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HARFORD COUNTY GOVERNMENT

DEPARTMENT OF PUBLIC WORKS OFFICE OF THE DIRECTOR

September 25, 2014

By Electronic & Hand Delivered

Mr. Ray Bahr
Maryland Department of the Environment
Sediment, Stormwater and Dam Safety Program
1800 Washington Boulevard
Baltimore, Maryland 21230

Re: Harford County Comments and MEP Analysis: Tentative Determination to Reissue Harford County's MS4 Permit

Dear Mr. Bahr:

On behalf of Harford County, Maryland ("County"), I am submitting the enclosed comments on the Tentative Determination to reissue Harford County's MS4 Permit ("Draft Permit") and Maximum Extent Practicable ("MEP") analysis for your consideration.

The County has a long history of working collectively and respectfully with your Department and wishes to continue that relationship as we move forward to finalize our Draft Permit. We strongly support the goal of improving water quality within the Chesapeake Bay and our local waterways, but we must take into consideration the ability of the County and our citizens to pay for such a large undertaking. Not only are we concerned about the implementation costs, we are also concerned that some of the implementation schedules are impractical within a five-year timeframe.

Our planning level estimate to fully implement the Draft Permit is \$125 million over the five-year permit term. To fund this program through the Watershed Restoration fee, it would cost residential property owners approximately \$260 annually. This is a fee that we are unwilling to charge our residents as we all still continue to recover from the 2007 - 2009 recession.

Preserving Harford's past; promoting Harford's future

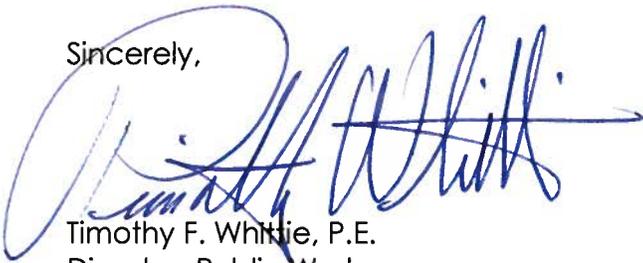
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Harford County MS4 Tentative Determination
September 25, 2014
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The County respectfully asks that the Department carefully consider the comments we are submitting and update our Draft Permit to more closely align with our MEP. Harford County wishes to move forward with program improvements that we are financially capable of implementing.

Please feel free to call me if you have any questions or would like to arrange a meeting to discuss the County's position in more detail. Thank you for your consideration.

Sincerely,



Timothy F. Whittie, P.E.
Director, Public Works

Copy (By Electronic Mail) to:

Mr. Brian Clevenger, MDE
Ms. Maria Warburton, MDE
Mr. William Boniface, Harford County Council
Mr. David Craig, Harford County Executive
Mr. Robert McCord, Harford County Attorney
Ms. Kathryn Hewitt, Harford County Treasurer
Ms. Kimberly Spence, Chief, Budget & Management Research
Harford County (Hartka, Kearby, Myers, Rist, Buckley)

Harford County Department of Public Works

Harford County MS4 Tentative Determination Comments

September 25, 2014

This report has been prepared by the Harford County Department of Public Works in response to Maryland Department of the Environment's Tentative Determination (June 2014) to issue a National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System Permit (MS4) to Harford County.

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Harford County MS4 Tentative Determination
Comments

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Appendix F – Harford County Maximum Extent Practicable Analysis

Appendix G – 2010 Urban Areas Map for Harford County - Maryland Department of Planning

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Appendix I – Baltimore City Circuit Court – Environmental Integrity Project, et al. v. Maryland Department of the Environment; Answering Memorandum Maryland Department of the Environment

**HARFORD COUNTY COMMENTS
DRAFT MS4 PERMIT
September 25, 2014**

I. INTRODUCTION

Harford County (County) provides the following comments on the Maryland Department of the Environment's (MDE's or Department's) Tentative Determination to issue a National Pollutant Discharge Elimination System (NPDES) permit (Draft Permit) for discharges from our municipal separate storm sewer system (MS4).

We appreciate the Department's careful review of these comments and attached appendices. As noted in the attached cover letter, it is critical that MDE revise the Draft Permit so that the County can move forward and make improvements to our program and to water quality in our community in a way that is practicable and fiscally responsible.

II. STRENGTH OF COUNTY'S ENVIRONMENTAL PROGRAM

The County is proud of our environmental record and our strong commitment to Chesapeake Bay clean-up.

Wastewater

The County owns two wastewater treatment plants, Sod Run WWTP, with a design capacity of 20 MGD, and Joppatowne WWTP, with a design capacity of 0.95 MGD. The County is in the process of upgrading both plants to enhanced nutrient removal, or ENR, treatment levels. Upgrades at Sod Run WWTP will be completed by March 2015; upgrades at Joppatowne will be completed by the end of 2014. ENR upgrades will reduce nitrogen effluent concentrations from approximately 9.2 mg/l (FY07-FY11) to 3.0 mg/l and phosphorus from approximately 0.75 mg/l to 0.3 mg/l.

As reported in the County's Phase II Watershed Implementation Plan (submitted July 2, 2012), upgrades will result in significant reductions in nutrient loadings:

Nitrogen Loading from WWTP (in lbs/yr)

Loading	Sod Run	Joppatowne
NPDES Limit- Current	487,056	23,135
NPDES Limit - Future	243,645	11,573
2010 Loading	374,865	12,614
2025 Loading (projected)	205,523	10,959

Phosphorus Loading from WWTP (in lbs/yr)

Loading	Sod Run	Joppatowne
NPDES Limit - Current	60,882	8,676
NPDES Limit - Future	18,250	876
2010 Loading	25,029	1,665
2025 Loading (projected)	15,414	822

The Harford County Health Department has also taken a proactive approach to septics. Best available technology (BAT) has been a standard of operations, and the Health Department has successfully installed denitrifying septic systems using the Bay Restoration Fund. Forty (40) BAT units have been installed in the Critical Area in the County and 117 units have been upgraded outside of the Critical Area. In addition, the Health Department has worked to put existing large systems under Groundwater Discharge Permits which require increased nitrogen reductions.

Smart Growth

Harford County has a long history of smart growth since the establishment of a Development Envelope, established to focus development in a defined area served by public water and sewer, in the 1977 Master Plan and Land Use Element Plan. Since that time approximately 70% of the growth in the County has occurred within this envelope.

Resource Protection, Land Preservation, and Agricultural BMPs

The County also has robust resource protection programs within the County including the Forest Conservation Program; floodplain regulations; the Chesapeake Bay Critical Area Program, and the Natural Resources District (established in 1983), which requires a 75-foot buffer to nontidal wetlands and either a 75 or 150 foot buffer on streams at the time of subdivision and site plans.

We have a very active land preservation program, with close to 48,000 acres preserved through various easement programs, such as Rural Legacy, and State and local agricultural land preservation programs.

Lastly, the Harford Soil Conservation District has had much success in the implementation of BMPs on agricultural land in the County. All of the BMPs are tracked through Conservation Tracker through the Maryland Department of Agriculture.

Stormwater

Since MDE issued our first MS4 permit in 1994, the County has done a great deal of work to improve water quality in our community and in the Chesapeake Bay. Over the last two decades, we have made many water quality improvements that directly benefit the environment. The County regularly posts information about our program which can be found on our website. We recommend that MDE reference the information found at the following URL during this permit reissuance proceeding:

<http://www.harfordcountymd.gov/dpw/engineering/WaterResources/>

In addition to making structural and non-structural improvements, in 2013, the Harford County Council adopted Bill 13-12, which established a watershed restoration fee billed to all residential and non-residential properties. For residential properties, the flat rate fee is \$125. For non-residential properties, including commercials, apartments, industrial facilities, mobile home parks, maritime facilities, fraternal organizations, religious institutions, and health care facilities, the fee is \$7.00 per impervious unit (which is defined as 500 square feet). As the fee was designed, the collection of the residential fee would raise approximately \$9.0 Million per year, used primarily to pay for capital projects. Collection of the non-residential fee would raise approximately \$1.5 Million per year, used primarily to pay operating costs. The County is charging 10% of the total amount at this time. A copy of the enabling legislation, along with related information regarding our fund and fee, is attached as Appendix A.

As explained in more detail below, just to comply with the restoration requirement in the Draft Permit, the County estimates it would need to collect approximately \$22 Million per year. This is in addition to an additional \$3 Million per year to comply with the remaining permit terms. This is more than ten times (10X) current funding levels, which has averaged approximately \$2 Million per year over the past five years. To raise \$25 Million per year, the County would need to set the residential fees to approximately \$260 per year. This would make Harford County the second (2nd) most expensive stormwater utility in the United States, behind only Seattle, Washington. Obviously, the cost of MDE's Draft Permit is a key reason the County is filing these comments.

III. EXTENT OF NEW REQUIREMENTS AND REISSUANCE PROCESS

The County can accept the Draft Permit if MDE (1) agrees to incorporate the proposed revisions set forth in these comments and (2) refuses to alter the terms of the Draft Permit after the public comment period without our concurrence.

In the Draft Permit, MDE has proposed a significant ramping up of the County's current requirements. As the County explains in its attached MEP Analysis (described in greater detail below), a number of these tasks are not achievable because of cost, because inadequate time is provided to complete the task, or because they are impossible to accomplish even setting aside cost and scheduling realities.

With regard to cost, there is a ceiling for how much we can increase the fee, based upon the average fee charged by other communities and the amount of increase our citizens can bear without having to prioritize the fee against other life necessities (food, prescription medicines, etc.). Although the County wants to make environmental improvements, we cannot do so at the expense of our residents (particularly those who are living paycheck-to-paycheck or on fixed incomes).

With regard to timing, the County's staff is willing to increase the pace of implementation of our program. However, we cannot control every aspect of our efforts. For example, if we are required to obtain a permit for BMP construction from the Army Corps of Engineers, we must wait until the ACOE reviews the information we have submitted and sends the appropriate paperwork to allow us to begin work.¹

Likewise, the Draft Permit includes provisions that are not achievable even with an unlimited budget and schedule. For example, the Draft Permit sets a goal of "elimination" of litter and floatables in our MS4. It is simply not possible to keep third-parties from tossing litter into our catch basins under any reasonable scenario.

Because we are facing such a large expansion in the scope of the permit and because of the level of costs involved, the County has determined that the Draft Permit is not achievable as written. Further, the County attended public meetings for several of the other MS4s who have recently gone through a permit reissuance,² and heard third parties argue for even more stringent permit requirements. The County would find any such recommendations regarding our permit to be unacceptable, and hopes that the Department would reject these requests out-of-hand.³

For these reasons, the County submits that MDE should not add any requirements to the Draft Permit. The County specifically reserves the right to challenge any or all requirements of the final permit if they exceed MDE's statutory authority, are not required by law, or conflict with state or federal law or applicable regulations.

¹ In its *Evaluation of Maryland's 2012-2014 and 2014-2015 Milestones*, issued June 26, 2014, EPA acknowledged that delays in permitting are a significant issue for stream restoration projects in particular. EPA has stated that it is: "... working with" the Army Corps of Engineers, Baltimore District, "to improve the efficiency of the permitting process for stream restoration..."

² The County has submitted comments in every Phase I MS4 permit reissuance since 2012. In addition to a number of substantive concerns, we have repeatedly opposed MDE's issuance of Phase I permits based upon a permit "template" that fails to consider individual community goals and capabilities. A copy of each set of comments is attached as Appendix B hereto.

³ For example, the County is aware that environmental groups may want even more expansive monitoring requirements in the final permit. The County objects to expanding what is already a very robust monitoring program at great additional cost and for no additional benefit. The County supports the monitoring requirements in the permit as-is and believes they are consistent with MEP.

IV. MAXIMUM EXTENT PRACTICABLE (MEP) COMPLIANCE STANDARD

A. *MEP is The Legal Compliance Standard for MS4s*⁴

The County supports the MEP references in Parts III, IV.D, IV.E, and VII of the Draft Permit; to the extent they reflect the MEP legal compliance standard.⁵

The County submits that there is no legal requirement that an MS4 permit include *any* references to water quality standards (WQS) or Total Maximum Daily Load (TMDL) wasteload allocations (WLAs). However, we support the language in Part III that equates implementation of Parts IV through VII of the permit with adequate progress towards WQS compliance as a reasonable compromise that has been used elsewhere in Region III (for example, in the 2012 MS4 permit issued to the District of Columbia).⁶

Clean Water Act (CWA) Section 402(p)(3)(B)(iii)⁷ establishes MEP as the legal compliance standard for MS4 permits, and requires that they “include 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 State determines appropriate for the control of such pollutants” (emphasis added). MS4 permits should not include any reference to strict compliance with WQS or TMDL WLAs (which are water quality standards in a different form) unless they are qualified with appropriate MEP language.

In 1987, Congress deliberately amended the CWA to change the standard for municipal stormwater dischargers to one focused on “practicability.” Before the 1987 amendments to the CWA, municipal and industrial stormwater dischargers were both subject to strict compliance with water quality standards. In amending the statute in 1987, “Congress retained the existing, stricter controls

⁴ The County objects to any permit requirement that is beyond that which is practicable for the County and concurs with and adopts as its own the general position of the Maryland Association of Counties (“MACo”) and the Maryland Municipal Stormwater Association (“MAMSA”) as set forth in their amicus brief attached as Appendix C hereto.

⁵ For consistency, the County suggests that the text at Part VII.A (Discharge Prohibitions and Receiving Water Limitations) include a cross-reference to Part III. Without a cross reference, it is unclear what the relationship is between Part III and Part VII.A. Part VII.a could be read as inappropriately requiring additional steps be taken to address water quality. In the alternative, MDE could delete the second paragraph of Part IV.A.

⁶ MDE has included this language in the Phase I permit reissuances for the City of Baltimore, Baltimore County, Prince George’s County, and Anne Arundel County. The County does have one minor suggestion. The second half of Part II could be better linked to the first half to clarify the intention of the section. More specifically, the text that begins with “Compliance with all conditions...” could cross reference the first paragraph: “Compliance with all conditions...toward compliance with Maryland’s receiving water quality standards and any EPA approved stormwater WLAs for this permit term. Maryland’s water quality standards and WLAs are referenced in subparagraph (1) and (2) above.

⁷ 33 U.S.C. § 1342(p)(3)(B)(iii).

for industrial storm water dischargers⁸ but prescribed new controls for municipal storm water discharge,” i.e., the less-stringent “maximum extent practicable standard.”⁹

Several courts have affirmed the applicability of the MEP standard to MS4 permits and the lack of any legal mandate to require strict compliance with water quality standards or TMDL wasteload allocations (which are based on water quality standards).

For example, in *Defenders of Wildlife v. Browner*,¹⁰ several environmental groups objected to MS4 permits issued to five Arizona municipalities, arguing that they must contain limitations ensuring strict compliance with water quality standards pursuant to CWA §301(b)(1)(C). The Court disagreed, holding that CWA § 402(p)(3)(B), the structure of the CWA as a whole, and precedent “all demonstrate that Congress did not require municipal storm-sewer discharges to comply strictly” with water quality standards.¹¹ In rejecting the petitioners’ argument that the statute was ambiguous, the Court reasoned that “Congress’ choice to require industrial storm-water discharges to comply with [CWA §301], but not to include the same requirement for municipal discharges, must be given effect.”¹² The Court concluded that §402(p)(3)(B) “replaces” the requirements of §301(b) with the maximum extent practicable standard for MS4 discharges, and that it creates a “lesser standard” than §301(b) imposes on other types of discharges.¹³ If §301(b) continued to apply to MS4 discharges, the Court reasoned, the “more stringent” requirements of that section would always control.¹⁴ The §402(p)(3)(B)(iii) “maximum extent practicable” standard is a “lesser standard” than that of §301(b)(1)(C), because §301(b)(1)(C) requires water quality standards, when applicable, to be met “without regard to the limits of practicability.”¹⁵

State law does not change the federal MEP compliance standard. The Department issues discharge permits pursuant to the Environment Article, Section 9-324: “Subject to the provisions of this section, the Department may issue a discharge permit if the Department finds that the discharge meets: (1) All *applicable* State and federal water quality standards and effluent limitations; and (2) All other requirements of this subtitle.” (emphasis added). Further, COMAR 26.08.04.02(A) states that the Department “shall issue or reissue a discharge permit upon a determination that: (1) The discharge or proposed discharge specified in the application is or will be in compliance with all

⁸ Unlike MS4 discharges, industrial discharges must “meet all applicable provisions of . . . section 1311,” including the requirement that permits for these discharges achieve water quality standards compliance. 33 U.S.C. §§ 1311(b)(1)(C), 1342(p)(3)(A).

⁹ *Defenders of Wildlife*, 191 F.3d at 1165 (quoting *Natural Resources Defense Council, Inc. v. EPA*, 966 F.2d 1292, 1308 (9th Cir. 1992)).

¹⁰ 191 F.3d 1159 (9th Cir. 1999).

¹¹ *Defenders*, 191 F.3d at 1166.

¹² *Id.*

¹³ *Id.* at 1165.

¹⁴ *Id.* at 1166.

¹⁵ *Id.* at 1163. See also *NRDC v. EPA*, 966 F.2d 1292 (9th Cir. 1992); *Tualatin Riverkeepers v. Oregon Department of Environmental Quality*, 230 P.3d 559, 564 n.10 (2010); *Conservation Law Foundation, Inc. v. Boston Water and Sewer Commission*, No. 10-10250-RGS, 2010 WL 5349854, at *5 (D. Mass. Dec. 21, 2010); *NRDC v. N.Y. State Dep’t of Env’tl Conserv.*, 111 A.D.3d 737, 748 (N.Y. App. Div. Nov. 13, 2013); *Mississippi River Revival, Inc. v. City of St. Paul*, No. CIV. 01-1887 DSDSRN, 2002 WL 31767798, at *6 (D. Minn. Dec. 2, 2002) (later in *Minn. Ctr. For Env’tl Advocacy v. Minn. Pollution Ctrl. Agency*, 66 N.W.2d 427 (Minn. Ct. App 2003), a Minnesota state court reached the same result); *City of Abilene v. EPA*, 325 F.3d 657, 659-60 (5th Cir. 2003).

applicable requirements of: (a) Effluent limitations, (b) Surface and ground water quality standards, (c) The Federal Act, (d) State law or regulations, and (e) Best available technology and (f) Federal effluent guidelines;” (emphasis added). As explained above, federal law does not mandate that MS4s comply with WQS. Therefore, State or federal WQS are not *applicable* to MS4 discharge permits.¹⁶

B. MEP is Consistent with the Realities of Managing Urban Stormwater

Congress’ 1987 decision to adopt MEP for MS4 permits appropriately recognized the different abilities of a traditional point source (wastewater treatment plants, manufacturing facilities) versus an MS4 to treat pollutants before they are discharged from the system.

MS4s manage precipitation, which fluctuates on an hourly, daily, monthly, and yearly basis and on a waterbody-to-waterbody basis. Additionally, many MS4s have hundreds of outfalls associated with the system. The MEP compliance standard acknowledges these inherent challenges relating to “[t]he magnitude and duration of rainfall events, the time period between events, soil conditions, the fraction of land that is impervious to rainfall, land use activities, the presence of illicit connections, and the ratio of the storm water discharge to receiving water flow.”¹⁷ EPA structured its stormwater rules to focus on installing best management practices (BMPs) to the MEP, with BMPs used in lieu of numeric effluent limitations because compliance with end-of pipe numeric limits is infeasible.

C. MDE Agrees that Strict WQS Compliance is Not Required in an MS4 Permit

MDE agrees that MEP is the correct compliance standard for an MS4 permit. In its Maryland Rule 7-207 Memorandum (p. 14)¹⁸ in the litigation regarding Montgomery County’s MS4 permit, MDE argued to the Montgomery County Circuit Court that MS4 permits should not include numeric limits because: “In the case of municipal stormwater...the permit is required to impose controls to reduce pollutants to the MEP.”

MDE also argued in this litigation that any state law references referencing compliance with WQS do not apply for the same reasons we have discussed above.

MDE continued to support MEP as the MS4 compliance standard in its appeal to the Court of Special Appeals regarding the Montgomery County Circuit Court decision. MDE stated that:

¹⁶ Any state regulatory reference to permits achieving water quality standards are simply boilerplate copied from the general national regulation, 40 C.F.R. Part 122, which pre-dates the MS4-specific 1987 CWA amendments. Thus, these provisions simply are not *applicable* to MS4s. In addition, to the extent arguments are made by others that strict compliance with WQS can be included at the permit-issuing authority’s discretion based upon a review of *Defenders of Wildlife*, the County submits that the language often quoted to support this faulty proposition is purely *dicta* and is not a holding of the Ninth Circuit. The phrase in the CWA “and other such provisions” modifies “maximum extent practicable”; it is not a stand-alone phrase that authorizes requirements beyond MEP.

¹⁷ 55 Fed. Reg. 47990, 48038 (Nov. 16, 1990).

¹⁸ Excerpts of this document are provided in Appendix D.

This issue of whether municipal stormwater must meet water quality standards was laid to rest 27 years ago. When the Clean Water Act was amended in 1987, it replaced the water quality standard with the maximum-extent-practicable standard, and replaced numeric effluent limitations with “management practices,” “control techniques,” “system, design and engineering methods,” and other provisions that the State “determines appropriate.” [citation omitted] Federal courts have repeatedly held that the Clean Water Act does not require municipal separate storm sewerage system discharges to comply with water quality standards. [citations omitted]¹⁹

MEP is the correct legal compliance standard for MS4 permits. For this reason, it is legally appropriate to reference MEP throughout the MS4 permit.

D. Strict WQS Compliance Would Have Devastating Impacts on the County

The County is aware that some members of the environmental community have argued that MDE must require strict WQS compliance in an MS4 permit. Not only is this premised on an incorrect reading of federal and state statutes, but, from a practical perspective, it would have a devastating financial impact on the County.

To illustrate the severe financial implications of this idea, we highlight the costs associated with the Chesapeake Bay TMDL, which only addresses nitrogen, phosphorus, and sediment. For the County, we estimate a five-year cost to meet the 20 percent impervious area restoration requirement of approximately \$110 Million. If we assume MDE intends to impose another restoration requirement when it issues the next five-year MS4 permit, with a goal of meeting the Bay 2025 target date, the County will have ten years total to address the Bay TMDL. If we must have all of this work done (i.e., all of the work we might ordinarily do by 2025) by the end of this permit term (i.e., within five years), the cost will double to \$220 Million. Using the example above regarding increases in the fee, the County’s fee would have to double again from \$260 per year to \$520 a year to accomplish this task. The County submits that funding annual costs for these massive undertakings, if they had to be completed within a single five-year permit term, would be unaffordable for most County ratepayers.

Unfortunately, the Bay TMDL’s price tag for the County’s MS4 is just the “tip of the iceberg.” The Bay TMDL is only one of the TMDLs the County will be required to address during this permit cycle. According to MDE’s new TMDL Data Center, the County’s MS4 has WLAs (some

¹⁹ Brief of Appellant, Maryland Department of the Environment, p. 14. Excerpts of this document are provided in Appendix E. EPA has also recently agreed in a 2013 legal brief in another permit proceeding that MS4 permits are subject to a unique compliance standard, MEP. *In re Buckley Air Force Base*, NPDES Appeal No. 13-07 (Doc. 21) (E.A.B. 2013), EPA Resp. at 6. EPA also cites MEP in its 2008 *TMDLs to Stormwater Permits Handbook*.

aggregated) for TMDLs involving E.coli (Loch Raven Reservoir), phosphorus (Loch Raven Reservoir), and TSS (Loch Raven Reservoir, Bynum Run).²⁰

The County also submits that such an extraordinary scope of work is technically and physically impossible to accomplish in five years. This is confirmed by the fact that even Montgomery County, whose permit was issued in 2010, is finding it impossible to meet the 20% restoration requirement. The County wants to be clear. We hold Montgomery County's program in high regard. It has what is likely the most well-funded stormwater pollution reduction effort of any county in the State, and has done nothing but work hard to improve water quality for years. Yet, Montgomery County has publicly stated that it will likely not meet the ambitious 20 percent impervious area restoration requirement by the February 2015 permit deadline.²¹ Given this reality, there can be no justification for making compliance still less possible by imposing strict WQS. The law never requires the impossible.²²

V. DESCRIPTION OF MEP ANALYSIS

In order to aid MDE in issuing a permit that is consistent with the MEP standard, the County has reviewed the Draft Permit in order to determine the level of effort that represents MEP for our community. The County is submitting its MEP Analysis, attached as Appendix F, for MDE's review. We strongly believe that this MEP Analysis must be the basis for our future MS4 permit. Below we provide background information on our County-specific MEP Analysis. All of the additional information necessary for MDE to carefully consider our position is available in the attached MEP Analysis.

A. *EPA Has Not Defined MEP to Allow for Local Permitting Flexibility*

EPA considers a determination of what level-of-effort represents MEP for a particular community to be largely dependent on unique community factors. EPA has steadfastly refused to define MEP, and in its 1999 Phase II Rule, rejected an argument that "EPA needs to further clarify the MEP standards by providing a regulatory definition that includes recognition of cost considerations and technical feasibility."²³ EPA clearly stated that: "EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting."²⁴

EPA understood in 1999 that not all communities have identical capacities to reduce pollutants from stormwater discharges, and even directed small MS4s to "determine [their own] appropriate BMPs"

²⁰ The County questions the inclusion of several of these TMDLs on MDE's TMDL Data Center website and in Appendix B to the Draft Permit. For additional information, refer to p. 5 of the attached MEP Analysis.

²¹ See FY15 Operating Budget: Department of Environmental Protection 12 & Att. 33 (May 9, 2014). Available at:

http://montgomerycountymd.granicus.com/Viewer.php?view_id=100

&clip_id=7232&meta_id=64905 (projecting that only "3,634 acres of impervious out of the 3,976 impervious acres restoration goal" will be completed, "*under construction*," or "*in design*" through the FY2015, which ends June 30, 2015) (emphasis added).

²² *Sri Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985).

²³ 64 Fed. Ref. 68722, 68754 (Dec. 8, 1999).

²⁴ *Id.*

based on the six minimum control measures in the Phase II rule. EPA also listed a number of factors that can be considered when determining MEP for a particular locality including: MS4 size; climate; implementation schedules; current ability to finance the program; beneficial uses of receiving water; hydrology; geology; and capacity to perform operation and maintenance.

When it issues an individual MS4 permit, therefore, MDE should develop permit terms/BMPs that are consistent with the federal regulatory requirements for Phase I MS4s, but should tailor the specific requirements to match the ability of each community to reduce pollutants to the MEP.

B. Development of the County's MEP Analysis and Permit

Using EPA's directives on MEP, the County developed an MEP Analysis for MDE's review prior to issuance of the MS4 permit.

To do so, the County identified critical permit terms that cannot be achieved because of unique factors relating to the County. For example, the 20% restoration requirement is not achievable in large part because of cost. Assuming a cost of approximately \$55,000 to treat one impervious acre,²⁵ the cost to address the 1,976 acres of untreated impervious acres captured by the Draft Permit would be approximately \$22 Million per year, or \$110 Million over a five year period. Additional information regarding the financial implications of the Draft Permit is provided in detail in the attached MEP Analysis.

In addition, the County is unlike many other of the State's MS4s in that it does not own or maintain private stormwater facilities or hold easements to access stream corridors that are located behind private property. This means it takes more time to complete retrofit and stream restoration projects because we must negotiate access terms with each private stormwater facility owner or the owners along a stream bank each time we propose a new project. This is something the County is willing to do because we believe in the environmental and aesthetic benefits associated with these projects. However, the additional time must be factored into our MEP.²⁶

The County is willing to expand our current program in smart ways that will improve the quality of life for our citizens. However, we are constrained by the reality that the County does not have unlimited financial and operational capacities. This reality is reflected in the MEP Analysis. We request that the Department adopt our MEP Analysis and issue our next permit consistent with the conclusions found therein.

VI. ADDITIONAL COMMENTS AND REVISION REQUESTS

As noted above, the County is attaching an MEP Analysis that highlights terms we find problematic in the Draft Permit. We hope the Department will find the MEP Analysis to be useful in understanding the County's position on practicability and achievability.

²⁵ An explanation for this figure is provided at p. 12 of the MEP Analysis.

²⁶ Additional details regarding typical project times are provided at p. 22 of the MEP Analysis.

However, there are additional issues, some of which are based upon our review of federal and state legal requirements, which are not described in detail in the MEP Analysis. They are discussed below.

A. MDE Has Incorrectly Defined the Regulated Area Covered by the Permit

1. Federal Law Regulates the MS4, Not the Entire Jurisdiction

Part I.B of the Draft Permit correctly defines Permit Area as covering “all stormwater discharges from the municipal separate storm sewer system (MS4) owned or operated by Harford County, Maryland.” Part IV.D correctly states that the management programs “shall be implemented in areas served by Harford County’s MS4.”

In contrast, Part IV.E.2.a of the Draft Permit imposes restoration requirements across the entire jurisdiction consistent with MDE’s *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits*²⁷ (hereinafter, *Stormwater Accounting Guidance*).²⁸

Also, in the Draft Fact Sheet (p. 3), MDE explains “Since the inception of the NPDES municipal stormwater program, MDE has considered permit coverage to be jurisdiction-wide.” As justification for its position, MDE points to the Phase I Rule,²⁹ the application of several state programs (for example, erosion and sediment, or E&S, control) jurisdiction-wide, and the fact that most jurisdictions have a road system that extends jurisdiction-wide and “generates stormwater discharges.”³⁰ MDE concludes that: “Therefore, MDE defines regulated permit area as

²⁷ In August, 2014, after MDE issued the Tentative Determination, it issued a new version of the Stormwater Accounting Guidance. References to the *Stormwater Accounting Guidance* in these are to the new version of the Guidance. This Guidance is available on MDE’s website at:

<http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/Documents/NPDES%20MS4%20Guidance%20August%202018%202014.pdf>

²⁸ Although the *Stormwater Accounting Guidance* does allow a jurisdiction to reduce its restoration footprint, or baseline, by eliminating areas of the County that are covered by other permits, etc., it starts with the wrong premise, i.e., that the entire County is regulated by the MS4 permit. This drives the implementation cost up, as evidenced by the County’s estimate that it would cost \$22 Million to comply with this term.

²⁹ According to MDE, in the Phase I preamble “EPA suggested that permit coverage may include areas where jurisdictions have control over land use.” MDE provides no citation. EPA does discuss local control over land use at p. 48039 of the Preamble. However, it is in the context of determining how to define a large or medium MS4. EPA explains that it is important that the initial identification of these systems be consistent with a number of issues, including that the “permittees must have legal authority and control over land use...” If EPA included areas where the permittee had no authority, it would be difficult for the permittee to install BMPs or implement management measures. The County does not read this as a direction to the State that it may regulate entire jurisdictions even if there are no storm sewers are present.

³⁰ Draft Fact Sheet at p. 3. With regard to roads, the MS4 permit should only regulate roads with stormwater discharges that are owned by the County, and not private roads or roads owned by the State Highway Administration.

jurisdiction-wide and considers all provisions of this permit to apply to the geographic area of the County.”³¹

The County objects to expanding the permit beyond areas regulated by federal law. There is no basis for doing so under federal law, and MDE has provided no citation to any section of the Annotated Code of Maryland that authorizes it to expand its regulatory authority to encompass the entire County.

MDE has acknowledged that EPA’s definition of MS4 at 40 C.F.R. 122.26(b)(8) includes “...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;”

Federal regulations are focused on stormwater **conveyances** owned by a municipal entity. In 1999, when it issued the Phase II Rule, EPA made this clear, and defined the regulated area for small MS4s to include only those areas with stormwater conveyances. In response to some confusion about which systems would be covered, EPA explained:

EPA has revised §122.32(a) to clarify that discharges are regulated under today’s rule if they are from a small MS4 that is in an urbanized area and has not received a waiver or they are designated by the permitting authority. Today’s rule does not regulate the county, city, or town. Today’s rule regulates the MS4. Therefore even though a county may be listed in Appendix 6, if that county does not own or operate the municipal storm sewer systems, the county does not have to submit an application or develop a storm water management program.³²

Regulating the conveyance system is consistent with the CWA. Congress directed EPA to regulate point source discharges, which include “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.”³³ Again, federal law focuses on the discharge, and not the discharger.

³¹ This sentence in MDE’s Draft Fact Sheet conflicts with parts I.B and IV.D of the Draft Permit, which clearly limit application of the permit to areas served by the MS4.

³² 64 Fed. Reg. 68750. *See also* Phase I Rule at p. 48040 (“There is no indication in the language of the CWA or the legislative history that Congress intended that the scope of “municipality” and the scope of “municipal separate storm sewer system” to be identical, particularly since the latter term is not defined in the statute.”) and at p. 48041 (“EPA recognizes that some of the counties addressed by today’s rule have, in addition to areas with high unincorporated urbanized populations, areas that are essentially rural or uninhabited and may not be the subject of planned development. While permits issued for these municipal systems will cover municipal system discharges in unincorporated portions of the county, it is in the intent of EPA that management plans and other components of the programs focus on the urbanized and developing areas of the county. Undeveloped lands of the county are not expected to have many, if any, municipal separate storm sewers.”)

³³ 33 U.S.C. § 1362.

In areas of the County where there are few or no stormwater conveyance structures, there is no legal basis for imposing federal regulatory requirements.³⁴ In addition, the County would face negative consequences if the permit area is expanded as MDE proposes. EPA Region III has been systematically auditing MS4s, and has imposed significant fines on several MS4s. We object to MDE exposing the County to potential future liability for alleged violations in areas where it owns no stormwater conveyances, and which would ordinarily be out-of-bounds for federal enforcement.

2. There is No State Law Authority for Regulating the Entire Jurisdiction

MDE has no state law authority to apply federal permit terms to the entire jurisdiction. The Maryland General Assembly has authorized MDE to issue both erosion and sediment control (E&S) and post-construction stormwater management criteria and to oversee local E&S and stormwater management programs.³⁵ Both laws allow MDE to regulate, through issuance of criteria and oversight of local programs, discharges from construction sites. Neither statute gives MDE the authority to regulate discharges from MS4s. Moreover, MDE has pointed to no other statute that allows it to regulate existing development through the terms of an MS4 permit.

3. Conclusion

For the reasons above, MDE should revise the Draft Permit to limit all mandates to areas served by County-owned stormwater conveyances (which should be called the “service area”).³⁶ Further, within the service area, certain areas should be excluded from regulatory requirements, including: areas draining to roads owned and operated by SHA, separate storm sewers in very discrete areas (such as individual buildings), areas with direct discharges to local waterways, stormwater systems permitted under other stormwater permits, unpermitted state and federal properties, forests, and rural zoning (properties equal to or greater than 5 acres and with a maximum impervious coverage of 10%).

B. MDE Has No Basis for Concluding 20% Restoration is Achievable

Part IV.E.2.a of the Draft Permit would require that the County “commence and complete” restoration on 20% of the County’s impervious surface area in a manner “consistent with the methodology described in the MDE document described in Part IV.E.2.a that has not already restored to the MEP...” The County opposes this requirement for the following reasons.

³⁴ According to the Maryland Department of Planning, the only urban areas in Harford County (defined as areas with populations greater than 50,000 per the 2010 Census) include Aberdeen, Bel Air South and Bel Air North. A copy of MDP’s map is attached as Appendix G.

³⁵ Md. Code ENV § 4-101; §4-203.

³⁶ For example, Part IV.E.2.a should be revised as follows: “Within one year of permit issuance, Harford County shall submit an impervious surface area assessment for the County’s MS4 service area, which includes only the parts of the County that receive service from the separate storm sewer system. The County’s assessment shall determine the total number of untreated impervious acres.”

1. The 20% Restoration Requirement Exceeds MEP

The Draft Permit imposes a major, unprecedented financial burden on the County and its residents. The County does not oppose implementing affordable management measures on a reasonable schedule. However, as explained in our MEP Analysis, we believe compliance with the restoration provision would be financially infeasible. The County is disappointed that MDE appears unwilling to consider the financial burden that this new permit requirement would necessarily add to our households, businesses, institutions, nonprofits and others. It is unclear how MDE could conclude that there is sufficient record evidence to issue a final permit in light of substantiated concerns regarding compliance costs.³⁷

2. The Draft Permit Restoration Requirement is Inconsistent with the WIP

Part VI.A of the Draft Permit states that the restoration requirement is meant to address the Chesapeake Bay TMDL “as described in Maryland’s Watershed Implementation Plan.”

Despite this assertion, the Draft Permit is inconsistent with and more onerous than the WIP. The WIP applies the 20% restoration equivalency percentage to “pre-1985 impervious cover.”³⁸ In contrast, the Draft Permit includes all pre-2002 untreated impervious area.

The Draft Permit also omits the equivalency concept expressed in the WIP. The WIP’s “equivalent to retrofitting” provision (App. A at p. A-10) allows the permittee to use trading as one option for achieving pollutant reductions cost-effectively. By dropping this language in the Draft Permit, MDE appears to eliminate this method of improvement and compliance. This is a mistake. MS4s would benefit greatly from an open and transparent state trading program.

According to a Chesapeake Bay Commission study, allowing significant point sources and urban stormwater sources to trade could potentially reduce compliance costs “by as much as 79% to 82%.”³⁹ In addition, the State has espoused the potential use of trading to address growth issues as a part of developing its Accounting for Growth (AfG) policy. On its AfG website, MDE notes: “To ensure that there are sufficient credits available, the State is designing its AfG policy to induce a **robust nutrient trading market** in Maryland, which would, in turn, lower pollution reduction costs, especially for local government, developers, tax and rate payers, and accelerate the Bay’s restoration.”⁴⁰ (emphasis in original)

³⁷ MDE’s answer in previous proceedings that the jurisdiction can simply use its stormwater fee to pay for programs is conclusory and fails to recognize the realities of setting utility rates at the local level.

³⁸ Final Phase II WIP, App. A at p. A-10. The Phase II WIP is available at:
http://www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/FINAL_PhaseII_WIPDocument_Main.aspx

³⁹ See Chesapeake Bay Commission’s *Nutrient Credit Trading for the Chesapeake Bay, An Economic Study* (May 2012) at p. 47. A copy of the study is attached as Appendix H.

⁴⁰ Available at the following URL:
www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/Accounting_For_Growth.aspx

Given that this is the State's position, the County can think of no reason why MDE would refuse to add authorization for trading to the MS4 permit.

3. Conclusion

For the reasons provided above, the County recommends that MDE mitigate these extreme costs by issuing a permit that requires the County to commence and complete the implementation of restoration efforts for 10% of the impervious area that is not already restored to the MEP. In addition, the County requests that MDE revise the restoration requirement to make it consistent with the concepts embedded in the WIP.

C. ESD to the MEP Does Not Apply to MS4 Permits

Part IV.E.2.a of the Draft Permit states that: "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 WQv 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;" The County opposes including this language in the final permit for the following reasons.

First, the requirement that projects be based on the "associated list of practices" in the *Design Manual* is unclear. The Draft Permit could be read to mean that the County must use ESD techniques before structural controls. Not only would this result in a skyrocketing of costs (if ESD measures are even possible), but this would apply a law written for land development to existing development. The County strongly believes this would be contrary to the General Assembly's intent when it passed the Stormwater Management Act of 2007.

Second, the Draft Permit provides no definition of "alternate BMPs." Moreover, the *Stormwater Accounting Guidance* links the amount of credit for "alternative BMPs" (not "**alternate** BMPs") to individual factors that may or may not be related to pollutant loads from forested cover. In contrast, the Draft Permit suggests that all calculations must be based on forested cover. This creates an inconsistency between the second sentence and the previous requirement that the County use the *Stormwater Accounting Guidance* to calculate credits.

For all of these reasons, the County requests that MDE delete the text quoted at the beginning of this section from the Draft Permit.

D. Watershed Assessment and TMDL Planning Terms Are Impracticable

Part IV.E.1.a of the Draft Permit mandates "complete detailed watershed assessments for the entire County" by the end of the permit term. Part IV.E.2.b of the Draft Permit requires that the County engage in planning (i.e., develop a schedule for implementing projects, provide detailed cost

estimates, establish a tracking mechanism for measuring progress), within one year of permit issuance.⁴¹ The County objects to these sections of the Draft Permit for the reasons set forth below.

1. MS4s Are Not Required to Address TMDL WLAs or Provide a Final Date for Meeting WLAs

The County is not legally required to establish a “final date for meeting applicable TMDLs.” Rather, the County must reduce pollutants to the MEP. In point of fact, there is no legal requirement that MS4 permits even include terms to address applicable TMDLs.⁴² It is the County’s legal position, therefore, that the MS4 permit should not include *any* TMDL provisions, much less provisions that mandate compliance with a WLA by a date certain.

From a practical perspective, the County also questions how we could possibly write a TMDL plan that includes a “final date for meeting applicable WLAs and a detailed schedule for implementing” projects. Part IV.E.2.b.1. Installing the BMPs necessary to address existing TMDLs may take decades, making setting a “final date” an educated guess at best. Even if we were able to establish a reasonably defensible final date, there are simply too many unknown factors that could affect the implementation schedule to make a “detailed schedule” plausible. For example, if we develop a TMDL plan to address sediment, but later determine BMPs we installed early in the process are not working as well as expected, the County will understandably want to revise the list of projects and the associated schedule. Adaptive management is at the heart of a good stormwater program. Locking the County into a final date and detailed schedule runs counter to this approach, to the detriment of our citizens and water quality.

The provision also assumes that meeting the WLAs is technically feasible, financially affordable, and generally practicable. This is a false assumption as evidenced by MDE’s own experience with the Bay TMDL, where MDE determined that WQS could not be met in a portion of the Bay, even with an extremely expensive level of control. MDE adopted and EPA approved a variance in response.

⁴¹ The County assumes that its TMDL planning document need not include the Bay TMDL. The restoration requirement, which is clearly meant to serve as the way the MS4 will address the Bay TMDL, is included in a separate section than the general planning section. In addition, there is no applicable WLA in the Bay TMDL to include in the plan, as all Maryland MS4s were reflected in aggregated regulated stormwater load. MDE should make this clear in the final permit.

⁴² Other commenters may argue that 40 CFR 122.44(d)(vii)(B) requires that effluent limits in NPDES permits are “consistent with the assumptions and requirements of any applicable wasteload allocation for the discharge prepared by the State and approved by EPA.” However, the introductory paragraph to 122.44 applies the requirements in the section, including (d)(vii)(B), only *when applicable*. Subsection (d) references water-quality based effluent limits, which are not applicable to MS4s given the unique MEP standard in federal law. Subsection (k) is the only part which arguably applies to MS4s. It authorizes the use of BMPs for stormwater discharges or when numeric effluent limitations are infeasible. MDE agreed that subsection (d) does not apply to MS4 permits in its arguments regarding the Montgomery County MS4 permit before the Montgomery County Circuit Court: “The regulations applicable to municipal stormwater therefore are not 122.4 or 122.44(d), but is 122.44(k), the regulation authorizing the use of BMPs to control stormwater.” MDE Memo, p. 14.

That required years of modeling and public process, yet the Draft Permit assumes the County can undertake this kind of analysis in just one year.

That said, the County is willing to install BMPs to the MEP to address applicable TMDLs if the permit is clear and is achievable. The County's recommendations for changes that must be made in order to clarify the permit terms and make them practicable follow in (2) through (7) below.

2. Watershed Assessments Should Be Limited to the Bush River Watershed

Requiring County-wide watershed assessments is overly broad. As explained above, MDE has no legal authority to order action outside of County's service area. Moreover, as explained in the attached MEP Analysis (p. 24), focusing on the Bush River Watershed makes the most sense from a practical perspective, as it would prioritize work in the part of the County that is the most urban and has the highest potential for effective restoration.

3. The Assessment and Planning Sections are Duplicative and Confusing

The County has previously argued that it makes sense to break assessment and planning down into three distinct sequential steps—assessment, planning, and implementation. However, if MDE leaves the structure as-is, the Draft Permit should be revised to include assessment measures in the assessment section and planning measures in the planning section.

4. The County Should Be Given a Reasonable Amount of Time to Complete Plans

The County is concerned that it will not be able to complete a detailed restoration plan that includes "detailed cost estimates for individual projects, programs, controls, and plan implementation" within one year. To develop this type of a plan, for each structural BMP, the County will need to: (i) assess the future availability of sites for BMP installation; (ii) estimate the time needed to obtain permits; and (iii) estimate a budget.⁴³ One year is not enough time for the County to feel any level of comfort that its estimates are well-founded and reasonable. Also, forcing the County to develop a complete plan within one year is contrary to adaptive management, which has been a cornerstone of stormwater management for years.⁴⁴

5. Local Planning Efforts Should Not Be Federally Enforceable

The County objects to making restoration plans an enforceable part of the permit.⁴⁵ The County will work to develop a reasonable approach to addressing applicable WLAs. Respectfully, however,

⁴³ Realistically, any budgeting for a particular BMP is at best an estimate. Particular projects may be more costly, requiring the County to scale back on another BMP.

⁴⁴ The Fact Sheet acknowledges this goal: "The permit establishes conditions and prohibitions regarding the discharge of stormwater. It also relies on well-established State programs and an **adaptive management approach** to make continual improvements to the quality of the County's stormwater runoff." Fact Sheet at p. 1 (emphasis added).

⁴⁵ Part IV.E.2.b states that: "Upon approval by MDE, these restoration plans will be enforceable under this permit."

this is the County's program, and we question MDE's authority to micro-manage it through a planning document. We believe that the State's authority to oversee MS4 efforts does not extend to regulating local decision-making on specific aspects of our approach.

MDE recently argued for a limited State role in implementation efforts in litigation involving the Industrial Stormwater General Permit.⁴⁶ In the appeal of that GP, environmentalists argued that the GP should have allowed for public notice and comment on the Stormwater Pollution Prevention Plans (SWPPPs) each permittee must prepare. MDE explained SWPPPs are not effluent limitations under either state or federal law, but are merely "implementation plans that contain information to assist both facilities in meeting their permit obligations, and the Department in its compliance responsibilities...." Further: "SWPPPs do not contain restrictions or prohibitions on anything, but merely document control measures and procedures." Only permits and permit limits are subject to public participation requirements.⁴⁷ MDE stated that:

The Permit gives permittees discretion in how they meet an effluent limitation, but imposes penalties under both the CWA and Maryland law for a violation of the limitation. [footnote 7: This is consistent with the approach used for individual NPDES permits, where the Department would set numeric effluent limits on a discharge, but would not dictate how a facility meets those limits. For example, the Department may establish a total nitrogen concentration of 4 mg/l for a sanitary sewage discharge. This limit would inherently require some form treatment, but the Department would not opine on the design of the wastewater treatment plan. The Permit would merely require that the discharge meet the 4 mg/l limit.] ... The prohibitions and restrictions established by the State in the Permit are the controlling effluent limits. [footnote 8: To expand on the prior example, where the Department has established a total nitrogen concentration of 4 mg/l for a sanitary sewage discharge, the effluent limit is the 4 mg/l standard. The wastewater treatment plant is not an effluent limitation. Accordingly, the design of the wastewater treatment plant is not subject to public participation requirements.]

In the context of the Draft Permit, the development of a TMDL restoration plan is no different than the development of a SWPPP by an industrial permittee. BMPs serve as the effluent limits for the permittee. One of the BMPs in the Draft Permit requires that the County develop very specific restoration plans to address EPA approved TMDLs, and report back on "progress toward meeting" applicable WLAs every year (Part IV.E.4). How the County chooses to address this mandate is the County's decision. The County is willing to consider MDE and public input on our restoration plans, and even to accept MDE approval or disapproval of their terms, but we do not believe we should be put at risk for federal enforcement for failing to meet the terms of a local planning document.

⁴⁶ Environmental Integrity Project, et al. v. MDE, Case No. 24-C-13-007219 (Circuit Court for Baltimore City).

⁴⁷ Answering Memorandum of the Maryland Department of the Environment at p. 17 ("Although facilities are required to prepare a SWPPP as a condition of the Permit, the practices set forth in a SWPPP are not enforceable conditions and thus, cannot be categorized as permit limits."). A copy of MDE's Answering Memorandum is attached as Appendix I.

6. MDE's Stormwater Accounting Guidance Should Not Be Referenced in the Permit

Referencing MDE's *Stormwater Accounting Guidance* in the Draft Permit is inappropriate for three reasons.

First, the County also objects to having such a major part of the permit determined by an unpromulgated guidance document that is subject to MDE's unilateral revision. In fact, during the course of preparing these comments, the guidance document changed. The potential for future, unknown changes make it very difficult for the County to plan in reliance on the document.

Second, and on a related point, the County is highly concerned that the "value" of various BMPs (i.e., the efficiencies associated with each) may change over time. We assume MDE will reflect those changes in future versions of the *Stormwater Accounting Guidance*. If BMP efficiency updates result in "upgrading" of certain BMPs, we should be allowed to reflect the newly accepted science in assessing our results. However, if updates result in "downgrading" of certain BMPs, these changes should not be held against the County, as we will have invested years and millions of dollars in their installation. The County will write TMDL plans in reliance on a set of assumptions. We will make choices between certain BMPs based upon those assumptions, and spend money and install facilities in reliance on those assumptions. The advancing nature of an understanding of these facilities and efficiencies should not be held against us.

For these reasons, the County submits that the *Stormwater Accounting Guidance* should remain guidance and not be incorporated as a term in the MS4 permit. This will allow MDE the flexibility to change the document over time as necessary, and to apply or not apply it to particular situations in its discretion.

E. MDE Is Overreaching With the Special Programmatic Conditions

The Draft Fact Sheet explains the Special Programmatic Conditions in Part VI of the Draft Permit:

Harford County will be required to comply with the Chesapeake Bay TMDL. The County will also continue to work toward the completion of the State's Water Resources Element as required by the Maryland Economic Growth, Resource Protection and Planning Act of 1992 (Article 66B, Annotated Code of Maryland). The projects and programs proposed under this draft permit, as well those implemented during the County's previous stormwater permits and as part of the other State and local regulations, all work toward meeting both of these conditions.⁴⁸

The first sentence of this explanation is inappropriately implies that the County itself must comply with the Bay TMDL. The Bay TMDL does not require that the County do so, and MDE has no authority to force the entire County to implement the TMDL. In addition, even a narrower reading—that the MS4 must comply with the Bay TMDL—is unacceptable because it forces the

⁴⁸ Draft Fact Sheet at p. 11.

MS4 to comply with a TMDL WLA. This is contrary to the MEP compliance standard, as explained above.

In the Draft Permit, the County objects to including what could be viewed by some as an end date for Bay restoration. Part VI.A of the Draft Permit is titled “Chesapeake Bay Restoration by 2025.” Further, the last sentence states that the County’s MS4 permit will require coordination with the State’s WIP and become the “regulatory backbone” for “controlling urban pollutants toward meeting the Chesapeake Bay TMDL by 2025.” A federal judge has ruled that the TMDL does not mandate a federal timeline for implementation.⁴⁹ Rather, members of the Executive Council chose this target date voluntarily, and it can be adjusted if a Bay state so desires. For this reason alone, it does not belong in the County’s MS4 permit.

Additionally, MDE has no factual basis for concluding that the County is capable of implementing the kinds of substantial clean-up measures included in the Phase I and Phase II WIPs by 2025.

Likewise, Part VI.B (Comprehensive Planning) would mandate that the County “cooperate with other agencies during the completion of the Water Resources Element (WRE) as required by the Maryland Economic Growth, Resource Development and Planning Act of 1992 (Article 66B, Annotated Code of Maryland).” This cooperation “shall entail all reasonable actions authorized by law and shall not be restricted by the responsibilities attributed to other entities by separate State statute, including but not limited to reviewing and approving plans and appropriating funds.”

This permit term is highly objectionable. The County is required to comply with WRE planning under state law. However, the WRE requirements are far beyond the requirements of the CWA, and could subject the County to enforcement or citizens suites for an alleged failure to “cooperate.” Worse, this provision usurps local legislative discretion by mandating that the governing body take “all reasonable actions” thereby allowing MDE, EPA, and citizens to second guess local decisions. This text should be deleted from the Draft Permit.

F. MDE Should Not Federalize State Law Requirements

The Draft Permit inappropriately incorporates State law requirements, and thereby, federalizes them. Federalization triggers federal enforceability and penalties, typically different and far beyond what was contemplated when the State requirement was established, including federal citizen suit enforcement in Federal Court rather than State Court.

As explained above, one problematic section is the WRE requirement. Another is the Draft Permit mandate at Part IV.D.1.a that the County’s stormwater management program “[i]mplement the stormwater design policies, principles, methods, and practices found in the latest version of the *2000 Maryland Stormwater Design Manual*.” The County reiterates that if state law mandates are referenced at all, they should be acknowledged but not made a condition of the permit. Mandates that the County comply with state law regarding E&S and cooperate to develop WREs are both based solely on state

⁴⁹ *Am. Farm Bureau Fedn v. United States EPA*, 984 F.Supp. 289, 329 (M.D. Pa. 2011): “In short the court concludes that, because the 2025 implementation target was established jointly by the Bay Partnership, and because the states retain sufficient flexibility to change the allocations, the TMDL does not violate the CWA by impermissibly “locking in” the TMDL allocations.”

law (federal laws do not address E&S compliance, except to the extent these types of issues are included in a permit for stormwater runoff from a construction site, or local planning issues).

Each of these programs is a major undertaking in its own right with many associated activities and details. The County's concern is that if it is doing a good job at implementing these programs and addressing program improvements required by MDE, the County should not be subjected to EPA or citizen enforcement over what are minor details of program administration. EPA Region III audits are designed to flag minor items as CWA violations (*e.g.*, a missing date on an inspection report, a misfiled inspection report, or performing an inspection). What MDE and the County may view as improvement opportunities, others may characterize as deficiencies and violations. The federal liability scheme (\$37,500 per day per violation for each day until the violation is corrected) is too powerful to subject the County to for purely state law matters. Further, the intent of the state law is not to expose the County to such liability risks in carrying out these state laws.

For these reasons, the Department should revise the Draft Permit to make it clear that implementation of state laws in a way that is "generally consistent" with those requirements is acceptable. Note that the requested revisions in no way diminish the County's obligation under state law to carry out the program or MDE's ability to insist on corrective action and full compliance by the County.⁵⁰

G. The Permit Should Not Impose Potential Liability for Third-Party Behavior

The County agrees with the goal of reducing acts or behaviors of third parties that negatively impact water quality. However, just as MDE works to improve water quality but cannot ensure standards are always met by third parties, or as a police department works to stop crime but cannot ensure that all criminal acts are prevented, the County can work toward improving the behavior of third parties but cannot guarantee what those parties will do at all times. Bad acts can be prohibited by local ordinance, for example, making it illegal for others to discharge non-stormwater into the MS4, and enforcement actions can be taken in priority cases, but full compliance by third parties cannot be guaranteed.

On this point, the Draft Permit contains several provisions requiring the County to "eliminate" and "ensure" actions or conditions beyond its reasonable control. The County requests appropriate revisions consistent with the County's role as MDE's co-regulator with regard to the acts of third parties. We hope MDE appreciates the serious level of concern over provisions that might be read by third parties or by a court as making the County responsible for the acts or omissions of third parties.

⁵⁰ In the alternative, MDE could add a savings clause to the permit that makes clear that although the MS4 permit is a joint federal and state permit, state-law only requirements (for example, E&S, ESD, and WRE) are not federally enforceable.

H. Other Comments Regarding the Draft Permit

1. MDE Should Clarify Text Regarding Triennial Inspections

Part III.D.1.d of the Draft Permit would require inspections of ESD treatment systems and structural stormwater management facilities on a triennial basis. We recognize that the frequency of inspections is dictated by COMAR 26.17.02.11. Given the expected proliferation of micro-BMPs on private property in accordance with the ESD approach under the Stormwater Management Act of 2007, inspection activity will be labor intensive and, if required to be performed by the County for every parcel of land, including residential lots with micro-BMPs, the cost to the County will be unmanageable.

To address this issue, the County would like the flexibility to engage property owners (or their maintenance companies or homeowners associations) and request that they report on the status of micro-BMPs, such as in response to a triennial survey by the County. This type of self-reporting is similar to that used in industrial wastewater pretreatment programs to determine the need for further regulatory action at hundreds or thousands of businesses in a locality.

This request is consistent with COMAR 26.17.02.11, which states that a responsible agency shall “ensure preventative maintenance through inspection of all stormwater management systems.” The regulation does not require that the County staff personally perform the inspection, and instead would allow for the County to design an efficient inspection program that may include features such as self-inspection and self-reporting for micro-BMPs.

For these reasons, we request that MDE revise the Draft Permit to provide flexibility on the design of a triennial inspection program.

2. Litter and Floatables text is Vague and Legally Questionable

Part IV.D.4 of the Draft Permit requires that the County “address problems associated with litter and floatables in waterways that adversely affect water quality.” Specific requirements include: considering litter issues as a part of watershed assessments; developing a public education program to reduce littering and increase recycling; and annually evaluating and reporting on the status of efforts to implement the public education program.

The County is seriously concerned that other requirements in the Draft Permit, most especially the restoration requirement, would have severe budgetary and operational impacts on our budget and programs. We can see no reason why MDE would layer a litter and floatables requirement on top of the rest of the permit requirements. Instead, MDE should prioritize clean-up goals to allow the County to use its limited resources where there is the highest opportunity for clean water gains. Spending money on litter and floatables would divert funding from higher priority stormwater projects in the County.

For this reasons, we object to this section in its entirety, and ask that MDE remove it from the Draft Permit.

3. Good Housekeeping Requirements Are Too Broad

Part IV.D.5.b.v of the Draft Permit would require that the County ensure that “all County staff receive adequate training in pollution prevention and good housekeeping practices.”

The County has no objection to training appropriate employees in pollution prevention and good housekeeping. However, we question why *all* employees must receive this training. It seems unnecessary to the County to train an administrative support professional working at a desk in a County office building, for example, on how to minimize oil leaks from County vehicles into the MS4. We believe we could use these dollars providing more in-depth training to fleet service employees, for example.

For these reasons, the County requests that MDE revise the Draft Permit to allow the County to determine which employees it will train on pollution prevention and good housekeeping.

4. Appendix A Should Include a Phase-In Period

The Draft Permit mandates that the County submit certain data “in a format consistent with Attachment A.” Attachment A includes examples of various databases the County must complete with its Annual Report.

MDE is currently working on a new “geodatabase” with a goal of improving communications with EPA regarding progress that the State is making in WIP implementation. The geodatabase is a work in progress. If MDE makes future changes that create a mismatch with Attachment A, the County will be at increased risk that EPA, the State, or a third-party could inappropriately argue it is out of compliance with the permit. In addition, it will take the County time to convert its existing data, making it only fair that MDE give the County a phase-in period to adjust to any new requirements.

For these reasons, the County requests that MDE make appropriate textual changes to address this issue.

5. Green Card Training Should Be Deleted

Part IV.D.2.b of the Draft Permit mandates that the County conduct E&S personnel certification classes at least twice a year. MDE is now providing these classes on-line. For this reason, we request that MDE strike this permit requirement.

I. Suggested Revisions to the Draft Fact Sheet

In addition to the requested changes to the Draft Permit, the County requests that the Department make revisions that are consistent with these edits to the Fact Sheet.

Harford County Department of Public Works

Harford County MS4 Tentative Determination Maximum Extent Practicable Analysis

September 25, 2014

This report has been prepared by the Harford County Department of Public Works in response to Maryland Department of the Environment's Tentative Determination (June 2014) to issue a National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System Permit (MS4) to Harford County.

Harford County MS4 Tentative Determination
Maximum Extent Practicable Analysis

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Harford County MS4 Tentative Determination Maximum Extent Practicable Analysis

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Harford County MS4 Tentative Determination Maximum Extent Practicable Analysis

1. Introduction

The following report has been prepared by the Harford County Department of Public Works in response to Maryland Department of the Environment's (MDE) Tentative Determination (June 2014) to issue a National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit (Draft Permit) to Harford County. Harford County has reviewed the Draft Permit to determine the maximum extent practicable (MEP) for Harford County to meet the requirements based on the County's MS4 size, the ability for the County to finance the Draft Permit, and the ability for the County to implement the Draft Permit over a five-year permit term.

This analysis is not a commitment of the funding levels proposed but a review of the maximum potential funding estimated to be available. A change in administration including a new county executive and at least two new county council members will occur in January 2015, who will be responsible for final approvals.

Specifically, the Draft Permit exceeds Harford County's MEP for the following sections of the permit as discussed in more detail below.

Table 1: Harford County Draft MS4 Permit (June 2014) Conditions Exceeding MEP

Permit Condition	Description	MEP Factor
Watershed Assessments (Part IV.E.1.a.)	Watershed assessments for the entire County	Impossible Scheduling
Watershed Restoration (Part IV.E.2.a.)	Watershed restoration for 20% of the impervious surfaces	Excessive Cost Impossible Scheduling
Restoration Plans (Part IV.E.2.b.)	Develop restoration plans within one year	Impossible Scheduling
Program Funding (Part IV.G.)	Maintain adequate program funding	Excessive Cost

2. Assumptions used to develop Harford County's MEP

Several sections of the Draft Permit are unclear and require Harford County to make reasonable assumptions in order to determine if the permit conditions are achievable and develop a response regarding our County's MEP. Some of this confusion is related to a template approach to create a "general" Phase I MS4 permit instead of drafting permit conditions specific to Harford County.

Assumption 1: Permit Coverage

The Draft Permit states that it covers discharges from the MS4, which clearly does not encompass the entire County from border to border. The entire permit should focus on the drainage to the MS4, or the MS4 service area. All other areas that drain directly to surface waters should be considered nonpoint source discharges not covered under the MS4 permit. Nonetheless, because the permit is unclear in this regard and MDE has expressed its intent for the permit to be jurisdiction-wide, we have assumed for purposes of this analysis that the entire County must be addressed for assessment and restoration. That said, Harford County believes that all of the requirements within the permit should align with the limit of permit coverage including the impervious area assessment and watershed restoration for 20% of impervious surfaces.

Harford County Draft Permit

"This permit covers all stormwater discharges from the municipal separate storm sewer system (MS4) owned or operated by Harford County, Maryland."

Assumption 2: Impervious Area Assessment

Until MDE approves Harford County's impervious surface assessment, cost estimates for the implementation of the restoration efforts are speculative. We assume MDE will approve the County's assessment based on the impervious surface figures below, but this is not a guaranteed outcome. It is inappropriate to expect a community to determine if it has the capacity to fulfill the

requirements of a permit condition that is not clearly defined prior to the issuance of the permit, especially when the condition is the most expensive part of the permit. Harford County has completed an impervious area assessment for the entire County even though we believe that the extent of permit coverage should be limited to the service area to the MS4 only. The County expressly reserves its right to object to the overly expansive interpretation of permit coverage limits that includes the entire County.

Harford County Draft Permit

“Within one year of permit issuance, Harford County shall submit an impervious surface assessment consistent with the methods described in the MDE document “Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits” (MDE, June 2011 or subsequent versions). Upon approval by MDE, ***this impervious surface area assessment shall serve as the baseline for the restoration efforts required in this permit.*** (Emphasis added)”

In order to develop planning level cost projections, Harford County has completed a preliminary assessment of the County’s impervious surfaces based on the June 2011 document referenced above. Areas excluded from the County’s impervious surface assessment include (Figure 1):

- Aberdeen Proving Grounds (covered under the Phase II MS4 permit)
- State roads (covered under a Phase I MS4 permit)
- State owned properties
- Municipalities (covered under the Phase II MS4 permit)
- Properties zoned AG with agricultural land use
- Large lot residential properties over 5 acres

Exclusions for properties covered under the recently issued industrial stormwater general NPDES permit have not been included. Restoration plans and impervious assessments to be completed by the property owners are due to MDE by December 2014. Thus, the County’s projection of acreage may change as this additional information is received.



Harford County, Maryland MS4 Permit Area

Harford County, Maryland
Department of Public Works
Watershed Management
(410) 638-3218

www.HarfordCountyMD.gov/WaterResources

Map Produced 9/2014

(Figure 1)

Based on Harford County’s preliminary impervious surface assessment (Table 2), there are 9,880 acres of impervious surfaces located within Harford County, excluding those areas listed above which MDE allows the County to exclude from the MS4 permit area. Prior to 2000, development in Harford County was not required to address water quality management. Therefore, there are no reductions in impervious surface for existing stormwater management facilities.

Table 2: 2000 Harford County Impervious Surfaces¹

Impervious Type (2000) ²	Acres	% Total
Roads	3,000	30%
Buildings	3,000	30%
Driveways	2,200	22%
Parking Lots	1,900	18%
Completed Restoration	-220	
Total ³	9,880	100%

¹ Excluding Aberdeen Proving Grounds, state roads, state properties, municipalities, AG land uses, and residential lots over 5 acres

² According to "Accounting Document" from MDE; Post-2002 development is assumed to be managed.

³ Draft MS4 permit requires MDE approval for impervious surface assessment one year after the permit is issued.

It is important to note that nearly 70% of the impervious surfaces listed in Table 2 are privately owned. Only 300 acres of impervious surfaces are located on County-owned properties in addition to the 3,000 acres of impervious surfaces from County roads.

Assumption 3: Restoration Plans and TMDL Compliance

The Draft Permit should list specifically which restoration plans and annual TMDL assessments are required. The permit conditions are unclear and require a review of Attachment B and each

individual TMDL document. Attachment B lists approved TMDLs for Harford County, some of which do not have specific WLAs for Harford County, including the Chesapeake Bay TMDL. Because the permit term only requires that the County address TMDLs if the County's MS4 has a WLA listed, we assume restoration plans and annual TMDL assessments are not required for TMDLs without a listed WLA for the County.

Harford County Draft Permit

“Within one year of permit issuance, Harford County shall submit to MDE for approval a ***restoration plan for each stormwater WLA approved by EPA*** (Emphasis added) prior to the effective date of the permit.”

Harford County Draft Permit

“Harford County shall evaluate and document its progress toward meeting ***all applicable stormwater WLAs included in EPA approved TMDLs***. (Emphasis added)”

Appendix B lists three watersheds with local TMDLs including Bynum Run (sediment), Swan Creek (nutrients), and Loch Raven Reservoir (bacteria, mercury, nutrients, sediment). Based on Harford County's review of the TMDL documents, the only local TMDLs that require a restoration plan are Bynum Run (sediment) and Loch Raven Reservoir (phosphorus) although the contribution from Harford County to Loch Raven Reservoir TMDL is less than one tenth of one percent (0.1 %).

Swan Creek TMDL Nutrients (January 28, 2002) categorizes stormwater as a load allocation with no specific numeric value assigned to Harford County. Therefore Harford County does not have an assigned stormwater WLA. Additionally, a majority of the urban development within the Swan Creek watershed is located within the City of Aberdeen. Therefore based on the permit language above, neither a restoration plan nor an annual TMDL assessment report is required for Swan Creek.

Loch Raven Reservoir TMDL Fecal Bacteria (July 24, 2009) page 47 lists Harford County with zero contribution to the WLA. Loch Raven Reservoir TMDL Mercury (December 27, 2002) page 17, Table 5 lists the allocation for the total WLA as zero and later states “Loch Raven Reservoir is located in a watershed in which the mercury impairment is dominated by nonpoint source mercury contributions (resulting from atmospheric deposition).” Therefore based on the permit language above, neither a restoration plan nor an annual TMDL assessment report is required for Loch Raven for bacteria or mercury.

The Chesapeake Bay TMDL was assigned based on river segments and was updated in 2011 for basins. There are no specific stormwater WLAs for Harford County listed. “EPA decided in October 2011 to scale back its expectations for geographic specificity due to current data and model limitations. ... Analysis at the finer scale was supported by a load reduction analysis model called the Maryland Assessment and Scenario Tool, which mimics the results of the Bay watershed model.” (Maryland Phase II Watershed Implementation Plan for the Chesapeake Bay TMDL, October, 2012). Stormwater WLAs have been estimated by MDE as planning level targets as listed in the MDE TMDL Data Center. Therefore based on the permit language above, neither a restoration plan nor an annual TMDL assessment report is required for Chesapeake Bay.

Assumption 4: New or Changed Requirements during the Permit Term

It is challenging for Harford County to determine an MEP for the Draft Permit when new requirements may be added or changed after the permit has been approved. Requirements added to the permit will increase the costs associated with the Draft Permit that already exceed Harford County’s MEP.

Harford County Draft Permit

“The County shall submit restoration plans for subsequent TMDL WLAs ***within one year of EPA approval.*** (Emphasis added)”

An updated Accounting Document was released after the Draft Permit was issued. One significant update includes the detailed analysis now required to exclude properties within the rural areas from

the impervious area assessment. These areas should be excluded outright as the intent of the Phase I permits is to address discharges within the urban areas of the County. Requiring this level of documentation is costly and time consuming. This provision, which was added to the Accounting Document after the Draft Permit was issued, certainly demonstrates how new or additional requirements can increase the costs associated with implementation after the permit has been finalized.

Harford County Draft Permit

“By the end of this permit term, Harford County shall commence and complete the implementation of restoration effort for twenty percent of the County’s impervious surface area consistent with the methodology described in the MDE document cited in PART IV.E.2.a.”

The MDE document cited in PART IV.E.2.a is the “Accounting for Stormwater Wasteload Allocation and Imperivous Acres Treated, Guidance for National Pollutant Discharge Eliniation System Stromwater Permits” (MDE, June 2011 ***or subsequent versions***) (Emphasis added) .

3. MEP for Harford County

Based on the assumptions described above, Harford County has reviewed the Draft Permit to determine the MEP for Harford County based on the County's MS4 size, the ability for the County to finance the Draft Permit, and the ability for the County to implement the Draft Permit over a five-year permit term.

The following sections describe Harford County's MEP and recommendations for updates that will produce an individual permit for Harford County more closely aligned with the MEP. MDE's intention to create a template permit for all of the Phase I jurisdictions regardless of the size of the community or the community's resources is inappropriate.

A. MS4 Size

As of March 2014, MDE issued the final determinations to issue MS4 permits for all five large-sized communities with populations between 537,656 and 971,777 (Table 3). As a medium-sized community with a population of 244,826 (Table 3), Harford County's program capacity and availability of funding are significantly smaller than the large-sized communities. Harford County (Table 4) has less than half the population and half the total budget of Anne Arundel County (Table 3), the smallest large-sized community.

Table 3: Large-sized MS4 Community Populations and Actual Budgets for 2010

Jurisdiction	Total Population ^{1,2}	Population (per square mile)	Total Budget ^{1,3} (millions)
Montgomery County	971,777	1,900	\$4,330
Baltimore County	805,029	1,300	\$2,720
Prince George's County	863,420	1,700	\$2,660
Baltimore City	620,961	7,800	\$1,660
Anne Arundel County	537,656	1,300	\$1,230

¹ Source: Maryland Manual Online; July 29, 2014

² Includes incorporated municipalities

³ Total Budget includes operating expenses and capital pay-as-you-go

Table 4: Harford County Population and Actual Budget for 2010

Jurisdiction	Total Population ^{1,2}	Population (per square mile)	Total Budget ^{1,3} (millions)
Harford County	244,826	640	\$590

¹ Source: Maryland Manual Online; July 29, 2014

² Includes incorporated municipalities

³ Total Budget includes operating expenses and capital pay-as-you-go

The most costly condition of the Draft Permit is the watershed restoration for 20% of the impervious surfaces. MDE developed the surrogate parameter of watershed restoration for impervious surfaces as a method to quantify pollutant reductions. However, MDE has failed to consider the relationship between restoration and a County's ability to finance the program. This is clear if you compare Harford County to Montgomery County. Montgomery County's impervious surface is 2 times larger than Harford County's impervious surface, but its budget is 7 times larger (Tables 5). MDE's refusal to consider size as an aspect of MEP is illogical.

Table 5: Comparison of Impervious Surfaces and Total Budgets

Jurisdiction	Impervious Surfaces ¹ (acres)	Total Budget ^{2,3} (millions)
Harford County	9,880	\$590
Montgomery County	21,458 ^{4,5}	\$4,330

¹ Subject to MS4 Phase I coverage

² Source: Maryland Manual Online; July 29, 2014

³ Total Budgets for 2010 including operating expenses and capital pay-as-you-go

⁴ Montgomery County's Coordinated Implementation Strategy (January 2012)

⁵ Total impervious = 25,119 acres – 3,661 acres (treated to MEP). 2,942 acres (treated to MEP) were constructed prior to 2002 when the State adopted water quality standards

Additionally, Montgomery County is able to reduce its total impervious surfaces approximately 15% for existing stormwater management facilities because it adopted water quality management prior to 2002. Harford County did not adopt water quality management until it was State mandated in 2002, and therefore no reductions in impervious surfaces can be applied for existing stormwater management facilities.

The fact that each Phase I MS4 program is in a different stage with regard to implementation has also not been considered. Montgomery County's program is arguably one of the most well-respected and successful stormwater programs in the state if not across the region. Harford County is simply not in the same position.

The Harford County Draft Permit, with the exception of a few relatively minor changes, parallels the expectations for the large-sized communities. The Phase I MS4 permits are individual permits that should be drafted with consideration for each community's specific circumstances in accordance with the MEP standard established by EPA. It is inappropriate for MDE to use a template approach to create a general Phase I MS4 permit.

B. Ability to Finance the Draft Permit

Harford County has consistently communicated to MDE that the costs associated with the Draft Permit are excessive. Planning level cost estimates calculated by Harford County are approximately \$22 million per year for watershed restoration with an additional \$3 million per year for the remaining requirements for the Draft Permit. Over the past five years, Harford County has dedicated, on average, \$2 million per year for MS4 implementation. A ten-fold increase in costs associated with the Draft Permit is beyond Harford County's means. While Harford County recognizes the need to expand current programs associated with the Draft Permit, the costs exceed what can realistically be implemented within a five-year timeframe. Issuing the Draft Permit with the language below without consideration of Harford County's MEP would put Harford County at risk for a finding of regulatory noncompliance and vulnerable to State and Federal fines and lawsuits from third parties.

Harford County Draft Permit

“Adequate program funding to comply with all conditions of this permit shall be maintained. Lack of funding does not constitute a justification for noncompliance with the terms of this permit.”

(1) Harford County Cost Estimates to Implement the Draft Permit

The most significant costs associated with implementing the Draft Permit are those associated with the watershed restoration. The Draft Permit requires the County to complete watershed restoration for 20% of the total impervious surfaces not already restored to the MEP or 1,976 acres (20% of 9,880 acres. See Impervious Area Assessment above for more information).

In order to develop planning level cost estimates, Harford County used the Costs of Stormwater Management Practices in Maryland Counties report by Dennis King and Patrick Hagan (October 2011). Data statewide was gathered in the development of these cost estimates, generally from jurisdictions that have completed a significant number and variety of watershed restoration projects. Harford County did not participate in the study. Cost estimates for twenty four (24) different practices were developed which included pre-construction costs, land costs, construction costs, and post-construction costs. Total design and construction costs per impervious acre vary from \$6,049 for street sweeping to \$335,000 for new permeable pavement with a median cost per impervious acre of \$55,000.

Selection of watershed restoration practices cannot be based solely on the practices with the least cost per impervious acre. Other criteria include availability of land within existing development, ease of land acquisition, permitting requirements, and technical feasibility. Additionally, not all watershed restoration practices reduce each pollutant equally. Some practices are more technically capable of reducing nitrogen than phosphorus. Therefore, in order to meet the requirements of the Draft Permit, a variety of watershed restoration practices must be selected.

Therefore, for purposes of this assessment, we have used a median cost of \$55,000 per impervious acre based on the King and Hagan report to estimate the total cost to meet the Draft Permit requirement for watershed restoration for 1,976 impervious acres. This yields a total cost of \$110 million over the five year permit, or \$22 million per year divided equally.

(2) Availability of Harford County Revenue to Finance the Draft Permit

There are three types of public revenue potentially available to finance the requirements of the Draft Permit: income and property taxes, fees collected through a watershed restoration fund, and grants.

(a) Income and Property Taxes

For fiscal year 2015, seventy eight percent (78%) of Harford County revenues are projected to come from a combination of property and income taxes (Table 6). Over the past five years, property taxes have remained nearly constant while income taxes have averaged an annual 5% increase. Total revenues have averaged a modest 1% increase over the past five years; however, over the last two years, revenue growth has consistently trended downward, ending in a decrease of 2% during fiscal year 2015.

Table 6: Harford County Revenues¹

Fiscal Year	Property Taxes (millions)	Income Taxes (millions)	Other Revenue ² (millions)	Total (millions)	% Change
2015 ³	\$293	\$199	\$136	\$627	-2%
2014 ³	\$289	\$191	\$160	\$640	-3%
2013 ⁴	\$293	\$183	\$182	\$658	10%
2012 ⁴	\$299	\$179	\$122	\$600	4%
2011 ⁴	\$295	\$166	\$114	\$575	-3%

¹ Source: Harford County Approved Operating Budget reports

² Largest contributions to other revenue include recordation / transfer tax, Highways user tax, Water and Sewer user fees, licenses, and permits

³ Projections

⁴ Actuals

With only marginal increases in revenue and increased costs for operating expenses such as electricity, gasoline, fleet maintenance and health benefits, the percentage of revenue necessary to cover operating expenses has continued to increase. Therefore, revenues available for capital improvements are very limited.

Seventy eight percent (78%) of the total County budget for 2015 was allocated towards the General Fund (Table 7). Additional revenue was collected in dedicated funds for Highways, Water and Sewer, and Solid Waste.

Since fiscal year 2009, the State has reduced Harford County’s share of the Highways User tax by 91%; decreasing from \$14 million per year to \$1.3 million per year. In order to maintain an adequate level of services, this reduction has been offset with property tax revenue. Property tax revenue for agricultural (AG) preservation is generated from transfer taxes dedicated by the State solely for AG preservation. Therefore, property tax revenue dedicated to those programs is unavailable to finance the Draft Permit.

Table 7: Harford County Projected Revenue by Fund for Fiscal Year 2015¹

	Property Taxes (millions)	Income Taxes (millions)	Other Revenue ² (millions)	Total (millions)
General ³	\$250	\$199	\$40	\$488
Highways	\$35	\$0	\$11	\$46
Water & Sewer	\$0	\$0	\$65	\$65
Solid Waste	\$0	\$0	\$14	\$14
Stormwater ^{4,5}	\$1	\$0	\$0	\$1
AG Preservation	\$6	\$0	\$5	\$11
Parks	\$0	\$0	\$1	\$1
Other ⁶	\$1	\$0	\$0	\$1
	\$293	\$199	\$136	\$627

¹ Source: Harford County 2015 Approved Annual Operating Budget

² Largest contributions to other revenue include recordation / transfer tax, Highways user tax, Water and Sewer user fees, licenses, and permits

³ Agencies under the General Fund include – General Capital, Sheriff / Emergency / Fire, Harford Community College, Libraries, Board of Education

⁴ Harford County Bill 13-12 became law with amendments on April 23, 2013. One amendment included collecting 10% of the \$10.5 M requested, or \$1.05 M. The funds collected through the Watershed Restoration Fund are supplemented by General Funds.

⁵ For administrative reasons, the Watershed Restoration fees are collected on the property tax bill (It is a fee and not a tax) and listed under property taxes as a separate line item in the Approved Operating Budget Report.

⁶ Other accounts for special tax districts

Prior to the adoption of the watershed restoration fee, watershed restoration projects received revenues from the General Fund which also funds public safety, schools, the community college, and libraries (Table 8). Seventy six percent (76%) of the total General Fund for 2014 was allocated towards education and public safety.

Table 8: Harford County General Fund Appropriations for Fiscal Year 2015¹

	Appropriations (millions)	% of Total Appropriations
General Government ²	\$84	17%
Education	\$239	49%
Public Safety	\$96	20%
Libraries	\$16	3%
Capital Improvements ³	\$5	1%
Debt Service	\$49	10%
	\$488	100%

¹ Source: Harford County 2015 Approved Annual Operating Budget

² Under General Government there are 16 County agencies, allocations to other State and local agencies such as the municipalities and the Health Department, other programs such as Handicapped Care Centers, County self-insurance, and benefits including pensions.

³ Appropriations listed here are the County revenue portion of capital improvements or in general terms cash contributions.

For fiscal year 2015, \$5.3 million is allocated for General Fund appropriations for capital improvements across the entire County (Table 9), approximately \$17 million less than the estimated watershed restoration costs to implement the Draft Permit. The largest appropriation is for the required capping of the Harford Waste Disposal Center at \$ 2.27million.

Table 9: Harford County General Fund Capital Improvement Appropriations for Fiscal Year 2015¹

	Appropriations (millions)	% of Total Appropriations
General Government ²	\$1.9	35%
Solid Waste	\$2.3	44%
Education	\$0.3	6%
Public Safety	\$0.3	6%
Libraries	\$0.2	4%
Grant to SW Fund ³	\$0.3	5%
	\$5.3	100%

¹ Source: Harford County 2015 Approved Annual Operating Budget; Listed in the report as pay-as-you-go or “cash” towards capital improvement projects.

² Under General Government there are 16 County agencies, allocations to other State and local agencies such as the municipalities and the Health Department, other programs such as Handicapped Care Centers, County self-insurance, and benefits including pensions.

³ Harford County Bill 13-12 became law with amendments on April 23, 2013. One amendment included collecting 10% of the \$10.5 M requested, or \$1.05 M. The funds collected through the Watershed Restoration Fund are supplemented by General Fund.

The largest source of revenue for the General Fund is from property and income taxes. The minimal increase in revenue from these sources does not offset the very significant decrease in highways user taxes allocated to Harford County from the State. Therefore, this shortfall must be offset from the property and incomes taxes. There is significant competition for general funds between the needs of highways maintenance, public safety and education, making it challenging to finance the Draft Permit especially at a \$25 million per year level.

(b) Watershed Restoration Fees

Harford County Bill 13-12 established a stormwater remediation, or watershed restoration fee with amendments on April 23, 2013. The bill was drafted by Harford County Department of Public Works to meet the requirements of Maryland House Bill 987 (2012) to fund watershed restoration.

Harford County received its tentative determination for the Draft Permit approximately one year after Maryland House Bill 987 required the Phase I MS4 permittees to establish a watershed restoration fund and nearly five years after its current permit had expired. Therefore, the County Council was unwilling to start collecting the full fee based on a Draft Permit with an approval that was not imminent in 2013.

Two of the amendments for Bill 13-12 included (1) providing only 10% of the Department of Public Works request for \$10.5 million and (2) establishing a Task Force to review the fees. The amended fee, \$1.05 million, does not cover the cost of the operating expenses and is supplemented by revenue from the General Fund.

The Task Force was established “to report back to the County Executive and County Council” with “recommendations on fees”. The Task Force members included one person appointed by each of the seven County Council members and two County employees appointed by the County Executive. On May 1, 2014, the Task Force presented to the County Council its recommendation to collect \$5.7 million in fees based on their review of similar draft permits for other Maryland Phase I communities, cost estimates developed by the Department of Public Works, and their determination of a reasonable fee. The amount recommended by the Task Force would result in a residential fee of \$60 per property and a commercial fee of \$6 per 500 square foot impervious surface. Legislation has not been introduced, as yet, to adopt the recommended fees.

The Task Force’s recommendation for a residential fee of \$60 is in alignment with the findings of a nationwide survey. In 2013, there were over 1,400 jurisdictions in 39 states collecting fees for watershed restoration (Western Kentucky University Stormwater Utility Survey; 2013). The annual average and median fee respectively are \$54.84 and \$45.00. To fully fund the Draft Permit through collecting fees for the watershed restoration fund, the County would have to adopt a fee that was over four times the national average, or \$260 ($\$25 \text{ M} / \$5.7 \text{ M} = 4.4 \times \$60 = \$260$). This would be the second most expensive watershed restoration fee in the entire country.

According to the Maryland Department of Planning, the median household income in Harford County not only remains below the pre-recession level (in constant 2012 dollars), it also remains below 1999 levels. The unemployment rate in Harford County continues to linger around 6%;

decreasing from a high of 8% in 2010. Gasoline prices have increased 50% over pre-recession levels and residential electricity prices are rising.

Moreover, based on the work of the Task Force, a *reasonable* fee is more in line with \$60 per year for a residential property. This level of fee would put Harford County slightly above the average fee for the U.S., and would be set at a level on par with the Bay Restoration fee (which is currently \$60 per residence). We cannot ask our residents to pay a fee large than \$60 per year.

(c) Grants

Over the past five years, Harford County has been awarded \$1.7 million in grants. While many grants do not require a specific match, providing matching funds increases the probability of being selected for a grant award. Therefore, a revenue source to generate matching funds is necessary. Grants have become extremely competitive as a result of the increased implementation requirements for the MS4 program and the Chesapeake Bay Watershed Implementation Plan.

Table 10: Estimated Annual Availability of Traditional Grant Funding Sources

Grant	Estimated Grants Available (millions)
Chesapeake and Atlantic Coastal Bays Trust Fund ¹	\$16
Chesapeake Bay Trust ²	\$5
Water Quality Revolving Loan Fund - Green Forgiveness ³	\$0.3
Chesapeake Bay Stewardship Fund ⁴	\$12
Non-point Source Section 319 Grants ⁵	\$2.5
	\$35.8

¹http://www.dnr.maryland.gov/ccs/funding/trust_fund.asp

²<http://www.cbtrust.org/site/c.mjPKXPCJnH/b.5457271/k.C58E/Grants.htm>

³http://www.mde.state.md.us/programs/Water/QualityFinancing/Pages/Programs/WaterPrograms/Water_Quality_Finance/index.aspx

⁴<http://www.nfwf.org/chesapeake/Pages/home.aspx>

⁵<http://www.mde.state.md.us/programs/Water/319NonPointSource/Pages/Programs/WaterPrograms/319nps/index.aspx>

There is approximately \$35.8 million available annually from the traditional grant funding sources across the region (Table 10). Additional grant funding may be available for watershed restoration by 2018 from the Chesapeake Bay Restoration Fund that has focused on funding upgrading waste water treatment plans.

Availability of potential grant funds and the potential to be selected for grant awards is speculative and should not be considered a significant or reliable revenue source. Based on Harford County's past experience in receiving grant rewards and the potential availability of grant funds, Harford County estimates \$2 million per year in grant funding will be available to finance the work to comply with the Draft Permit.

(3) Ability of Harford County to Borrow to Finance the Draft Permit

While it is possible to issue bonds and secure loans to finance the work required to comply with the Draft Permit, Harford County does not currently have a revenue source to make debt payments.

(a) Bonds

Harford County policy provides that “the net bonded debt is to be maintained at a level no more than 2.3% of the full base value of assessable property” and “its resulting debt service are to be kept at a level no more than 10% of total expenditures.”

For fiscal year 2015, there is a debt margin of approximately \$142 million with the capacity to pay approximately \$6 million in additional debt service (Table 11). The limiting factor for the current bond capacity is debt service. In order to maintain an acceptable bond rating and thus minimize interest the County must pay on its debt, the County has concluded that the maximum amount the County can obtain through bond sales for the watershed restoration program is \$30 million. Based

on a 20 year term (maximum time frame allowed through Harford County policy) and at 4% interest, this would result in \$2.2 million in annual debt service.

Table 11: Harford County Debt Limits for 2015¹

	Approved Debt Policies		Actual Projected Debt		Available Bonding Capacity
Net Debt ²	2.3%	\$615 M	1.8%	\$472 M	\$142 M
Debt Service ³	10%	\$54.5 M	8.9%	\$48.6 M	\$5.8 M

¹ Source: Harford County website, 2015 Approved Annual Operating Budget

² Percentage of Taxable Property Value = \$26,734 M (2015)

³ Percentage of Total Expenditures = \$545 M (2015)

(b) Loans

Low interest rate loans are available through MDE’s Water Quality Revolving Loan Fund program for projects completed on public property. According to the program’s Final Federal Fiscal Year 2014 Intended Use Plan, (June 2014), \$130 million per year are projected for loans for the next five years. For 2014, loans were approved for fourteen projects; only two projects were not associated with waste water treatment. Based on competition with waste water and the other Phase I communities, Harford County estimates that, at best, it may be able to secure a loan for \$10 million, which would result in an annual debt service of \$600,000 at 2% interest through the WQRLF program.

(4) Total Available Revenue to Finance Work Under the Draft Permit

Based on the revenue currently available and the ability to secure additional revenue in the near future, the Draft Permit exceeds Harford County’s MEP. Harford County estimates the total cost to implement the Draft Permit as \$125 million over the five-year permit term. The maximum revenue available to finance the Draft Permit estimated over the five-year permit term, less debt service is \$72.3 million (Table 12).

This represents the best case scenario assuming all of the required approvals are obtained to increase the current watershed restoration fee, selection for grant funding and loans, and approval to issue a bond. In January 2015, there will be a new County Executive and an appointed administration. There will also be at least two new members of the County Council and a new County Council president.

Table 12: Estimated Revenue Available to Implement the Harford County Draft MS4 Permit

Year	Revenue				Debt Service		Total (millions)
	Fees (millions)	Grants (millions)	Bonds (millions)	Loans (millions)	Bonds (millions)	Loans (millions)	
1	\$5.7	\$2.0	\$0	\$0	\$0	\$0	\$7.7
2	\$5.7	\$2.0	\$0	\$0	\$0	\$0	\$7.7
3	\$5.7	\$2.0	\$0	\$10	\$0	-\$0.6	\$17.1
4	\$5.7	\$2.0	\$30	\$0	-\$2.2	-\$0.6	\$34.9
5	\$5.7	\$2.0	\$0	\$0	-\$2.2	-\$0.6	\$4.9
	\$28.5	\$10.0	\$30	\$10	-\$4.4	-\$1.8	\$72.3

Over the past five years revenue from property and income tax has not increased to meet the increased operating expenses of the County. The only potential to generate additional revenue would be to increase the tax rate. Compared to the other 22 jurisdictions in Maryland, Harford County currently has the 5th highest real property tax rate, the 4th highest business property tax rate and 8th highest income tax rate. If work under the Draft Permit were funded through increases in income and property taxes, it would require a 5% increase for each.

Harford County only has the ability to issue bonds or secure loans if a revenue source is available to pay debt service. Since there are no General Funds available, the only other option to generate revenue is to collect fees through the watershed restoration fund. Assuming the County Council

implements the Task Force's recommendation of \$5.7 million, the County would have the ability to issue bonds and secure loans at no more than the levels shown in Table 12.

The maximum projected net revenue is \$72.3 million, considerably less than the estimated \$125 million total cost to implement the Draft Permit. Based on this analysis the costs associated with Draft Permit are excessive and exceeds Harford County's MEP.

C. Ability to Implement the Draft Permit over the Five-year Permit Term

Even if funding was unlimited, certain conditions within the Draft Permit exceed the County's MEP because the schedules to implement the requirements are unrealistic and beyond the control of the County.

(1) *Watershed Restoration*

Watershed restoration for 20% of the County's impervious surface not already restored to the MEP is the most time consuming requirement within the Draft Permit. Restoration projects can take up to two years to design, permit and construct after the project has been determined to be a viable project. Prior to determining that a project is viable, the County must complete a watershed assessment and must approach property owners. If property owners will not cooperate, then alternative projects must be identified for review. Nearly 70% of the County impervious surfaces are located on private properties.

Harford County Draft Permit

“By the end of this permit term, Harford County shall commence and complete the implementation of restoration efforts for twenty percent of the County's impervious surface area consistent with the methodology described in the MDE document cited in PART IV.E.2.a that has not already been restored to the MEP.”

Unlike facilities in some large-sized communities, stormwater management facilities in Harford County are owned and maintained by the property owners. Retrofitting existing stormwater facilities on private properties requires intensive outreach and negotiation throughout the design and construction process. Since the County does not take over ownership or maintenance for the stormwater facilities that are retrofitted, many property owners are concerned about the increased

maintenance costs associated with an upgraded stormwater management facility that generally includes new wet features and increased landscaping. Each project requires an individual agreement to outline rights of entry and negotiated conditions. Some commercial property owners also require time of year restrictions for construction. Retrofitting existing stormwater management facilities on private properties takes approximately twelve (12) months to design, permit and construct. If the project involves wetland or waterway impacts, the projects take an additional six (6) months for permitting.

Design and construction for new stormwater management facilities including ESD practices requires the same outreach and negotiation with property owners but also includes the time and expense for plat preparation and approval and long term maintenance. Projects for new stormwater management facilities take approximately eighteen (18) months to design, permit and construct.

Nearly all stream corridors in Harford County are privately owned. Unlike some large-sized communities, Harford County does not establish rights of way for stream corridors during the subdivision process. Generally, stream restoration projects require easements from at least ten (10) property owners, in some cases up to twenty five (25). Therefore, even more intensive outreach and negotiation is required during the design and construction of stream restoration projects which typically take approximately thirty (30) months to design, permit and construct. Although the County has the right to condemn property to obtain easements, condemnation requires approval by the County Council and is extremely expensive and time-consuming, requiring a year or more to complete.

Harford County does have the ability to complete both stormwater retrofits and stream restorations more quickly on County owned property. Based on previously completed projects, projects completed on County owned properties take approximately six (6) months less than on privately owned properties.

The Draft Permit requires the watershed restoration of 20% of the impervious surfaces to be completed by the end of the permit term. On average stormwater retrofit projects and stream restoration projects take approximately two (2) years to design, permit and construct on privately owned property and approximately one and a half (1½) years on County owned properties.

Therefore, a majority of the projects need to be identified and designs initiated no later than the end of the third year of the permit. Based on watershed restoration projects completed in Harford County each project averages approximately fifteen (15) impervious acres. Approximately, one hundred thirty two (132) projects would be necessary to meet the watershed restoration requirement in the Draft Permit (1,976 impervious acres / 15 impervious acres per project = 132 projects).

Dividing one hundred thirty two (132) projects over the first three (3) years of the permit would be approximately forty four (44) projects per year. For fiscal year 2014, Harford County had eleven (11) projects under design. The Draft Permit would require that the County undertake four (4) times as many design projects as it currently manages. That is an excessive program increase.

Additionally, construction of the one hundred thirty two (132) projects would occur over the last three (3) years of the permit term. To meet this permit requirement Harford County would need to bid and award construction contracts for approximately forty four (44) projects per year. Over the past five years Harford County has constructed on average two (2) projects per year. The Draft Permit would require that the County expand its construction program by over 20 times. Based on past experience with watershed restoration projects, there is currently a limited number of experienced contractors capable of completing watershed restoration projects successfully. Issuing this amount of construction work will likely lead to an influx of under-qualified contractors attempting to complete this specialized work. Completing watershed restoration correctly the first time is Harford County's priority.

(2) *Watershed Assessments*

Harford County Draft Permit

“By the end of the permit term, Harford County shall complete detailed watershed assessments for the entire County”

Watershed assessments are completed to systematically identify opportunities for watershed restoration. Since the design and construction for watershed restoration projects can take up to two years to complete, a majority of the assessments need to be completed within the first three years of the permit. The completion of watershed assessments for the entire County is labor and cost intensive and neglects the need to prioritize funding and resources in the watersheds with the greatest impacts from urban development. It additionally expands the coverage area of the MS4 permit outside of the designated urban areas as specified in the Phase I and Phase II rulings and outside the areas served by the County's MS4. Harford County believes we will get the best return

(in terms of environmental improvement) from our investment if we focus on the Bush River watershed.

Through our local planning efforts, over 70% of the County’s population has been directed into the Priority Funding Area or the development envelope. This allows for preservation of sensitive areas within our rural districts. Impacts from impervious surfaces outside of the development envelope where the minimum residential lot size is 2 acres are much smaller than within the development envelope where building is much denser.

Table 13: Summary of Harford County Impervious Area and Population by Watershed¹

Watershed	Area (Acres)	% of Total Impervious	% Impervious	Population ²	Population ² (per square mile)
Bush	76,000	52%	10%	60%	1,400
Gunpowder	24,000	15%	6%	12%	900
Lower Susquehanna	126,000	29%	3%	19%	260
Upper Western Shore	16,000	4%	8%	9%	970
	242,000	100%	6%	100%	740

¹ The table includes all properties within the County including state and federally owned properties and roadways and properties within the incorporated municipalities

² 2010 US Census Data

The Bush River watershed encompasses a majority of the designated urban areas. The Bush River watershed is the most densely populated watershed in the County (Table 13). It contains nearly 70% of the development envelope, 60% of the total County population, and over 50% of the total County impervious surfaces. The Bush River watershed contains nearly 7,600 acres of impervious surfaces. If funding and the speed of implementation were not a problem, this would be a sufficient amount of impervious surfaces to meet the 20% watershed restoration required in the Draft Permit, or 1,976 acres.

Conversely, the Lower Susquehanna River watershed is located completely outside of the development envelope, has the lowest population density per square mile, and lowest percent impervious surfaces. Likewise, a large majority of development within the Lower Susquehanna River watershed is agricultural. Watershed restoration for agriculture has been assigned an allocation for nutrient and sediment load reductions in the Chesapeake Bay Watershed Implementation Plan. Therefore, any watershed assessments for the Lower Susquehanna River watershed should be completed by the agricultural community and excluded from the MS4 permit.

The majority of watershed assessments must be completed during the first three years of the permit in order to identify projects for restoration. In addition to this compressed schedule, the Draft Permit has specific requirements for public participation that must be followed before an assessment can be finalized including a minimum 30 day comment period and summary of how the County addressed any material comments.

Harford County not only contends that completing watershed assessments for the entire county exceeds the County's MEP, we also contend that it extends the permit beyond the intent of focusing on urban areas. Harford County believes we will get the best return (in terms of environmental improvement) from our investment if we focus on the Bush River watershed during this permit term.

(3) Restoration Plans

Prior to issuing the Draft Permit, MDE developed watershed restoration for impervious surfaces as a surrogate parameter to quantify pollutant reductions. The inclusion of restoration plans for stormwater wasteload allocations in the Draft Permit now requires Harford County to also directly analyze pollutant load reductions. A significant amount of work is necessary to track progress for both requirements.

The intention of the restoration plans appears to replicate the Bay Watershed Implementation Plans with planning level estimates and schedules for BMP implementation and programmatic implementation. Individual project identification and cost estimates are not required within those plans. Identification of individual projects occurs during the watershed assessment phase when actual field investigations are completed. Providing that level of detail is impossible within one year of the effective date of the permit. Additionally, it is impossible to select a final date for meeting the WLAs beyond the five-year permit term. Harford County would need to speculate what additional requirements may be added to the next five-year permit term to determine its ability to finance a program of this significant a scale.

Harford County Draft Permit

“Within one year of permit issuance, Harford County shall submit to MDE for approval a restoration plan for each stormwater WLA approved by EPA prior to the effective date of the permit.”

As discussed above a stormwater WLA has not been allocated to Harford County for the Bay TMDL. Harford County intends to continue developing its Phase II WIP and 2 year milestone attributed to the planning level load estimates through the County’s planning team and documenting its progress through that program. Developing an enforceable restoration plan based on planning level estimates for loads is inappropriate.

4. Conclusion

The maximum amount estimated by Harford County that is available to finance the Draft Permit is \$72.3 million over the five-year permit term, considerably less than the \$125 million required for full implementation. The amount which the County projects will be available to implement watershed restoration is \$15 million less than the total or \$57.3 million.

Based on the funds available and review of the typical implementation schedules for watershed restoration projects, Harford County's MEP is 10% of impervious surfaces not already restored to the MEP (Table 14).

In addition to the following assumptions made to develop the MEP, Harford County has assumed that the requirements of the Draft Permit would become effective for the next fiscal year to begin July 1, 2015 to allow for the County to increase funding.

- Harford County's total impervious surface not restored to the MEP is 9,880 acres
- Watershed Assessments to be completed only for the Bush River watershed
- Restoration Plans and annual TMDL assessments only required for Bynum (sediments) and Loch Raven (phosphorus)
- No additional restoration plans or annual TMDL assessments will be added during this permit term
- No changes to the Accounting Document that would lower current efficiencies or credits for projects where the County has already invested funds.

The information listed in Table 14 is not a commitment of the funding levels proposed but a summary of the maximum potential funding estimated to be available. A change in administration including a new county executive and at least two new county council members will occur in January 2015. Any increase in the restoration fee, approval to issue bonds or increase in the capital or operating budget for watershed restoration will be subject to their final approvals.

Table 14: Harford County's MEP based on Available Revenue and Implementation Schedules

Fiscal Year	Design ¹		Construction ²	
	Costs (millions)	Impervious (acres)	Costs (millions)	Impervious (acres)
2015	\$3.2	195	\$1.5	40
2016	\$3.2	195	\$1.5	40
2017	\$1.9	115	\$12.2	320
2018	\$8.1	490	\$23.8	625
2019	0	0	\$1.9	50
	\$16.4	995	\$40.9	1075 ⁴

¹ 30% of \$55,000 = \$ 16,500 per impervious acre

² \$55,000 - \$16,500 = \$38,500 per impervious acre

³ Total watershed restoration costs \$16.4 M + \$40.9 M = \$57.3 M; Other Draft Permit implementation costs \$3 M per year; Total Draft Permit implementation costs \$57.3 M + \$15 M = \$72.3 M; Revenue outlined in Table 11.

⁴ Design projects have been initiated for 80 impervious acres; 995 (new designs) + 80 (existing designs) = 1075 / 9,880 impervious acres = 10.8%.

5. Draft Permit Revisions

The following updates to the Draft Permit are necessary to align with Harford County's MEP. Additional updates are included in Harford County's comments on the tentative determination.

Harford County MEP – Part IV.E.1.a.

“By the end of the permit term, Harford County shall complete detailed watershed assessments for the ~~entire County~~ **Bush River Watershed**”

Harford County MEP – Part IV.E.2.a.

“By the end of this permit term, Harford County shall commence and complete the implementation of restoration efforts for ~~twenty~~ ten percent of the County's impervious surface area”

Harford County MEP – Part IV.E.2.b.

“Within ~~two years~~ **one year** of permit issuance, Harford County shall submit to MDE for approval a restoration plan for ~~each~~ the stormwater WLAs approved by EPA **for Loch Raven and Bynum Run** ~~prior to the effective date of the permit~~. The County shall submit restoration plans for subsequent TMDL WLAs **during the next permit term** ~~one year of EPA approval~~. ~~Upon approval by MDE, these restoration plans will be enforceable under this permit.~~ As part of the restoration plans, Harford County shall:

- i. ~~Include the final date for meeting applicable WLAs and a detailed schedule for implementing all structural and nonstructural water quality improvement projects, enhanced stormwater management programs, and alternative stormwater control initiation necessary for meeting~~ **addressing** applicable WLAs;
- ii. Provide ~~detailed~~ **planning level** cost estimates for ~~individual~~ restoration projects, programs, controls, and plan implementation;
- iii. Evaluate ~~and track~~ **pollutant load reductions** for the implementation of restoration plans through monitoring or modeling to ~~document the progress toward meeting established benchmarks, deadlines, and stormwater WLAs; and~~
- iv. **Submit for MDE approval any modifications to the approved restoration plans based on** ~~Develop~~ an ongoing, iterative process that continuously implements structural and nonstructural restoration projects, program enhancements, new and additional programs, and alternative BMPs ~~where EPA approved TMDL stormwater WLAs are not being met according to the benchmarks and deadlines established as part of the County’s watershed assessments.”~~