPA recommends that NPDES permitting authorities use numeric effluent limitations where feasible as these types of effluent limitations create objective and accountable means for controlling stormwater discharges.

Hanlon and Keehner, "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Waste Load Allocations (WLAs) for Storm Water Sources and NPDES Permits Based on Those WLAs'" at 3 (Nov. 12, 2010), attached as Exhibit G (emphasis added).

Taken together, the foregoing guidance documents make clear that the final Baltimore City MS4 permit must include clear and enforceable permit terms that are expressed as numeric effluent limitations whenever feasible. On the other hand, evidence that the existing permit requirements are ineffective can be found in the Baltimore City MS4's ongoing contribution to violations of water quality standards, including ongoing failure to achieve the designated

beneficial uses in the receiving waterbodies. The Draft Permit must therefore be improved significantly in order to achieve water quality standards.

II. THE FINAL PERMIT MUST BE REVISED TO ENSURE COMPLIANCE WITH WATER QUALITY STANDARDS

A. The Permit is Legally Required to Ensure Compliance With WQS

The CWA, federal CWA regulations, and Maryland regulations prohibit the discharge of stormwater pollutants except in accordance with a NPDES permit that ensures compliance with water quality standards, including attainment of designated uses.

In particular, section 301 of the CWA prohibits the discharge of pollutants except in compliance with a NPDES permit that requires achievement of “limitations... necessary to meet water quality standards.” 33 U.S.C. 1311(b)(1)(C). Water quality standards consist of designated uses *and* water quality criteria. *Id.* 1313(c)(2)(A). Consistent with this, CWA regulations prohibit the issuance of a NPDES permit “when the imposition of conditions cannot *ensure compliance* with the applicable water quality requirements of all affected States.” 40 C.F.R. 122.4(d) (emphasis added).⁵ Accordingly, all point source permits must contain limitations “necessary to... [a]chieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality. 40 C.F.R. § 122.44(d)(1). *See Gov’t of the Dist. of Columbia, MS4 System*, 10 E.A.D. 323, 335 and 342-43 (2002) (“remanding the Permit to the Region to provide and/or develop support for its conclusion that the permit *will* ‘ensure’ compliance with the District’s water quality standards”) (emphasis in original).; *see also Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166 (9th Cir. 1999) (confirming that permitting authorities have authority to require strict compliance with water quality standards in NPDES permits for municipal separate stormwater systems). The CWA regulations further detail this mandatory condition for NPDES permits: “When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant.” 40 C.F.R. § 122.44(d)(1)(iii).

Consistent with these federal laws, Maryland regulations allow MDE to issue or re-issue a NPDES permit only “upon a determination that... [t]he discharge or proposed discharge specified in the application is or will be in compliance with all applicable requirements of... [e]ffluent limitations [and] [s]urface and ground water quality standards...” Md. Regs. Code tit. 26, § 26.08.04.02.A(1). Discharge permits issued by MDE “must comply with effluent limitations, receiving water quality standards, ground water quality standards established by the

⁵ These regulations are applicable at all times to the state’s ongoing administration of its delegated NPDES program. 40 C.F.R. § 123.25.

state, and federal and state law.” *Nw. Land Corp. v. Maryland Dept. of Env't*, 104 Md. App. 471, 479, 656 A.2d 804, 808 (1995), citing Md.Reg.Code tit. 26, § 26.08.04.02.A(1)(a)-(d).

B. The Permit Must Ensure Compliance With WQS And Require Controls to Reduce Pollutants the Maximum Extent Practicable

The fundamental requirement that all point sources ensure compliance with water quality standards was not altered by the amendments to the CWA requiring MS4 permits to include “controls to reduce the discharge of pollutants to the maximum extent practicable...,” commonly called the “MEP” standard. 33 U.S.C. § 1313(p)(3)(B). Addressing MS4s, the 1987 Conference Report for the Clean Water Act amendments confirmed that “all municipal separate storm sewers are subject to the requirements of sections 301 and 402 of the Act.” H.R. Conf. Rep. No. 1004, 99th Cong. 2d Sess. At 158 (1986), excerpt attached as Exhibit H. In its 1999 stormwater rulemaking, EPA also confirmed that “[40 C.F.R.] Sec. 122.44(d) is a general requirement that each NPDES permit shall include conditions to meet water quality standards.” See EPA, “National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges,” 64 Fed. Reg. at 68722 at 68770 (Dec. 8, 1999), excerpt attached as Exhibit I.

Thus, even where the permit requires implementation of best management practices (BMPs) as part of stormwater management programs and implementation plans, the BMPs encompassed under such programs and plans must be demonstrated to ensure compliance with water quality standards. The EPA Environmental Appeals Board confirmed this principle, holding that even if permit limitations are in the form of required BMPs, the permitting authority must “show that the selected BMPs will be adequate to ensure compliance with water quality standards.” See *Gov’t of the Dist. of Columbia, MS4 System*, 10 E.A.D. 323 at 323, 335 and 342-43 (2002). See also *Bldg. Indus. Ass’n of San Diego Cnty. v. State Water Res. Control Bd.*, 124 Cal.App.4th 866, (Call. Ct. App. 2004) (rejecting arguments that “under federal law the ‘maximum extent practicable’ standard is the ‘exclusive’ measure that may be applied to municipal storm sewer discharges and [that] a regulatory agency may not require a Municipality to comply with a state water quality standard if the required controls exceed a ‘maximum extent practicable’ standard”).

C. There Can Be No Question That Discharges from the Baltimore City MS4 Currently Cause or Contribute to Violations of WQS

As noted above, the fact that the Baltimore City MS4 contributes to violations of water quality standards is demonstrated by the state’s adoption of TMDLs for receiving waters impacted by bacteria, chlordanes, nutrients, and sediments discharged by the MS4. Due in part to discharges from the Baltimore City MS4:

- Fishing and swimming in the Back River, Baltimore Harbor, and Patapsco River have been listed as impaired by nutrients which cause excessive levels of algae. See *Total Maximum Daily Loads of Nitrogen and Phosphorus for Back River in Baltimore City and Baltimore County* (2005); Draft Permit Att. B.
- Bacteria that threaten human health impair water-contact recreational uses including swimming, wading, kayaking and canoeing in Baltimore Harbor, Gwynns Falls, Jones

Falls, and the Patapsco River. *See Total Maximum Daily Loads (TMDLs) of Fecal Bacteria for the Patapsco River Lower North Branch Basin in Anne Arundel, Baltimore, Carroll, and Howard Counties, and Baltimore City* (2009); Draft Permit Att. B.

- Protection and propagation of aquatic life is impaired by excessive sediments and total suspended solids in the Back River, Patapsco River, Jones Falls and Gwynns Falls. *See Total Maximum Daily Loads (TMDLs) of Sediment in the Gwynns Falls Watershed, Baltimore City and Baltimore County, Maryland* (2010); Draft Permit Att. B.
- Unsafe levels of chlordane in catfish and eel impair Baltimore Harbor, Back River, and Lake Roland impoundment. *See Total Maximum Daily Load for Chlordane in Back River* (1999); Draft Permit Att. B.

As discussed in detail below and in supporting affidavits, additional documentation that the MS4 contributes to these impacts can be found in water quality sampling and outfall screening results, incident reports of stormwater discharges including illicit dry-weather discharges, and documentation of erosion and sediment control violations. *See* Sections IV and V below, including Exhibit J Affidavit of Paul Sturm; Exhibit K, Affidavit of William Dixon; and Exhibit L, Affidavit of David Flores. These affidavits and any attachments thereto are incorporated by reference in full to these comments.

D. The Draft Permit Terms Do Not Ensure Compliance With WQS, including Designated Uses

The Draft Permit contains only goal-oriented, aspirational references to water quality standards. At most, these provisions *encourage* progress toward compliance with water quality standards, but they do not *ensure* compliance with water quality standards. *See* Draft Permit at 7 (the “goals of Maryland’s NPDES municipal stormwater permit program” are, among other things, to “contribute to the attainment of water quality standards according to the CWA”) (emphasis added); *id.* at 8 (requiring the City to “incorporate any relevant ideas and program improvements that *can aid in achieving* TMDLs and water quality standards”) *id.* at 16 (stating that the City “should continually adapt to current conditions and BMP effectiveness while *striving to attain* water quality standards”) (emphasis added); *id.* (claiming that “[c]ompliance with the conditions contained in this permit shall constitute *adequate progress toward compliance* with Maryland’s receiving water quality standards”) (emphasis added). The permit lacks any express requirement for attaining designated uses, which are components of state water quality standards. 33 U.S.C. § 1313(c)(2)(A).

These provisions fall short in two respects. First, as discussed in subsection A. above, neither the CWA and its implementing regulations nor Maryland’s regulations allow MDE to issue a permit that fails to require compliance with water quality standards. It is therefore inadequate to merely require that the City “contribute,” “aid,” “strive,” or make “progress” toward attaining pollution reductions needed for receiving waters to meet water quality standards. Second, there is simply no basis in the administrative record to support a determination that compliance with the conditions in the permit will ensure compliance with water quality standards. “Adequate progress” toward compliance with water quality standards can only be achieved through the City’s implementation of clearly-worded, mandatory programs and practices, including specific deadlines for attainment designed to lead to compliance with water quality standards in the shortest reasonable time. MDE cannot lawfully declare in the

permit that “[c]ompliance with the conditions contained in this permit shall constitute adequate progress toward compliance with Maryland’s receiving water quality standards.”

1. The final permit must establish an explicit mandatory link between implementation of management programs and plans, and attainment of water quality standards

To comport with legal requirements, the final permit must expressly prohibit discharges that cause or contribute to violations of water quality standards. *See, e.g.*, District of Columbia MS4 Permit⁶ at 6 (Oct. 7, 2011) (requiring the District to “[e]ffectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 as necessary to comply with existing District of Columbia Water Quality Standards...”); Ventura County MS4 Permit, 28-29 (May 7, 2009) (“Discharges from the MS4 that cause or contribute to a violation of water quality standards are prohibited.”); Washington State Phase I Municipal Stormwater Permits for 2012-13 and 2013-18 (2012) (“...the discharge of toxicants to waters of the State of Washington which would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria is prohibited,” and “[t]his permit does not authorize a discharge which would be a violation of Washington State Surface Water Quality Standards...”); Exhibit M, Los Angeles County MS4 Permit, 24-25 (April 14, 2011) (“Discharges from the MS4 that cause or contribute to the violation of Water Quality Standards or water quality objectives are prohibited.”).

In addition to an express prohibition on discharges that violate standards, the final permit must also *ensure* achievement of water quality standards by requiring timely implementation of management programs, TMDL implementation plans, and monitoring programs that are designed to achieve water quality standards. Specifically, the final permit must require in Part III.D., Management Programs, that all management programs listed in Part III.D. of the Draft Permit “shall be designed to control stormwater discharges to the maximum extent practicable, and to attain and maintain water quality standards including designated uses.” This language would ensure that the City’s programs, plans, and practices control pollutants that have not yet caused violations of water quality standards, as well as pollutants that contribute to impairments for which a TMDL has not yet been approved. MDE should consider adopting the following “Receiving Water Limitations” section of the Los Angeles County MS4 permit which not only prohibits exceedances of water quality standards, but also prescribes detailed instructions on what the permittee should do in case of an exceedance:

“(1) Discharges from the MS4 that cause or contribute to the violation of Water Quality Standards or water quality objectives are prohibited;

(2) Discharges from the MS4 of storm water, or non-storm water, for which a Permittee is responsible for, shall not cause or contribute to a condition of nuisance;

⁶ By citing the District of Columbia permit and permits from other stormwater jurisdictions, we in no way intend to suggest that the permits overall or particular provisions within them are effective, or that they fully comply with all legal requirements

(3) The Permittees shall comply with Part 2.1. and 2.2. through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the SQMP and its components and other requirements of this Order including any modifications. The SQMP and its components shall be designed to achieve compliance with receiving water limitations. If exceedances of Water Quality Objectives or Water Quality Standards (collectively, Water Quality Standards) persist, notwithstanding implementation of the SQMP and its components and other requirements of this permit, the Permittee shall assure compliance with discharge prohibitions and receiving water limitations by complying with the following procedure:

a) Upon a determination by either the Permittee or the Regional Board that discharges are causing or contributing to an exceedance of an applicable Water Quality Standard, the Permittee shall promptly notify and thereafter submit a Receiving Water Limitations (RWL) Compliance Report (as described in the Program Reporting Requirements, Section I of the Monitoring and Reporting Program) to the Regional Board that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedances of Water Quality Standards. This RWL Compliance Report may be incorporated in the annual Storm Water Report and Assessment unless the Regional Board directs an earlier submittal. The RWL Compliance Report shall include an implementation schedule. The Regional Board may require modifications to the RWL Compliance Report.

b) Submit any modifications to the RWL Compliance Report required by the Regional Board within 30 days of notification.

c) Within 30 days following the approval of the RWL Compliance Report, the Permittee shall revise the SQMP and its components and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, an implementation schedule, and any additional monitoring required.

d) Implement the revised SQMP and its components and monitoring program according to the approved schedule.”

Exhibit M, Los Angeles County MS4 Permit, 24-25 (April 14, 2011).

2. MDE must replace vague, subjective, and non-specific requirements with clear enforceable permit conditions

Vague and subjective terms are antithetical to a clearly-worded, enforceable permit. EPA recently stated that “[v]ague phrases such as ‘as feasible’ and ‘as possible’ and ‘practicable’ are to be avoided in a permit because such caveats allow subjective interpretation, result in inconsistent implementation by permittees, and create difficulties in permit authority oversight and enforcement.” EPA, Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed at 5. The only acceptable program is one that complies with the applicable Maryland Code requirements, achieves water quality standards, and ultimately results in eliminating discharges of pollutants that impact receiving waters. Accordingly, the word

“acceptable” must be deleted from Part III.D.1. (“[a]n acceptable stormwater management program shall be maintained...”), and from Part III.D.2 (“[a]n acceptable erosion and sediment control program shall be maintained...”).

The Draft Permit also introduces undue subjectivity and lack of clarity by incorporating the 2000 Maryland Stormwater Design Manual, the Stormwater Management Act of 2007, and MDE’s Draft Guidance for National Pollutant Discharge Elimination System Stormwater Permits (2011 or subsequent versions). Although it is helpful to reference these documents in the permit, there are two fundamental problems with incorporating these documents as performance standards for the permit. First, each of them encompasses a grab-bag of techniques and standards, providing no specific effluent limits or enforceable minimum water quality or performance outcomes. Further, as discussed in detail below, MDE’s Draft Guidance endorses a broad variety of approaches, *some of which have been proved to be entirely inadequate or ineffective* at reducing stormwater pollution discharges, curbing harmful volumes of stormwater flow, or restoring waters harmed by stormwater pollution and flow.

Further, the final permit must specify enforceable deadlines for the City to comply with specific permit requirements, as well as deadlines for attainment of each applicable water quality standard. Deadlines for compliance are a necessary component of enforceability—not only for the programs and plans required under the permit, but for the very water quality standards they are designed to implement. Without individually-tailored deadlines for achievement of specific water quality standards, the requirements of the permit cannot be enforced and the fundamental purpose cannot be achieved.

3. The permit must include valid and effective adaptive management measures that ensure compliance with water quality standards

The permit does not spell out a valid approach to adaptive management. Adaptive management is not a random trial-and-error process. Rather, programs must be designed at the outset to achieve water quality standards. Then, if monitoring reveals that the expected water quality improvements are not being achieved as expected, or the City is failing to meet interim dates for compliance in the permit or in TMDL Implementation Plans, the City must be required to implement revised programs and plans within a time specified in the permit. Accordingly, MDE should delete the following language in Section III.D of the draft permit:

~~“The City shall modify these programs according to needed program improvements identified as a result of annual evaluations by MDE,”~~

and replace it with the following:

“If monitoring reveals that the expected water quality improvements are not being achieved, or if MDE identifies needed program improvements its annual evaluations, the City must report any inadequate progress to MDE expeditiously, in no event later than the deadline for submitting. The City must expeditiously implement revisions to its relevant programs and plans in order to eliminate the deficiency or lack of progress, as expeditiously as possible an in no event later than three months after the deficiency is discovered.”

Moreover, as discussed further below, the permit must require sufficient representative monitoring to enable the City to measure the performance of its practices and programs, and to determine whether it is in compliance with the permit’s water quality based effluent limits.

III. MDE MUST IMPOSE EXPLICIT ENFORCEABLE REQUIREMENTS AND DEADLINES FOR ACHIEVING TMDL WASTELOAD ALLOCATIONS

A. The Law Requires MDE to Enforce TMDL Wasteload Allocations Through NPDES Permits

NPDES permits are the enforcement mechanism for TMDLs; without enforcement through permits, TMDLs are nothing more than theoretical and ineffective guidance. States must ensure that dischargers achieve pollutant reductions needed to meet TMDL wasteload allocations, through NPDES permit and water quality plans. 33 U.S.C. 1313(d), (e). Accordingly, CWA regulations require that effluent limits in NPDES permits “are consistent with the assumptions and requirements of any available wasteload allocation....” 40 C.F.R. § 122.44(d)(1)(vii)(B) (applicable to Maryland’s ongoing administration of its NPDES program under 40 C.F.R. § 123.25).

TMDLs are founded on the assumption and requirement that point source WLAs will be enforced through NPDES permits. Thus, the permit must require *achievement* of applicable WLAs, not merely an open ended program of “progress” toward meeting WLAs. *See, e.g.* Chesapeake Bay TMDL at 7-1 (stating that for point source WLAs in a TMDL, “the existence of the National Pollutant Discharge Elimination System (NPDES) regulatory program and the issuance of an NPDES permit provide the reasonable assurance that the WLAs in the TMDL *will be achieved.*”) (Emphasis added.)

The Draft Permit starts with a step in the right direction, by requiring the City to submit plans for implementing TMDL WLAs, and by including “a schedule for BMP and programmatic implementation to meet stormwater WLAs.” Draft Permit Part III.E. The Draft Permit also rightly specifies that the City’s plan will be enforceable under the permit. *Id.* § III.E.2.c. However, the permit only recites a “goal” to “show progress toward meeting WLAs.” *Id.* § III.E. The specific provisions also lack clarity as to how MDE will ensure that WLAs are attained. Part III.E must therefore be significantly revised and strengthened to add clarity and to fully comport with minimum legal requirements.

1. The permit needs to require TMDL Implementation Plans and compliance schedules with clear minimum requirements

If MDE intends that the City’s programs and plans will serve as surrogate effluent limits for meeting TMDL WLAs, the final permit must be revised to ensure that such surrogate limits have a clear mandatory link to the underlying WLAs. First, the final permit must require “TMDL implementation plans,” that are designed at the outset to achieve TMDL WLAs, rather than an open-ended “restoration plan.” This is not a matter of mere semantics; the Draft Permit’s requirement of “restoration plans” is ambiguous and creates enforcement uncertainty, by obscuring the mandatory nature of the legal requirement to *achieve* TMDL WLAs. It also creates confusion between the freestanding requirement in § III.E.2.b. of the Draft Permit to “complete the implementation of restoration efforts for twenty percent of the City’s impervious surface

area,” and the separate requirement in § III.E.2.c of the Draft Permit to “submit to MDE a restoration plan for each stormwater WLA approved by EPA.” Accordingly, the heading for § III.E.2. should be changed from “~~Restoration Plans~~” to “TMDL Implementation Plans and Schedules of Compliance.” The two references to plans in § III.E.2.c. should be changed from “~~restoration plans~~” to “TMDL Implementation Plans.”

2. The permit needs to include clear, enforceable effluent limitations for implementing TMDLs

The final permit must incorporate all applicable WLAs for the Baltimore City MS4 by reference, and expressly require attainment of the WLAs and any associated Implementation Plans for such TMDL WLAs. This is the surest, most straightforward way to ensure that the permit’s effluent limits “are consistent with the assumptions and requirements of any available wasteload allocation.” 40 C.F.R. § 122.44(d)(1)(vii)(B). This is also consistent with EPA’s Guidance directing that MS4 permits include numeric effluent limits to ensure that TMDL WLAs will be attained. *See* Hanlon and Keehner 2010 at 4, Exhibit G (“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.”). *See, e.g.*, Washington State Phase I Municipal Stormwater Permit at 11 (2012) (stating that stormwater management plans comprise “[a]ny additional planned actions to *meet* the requirements of applicable TMDLs”) (emphasis added).

Consistent with this, the final permit must also remove all ambiguity as to the City’s obligation to *attain* applicable TMDL WLAs. We suggest the following language in Draft Permit § III.E.:

The ~~goals~~ requirements of Maryland’s NPDES municipal stormwater permit program are to control stormwater pollutant discharges by implementing the BMPs and programs required by this permit, ~~show progress toward meeting to meet~~ WLAs, and ~~contribute to the attainment of~~ to attain water quality standards including designated uses according to the CWA.

In pursuit of these ~~requirements, goals,~~ Baltimore City shall annually provide watershed assessments, ~~restoration~~ TMDL Implementation plans and schedules, opportunities for public participation, and TMDL compliance status.

In addition, requirements for the City’s plan for meeting TMDL WLAs should be revised as follows in Draft Permit § III.E.2.c.i:

Include a detailed schedule with interim and final deadlines for attaining TMDL WLAs, including schedules for implementing all structural and nonstructural water quality projects, enhanced stormwater management programs, and alternative stormwater control initiatives necessary for meeting applicable WLAs.

B. TMDL Implementation Plans Must Be Formally Approved or Disapproved, and Approved Plans Must Be Incorporated Into the Permit as a Formal Permit Modification

TMDL implementation plans and schedules are effluent limits, and as such they must be subject to a formal process for approval or disapproval by MDE within a reasonable time after the City's submission, and formal incorporation into the permit of the final approved plans and schedules.⁷

We recommend that the following language be modified in § III.E.2.c to accomplish this aim:

Upon approval by MDE, these restoration plans will be enforceable under this permit. Submission of each of these restoration plans will constitute written request by the City that the permit be modified to incorporate the plans, consistent with section VI.E. 1. of this Permit. Upon MDE's tentative determination to approve or disapprove the TMDL Implementation Plans and impervious surface restoration plans, MDE will publish a proposed permit modification encompassing the City's proposed plans and schedules. Following public notice and opportunity for comment under Title I, Subtitle 6 of the Environment Code, plans will be approved if they contain all of the elements required in this section. Upon approval by MDE, these restoration plans will be incorporated as enforceable effluent limitations under the modified permit.

In order to justify a finding that the final permit ensures compliance with water quality standards, MDE must include in the administrative record a commitment and explanation as to MDE's intention to approve the City's proposed TMDL Implementation Plans and Schedules within a reasonable time after the City's submission. Further, approval must be based on adequate information that is accessible to MDE and the public. To that end, we recommend adding the following required components of TMDL implementation plans, as new requirements in III.E.1.b.ii. and iii.,

- i. Demonstration using modeling of how each applicable WLA will be attained using the chosen controls, by the date for ultimate attainment;
- ii. An associated narrative providing an explanation for the schedules and controls included in the Plan;

See EPA, Draft Modification #1 to District of Columbia MS4 Permit (July 2012). The requirement for the City to demonstrate and explain how WLAs will be attained is essential. It ensures that MDE and the public will have an adequate basis on which to determine the adequacy of the City's TMDL implementation plans.

Equally necessary to ensure compliance with TMDLs, the final permit must require that TMDL implementation plans include deadlines for final attainment of WLAs, as well as interim deadlines. TMDL compliance schedules must comply with Maryland's regulations set forth at COMAR sec. 26.08.04.02.C.2:

⁷ For reasons discussed below, failure to approve and incorporate TMDL implementation plans through the formal NPDES process violates public participation requirements.

- (2) When a compliance schedule is imposed, the Department shall:
 - (a) Require the permittee to achieve compliance within:
 - (i) Applicable periods established in effluent limitations or water quality standards, or
 - (ii) In the absence of any legally applicable schedule of compliance, the shortest reasonable time consistent with the requirements of the Federal Act and State law or regulation;
 - (b) Set for each compliance schedule that is longer than 9 months, interim dates of 9 months or less for:
 - (i) Compliance with interim requirements, or
 - (ii) Submission of reports of progress toward completion of the interim requirements;

Such deadlines must also be consistent with the Chesapeake Bay TMDLs for nutrients and sediment, and any existing implementation schedules for local TMDLs. *See* Chesapeake Bay TMDLs at ES-6 (“Ultimately, the TMDL is designed to ensure that by 2025 all practices necessary to fully restore the Bay and its tidal waters are in place, with at least 60 percent of the actions taken by 2017.”). *See also* Maryland’s Phase II Watershed Implementation Plan for the Chesapeake Bay TMDL (setting forth an “Interim Target: Achieve 60% of the Best Management Practice (BMP) implementation needed to attain the Final Target load reductions by 2017,” and “Final Target: Achieve full implementation needed for load reductions consistent with meeting the Bay TMDLs by 2025.”).

Finally, the Draft Permit does not define the terms “benchmarks” and “deadlines.” The final permit must include a definition of both “benchmarks” and “deadlines” that is consistent with the above-cited regulations governing compliance schedules. Because schedules for compliance are included in TMDL implementation plans, which will in turn become enforceable effluent limitations under the permit, the final permit should expressly state that “failure to meet benchmarks and deadlines in approved TMDL implementation plans constitutes a violation of the MS4 permit.”

C. MDE’s 2011 Draft Stormwater Guidance Does Not Provide Adequate Standards Defining “Restoration Efforts for Twenty Percent of the City’s Impervious Surface Area.”

As part of the City’s TMDL implementation plan requirements, the Draft Permit requires the City to submit “a restoration plan for each stormwater WLA.” Draft Permit at 8, § III.E.2.c. The Draft Permit requires that these restoration plans provide for “implementation of restoration efforts for twenty percent of the City’s impervious surface area, that is consistent with the methodology described in MDE’s Draft Guidance document “Accounting for Stormwater Wasteload Allocations and Impervious Areas Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits” (MDE, June 2011 or subsequent versions) (hereafter “Draft 2011 Guidance”). Draft Permit at 8. For reasons stated below, the Draft Guidance does not provide adequate minimum standards for restoration of 20 percent of the City’s impervious area.

First, the term “restoration” must be defined in the final permit. As written, neither the Draft Permit nor the Draft Guidance contain a definition of what qualifies as approvable “restoration” activities. This lack of a clear definition is a disservice to the City, which is under pressure to spend significant sums of taxpayer funds to install stormwater controls that are both effective and that meet the requirements of the permit.

We recommend that the final permit encourage the use of Environmental Site Design (“ESD”) where possible to meet the City’s 20 percent restoration requirement and in order to meet water quality standards and TMDL WLAs. Where ESD is not possible, the final permit should encourage the use of effective techniques for removing pollutant loads that originate from impervious surfaces to prevent their discharge from the MS4, including: inlet capture systems for catching gross solids, oils, hydrocarbons prior to discharge from the MS4; vortex stormwater solids separator systems; sub-surface sand filters and other filter systems; trash nets and trash boxes; and sub-surface stormwater detention vaults. The City must show that whichever practices it implements are actually resulting in water quality improvements that meet water quality standards and TMDL WLAs. *See* Sections II and III, *supra*.

As written, the Draft 2011 Guidance does not provide adequate guidance in identifying and prioritizing effective and efficient restoration methods. A host of technical flaws within the 2011 Guidance have been identified and raised with MDE by watershed conservation groups. *See* Hammer *et al.* to Dr. Robert Summers (April 30, 2012), attached as Exhibit O. Among other problems, the Draft 2011 Guidance:

- a. Gives restoration credit for practices based solely on their removal of nitrogen, phosphorus, and/or sediment, while neglecting other pollutants in stormwater such as bacteria, chlordane, chlorides, heat, PAHs, PCBs, lead, zinc, enterococcus, total suspended solids, sulfates, chromium, and debris/floatable/trash;⁸
- b. Does not address practices needed to fix biological and habitat impairments associated with stormwater,⁹ including:
 - i. Lack of a riparian buffer, which has been identified as a major stressor contributing to stormwater runoff affecting biological integrity in the Back River watershed;
 - ii. Stream channelization due to urban development (*i.e.*, human-induced excessive stormwater volume), which has been identified as a major

⁸ Hammer *et al.* at 1; Draft Permit Att. B (listing Baltimore City waters for which TMDLs have been approved); MDE, Integrated Report of Surface Water Quality in Maryland, Final Draft (“2012 Integrated Report”), Part F.7: Category 5 Waters (July 6, 2012) (listing parameters impacting waters in Baltimore City for which no TMDL has been approved).

⁹ *See* 2012 Integrated Report, Part F.6: Category 4c Waters (listing waters biologically impaired by non-pollutants).

stressor affecting biological integrity in the Back River, Gwynns Falls, Patapsco River Lower North Branch, and Jones Falls watersheds;

- c. Overestimates the effectiveness of extended-detention stormwater ponds;¹⁰
- d. Includes vague, undefined terms such as “treatment,” raising the likelihood that impervious area restoration credit will be given for practices that reduce or address only a fraction of the spectrum of problems associated with stormwater;¹¹

Further, the Guidance exempts all developments installed after 2002 from the permit’s requirement to conduct a surface area assessment to determine potential stormwater control needs, on the purported basis that such developments “should not be counted toward impervious surfaces that need to be restored,” and “BMPs from this stormwater program era are deemed state-of-the-art and need to be maintained, but will provide limited opportunity for water quality improvement.” 2011 Guidance at 4. There simply is no technical basis for this assumption, given that practices installed since 2002 are likely to consist of detention and filtering practices that are termed “standard” practices in the Stormwater Management Act of 2007, and are allowed to be used only where “absolutely necessary.” Md. Code. Ann., Envir. § 4-203 (2012).¹²

Lastly, the Draft Permit should emphasize the imperative nature of mapping, inspections, and maintenance of all restoration and stormwater management practices. It is our understanding that the City is woefully behind in its inspection and maintenance of existing stormwater management (or “best management”) practices, and lacks a comprehensive knowledge of the whereabouts of several existing BMPs. Installation of practices and technologies is only the first step. If these practices are to result in any real improvements to water quality, and therefore if the City is to have any chance of actually complying with water quality standards and TMDL WLAs, it is essential that all practices be inspected and maintained regularly. *See* COMAR 26.17.02.11.A. Furthermore, all records, databases, or mapping of existing (and future) best management practices should be made publically available through a mapping website.

IV. ILLICIT DISCHARGE DETECTION AND ELIMINATION

A. MDE Must Revise the Illicit Discharge Detection and Elimination (“IDDE”) Provisions in the Draft Permit to be Enforceable and Consistent with Federal Law

Federal CWA regulations define an illicit discharge as “any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.” 40 C.F.R. § 122.26 (b)(2) (emphasis added). MDE must revise the Draft Permit to be consistent with this definition, to

¹⁰ Hammer *et al.* at 1.

¹¹ *Id.* at 2.

¹² *Id.* at 4.

include the required prohibitions of illicit discharges, and to include more specific, clear and enforceable terms.

1. MDE must distinguish between illicit discharge prohibitions and receiving water limitations in the Draft Permit and revise such provisions to be consistent with federal law

Consistent with the above definition, illicit discharges are those non-stormwater, unpermitted discharges *into* the MS4, and are therefore distinct from discharges *from* the MS4. Accordingly, the CWA requires that “Permits for discharges from municipal storm sewers... shall include a requirement to effectively prohibit non-stormwater discharges *into* the storm sewers.” 33 U.S.C. § 1342(p)(iii)(B)(ii) (emphasis added). This prohibition of upland and other sources illegally discharging into the MS4 is distinct from the prohibition of the City discharging pollutants from the MS4 that cause or contribute to exceedances of water quality standards or TMDL WLAs. *See* 33 U.S.C. 1311(b)(1)(C); *see also* 40 C.F.R. § 122.4(d). The two requirements are obviously intrinsically related since eliminating sources of illicit discharges into the MS4 is necessary to reducing pollutant discharges from the MS4 into receiving waters; however they are fundamentally distinct requirements. Therefore, MDE must revise and clarify the Draft Permit, which currently obfuscates the two requirements and is inconsistent with federal law. *See* Draft Permit §§ III.D.3. and VI.A; *see also* Exhibit N, STAC Comments, 9-10 (September 21, 2012).

Specifically, instead of combining discharge prohibitions (which regulate illicit discharges into the MS4) and receiving water limitations (which regulate discharges from the MS4) into one section of the permit, MDE should divide Draft Permit § VI.A. into two separate sections entitled “Discharge Prohibitions” and “Receiving Water Limitations.” *See* Exhibit M, Los Angeles County MS4 Permit, 23-25 (April 14, 2011).

The “Discharge Prohibitions” section should include a prohibition of illicit discharges *into* the MS4 as well as the exemptions from this prohibition. *See* 33 U.S.C. 1342(p)(iii)(B)(ii). However, MDE cannot exempt NPDES-permitted pollutants that are discharged from or “through” the MS4 from otherwise applicable receiving water limitations. Therefore, MDE must revise the following language in Draft Permit § VI.A. as follows: “Baltimore City shall prohibit non-stormwater discharges ~~through~~ into its municipal separate storm sewer system. NPDES permitted non-stormwater discharges are exempt from this prohibition.”

The “Receiving Water Limitations” section should include the existing Maximum Extent Practicable (“MEP”) requirements in the Draft Permit (Section VI.A., pp. 15-16) as well as a prohibition on discharges from the MS4 which cause or contribute to violations of water quality standards and/or TMDL WLAs. *See* Sections II and III of these comments, *supra*; *see also* Exhibit M, Los Angeles County MS4 Permit, 24-25 (April 14, 2011).

Therefore, regardless of whether discharges of non-stormwater pollutants *into* the MS4 are permitted or unpermitted, the City is legally responsible for ensuring that discharges *from* the MS4 into receiving waters do not cause or contribute to violations of water quality standards and TMDL WLAs. Accordingly, while we support the requirement that non-stormwater discharges into the MS4 be either eliminated or permitted by MDE, non-stormwater pollutants that originate

from a source that is covered by a NPDES permit cannot be made exempt from discharge limits needed to meet water quality standards and TMDL WLAs.

2. MDE must revise the illicit discharge detection and elimination requirements in the Draft Permit to be specific and enforceable

To be effective and enforceable, the final permit's illicit discharge requirements must include clear requirements, including performance or water quality-based minimum standards for the City's illicit discharge detection and elimination program. It is not sufficient merely to require that the City "maintain a program" for detecting illicit discharges; the permit must require that all illicit non-stormwater discharges be eliminated or permitted by MDE. MDE should therefore revise the first paragraph of Draft Permit Section III.D.3. as follows to include enforceable terms and to be consistent with the definition of illicit discharges:

Baltimore City shall implement an illicit discharge inspection and enforcement program. This program shall ~~to~~ ensure that all discharges into and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated.

Similarly, MDE should delete the phrase "~~Maintaining a program to address~~" illicit discharges, dumping, and spills" in Draft Permit § III.D.3.C., and instead add a requirement that the City "Eliminate illegal sewer connections, sewer leaks, illegal discharges, dumping and spills." Also MDE must revise § III.D.3.d. to require the City to not only use procedures, but actually *eliminate* the problem discharges: "~~Using appropriate enforcement procedures for investigating and eliminating~~ Investigate and eliminate illicit discharges, illegal dumping, and spills."

Not only must the final permit expressly prohibit illicit, non-stormwater discharges, but it must also prescribe a detailed, enforceable mechanism for ensuring that such discharges are eliminated. *See* Exhibit M, Los Angeles County MS4 Permit, 59-61 (April 14, 2011) ("Section G: Illicit Connections and Illicit Discharges Elimination Program: Permittees shall eliminate all illicit connections and illicit discharges to the storm drain system, and shall document, track, and report all such cases in accordance with the elements and performance measures specified in the following subsections...").

Lastly, the Draft Permit requires "[f]ield screening at least 150 outfalls annually or conducting an MDE-approved program of monthly chemical screening downstream of all major storm sewer outfalls during dry weather." Draft Permit § III.D.3.a. Instead, MDE must establish the illicit discharge screening requirements within this permitting process (see suggested requirements in Section I.B of these comments, *infra*), and cannot approve alternative compliance requirements outside of the permit process. The Draft Permit also provides that "[w]ithin one year of permit issuance, an alternative program may be submitted for MDE approval that methodically identifies, investigates, and eliminates illegal connections to the City's storm drain system." Draft Permit § III.D.3.a. MDE must either delete this provision or, alternatively, the permit must specify that any alternate program must be approved through a formal permit modification. *See* Section VII.B. of these comments, *infra*.

B. MDE Must Strengthen the Illicit Discharge Detection and Elimination Program Requirements in the Draft Permit

As discussed above, the existing IDDE program has been ineffective at addressing widespread exceedances of water quality standards in the City's receiving waters. *See* Section II.C. of these comments, *supra*, and affidavits cited therein. Notwithstanding the inadequacies of the City's current IDDE program, the Draft Permit does not even require that which is currently being performed by the City. Therefore, MDE must revise the proposed IDDE program requirements in Draft Permit Section III.D.3. to be more stringent and prescriptive than those in the City's current MS4 permit, and should at least require the illicit discharge screening and sampling that is currently being conducted by the City. *See* Exhibit N, STAC comments and attachments thereto (September 21, 2012); *see also* Exhibit J, Paul Sturm Affidavit and attachments thereto; *see also* Exhibit L, David Flores Affidavit and attachments thereto.

Specifically, we hereby incorporate by reference and adopt in full the recommendations for the Draft Permit's outfall screening and other IDDE requirements in Exhibit N, STAC Comments and Exhibit J, Affidavit of Paul Sturm.

C. MDE Must Strengthen the Erosion and Sediment Control Program Requirements in the Draft Permit

Since erosion and sediment control violations are one of the major contributors of illicit discharges into the Baltimore City MS4, MDE must strengthen and expand on the Erosion and Sediment Control ("ESC") requirements in Draft Permit Section III.D.2. MDE should also cross reference the ESC section with the IDDE section to emphasize the direct relation between the two programs.

Likely due, at least in part, to limited resources, the City's existing ESC program is severely lacking. ESC violations, and therefore illicit, sediment-laden runoff discharging into the MS4, run rampant throughout the City. *See* Exhibit L, Affidavit of David Flores. Several of these violations occur at the City's own construction projects, by contractors paid with taxpayer dollars. *See id.* In the Draft Permit Section III.D.2., MDE should therefore prohibit the City from accepting bids from construction contractors who continually violate ESC laws. This will not only encourage ESC compliance by third-party contractors, but will also ensure the appropriate use of taxpayer dollars. If the City's local code currently prevents it from imposing this requirement on its bid process, MDE should require the City to revise its code accordingly.

MDE must emphasize the mandatory nature of ESC requirements by removing the ambiguous and subjective word "acceptable" from the first sentence of Draft Permit Section III.D.2. as follows: "An ~~acceptable~~ erosion and sediment control program shall be maintained in accordance with the Environment Article, Title 4, Subtitle I, Annotated Code of Maryland."

Furthermore, the City is currently not meeting its ESC inspection and enforcement requirements for construction sites. *See* Exhibit L, Affidavit of David Flores. Maryland regulations require the City to inspect every construction site an average of once every two weeks for compliance with its ESC plan, and among other things, the regulations specify the timelines in which the City must respond to citizen complaints related to construction site violations. COMAR 26.17.01.09. Therefore, in addition to generally referencing the Maryland

Code (Environment Article, Title 4, Subtitle I) in Draft Permit Section III.D.2., MDE should specifically reference the inspection and enforcement regulations to emphasize their mandatory nature, and their imperative role in eliminating illicit discharges into the MS4.

V. MDE MUST EXPAND REQUIREMENTS FOR SOURCE IDENTIFICATION AND MONITORING IN THE PERMIT

A. MDE Must Strengthen Source Identification Requirements in the Permit to Ensure That the City Obtains Accurate Baseline Information

It is vital to the City’s overall success under its stormwater program that there be a process of systematically identifying stormwater sources within the MS4 and linking them to water quality impacts, then using that data to develop effective stormwater control plans. Accordingly, MDE must revise the Source Identification section of the Draft Permit to make this language more effective. In particular, the first two sentences of Part III.C must be contained in a separate paragraph, and the final permit must expressly state that the requirement that “[s]ources of pollutants in stormwater runoff shall be identified and linked to specific water quality impacts on a watershed basis,” and that this process “shall be used to develop watershed restoration plans that effectively improve water quality” apply *in addition to* the requirements to submit specific data on stormwater infrastructure and projects, listed in III.C.1-5.

Past annual reports demonstrate that, as written, Part III.C. is not fully effective. Nothing in the City’s recent annual reports indicate that the City has even attempted to effectuate the critical first two sentences of this permit provision. Rather than adopting the language in the same ineffective form as the existing permit, this provision must be modified to ensure that its critical aim is accomplished.

Part III.C. requires that the City map and report only “major” outfalls, which we understand to be defined as outfalls 36” or larger. This requirement must be expanded to include mapping and reporting of any and all known minor outfalls, which have been shown to carry significant volumes of stormwater flow and associated pollutants. *See* Exhibit N, STAC Comments, 5, Section I.D., and 7, Section II.B.; *see also* Exhibit J, Affidavit of Paul Sturm, 3-5.

Also with regards to the reporting requirements located in Part IV and referenced in Section III.C of the Draft Permit, MDE should require that the City publish its annual reports as well as all attachments thereto on a website for public access. Also, since there is usually an extended delay between the collection of data and the publication of the annual reports, any raw data collected by the City pursuant to the MS4 permit should be made available to the public upon request, as it is generated. The permit should also reference the fact that all documentation and data related to compliance with its terms must be provided to the public upon request in a timely manner in compliance with the Maryland Public Information Act.

B. MDE Must Require Representative Monitoring to Demonstrate Compliance With Water Quality-Based Limitations

One of the cornerstones of successful NPDES permitting programs is the requirement of monitoring and reporting by the permittee to demonstrate compliance with NPDES permit

limitations. Permits must require representative monitoring that produces adequate data to inform adaptive management decisions. The final permit must therefore be revised to require a robust, representative monitoring program that will allow MDE and the public to determine whether implementation of the City's programs and plans (designed at the outset to achieve water quality standards and TMDL WLAs) are in fact achieving the expected water quality improvements.

CWA regulations require MS4s to implement a "monitoring program for representative data collection for the term of the permit." 40 C.F.R. § 122.26(d)(2)(iii)(D). Those regulations further require MS4 permittees to sample and assess discharges into the MS4 from landfills, industrial facilities and hazardous waste sites. 40 C.F.R. § 122.26(d)(2)(iv)(C). "State-issued NPDES permits must mandate, *inter alia*, compliance with the inspection, reporting, and monitoring requirements of the Act as outlined in 33 U.S.C. § 1318. *See* 33 U.S.C. § 1342(b)(2)." *Menzel v. County Utilities Corp.*, 712 F.2d 91, 94 (4th Cir. 1983). MDE must therefore revise the final permit to strengthen and expand the required monitoring program.

Monitoring requirements under the existing permit, like those in the Draft Permit, are inadequate to achieve their critical purpose. For watershed restoration assessment, the Draft Permit requires continued monitoring of **just one location** – Moores Run – using chemical, physical, and biological monitoring techniques at just one outfall and associated in-stream station.¹³ For stormwater management assessment, the Draft Permit requires monitoring using only geomorphic measures in **just one watershed** – the Stony Run watershed – with no particular location or minimum number of stream channel profiles specified in the permit. No water quality monitoring is required for the purpose of assessing discharges from specific landfills, industrial facilities, hazardous waste sites, or other major contributors of pollutant loads discharged into the MS4 system.

The permit's monitoring requirements are also inadequate to assess progress toward, and attainment of, water quality standards and TMDL WLAs. At the most basic level, the permit must at a minimum require representative monitoring for all pollutants that are currently contributing to impairments in receiving waters, including in particular chlordane which is the subject of an MS4 TMDL WLA (*see* Draft Permit Att. B) yet is not among the parameters required in § III.F.1.a.iii. or elsewhere in the Draft Permit. The permit must also require monitoring for parameters contributing to impairments where no TMDL has yet been submitted or approved, including chlorides, PCBs, sulfates, chromium, and debris/floatable/trash.¹⁴ *See* Exhibit N, STAC Comments, 4-5, Section I.C.

The limited geographic scope of the monitoring required in the Draft Permit will not enable the City, MDE, or members of the public to determine whether discharges of stormwater pollutants have been reduced as needed to achieve water quality standards and TMDL WLAs. In fact, *no watershed assessment or stormwater management monitoring* is required in some watersheds, including Direct Harbor or Gwynns Falls watersheds. The extremely limited monitoring required in the Draft Permit is wholly insufficient to allow a serious evaluation of

¹³ For reasons discussed below, we object to permit provisions that allow the City to choose different monitoring methods or locations outside of the public permit renewal process.

¹⁴2012 Integrated Report Part F.7: Category 5 Waters.

ongoing water quality conditions, the effectiveness of the City’s efforts to date, or the impacts of stormwater and effectiveness of stormwater controls in all of the City’s watersheds. *See* Exhibit N, STAC Comments, Section I.

The final permit must require representative monitoring in each of the City’s watersheds, including monitoring to sample and assess the effectiveness of all watershed restoration and stormwater management practices, as well as discharges into the MS4 from landfills, industrial facilities and hazardous waste sites.¹⁵

VI. THE PERMIT MUST IMPOSE CONTROLS TO REDUCE STORMWATER DISCHARGES TO THE MAXIMUM EXTENT PRACTICABLE

The CWA requires that “[p]ermits for discharges from municipal storm sewers... shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.” 33 U.S.C. § 1313(p)(3)(B).

The Draft Permit indicates that MDE intends to rely solely on the 2011 Guidance as a means of imposing MEP controls. *See* Draft Permit §§ III.E., III.E.2.a. and b. However, for the technical reasons discussed above, the 2011 Guidance does not meet the CWA’s “maximum extent practicable” (“MEP”) requirement. Numerous technical flaws in the Guidance will allow “restoration” credit to be given for practices that *demonstrably do not* control pollutants to the maximum extent practicable. By incorporating the flawed Guidance, the permit actually ensures that Baltimore City will fail to reduce pollutants to the MEP. Setting aside the Guidance, nothing in the Draft Permit or accompanying fact sheet demonstrates that the permit meets the CWA’s MEP standard.

VII. THE PERMIT MUST NOT SUBVERT THE PUBLIC’S RIGHT TO COMMENT ON AND CHALLENGE EFFLUENT LIMITS

A. Effluent Limits Must Be Contained in Permits and Subject to All Rights of Citizen Participation

The terms of all the management plans and programs required under this permit must be incorporated as enforceable permit terms. The CWA requires that all point source effluent limitations be contained within an NPDES permit. “[S]ection 301 of the Act mandates that every permit contain (1) effluent limitations that reflect the pollution reduction achievable by using

¹⁵ If MDE intends to allow Baltimore City to develop its own adequate monitoring program, the final permit must specify that the proposed monitoring program be submitted to MDE by a specified time, and that approval and incorporation of the expanded monitoring program will be effectuated through a formal permit modification.

technologically practicable controls, *see* 33 U.S.C. § 1311(b)(1)(A), and (2) any more stringent pollutant release limitations necessary for the waterway receiving the pollutant to meet ‘water quality standards.’ 33 U.S.C. § 1311(b)(1)(C).” *American Paper Inst. v. EPA*, 996 F.2d 346, 349 (D.C. Cir. 1993). The CWA’s minimum requirements for state issuance of NPDES permits further confirm that the states are expected to issue NPDES permits that “apply, and insure compliance with, any applicable requirements” of sections 301, 302, 306, 307, and 403. 33 U.S.C. § 1342(b)(1)(A).

In the context of an analogous regulatory program, the Court of Appeals for the Second Circuit held that Concentrated Animal Feeding Operation (“CAFO”) nutrient management plans must be incorporated into a facility’s NPDES CAFO permit.

There is no doubt that under the CAFO Rule, the only restrictions actually imposed on land application discharges are those restrictions imposed by the various terms of the nutrient management plan, including the waste application *rates* developed by the Large CAFOs pursuant to their nutrient management plans. Indeed, the requirement to develop a nutrient management plan constitutes a restriction on land application discharges only to the extent that the nutrient management plan actually imposes restrictions on land application discharges. To accept the EPA’s contrary argument - that *requiring* a nutrient management plan is itself a restriction on land application discharges - is to allow semantics to torture logic.

Waterkeeper Alliance v. EPA, 399 F.3d 486, 502 (2d Cir. 2005) (emphasis in original). Like CAFO nutrient management plans, TMDL implementation plans (or “restoration plans”) developed under a MS4 permit contain enforceable restrictions on the discharges of stormwater pollutants from the City’s MS4. Because the terms of those plans, like CAFO nutrient management plans, embody effluent limitations restricting point source discharges, they must be incorporated into the Permit. *Id.*

As noted in section III.B. above, all plans required by the MS4 permit – including management programs, TMDL implementation plans, and restoration plans for 20 percent of the City’s impervious area – constitute effluent limitations that are binding on the City and, as such, must be incorporated into the permit through a formal (*i.e.* major) permit modification with full public process, in accordance with 40 C.F.R. § 122.62 (applicable to Maryland’s NPDES program under *id.* § 123.25).¹⁶ All such plans and programs will contain requirements for reducing the discharge of stormwater flow and pollutants into and from the MS4 to the maximum extent practicable (MEP). *See* Draft Permit § III.E. Further, TMDL implementation plans contain restrictions on “quantities, rates, and concentrations of chemical, physical,

¹⁶ This is consistent with state law which provides that “[a] final determination by the Department on the issuance, denial, renewal, or revision of any permit listed under subsection (a) of this section is subject to judicial review....” Md. Code. Ann., Envir. § 1-601(c) (emphasis added).

biological, and other constituents which are discharged from point sources...” 33 U.S.C. § 1362(11). Because the controls, schedules, and deadlines in TMDL implementation plans are intended to achieve TMDL WLAs and reduce discharges of stormwater and stormwater pollutants to the MEP, TMDL implementation plans function as effluent limitations.

B. Terms in the Final Permit Cannot Be Altered Outside of the Permit Renewal Process or a Subsequent Permit Modification Process

It should go without saying that the same permit terms that are subject to public notice and comment cannot be altered significantly by the City or MDE outside of the public permit renewal process. Yet the Draft Permit purports to allow up-front for alteration of the terms of the permit outside of the formal permit renewal and modification process. All such provisions must be corrected as discussed in detail below. Similarly, the final permit must either delete references to “alternate” or “alternative” measures throughout the permit or, alternatively, must specify that any modification to the City’s programs must be approved through a formal permit modification.

1. Monitoring

The Draft Permit provides that the City “shall continue monitoring the Moores Run, or, select and submit for MDE’s approval a new watershed restoration project for monitoring.” Draft Permit at 10. It also provides that “[t]he City shall monitor the Stony Run Watershed, or select and submit for MDE’s approval an alternative watershed for determining the effectiveness of stormwater management and stream restoration practices for stream channel protection.” *Id.* at 11. The final permit must either delete the provisions allowing alternative monitoring locations, or must specify that any such change in the permit’s monitoring requirements will be approved through a formal permit modification.

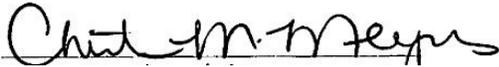
2. Property Management and Maintenance

The City is required to implement a “program to reduce pollutants associated with maintenance activities at City-owned facilities including parks, roadways, and parking lots. The Draft Permit provides that the program shall include certain specified activities “or MDE-approved alternate activities.” The Draft Permit further provides that “within one year of permit issuance, an alternative maintenance program may be submitted for MDE approval indicating the activities to be undertaken and associated pollutant reductions.” These references to alternate activities and alternative programs must either be deleted or, alternatively, the permit must specify that any alternate program must be approved through a formal permit modification with full public process, in accordance with 40 C.F.R. § 122.62 and Md. Code. Ann., Envir. § 1-601 *et seq.*

Conclusion

For the reasons stated above and supported by the attached supporting documents and affidavits, we urge MDE to significantly revise the Draft Permit prior to final issuance. We encourage you to contact us with any questions and would welcome the opportunity to discuss these comments at MDE's request.

Sincerely,



Christine M. Meyers, Esq.
Baltimore Harbor WATERKEEPER
Blue Water Baltimore, Inc.
3545 Belair Road
Baltimore, Maryland 21213
(p) 410.254.1577 ext. 112
(f) 443.872.8574
tmeyers@bluewaterbaltimore.org
On behalf of Blue Water Baltimore, Inc.



Jennifer C. Chavez, Esq.
Attorney
Earthjustice
1625 Massachusetts Av. NW, Suite 702
Washington, DC 20036
(p) 202.745.5208
(f) 202.667.2356
jchavez@earthjustice.org
On behalf of Blue Water Baltimore, Inc.

Copies via email only to:

Dr. Robert M. Summers, Md. Secretary of the Environment (bsummers@mde.state.md.us)
Jay Sakai, Director, MDE Water Management Administration (jsakai@mde.state.md.us)
Jeff Corbin, Senior Advisor on Chesapeake Bay Program, U.S. EPA (corbin.jeffrey@epa.gov)