

Frederick County Comments

Draft MS4 Permit

September 29, 2014

Frederick County Government

Office of Sustainability and Environmental Resources

Watershed Management Section

September 29, 2014

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I. INTRODUCTION

Frederick County (County) submits the following comments on the Maryland Department of the Environment's (MDE's or Department's) Tentative Determination to issue the County's 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 consideration of our concerns and recommendations.

II. COUNTY'S ENVIRONMENTAL EFFORTS

The County has worked hard to improve the condition of local waterbodies and the Chesapeake Bay for many years. Our last MS4 permit was issued in 2002. Since then, we have taken a number of steps to reduce the level of pollutants discharged from our MS4. Details regarding our efforts can be found at:

<http://frederickcountymd.gov/index.aspx?nid=518>.

Our commitment to the Chesapeake Bay and to local waters extends to other County environmental programs and efforts. The County owns and operates twelve wastewater treatment plants, including Ballenger-McKinney WWTP, Crestview WWTP, Fountaindale WWTP, Jefferson WWTP, Kemptown WWTP, Lewistown WWTP, Mill Bottom WWTP, Monrovia WWTP, New Market WWTP, Pleasant Branch WWTP, Point of Rocks WWTP, and White Rock WWTP. We are nearly finished with enhanced nutrient removal (ENR) upgrades to the Ballenger-McKinney WWTP. Now operational, this \$105 Million construction project, paid for through a combination of a state ENR grant (via the Bay Restoration Fund), low-interest state loan, American Recovery and Reinvestment Act loan, and local funding, will reduce nitrogen discharges by approximately 63% and phosphorus discharges by approximately 85% per year. In addition, since the 1990s, the County has voluntarily decommissioned smaller plans and consolidated their flow into the Ballenger-McKinney WWTP. This was environmentally beneficial as well.

The County's Office of Sustainability & Environmental Resources also runs a number of programs that positively impact our local environment. For example, the County has a Green Homes Challenge program that educates citizens on ways to reduce their energy usage, on steps to take at home to create a greener environment, and on renewable energy technology. The County is a member of the U.S. Green Building Council and has one LEED-AP and three LEED-Green employees on staff. Two of our own buildings, the Brunswick Library and the Catoctin Creek Nature Center, were built to incorporate green standards. The Nature Center, for example, includes a vegetated roof, a geothermal well field and heat pump system, native plant landscaping and environmental education programs.

We have also updated our website to provide information to the public on related climate change issues.

In conclusion, the County is proud to be an environmental leader in the State. We are fortunate to have a beautiful and serene natural setting for our citizens and visitors to enjoy, and we take our responsibility to the environment seriously.

III. PHASE I PERMIT STATUS

A. Frederick County's MS4 Should Be Permitted as a Phase II MS4

The County has a number of substantive concerns regarding the Draft Permit terms. Preliminarily, however, we feel compelled to bring up a jurisdictional matter that may impact the future course of our program.

As explained in greater detail below, the County believes we have been incorrectly identified as a medium-size Phase I MS4 permittee. Based upon information and belief,¹ the County agreed to be regulated as a Phase I MS4 in the mid-1990s as an accommodation to MDE. In hindsight, however, it is not clear that MDE had the authority to press the County to accept Phase I status.

The County acknowledges that in addition to identifying large and medium Phase I MS4s, MDE had the authority to designate additional municipalities as Phase I MS4s using residual designation authority (RDA) if necessary based on water quality impact concerns. However, we have no evidence that MDE ever took the necessary steps to formally designate the County using RDA, calling into question our regulatory status over the last two decades.

Agreeing to apply for a Phase I MS4 permit in the 1990s likely seemed like a low-risk response to a state agency request. Over the past two decades, however, public and regulatory expectations for MS4 permittees and the level of scrutiny paid to permit compliance have increased exponentially, particularly for MS4s in the Chesapeake Bay Watershed like Frederick County. If MDE issues the County's permit as it is currently written, Frederick County will have one of the most expensive MS4 permits in the entire United States. This is a significant commitment for the County, and brings with it the great risk that if we fail to comply we risk enforcement action or a citizens' suit. We can no longer acquiesce to MDE's past practice. The stakes are simply too high.

¹ On August 25, 2014, the County submitted a Public Information Act request for documentation relating to MDE's decision to identify Frederick County as a Phase I MS4 permittee (Appendix A). Although the County received confirmation that the request was received, we have not received any documentation from MDE in response to the request, nor have we been notified that documentation is available for our review.

For these reasons, we are requesting coverage under the Phase II MS4 GP, which more accurately reflects the size of our system and our capacities with regard to permit implementation. We will be submitting an application in the near future.²

B. EPA Phase I and II Rules

EPA issued its Phase I Stormwater Rule (Phase I Rule)³ in 1990 in response to the Water Quality Act of 1987, which stated that EPA or a delegated state could not require permit coverage for stormwater discharges before October 1, 1992 (later amended to October 1, 1994) except for discharges:

(A) Permitted prior to February 4, 1987;

(B) Associated with industrial activity;

(C) From an MS4 serving a population of 250,000 or more;

(D) From an MS4 serving a population or more than 100,000 but less than 250,000; or

(E) Which the EPA or a delegated state has designated based upon a determination that the discharge is contributing to the violation of a water quality standard or which is a significant contributor of pollutants to waters of the U.S.⁴

Congress did not define an “MS4,” nor did it explain what it meant by “serving” a population, both of which are important factors in (C) and (D) above. EPA worked to fill in these blanks in its Phase I Rule.

EPA considered a number of different options for defining an “MS4,” but ultimately adopted an approach based upon population (for incorporated places) and urbanized areas (for counties). EPA explained its approach in the Preamble, defining large and medium MS4s as municipal storm sewer systems that:

“(i) Are located in an incorporated place with a population of 100,000 or more or 250,000 or more as determined by the latest Decennial Census by the Bureau of Census (see appendices F and G of part 122 for a list of these places based on the 1980 Census).

² Consistent with federal law, Phase II MS4s are generally regulated only if they are located in Census-designated urbanized areas. In Frederick County’s case, per the 2010 Census, the urbanized areas include those areas in the County with a population greater than 50,000. MDP’s map highlighting these areas is attached as Appendix B. Note that some of the highlighted areas are independent municipalities with their own MS4 permits. They are therefore not in the County’s Service Area.

³ 55 Fed. Reg. 47990 (Nov. 16, 1990).

⁴ Phase I Rule at p. 47992.

(ii) Are located within counties having areas that are designated as urbanized areas by latest decennial Bureau of Census estimates and where the population of such areas exceeds 100,000, after the population in the incorporated places, townships or towns within such counties is excluded (see appendices H and I for a listing of these counties based on the 1980 census) (incorporated places, towns, and township within these counties are excluded from permit application requirements unless they fall under paragraph (i) or are designated under paragraph (iii)); or

(iii) are owned or operated by a municipality other than those described in paragraph (i) or (ii) that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraphs (i) or (ii).⁵

As the definition above makes plain, EPA identified a county as a large or medium MS4 if it included census-defined urbanized areas with a population **in such areas** greater than 100,000 after subtracting out incorporated places, townships or towns. (Emphasis added).

EPA did this intentionally in an effort to identify counties that were similar to the large cities listed under (i) of the definition. According to EPA, a listed county “performs many of the same functions as incorporated cities with a population of 100,000.” In addition, the listed counties were highly urbanized, like large cities: “Due to the urbanized nature of their population, discharges from municipal separate storm sewers in these counties will have many similarities to discharges from municipal systems in incorporated cities with a population of 100,000 or more.”⁶

Using this urbanized area methodology, EPA considered all of the counties in the U.S., and listed all medium MS4 counties by state in Appendix I. EPA then referenced Appendix I in the final regulatory language it adopted at 40 C.F.R. §122.26(b)(7). The reference remains today.

“(7) Medium municipal separate storm sewer system means all municipal separate storm sewers that are either:

⁵ Phase I Rule at p. 48040.

⁶ Phase I Rule at p. 48041. *See also* Phase I Proposed Rule (53 Fed. Reg. 49416): “The priorities established in the Act are based on the size of the population served by the system because, in general, discharges from municipal separate storm sewers located in municipalities with higher populations are thought to present a higher potential for contributing to adverse water quality impacts. NURP and other studies have verified that the event mean concentration of pollutants in urban runoff from residential and commercial areas remains relatively constant from one area to another, indicating that pollutant loads from urban runoff strongly depend on the total area of developed land, which in turn is related to population.”

(ii) Located in counties listed in appendix I, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties;”

EPA’s Phase II Stormwater Rule (Phase II Rule)⁷ designated small MS4s inside urbanized areas, expanded RDA, and revised the appendices based on the 1990 census. Notably, Howard County was the only county in Maryland added to the Phase I MS4 list.⁸ EPA also froze the Phase I MS4 list to include only those cities or counties listed in the appendices:

“EPA is adding those incorporated places and counties whose 1990 population caused them to be defined as a “medium” or “large” MS4. All of these MS4s have applied for permit coverage so the effect of this change to the appendices is simply to make them more accurate. They will not need to be revised again because today’s rule “freezes” the definition of “medium” and “large” MS4s at those who qualify based on the 1990 census.”⁹

C. Applicability of EPA Rules to Frederick County

In the mid-1990s, when MDE approached the County about applying for Phase I MS4 permit coverage, Frederick County did not qualify under subparagraph (i) (Frederick County is not an incorporated place) or subparagraph (iii) (Frederick County is not interconnected with a larger system of the Phase I Rule). The only legitimate basis MDE would have had for mandating that the County obtain a permit as a medium-sized MS4 was subparagraph (ii) or RDA.

In 1990, Frederick County had a total population of 150,208. According to records compiled by the MDP, **only 58,393** of this population lived in an urbanized area, 28,293 lived outside an urbanized area and 63,522 lived in a rural area.¹⁰ Per subparagraph (ii), Frederick County needed a population in the census-designated area served by the MS4 excluding municipalities greater than 100,000. Thus, based upon 1990 census data and EPA’s explanation for how it identified medium MS4s, Frederick County did not qualify.¹¹

⁷ 64 Fed. Reg. 68772 (Dec. 8, 1999).

⁸ Frederick County was not listed in Appendix I in either the Phase I or Phase II Rules.

⁹ Phase II Rule at p. 68749.

¹⁰ Available at:

http://www.mdp.state.md.us/msdc/census/cen2000/Urban_rural/ua_rural2k_cnty.pdf.

A copy of this document is also attached as Appendix C.

¹¹ The County does not have the urbanized area breakdown for the 1980 census. However, we can estimate this figure based on the fact that 39% of the population lived in the urbanized area in 1990. Assuming a similar percentage lived in the urbanized area in 1980 (total population 114,792), approximately 44,768 lived in the urbanized area. It would be unreasonable to assuming a larger percentage lived in the urbanized area in 1980 as compared to 1990 (i.e., that greater than 39% lived in the urbanized area in 1980), because such an assumption would contradict established development patterns across Maryland for this time period.

D. MDE's Basis for Designation

As noted above, CWA §402(p)(2)(E) authorized the Administrator or a state director to use RDA to designate a discharge based upon water quality considerations.¹² We do not believe MDE identified Frederick County as a Phase I permittee based on water quality impacts. Again, based upon information and belief, we believe MDE based its decision to include several of the medium-sized systems, including Frederick County, on estimates of future population growth for the entire County (not just in the urbanized area).

This was inappropriate for two reasons. First, it relied on an estimate of growth that had not yet actually occurred. Second, we find nothing in the Phase I Rule that even hinted that state regulators should consider growth potential when identifying Phase I MS4 permittees. The 100,000 population figure in the CWA and federal regulations was the *minimum* population that must be achieved for designation to occur, and until a county reached that figure, there was no basis for including them.

The County believes that MDE ignored both the Preamble to the Phase I Rule and the regulations themselves, and chose instead to develop its own approach to identifying Phase I permittees. MDE has not, to date, justified its approach based upon federal or state law.

Lastly, MDE cannot simply issue a Phase I permit today based on the theory that the County has now crossed the 100,000 population mark. The Phase I list closed in 1999 based on the 1990 census. As noted above, Frederick County did not qualify using the 1990 figure.

For this reason, Frederick County objects to reissuance of this Phase I MS4 permit. The County's MS4, limited to facilities located in the urbanized area per the 2010 Census, should be regulated as a small MS4 under the terms of the existing General Permit.

IV. PERMIT SCOPE AND PROCESS

Assuming MDE disagrees with the County's legal argument on our MS4 status, and issues the Phase I MS4 permit over our objection, the permit must be consistent with a maximum extent practicable (MEP) level of effort, consistent with CWA §402(p)(3)(B)(iii) (further discussion below in Part V of these comments).

Without waiving our rights to argue that the County should be regulated as a Phase II MS4, we would be willing to consider accepting a Phase I MS4 permit if it (1) adequately incorporates the County's proposed revisions as set forth in these comments, our MEP Analysis (attached as Appendix D), and the

¹² There are rules to follow if this authority is used. EPA explained in the Phase I Rule that it would make case-by-case designations "under regulatory procedures found at 40 CFR 124.52." Phase I Rule at p. 47993. These procedures include notifying the discharger in writing that they must seek permit coverage, providing reasons for the determination, and allowing at least 60 days for submittal of the application.

attached maximum extent practicable permit (MEP Permit) (attached as Appendix E) (both MEP documents explained below) and (2) is not otherwise altered after the public comment period without our concurrence.

In terms of scope, the Draft Permit is a significant step-up from current requirements. In the MEP Analysis, we have identified all tasks that are either entirely new or greatly expanded. A number of these terms are not achievable either because of cost or scheduling or because they are impossible to accomplish even with unlimited funding and time. The County's MEP Analysis identifies these tasks as beyond the MEP.

Special note is made of cost. Based upon our analysis, we believe it would cost the County approximately \$126,677,501 (in 2017 dollars), or \$21,112,916.83 on average per each of the six fiscal years of the five year permit, just to comply with the 20% restoration requirement. When added to other permit requirements (estimated at \$15,568,509), the total cost is \$142,346,010.20, or an average \$23,724,335.03 per fiscal year. This translates to approximately \$462 per stormwater fee ratepayer per fiscal year.¹³

Furthermore, three separate consultants reviewing the costs prepared for our MEP Analysis stated that the permit is not physically possible to execute in five years. In terms of scheduling, the new permit increases the pace of implementation, particularly with regard to watershed restoration, without considering the County's inability to control all aspects of restoration projects. If we are obligated to seek a permit for installation of a BMP, we do not control the review and approval timeline.¹⁴ Only \$104,852,801 of permit-required tasks are deemed physically possible to execute in the five year permit before considering cost limitations.

The County is currently funding the program using General Fund and stormwater fee dollars. In the years leading up to fiscal year 2014, the County was spending an average of approximately \$2.5 Million per year to address MS4 permit requirements. In FY'14 it spent an estimated \$3,559,136. In FY'15 it has budgeted \$5,349,890. The new permit costs 443% of the current funding level. We are stunned that MDE would issue a Draft Permit that carries this level of increase. As our MEP Analysis explains, we are unaware of any municipal fee that has ever increased anywhere near this level over a one-year period. We object to asking our citizens to choose between funding stormwater management or public education, safety, and other important social programs.

¹³ Calculation based upon 49,485 stormwater utility accounts.

¹⁴ 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..." This document is available at: <http://www.epa.gov/reg3wapd/tmdl/2014Evaluations/MD.pdf>

Finally, parts of the Draft Permit cannot be accomplished even if the County had unlimited funding and an indefinite amount of time. For example, the Draft Permit requires that the County develop a litter and floatables program with a goal of “elimination” of these materials. Eliminating litter and floatables will never occur. It is not a realistic goal, and should not be referenced in a federal permit as the basis for future local planning.

The County has determined that we cannot achieve the terms of the Draft Permit as written. Based on other recent Phase I MS4 reissuance proceedings,¹⁵ we are concerned that third parties may seek in their comments to impose even more stringent and more expensive permit requirements.¹⁶ We object to any efforts to do so given the overall scope and level of burden associated with the Draft Permit.

For all of these reasons, the County requests that MDE not add requirements to the Draft Permit, either on its own or in response to public comments. 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. The County also reserves the right to request appropriate modifications to the permit if the Department changes permit terms in future MS4 permits due to litigation or as it gains experience over time.

Specific comments regarding the Draft Permit follow in Part V of these comments.

¹⁵ The County has commented on every Phase I MS4 permit reissuance since 2012, including repeatedly raising concerns regarding MDE’s “template” approach to issuing Phase I permits without considering individual community goals and capabilities. Copies of these comments are attached as Appendix F.

¹⁶ 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.

V. COMMENTS REGARDING THE DRAFT PERMIT

A. MEP Compliance Standard

1. MEP is The Legal Compliance Standard for MS4s ¹⁷

MDE has included MEP references in Parts III, IV.D, IV.E, and VII of the Draft Permit, and the County supports these references to the extent that they appropriately reflect the MEP legal compliance standard. ¹⁸

Part III of the Draft Permit also states that implementation of Parts IV through VII will constitute adequate progress towards water quality standards (WQS) compliance. Although the County submits that there is no legal requirement that an MS4 permit include **any** references to WQS or TMDL wasteload allocations (WLAs), we can conceptually support this language 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).¹⁹

CWA §402(p)(3)(B)(iii)²⁰ 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

¹⁷ 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 G hereto.

¹⁸ 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 VII.A.

¹⁹ 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 III 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 subparagraphs (1) and (2) above.”

²⁰ 33 U.S.C. § 1342(p)(3)(B)(iii).

WQS or TMDL WLAs (which are water quality standards in a different form). If MDE chooses to do so over the County's objection, references must be 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 for industrial storm water dischargers²¹ but prescribed new controls for municipal storm water discharge," i.e., the less-stringent "maximum extent practicable standard."²²

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 WQS or TMDL WLAs.

In *NRDC v. EPA*, 966 F.2d 1292 (9th Cir. 1992), the Court was presented with a challenge to EPA's Phase I Rule, including EPA's decision not to require minimum criteria or performance standards for municipal stormwater discharges. In ruling against the petitioners, the court summarized the law as follows:

"Prior to 1987, municipal storm water dischargers were subject to the same substantive control requirements as industrial and other types of storm water. In the 1987 amendments, ***Congress retained the existing, stricter controls for industrial stormwater dischargers but prescribed new controls for municipal storm water discharge.***"²³

In response to the petitioners' objection that the regulation contained no minimum criteria or performance standards for MS4 discharges, the Court concluded that Congress gave EPA the discretion to determine what controls are necessary:

"Congress did not mandate a minimum standards approach or specify that EPA develop minimal performance requirements . . . NRDC's argument that the EPA rule is inadequate cannot prevail in the face of the clear statutory language and our standard of review. ***Congress could have written a statute requiring stricter standards, and it did not.***"²⁴

²¹ 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).

²² *Defenders of Wildlife*, 191 F.3d at p. 1165 (quoting *Natural Resources Defense Council, Inc. v. EPA*, 966 F.2d 1292, 1308 (9th Cir. 1992)).

²³ *Defenders* at p. 1308 (Emphasis added).

²⁴ *Defenders* at p. 1308 (Emphasis added).

Seven years later, in *Defenders of Wildlife v. Browner*,²⁵ several environmental groups objected to MS4 permits issued to five Arizona municipalities, arguing that they must contain limitations ensuring strict compliance with WQS 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 WQS.²⁶ 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.”²⁷ The Court concluded that § 402(p)(3)(B) “replaces” the requirements of §301(b) with the MEP standard for MS4 discharges, and that it creates a “lesser standard” than §301(b) imposes on other types of discharges.²⁸ If § 301(b) continued to apply to MS4 discharges, the Court reasoned, the “more stringent” requirements of that section would always control.²⁹ 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.”³⁰

State law does not change the federal MEP compliance standard. The Department issues discharge permits pursuant to the Environment Article, §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

²⁵ *Defenders* at p. 1159 (9th Cir. 1999).

²⁶ *Defenders* at p. 1166.

²⁷ *Defenders* at p. 1166.

²⁸ *Defenders* at p. 1165.

²⁹ *Defenders* at p. 1166.

³⁰ *Defenders* at p. 1163. See also *Tualatin Riverkeepers v. Oregon Department of Environmental Quality*, 230 P.3d 559, 564 n.10 (2010) (“Federal law generally requires that discharges pursuant to NPDES permits must strictly comply with state water quality standards. However, under 33 U.S.C. section 1342(p)(3)(B), dischargers of municipal storm water are not subject to that requirement.”); *Conservation Law Foundation, Inc. v. Boston Water and Sewer Commission*, No. 10-10250-RGS, 2010 WL 5349854, at *5 (D. Mass. Dec. 21, 2010) (“The Clean Water Act does not mandate that permits issued by EPA for municipal stormwater discharges require compliance with numeric water quality standards.”); *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) (“[w]hile CWA requires permits to contain conditions that ensure that water quality standards are met, the CWA specifically exempts municipal storm water permittees from that requirement.”) (later in *Minn. Ctr. For Env’tl. Advocacy v. Minn. Pollution Ctrl. Agency*, 66 N.W.2d 427 (Minn. Ct. App. 12003), a Minnesota state court reached the same result); *City of Abilene v. EPA*, 325 F.3d 657, 659-60 (5th Cir. 2003) (characterized MS4 permits as “management permits” versus “numeric end-of-pipe permits” like those for industrial stormwater).

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 **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.³¹

2. 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.”³² EPA structured its stormwater rules to focus on installing best management practices (BMPs) to the MEP, with BMPs used in lieu of effluent limitations because compliance with numeric end-of-pipe limits is infeasible.

3. 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) in the litigation regarding Montgomery County’s MS4 permit (Case No. 339466-V), MDE argued to the Montgomery County Circuit Court that MS4 permits should not include numeric limits because:

These regulations are not applicable to municipal stormwater. These regulations require permit conditions sufficient to satisfy water quality standards where compliance with water quality standards is required or where the permit is developing water quality based effluent limitations. ***In the case of***

³¹ 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.

³² Phase I Rule at p. 48038.

municipal stormwater, however, the permit is required to impose controls to reduce pollutants to the MEP. (Emphasis added).³³

MDE has 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 has stated that:

“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]”³⁴

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

4. Imposing a Requirement for Strict WQS Compliance Would Have Devastating Impacts on the County

The County is aware that some members of the environmental community have previously argued that MDE must include a requirement for 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 \$126.7 Million (in 2017 dollars). This roughly equates to an average of approximately \$462 per ratepayer of the county’s stormwater fee. This 20%, however, represents, only a portion of the work we assume MDE expects we will do to address the Bay TMDL. MDE may include another 20% restoration requirement in the next permit (approximately 2020-2025). If we were forced to comply, the cost liability incurred from

³³ MDE has also argued in this litigation that any state law references referencing compliance with WQS do not apply to MS4 permits for the same reasons we have discussed above. Pertinent portions of MDE’s Memo are attached as Appendix H.

³⁴ Brief of Appellant, Maryland Department of the Environment, p. 14. Pertinent pages of this brief and the MDE reply brief in the Court of Special Appeals litigation are attached as Appendix I. 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.

each year of the permit would double to a staggering \$924 per household or commercial account plus O&M obligations from the first permit cycle.

Unfortunately, the price tag of \$126.7 Million to address the Bay TMDL in the next permit cycle 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 14 additional TMDLs (some with aggregated WLAs) for bacteria (Double Pipe Creek, Lower Monocacy River, Upper Monocacy River), phosphorus (Catoctin Creek, Double Pipe Creek, Lower Monocacy River, Upper Monocacy River, Lake Linganore), and TSS (Catoctin Creek, Double Pipe Creek, Upper Monocacy River, Lower Monocacy River, Potomac River Montgomery County, and Lake Linganore).

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, has publicly stated that it 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.³⁵ Given this reality, and that Frederick County's resources are dwarfed by Montgomery County's, there can be no justification for making compliance still more impossible by imposing strict WQS. The law never requires the impossible.³⁶

B. County Approach in Conducting MEP Analysis

With the MEP standard in hand, the County took the next step and prepared an MEP Analysis for our community that reflects the maximum practicable level of effort we can accomplish over the coming permit term. We did this to give MDE specific recommendations on how to revise the Draft Permit in a way that is achievable for the County.

1. Background on EPA Definition of MEP

EPA has stated that MEP is flexible and depends on individual community factors. For this reason, EPA has refused to define MEP in its regulations. In 1999, commenters to the Phase II MS4 Rule "argued

³⁵ See FY15 Operating Budget: Department of Environmental Protection 12 & Att. 33 (May 9, 2014). Available at:

http://montgomerycountymd.granicus.com/MetaViewer.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). A copy of this document is attached as Appendix J.

³⁶ *Sri Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985).

that...EPA needs to further clarify the MEP standards by providing a regulatory definition that includes recognition of cost considerations and technical feasibility.”³⁷ EPA refused: “EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting.”³⁸

EPA correctly acknowledged in 1999 that not all MS4s are alike with regard to their capacities to reduce pollutants from stormwater discharges. EPA even went so far as to direct small MS4s to “determine [their own] appropriate BMPs” based on the six minimum control measures in the Phase II Rule. To give MS4 communities guidance, EPA listed factors to consider 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.

MDE should tailor the specific requirements of an individual permit to match each MS4’s ability to reduce pollutants to the MEP. If the MS4 permit is generally consistent with the federal regulatory requirements, this should be acceptable to EPA, based upon its earlier statements regarding MEP.

2. Development of the County’s MEP Analysis and Permit

Using EPA’s MEP factors, the County developed an MEP Analysis.³⁹

To prepare the MEP Analysis, the County first identified new or expanded parts of the Draft Permit that exceed MEP because of impracticability. Once the County analyzed the Draft Permit using the MEP factors, the County created an MEP Permit (by redlining the Draft Permit). In some cases, the County revised an MDE permit requirement to make it achievable. In others, when the County did not find a way to rehabilitate a particular term, the County deleted it.

The County’s decision to revise or delete a particular term was based upon a thorough analysis regarding future costs, project scheduling, and other factors. In fact, with regard to the restoration requirement, which is the single most expensive part of the Draft Permit, the County developed a preliminary restoration plan with a schedule of capital projects the County would consider to meet the restoration requirement.⁴⁰

³⁷ Phase II Rule at p. 68754. EPA has clearly stated that MEP applies to both Phase I and Phase II MS4s.

³⁸ *Id.*

³⁹ The County submitted its *Preliminary Analysis of Maximum Extent Practicable for the Draft MS4 NPDES MS4 Permit Requirements* to MDE in October, 2012 based upon a draft permit dated June 22, 2012. This Preliminary Analysis is attached as Appendix K. The County has revised this MEP Analysis based upon the Draft Permit and submits it with these comments in final form.

⁴⁰ As with many other documents prepared to address future requirements and events, the County has used good faith efforts to prepare a preliminary analysis of restoration program options. This analysis does not bind the County Commissioners or obligate the County to take this particular approach if the permit is issued to require 20% restoration of untreated impervious areas.

The County's outside counsel, AquaLaw PLC, then hired a nationally-known engineering firm with no relationship to Frederick County to conduct an independent review of Frederick County's preliminary restoration plan to determine whether the inputs were reasonable.⁴¹ Based upon this review, the County accepted the recommendations from the third party review. AquaLaw then submitted the revised plan to a second consultant, Municipal & Financial Services Group (MFSVG) an expert on municipal utility cost-of-service and ratemaking, for an opinion on the financial feasibility of the plan.⁴² Finally, a third consultant reviewed the overall impact of the Draft Permit on the economic well-being of the County's residents and businesses.⁴³

Based upon this expert review, the County estimates it would cost \$126.7 Million to comply with the restoration requirement in the Draft Permit. This would necessitate a 428% increase in the stormwater costs per ratepayer projected for the stormwater utility fee in year one of the permit. This is untenable. We are not aware of any private or public utility that has sought and received an increase of this magnitude once, much less on an annual basis. This economic reality is one of the primary reasons we have concluded that restoring 20% county-wide exceeds MEP.

However, we do believe, based on recommendations by MFSVG regarding a reasonable escalation of stormwater funding and fees, that we could accomplish restoration of 13.5% of the untreated impervious area in the service area (not County-wide) that is subject to county-ownership, or 416 acres. This is our MEP with regard to this permit term. If MDE issues the County a Phase I MS4 permit, it must legally reflect this restoration requirement, as well as other MEP terms.

C. Detailed Comments and Revision Requests (Draft Permit and Fact Sheet)

The County's MEP Analysis and MEP Permit explain the County's recommended changes in individual permit requirements. However, additional support, much of which is premised on a review of the legal requirements of federal and state law, is provided below.

⁴¹ Brown and Caldwell reviewed whether the County could realistically design and construct its proposed restoration projects in the order presented on a five-year timeframe. This analysis is provided as Appendix L.

⁴² Municipal & Financial Services Group (MFSVG) reviewed whether the County will have the financial capacity to pay for the projects listed in the revised restoration plan without imposing a financial burden on the community or its citizens. This analysis is provided as Appendix M.

⁴³ The Sage Group reviewed high-level economic impacts on the County, its citizens, and its businesses as a whole. This analysis is provided as Appendix N.

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

i. Federal Law Regulates the MS4, Not the Jurisdiction

Part I.B of the Draft Permit correctly defines the Permit Area as covering “all stormwater discharges from the municipal separate storm sewer system (MS4) owned or operated by Frederick County, Maryland.” Part IV.D correctly states that the management programs “shall be implemented in areas served by Frederick 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* (hereinafter, *Stormwater Accounting Guidance*).⁴⁴

Also, in the Draft Fact Sheet, MDE explains “Since the inception of the NPDES municipal stormwater program, MDE has considered permit coverage to be jurisdiction-wide.” MDE justifies its position on EPA’s Phase I Stormwater Rule, the jurisdiction-wide application of several state programs (for example, E&S [erosion and sediment control], and the presence of a roads system across the entire jurisdiction for most localities that “generates stormwater discharges).”⁴⁵

The County objects to expanding the permit beyond areas regulated by federal law. There is no legal basis for doing so under federal law, and MDE has not cited any authority under state law.

EPA’s intent to focus its regulatory efforts on stormwater *facilities* owned by a municipal entity is clear based on how it defined MS4.⁴⁶ In 1999, EPA made this even clearer, defining the boundaries of the regulated area to include only those areas with stormwater facilities.⁴⁷

⁴⁴ Part IV.C also requires that the County identify sources of stormwater “countywide...,” instead of properly mandating an investigation of sources that discharge to the MS4.

⁴⁵ Draft Fact Sheet at p. 3.

⁴⁶ 40 C.F.R 122.26(b)(8).

⁴⁷ 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.”)

EPA's definition of MS4 is consistent with the CWA's regulation of "point source discharges" which focus on a specific facility (a pipe, ditch, etc.) that discharges to waters of the U.S.⁴⁸

Large portions of the County are rural with very few or no stormwater facilities. MDE should not by law apply federal MS4 requirements to these areas simply because state law requirements apply across the entire jurisdiction. MDE's decision to do so, over the County's objection, could result in possible enforcement claims for alleged permit violations in areas with no stormwater facilities. More significantly, expanding the regulatory footprint would increase the cost of complying with the restoration requirement by many orders of magnitude.

ii. MDE Has No State Law Authority to Regulate the Entire Jurisdiction

MDE has state code authority to regulate soil erosion control programs⁴⁹ and post-construction stormwater management⁵⁰ as a part of land development or redevelopment. Nothing in the state code gives MDE the authority to use an MS4 permit as a vehicle for regulating existing development across an entire county.

The County requests that MDE revise the Draft Permit to limit all mandates to areas served by County-owned stormwater facilities (the "service area"). Further, the following areas should be excluded from the service area: areas draining to SHA owned or operated roads, storm sewers in discrete areas (such as individual buildings), areas with direct discharges to local waterways, already permitted stormwater systems, 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%). Proposed text to accomplish this revision is included in the MEP Permit attached as Appendix E. Additional information regarding the County's position regarding the proper service area is provided in the MEP Analysis.

2. The 20% Restoration Requirement is Not Achievable

Part IV.E.2.a of the Draft Permit obligates the County to "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 described in Part IV.E.2.a that has not been already restored to the MEP..." The County opposes this requirement as a major, unprecedented financial burden on the County and, by extension, on the residents of the County who will bear the high compliance costs. We are disappointed that MDE continues to avoid a careful review of the burdens

⁴⁸ 33 U.S.C. § 1362.

⁴⁹ Md. Code ENV § 4-101.

⁵⁰ Md. Code ENV § 4-203.

associated with this new provision, and question how MDE could conclude that there is sufficient record evidence to issue a final permit in light of these substantial concerns.⁵¹

On a related note, 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 [WIP].” However, 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.”⁵² The Draft Permit includes a far larger area – all of the untreated impervious area consistent with the methodology in MDE’s *Stormwater Accounting Guidance*, which generally applies the restoration requirement to all pre-2002 development. The Draft Permit also omits the WIP equivalency provision that allows the permittee to use trading to achieve pollutant reductions.

For the reasons above, the County requests that MDE revise the permit and require the County to commence and complete the implementation of restoration efforts for 13.5% or 416 acres of the impervious area in the service area that is County-owned (this is a smaller subset of the service area) and that is not already restored to the MEP. In addition, the MDE should revise the restoration requirement to make it consistent with the WIP. Proposed text is included in the MEP Permit attached as Appendix E.

3. 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 [water quality volume] 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 *2000 Maryland Stormwater Design Manual* is fundamentally inconsistent with MDE’s *Stormwater Accounting Guidance*, which is also referenced in the Draft Permit.⁵³ If a developer is required to provide stormwater management for a particular development, the *Design Manual* states that the developer must “[a]t a minimum” use ESD techniques to “address both Rev [recharge] and WQV

⁵¹ 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. See, for example, MDE’s *Basis for Final Determination to Issue Anne Arundel County’s National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit* at p. 20.

⁵² Final Phase II WIP, App. A at p. A-10.

⁵³ The quoted text is also confusing in that it references “the methodology described in the MDE document cited in PART IV.E.2.a.” There are two different documents cited in this section.

requirements...”⁵⁴ WQv is “the storage needed to capture and treat the runoff from 90% of the average annual rainfall. In numerical terms, it is equivalent to an inch of rainfall multiplied by the volumetric runoff coefficient (Rv) and site area.”⁵⁵ Thus, developers must manage stormwater based on a 1” rainfall. In contrast, the *Stormwater Accounting Guidance* allows for stormwater management of less than 1”. “When less than 1 inch of rainfall is treated, impervious area treatment credit will be based on the proportion of the full WQv treated.”⁵⁶

Although the *Stormwater Accounting Guidance* encourages permittees to treat the full 1” WQv, MDE recognizes that this may be impossible in certain scenarios (“Because of numerous constraints inherent in the urban environment, meeting the design standards specified in the manual may not always be achievable.”)⁵⁷

As explained above, the 20% restoration requirement is not achievable. Any possibility for implementing a reasonable number of restoration projects greatly diminishes if MDE requires that each project treat the full WQv.

Second, 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.

Third, the Draft Permit provides no definition of “alternate BMPs.” Moreover, the *Stormwater Accounting Guidance* links the amount of credit for these types of practices 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, Frederick County requests that MDE delete the sentences quoted above from the Draft Permit.

⁵⁴ Design Manual at 5.2.1.

⁵⁵ Design Manual at 2.1.

⁵⁶ *Stormwater Accounting Guidance* at 3.

⁵⁷ *Stormwater Accounting Guidance* at 8.

4. Watershed Assessment and TMDL Planning Terms Are Impracticable

Part IV.E.1.a of the Draft Permit mandates that the County “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 within one year of permit issuance.⁵⁸ The County objects to both of these requirements for the reasons stated below.

i. Requiring a Final Date for Meeting WLAs is Inconsistent with MEP

Requiring that the County include a “final date for meeting applicable TMDLs” in its TMDL plan is legally inconsistent with MEP. In fact, there is no legal requirement that MS4 permits even include TMDL requirements, much less provisions mandating compliance with a WLA by a date certain.⁵⁹

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. Installing BMPs may take decades, making setting a “final date” a very difficult proposition. Assuming we were able to establish a defensible final date, too many unknown factors could impact the implementation schedule to make a “detailed schedule” plausible. For example, if we develop a TMDL plan to address sediment, but later determine early BMPs are not working well, the County will want to revise the projects list and schedule. Locking the County into a final date and detailed schedule runs counter to the concept of adaptive management.

The Draft Permit 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

⁵⁸ 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. To make this clear, we have suggested edits in the MEP Permit.

⁵⁹ Other commenters may argue that 40 C.F.R. §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.

extremely expensive level of control. MDE adopted and EPA approved a variance in response. 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 will voluntarily install BMPs to the MEP to address applicable TMDLs if the permit makes expectations for this work clear and achievable. Recommendations for changes follow in (ii) through (v) below, and are also reflected in the MEP Permit.

ii. Watershed Assessments Should Be Limited to the Service Area

Requiring County-wide watershed assessments is overly broad. As explained above, MDE has no legal authority to order action outside of the County's MS4 service area. Further, the County will concentrate restoration efforts in the service area, making an assessment of other areas unnecessary and a waste of limited resources.

iii. The Assessment and Planning Sections are Duplicative and Confusing and Should Be Corrected

The County believes 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 it is currently written, the language should be revised so that assessment measures are in the assessment section and planning measures are in the planning section. For example, prioritizing “all structural and nonstructural water quality improvement projects” is included in Part IV.E.1.b (Watershed Assessments); the very similar “[i]nclude...a detailed schedule for implementing all stormwater structural and nonstructural water quality improvement projects...” is included in Part IV.E.2.b (Restoration Plans). Detailed scheduling should come after prioritizing projects. The permit requirements are backwards in this regard.

iv. Local Planning Efforts Should Not Be Federally Enforceable

The County objects to making restoration plans an enforceable part of the permit.⁶⁰ If the County accepts the permit, we will develop a reasonable approach to addressing applicable WLAs. Respectfully, however, 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 itself recently argued for a limited State role in implementation efforts in litigation involving the Industrial Stormwater General Permit.⁶¹ 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

⁶⁰ Part IV.E.2.b of the Draft Permit states that: “Upon approval by MDE, these restoration plans will be enforceable under this permit.”

⁶¹ Environmental Integrity Project, et al. v. MDE, Case No. 24-C-13-007219 (Circuit Court for Baltimore City).

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.⁶²

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. One of the BMPs in the Draft Permit requires that the County develop restoration plans to address EPA approved TMDLs. 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 not believe we should be put at risk for federal enforcement based on a local planning document.

v. *MDE’s Stormwater Accounting Guidance is Flawed and Should Not Be Referenced in the Permit*
Referencing MDE’s *Stormwater Accounting Guidance* in the Draft Permit is inappropriate. In addition to the reasons laid out in the MEP Analysis, the County objects to the reference for the following reasons.

First, in the *Stormwater Accounting Guidance* MDE has determined that only facilities built after 2002 are treated to the MEP. Not only is this inconsistent with the Phase II WIP, but it unfairly excludes stormwater facilities approved before 2002 that were designed to the MEP standard at the time. MDE has effectively re-written history and is requiring the County to revisit these determinations.

Second, 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*. Although credits should be given based on the latest scientific evidence regarding BMP efficiencies, efficiency updates should not result in “downgrading” of certain BMPs. These kinds of changes should not be held against the County, as we will have invested years and millions of dollars in their installation.

The County requests that the *Stormwater Accounting Guidance* remain guidance and not be incorporated as an enforceable 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.

5. *The Permit Should Authorize Trading*

As noted above, the Draft Permit does not incorporate the trading concept included in the WIP. This is a mistake. MS4s could greatly benefit from an open and transparent state trading program. For example, according to a study performed by the Chesapeake Bay Commission, allowing significant point sources and urban stormwater sources to trade could potentially reduce Bay compliance costs “by as much as

⁶² 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 the Answering Memorandum is attached as Appendix O.

79% to 82%.”⁶³ In addition, the State has supported trading as a part of developing its nascent 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.”⁶⁴ (Emphasis in original)

Given that this is the State’s position, the County can think of no reason why MDE should not be willing to add an authorization for trading to the MS4 permit.⁶⁵

6. MDE Is Overreaching With the Special Programmatic Conditions

The Draft Permit includes Special Programmatic Conditions relating to the Chesapeake Bay TMDL and Comprehensive Planning. For the reasons explained in the attached MEP Analysis, the County objects to both terms and requests that MDE strike them from the permit.

7. 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 in the attached MEP Analysis, one problematic section is the Water Resource Element (WRE) requirement. Another is the Draft Permit mandate 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 Draft Permit. Mandates that the County comply with state law regarding erosion and sediment control and cooperate to develop WREs are both based solely on state 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).

⁶³ 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 available at: <http://www.chesbay.us/Publications/nutrient-trading-2012.pdf> and is attached as Appendix P.

⁶⁴ Available at the following URL:

www.mde.state.md.us/programs/Water/TMDL/TMDLImplementation/Pages/Accounting_For_Growth.aspx

⁶⁵ In addition, the County should be authorized to perform restoration work outside of its service area if it is advantageous to do so. Recommended edits to allow for this are provided in the MEP Permit.

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 is routinely conducting audits that are designed to flag minor items as Clean Water Act 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 County should not be subjected to the very harsh federal liability scheme (\$37,500 per day per violation for each day until the violation is corrected) 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, we ask the Department to make the textual changes recommended in the MEP Permit. 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.⁶⁶

8. The MS4 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 crimes are not committed, the County can work to improve third party behavior but cannot guarantee or control the actions of those parties.

The Draft Permit contains several provisions requiring the County to "eliminate" and "ensure" actions or conditions beyond its reasonable control. MDE should make appropriate revisions that reflect the County's role as MDE's co-regulator with regard to the acts of third parties as reflected in the MEP Analysis and MEP Permit.⁶⁷ 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. Specific sections are identified in the MEP Analysis.

9. Other Comments Regarding the Draft Permit

i. MDE Should Clarify Text Regarding Triennial Inspections

Part III.D.1.d would require inspections of ESD treatment systems and structural stormwater management facilities on a triennial basis. The County objects to this as onerous. An explanation of our practical concerns with this term is provided in the attached MEP Analysis.

⁶⁶ 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.

⁶⁷ In addition to being beyond our control, these requirements are vague. The County cannot ascertain from the face of the permit what will be expected for compliance. This is inappropriate and unreasonable.

Additionally, Maryland's statutes do not require triennial inspections on individual residential lots. Section 4-203 provides: "(b) The Department shall adopt rules and regulations which establish criteria and procedures for stormwater management in Maryland. The rules and regulations shall: (7) Specify the minimum requirements for inspection and maintenance of stormwater practices;...."⁶⁸

COMAR 26.17.02.11.A requires that "maintenance requirements established in this regulation shall be contained in all county and municipal ordinances and shall provide for inspection and maintenance. The owner shall perform or cause to be performed preventive maintenance of all completed ESD treatment practices and structural stormwater management measures to ensure proper functioning. The responsible agency of the county or municipality shall ensure preventive maintenance through inspection of all stormwater management systems. The inspection shall occur during the first year of operation and then at least once every 3 years after that." MDE has interpreted this language in discussions with the County and in hearings with the Maryland House of Delegates' Environmental Matters Committee to mean that the existing statute allows for alternative approaches to inspection such as statistical sampling of ESD practices with public education and outreach to address the ESD inspection requirement; the Educational Best Management practice has the benefit of informing landowners that the features are on the property and should be maintained. We have not yet seen such clarifying language in either the draft permit or draft fact sheet.

For the reasons provided therein, MDE should revise the Draft Permit as suggested in the MEP Permit to provide flexibility on the design of a triennial inspection program.

ii. 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 concerned that the Draft Permit would have serious budgetary and operational impacts on our community. A full explanation of these programmatic concerns is provided in the MEP Analysis.

From a legal perspective, the Draft Permit term as it is currently written under subpart (a) is impossible in that it is unclear what level of effort the County would have to make to document "all litter control problems" or what would constitute appropriate corrective actions in order to remain within compliance. The "elimination" language is problematic because it implies that the County will be able to eliminate all litter. Just as a police officer can work to reduce the crime rate but cannot be responsible for the elimination of all crime, the County can work to reduce litter and floatables but cannot guarantee their elimination.

⁶⁸ Md. Code Environment §4-203(7).

For the reasons provided herein and in the MEP Analysis, MDE should delete this text from the Draft Permit.

iii. *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. We do not see the need 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. These dollars are much better spent providing more in-depth training to fleet service employees, for example.

For these reasons, MDE should adopt the textual changes in this section provided in the MEP Permit.

iv. *Attachment 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 still 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, MDE should make the textual changes to Part V.A.2 recommended by the MEP Permit.

v. *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.

10. *Suggested Revisions to the Draft Fact Sheet*

In addition to the requested changes to the Draft Permit reflected in the County’s MEP Permit, the Department should make revisions that are consistent with these edits to the Fact Sheet. For ease of reference, the County has attached a redlined version of the Fact Sheet hereto as Appendix Q.

Final Analysis of Maximum Extent Practicable for the NPDES MS4 Permit Requirements

Frederick County Government

Office of Sustainability and Environmental Resources

Watershed Management Section

September 29, 2014

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Introduction

This document was prepared in response to the Draft Permit for Frederick County's (the County's) proposed Phase I National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) (hereinafter, Draft Permit) dated June 28, 2014 by the Maryland Department of Environment (MDE).¹ Frederick County has performed a three-part maximum extent practicable (MEP) analysis to assess the efforts and costs required to meet the conditions in the Draft Permit.² The document consists of I. A Permit Review for the Maximum Extent Practicable, II. A Discussion of Impracticable Tasks, and III. The Current Ability to Finance the Program. This document is submitted with Written Formal Comments from the Office of Sustainability and Environmental Resources (hereinafter, Comments). These formal comments include additional issues that have a bearing on permit compliance, such as legal and policy issues. The statutory and regulatory authority governing the MEP process is discussed in the Comments.

EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting. MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis. EPA envisions that this evaluative process will consider such factors as conditions of receiving waters, specific local concerns, and other aspects included in a comprehensive watershed plan. Other factors may include 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.

64 Fed. Reg. 68722, 68754 (Dec. 8, 1999)

What is an MS4?

An MS4 is a conveyance or system of conveyances owned by a public entity designed to collect or convey stormwater and which is regulated by the NPDES permit program.

What is an MEP?

The maximum extent practicable (MEP) analysis process provides an opportunity for permittees to evaluate and establish reasonable pollutant reduction standards prior to the permit's finalization.

As the analysis below demonstrates, the County is concerned that MDE has not adequately considered the County's MEP in development of the Draft Permit. The County has analyzed the Draft Permit and determined that portions of it are not practicable, and require evaluation and revision prior to the issuance of the Final Permit.

The purpose of this document is to provide an analysis of the MEP to be used by MDE to develop reasonable and achievable permit terms in the NPDES MS4 Phase I Final Permit for Frederick County.

Analysis of Current and Draft Permit Conditions

The County's current compliance efforts establish a baseline against which the Draft Permit conditions can be compared. Existing tasks are determined to be practicable. Draft permit terms are evaluated to determine if they are existing, expanded or new. New and expanded tasks are evaluated to determine if they are practicable or impracticable. The evaluative process analyzes the permit using many of the factors EPA has identified in its

¹ A copy of the Draft Permit along with the Draft Fact Sheet is attached as Appendix R.

² The County developed this MEP analysis based on the particular terms of the June 28, 2014 Draft Permit. This MEP analysis does not bind the County in any regard, as it is a measure of achievability based upon a review of current operational and financial capacities subject to change in the future. Furthermore, as noted above, the County may need to change its analysis and/or its legal and policy arguments in the future.

regulations as conditions that impact practicability. The County has considered the following issues in determining whether the Draft Permit is practicable:

- MS4 size
- Current ability to finance the program
- Implementation schedules
- Capacity to perform operations and maintenance
- Specific local concerns
- Conditions of receiving waters
- Impossibility
- Burdensome

The definitions of the different status classifications used by the County in this evaluation are as follows:

I. Permit Review for Maximum Extent Practicable

MEP Categories based upon EPA Factors

Several factors are identified by EPA that may affect how permit conditions are applied based on the variability among local jurisdictions, and limit the maximum extent practicable for each jurisdiction. Following is a list of the specific factors used in this analysis and evaluation of the June 2014 draft NPDES MS4 permit conditions.

MS4 Size

Certain tasks are not practicable because the size of the MS4 is improperly defined by MDE.

Current Ability to Finance the Program

Section III addresses cost issues for the overall permit, and particularly for the retrofit requirement, in great detail.

Implementation Schedules

There are certain activities that have scheduling limitations in terms of tasks that are simply not possible within the required timeframes. Certain tasks involve chronological, necessary steps. Unforeseen delays in any one step will delay subsequent steps, and result in longer timeframes to complete projects. There are also tasks that have many unknown factors at the onset, which cannot be confined to any timetable.

Capacity to Perform Operation and Maintenance

This limitation applies to permit conditions in which the facilities or practices require impracticable maintenance, particularly in the inspection and enforcement of dispersed micro-BMP practices.

Specific Local Concerns

Limits on practicability specific to Frederick County are evaluated in this category.

Conditions of Receiving Waters

Tasks requiring the MS4 permittee to meet Water Quality Standards (WQS) or Waste Load Allocations (WLA) are identified where impracticable. Note that it is also the County's position that terms that mandate that the County meet WQS or WLAs are unlawful. We have explained this in detail in the Comments.

Impossibility

Some tasks are impossible to achieve regardless of resources; many of these are also noted in the Comments as legal issues.

Burdensome

Some tasks require so much effort and cost with so little reward that they are considered impracticable given the already extraordinary requirements of the Draft Permit.

Evaluation of Specific Permit Tasks

The status of the Draft Permit tasks are classified as existing, expanded, or new. Expanded and new conditions represent an additional level of effort which may or may not be practicable.

- **Existing:** A similar condition exists in the County's current Permit. The County has programs in place to comply with the Draft Permit condition. The County will continue during the upcoming five-year permit cycle to use adaptive management to improve these programs with a goal of making them more efficient and effective.
- **Expanded:** A similar condition exists in the County's current Permit but it has been expanded in the Draft Permit. Compliance with the condition will require an additional, sometimes substantial, level of effort.
- **New:** The Permit condition is new in the Draft Permit.

Table 1 presents the sections in the Draft Permit, the status of the tasks of that section, a brief description of tasks to be completed, and the determination of practicable or impracticable. If the section is determined to be impracticable, a reason consistent with the factors above is given. Section II discusses the permit terms that are determined to be impracticable.

Table 1: Draft Permit Sections, Status, Task Descriptions, and MEP Factor

| Permit Section | Status | Task Description | MEP Factor |
|---|----------|--|------------------------------------|
| Part I – Identification | Existing | N/A | Practicable |
| Part II – Definitions | Existing | N/A | Practicable |
| Part III – Water Quality | | | Legal Issues- See Comment Document |
| Part IV – Standard Permit Conditions | | | |
| Part IV.A – Permit Administration | Existing | N/A | Practicable |
| Part IV.B – Legal Authority | Existing | N/A | Practicable |
| Part IV.C – Source Identification | | | |
| Part IV.C .1– Storm Drain System | Existing | Maintenance of core data layers, addition of data features with new development activity, maintenance of data standards, system administration, and general oversight of GIS activities countywide. Includes storm drain digitizing from plan sets on a parcel-by-parcel basis. | Practicable |
| Part IV.C.2 – Industrial and Commercial Areas | New | Maintenance of core data layers, addition of data features with new development activity, maintenance of data standards, system administration, and general oversight of GIS activities countywide. Includes development of new map layers to show industrial and commercial areas. | Practicable |
| Part IV.C.3 – Urban BMPs | Expanded | Maintenance of core data layers, addition of data features with new development activity, maintenance of data standards, system administration, and general oversight of GIS activities countywide. Includes urban BMP project digitizing from plan sets on a parcel-by-parcel basis. | Practicable |
| Part IV.C.4 – Impervious Surfaces | New | Development and maintenance of core data layers, addition of data features with new development activity, development of data standards, system administration, and general oversight of GIS activities countywide. Includes mapping of footprint of impervious area on a parcel-by-parcel | Practicable |

| Permit Section | Status | Task Description | MEP Factor |
|--|-----------------|---|---|
| | | basis. | |
| Part IV.C.5 – Monitoring Locations | New | Development and maintenance of core data layers, development of data standards, system administration, and general oversight of GIS activities countywide. Includes monitoring project tracking. | Practicable |
| Part IV.C.6 – Water Quality Improvement Projects | New | Development and maintenance of core data layers, development of data standards, system administration, and general oversight of GIS activities countywide. Includes digitizing effort for each watershed restoration project. | Practicable |
| Part IV.D – Management Programs | | | |
| Part IV.D.1. a – Stormwater Management | Expanded | Implementation of an acceptable stormwater management program including within three years of permit issuance, modifying ordinances and codes identified above to eliminate impediments to, and promote implementation of, ESD to the MEP in compliance with the MD2007 Stormwater Act. | Legal issues- see Comment document |
| Part IV.D.1. b – Stormwater Management | Expanded | Maintaining Programmatic and Implementation Information : Track data on stormwater plans approved and exemptions issued. | Practicable |
| Part IV.D.1. c – Stormwater Management | Expanded | Maintaining Construction Inspection Information : Maintain construction inspection information for all ESD treatment practices and structural stormwater management facilities. Document follow-up actions. | Practicable |
| Part IV.D.1. d – Stormwater Management | Expanded | Conduct Triennial Inspections: Conducting preventative maintenance inspections of all ESD treatment systems and structural stormwater management facilities at least on a triennial basis. Document follow-up actions. | Specific Local Concerns |
| | | | Capacity to Perform Operations and Maintenance |
| Part IV.D.2 – Erosion and Sediment Control | Existing | Implementation of program improvements identified by MDE for delegation of E&S, conducting responsible personnel certification classes two times per year, and reporting quarterly on earth | Legal issues- see Comment document |

| Permit Section | Status | Task Description | MEP Factor |
|---|----------|---|--|
| | | disturbances greater than one acre. | |
| Part IV.D.3 – Illicit Discharge Detection and Elimination | Expanded | Practicable: Requires annual screening of 100 outfalls, conducting annual visual surveys of commercial and industrial areas (expanded), maintaining program from spill response, program enforcement and reporting. Not Practicable: “the County shall implement an inspection and enforcement program to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated.” | Impossibility |
| Part IV.D.4 – Litter and Floatables | New | Document all litter control problems, identify ways of elimination, and develop and implement an outreach campaign to reduce littering and increase recycling | Impossibility |
| | | | Specific local concerns |
| | | | Conditions of receiving waters |
| Part IV.D.5.a-b – Property Management and Maintenance | Expanded | NPDES Stormwater General Permit Coverage: Ensure that a Notice of Intent (NOI) has been submitted to MDE and a pollution prevention plan developed for each County-owned municipal facility requiring NPDES stormwater general permit coverage. | Legal issues- see Comment document |
| Part IV.D.6 – Public Education | Existing | Implement a public education and outreach program to reduce stormwater pollutants. | Practicable |
| Part IV.E – Restoration Plans and Total Maximum Daily Loads | | | Legal Issues- see Comment Document |
| Part IV.E.1 – Watershed Assessments | Expanded | Complete watershed assessments for entire County by the end of the permit term. | Legal Issues- see Comment Document |
| Part IV.E.2 – Restoration Plans | New | Submit an impervious surface area assessment by the end of year one. Within one year submit restoration plans with implementation schedules for meeting WLAs. Commence and complete restoration of 20% of untreated impervious area. | MS4 Size |
| | | | Implementation Schedules |
| | | | Burdensome |
| | | | Impossible |
| Part IV.E.3 – Public Participation | New | Develop and implement a public participation component for watershed assessments and | Current Ability to Finance the Program |
| | | | Impossibility |

| Permit Section | Status | Task Description | MEP Factor |
|--|-----------------|--|---|
| | | restoration plans. | |
| Part IV.E.4 – TMDL Compliance | New | Evaluate and document progress annually towards meeting all WLAs within the County. Reports to include complete descriptions of the analytical methodology used to evaluate the effectiveness of the County's restoration plans and how these plans are working toward achieving compliance with EPA approved TMDLs. Provide a description of a plan for implementing additional watershed restoration actions that can be enforced when benchmarks, deadlines, and applicable stormwater WLAs are not being met or when projected funding is inadequate. | Impossibility |
| Part IV.F – Assessment of Controls | | | |
| Part IV.F.1 – Watershed Restoration Assessment | Expanded | Includes chemical monitoring, physical stream assessments, biological monitoring, Frederick County Stream Survey (FCSS), and long term restoration monitoring. | Practicable |
| Part IV.F.2 – Stormwater Management Assessment | Existing | The County shall continue to monitor the Peter Pan Run watershed. | Practicable |
| Part IV.G – Program Funding | | | |
| Part IV.G.1 – Fiscal Analysis | Existing | Annual analysis of budget needed to comply with permit terms. | Practicable |
| Part IV.G.2 – Adequate Program Funding | Expanded | Requirement to maintain adequate program funding to comply with permit terms. | Current Ability to Finance the Program |
| Part V – Program Review and Annual Progress Reporting | | | |
| Part V.A – Annual Reporting | Expanded | The Annual Report submitted each year to MDE that documents in detail the County's work in meeting the NPDES Permit. Annual reporting is not a problem per se, but Attachment A reporting requirements are in draft. | Implementation Schedules |
| Part V.B – Program Review | Existing | MDE will review program implementation, annual reports, and periodic data submittal on an annual basis. | Practicable |
| Part V.C – Reapplication for | Existing | Provides reapplication requirements. | Practicable |

| Permit Section | Status | Task Description | MEP Factor |
|---|-----------------|---|----------------------|
| NPDES Stormwater Discharge Permit | | | |
| Part VI – Special Programmatic Conditions | | | |
| Part VI.A – Chesapeake Bay Restoration by 2025 | New | Coordination with MDE to meet state’s Chesapeake Bay TMDL Watershed Implementation Plan. | Impossibility |
| Part VI.B – Comprehensive Planning | New | Coordination with MDP to implement Water Resources Element of Comprehensive Plan. | Impossibility |
| Part VII – Enforcement and Penalties | Existing | N/A | Practicable |

II. Discussion of Impracticable Permit Tasks

The Draft Permit tasks in Table 2 below will have a significant impact on the County’s ability to implement and comply with the Draft Permit conditions. They are conditions determined by the County to be *impracticable*. This section reviews each of the impracticable tasks, explains why they are not practicable, and suggests a remedy that represents the Maximum Extent Practicable.

Table 2: Impracticable Permit Tasks

| Permit Section | Status | MEP Factor |
|---|----------|--|
| Part IV – Standard Permit Conditions | | |
| Part IV.D – Management Programs | | |
| Part IV.D.1. d – Stormwater Management | Expanded | Specific Local Concerns |
| | | Capacity to Perform Operations and Maintenance |
| Part IV.D.3 – Illicit Discharge Detection and Elimination | Expanded | Impossibility |
| Part IV.D.4 – Litter and Floatables | New | Impossibility |
| | | Specific Local Concerns |
| | | Conditions of Receiving Waters |
| Part IV.E – Restoration Plans and Total Maximum Daily Loads | | |
| Part IV.E.2 – Restoration Plans | New | MS4 Size |
| | | Implementation Schedules |
| | | Burdensome |
| | | Impossible |
| | | Current Ability to Finance the Program |
| Part IV.E.3 – Public Participation | New | Impossibility |
| Part IV.E.4 – TMDL Compliance | New | Impossibility |
| Part IV.G – Program Funding | | |
| Part IV.G.2 – Adequate Program Funding | Expanded | Current Ability to Finance the Program |
| Part V – Program Review and Annual Progress Reporting | | |
| Part V.A – Annual Reporting | Expanded | Implementation Schedules |
| Part VI – Special Programmatic Conditions | | |
| Part VI.A – Chesapeake Bay Restoration by 2025 | New | Impossibility |
| Part VI.B – Comprehensive Planning | New | Impossibility |

Part IV.D.1.d – Stormwater Management (Task: Stormwater Management Program)

Impracticable Permit Task

Permit task, Part IV.D.1.d, as quoted below exceeds the County’s MEP, due to the County’s **capacity to perform operations and maintenance**, and the nature of coordinating micro-best management practice (BMP)

inspections, and the **specific local concerns** associated with inspecting so many micro-BMPs dispersed over the County's large land area.

The impracticable text from the Draft Permit is as follows:

“Conducting preventative maintenance inspections, according to COMAR 26.17.02, of all ESD treatments systems and structural stormwater management facilities at least on a triennial basis.”

Discussion

The County is concerned that the current and future proliferation of micro-BMPs on private property in accordance with changes in the State's Stormwater Management Act of 2007 will make inspections impracticable. The total staff time necessary to inspect properties with micro-BMPs is extensive when considering the following: the County is to inspect every stormwater feature, even those on privately-owned individual lots, every three years in addition to the inspections performed during the construction phase; the County must evaluate the performance of ESD techniques like porous pavement, parking ratios, green roofs, reinforced turf, roof drain disconnects, and so-called “micro-scale practices” that include sheetflow to conservation areas, drainage swales, micro-bioretenion, rain barrels, dry wells, etc.; a single residential property might have a dozen or more such practices; multiple attempts that will likely be necessary to obtain permission of entry onto each private property; inspections of up to eight or more micro-BMPs per property; travel distance across the County to each property; verbal and written correspondence with property owners; re-inspections; and enforcement actions.

The County would like to retain flexibility to design an effective and efficient inspection program that could, for example, include inspections by the property owner (or their maintenance companies or homeowners associations) with a follow-up report to the County. This type of self-reporting is similar to that used in industrial wastewater pretreatment programs for hundreds or thousands of businesses in a locality. Furthermore, this request is consistent with COMAR 26.17.02.11, which does not provide that the county staff personally perform the inspection, but that a responsible agency shall “ensure preventative maintenance through inspection of all stormwater management systems.”

Additional legal arguments regarding the statutory and regulatory requirements of this term are provided in the Comments.

MEP

The County's MEP is:

Conducting preventative maintenance inspections, or requiring that homeowners conduct preventative maintenance inspections and report the results to the County, ~~according to COMAR 26.17.02~~, of all ESD treatment systems and structural stormwater management facilities at least on a triennial basis.

Part IV.D.3. – Stormwater Management (Task: Illicit Discharge Detection and Elimination)

Impracticable Permit Task

A portion of Permit Task IV.D.3. is determined to be impracticable because compliance is **impossible**.

The draft text is as follows: “The County shall implement an inspection and enforcement program to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated. Activities shall include, but not be limited to... b. Conducting annual visual surveys of commercial and industrial areas as identified in PART IV.C.2 above for discovering, documenting, and eliminating pollutant sources.”

Discussion

The task’s imposition of liability for third-party behavior is discussed in the Comments.

MEP

The County’s MEP is:

“The County shall implement an inspection and enforcement program ~~to ensure~~ that requires that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated, except to the extent that such discharges are exempted by Part VII.A. Activities shall include, ~~but not be limited to...~~ b. Conducting annual visual surveys of commercial and industrial areas as identified in PART IV.C.2 above for discovering, documenting, and ~~eliminating~~ requiring the elimination of pollutant sources.”

Part IV.D.4 – Litter & Floatables (Task: Litter & Floatables)

Impracticable Permit Task

Part III.D.4 is determined to be impracticable because of **impossibility, specific local concerns and conditions of receiving waters.**

Discussion

The Draft Permit requires that the County “document all litter control problems and identify potential sources, ways of elimination, and opportunities for overall improvement,” develop and implement a public education program to reduce littering, and evaluate and report on these efforts annually.

As explained in the Comments, the Draft Permit term as it is currently written under subpart (a) is unclear. Furthermore, regarding specific local concerns and conditions of receiving waters, the only portion of the County with a listed impairment for trash is the portion that drains to the Patapsco³. This area represents 28.5 acres within Frederick County, or 0.007% of the County’s land area. All of the area with MS4 infrastructure in this watershed lies within the State Highway Administration’s or the Town of Mount Airy’s MS4 boundary.

MEP

The County’s MEP is:

[SECTION ELIMINATED]

³ Maps containing the portion of the County in the Patapsco drainage are in Appendix S.

Part IV.E.2 – Restoration Plans (Task: Implementation & Tracking of Restoration Efforts)

Impracticable Permit Task

Part IV.E.2 is determined to be impracticable due to multiple factors, including: (1) **MS4 Size**: how the MS4 boundary is defined in the Federal Register versus how it is defined in MDE *Stormwater Accounting Guidance* versus MDE Science Services Administration’s (SSA) MS4 definition used for the WIP; (2) **Impossibility**: the requirement to Retrofit MS4 Areas outside of County control; (3) **Implementation Schedules** for development of watershed assessments described in IV.E.1 are incompatible with restoration plans described in IV.E.2; (4) A **Burdensome** impervious area accounting methodology in the *Stormwater Accounting Guidance* that is inconsistent with the Bay Program; (5) **Burdensome** restoration requirements by era in Stormwater Accounting Guidance that are inconsistent with the Phase I and II WIPs and require restoration on approved practices; (6) the *Stormwater Accounting Guidance* that is used as **Burdensome** regulation without following the Administrative Procedures Act; (7) the *Stormwater Accounting Guidance* is incorporated by reference but subject to future changes that could affect the **Current Ability to Finance the Program**; and (8) omission of the Equivalency concept from the WIP in the Draft Permit that allows for cost savings from trades and affects the **Current Ability to Finance the Program**.

The impracticable text from the Draft Permit is as follows: “2. Restoration Plans

a. Within one year of permit issuance, Frederick County shall submit an impervious surface area 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.

By the end of this permit term, Frederick 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. 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.

b. Within one year of permit issuance, Frederick 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. The County shall submit restoration plans for subsequent TMDL WLAs within one year of EPA approval. Upon approval by MDE, these restoration plans will be enforceable under this permit. As part of the restoration plans, Frederick 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 initiatives necessary for meeting applicable WLAs;

ii. Provide detailed cost estimates for individual projects, programs, controls, and plan implementation;

iii. Evaluate and track the implementation of restoration plans through monitoring or modeling to document the progress toward meeting established benchmarks, deadlines, and stormwater WLAs; and

iv. 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."

Discussion

Part IV.E.2 of the Draft Permit establishes requirements for the development of restoration plans and completion of restoration efforts to treat 20% of the County's untreated impervious area. The Draft Permit references MDE's "Accounting for Stormwater Wasteload Allocations and Impervious Areas Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits (MDE, June 2011 [draft] or subsequent versions)"⁴ document, or the *Stormwater Accounting Guidance*. The *Stormwater Accounting Guidance* document (final version issued August 2014) defines the MS4 boundary according to the MDE Water Management Administration (Stormwater Program) version that is echoed in the Draft Fact Sheet, establishes the concept of stormwater by era, creates restoration liabilities for all pre-2002 development, and creates the concept of the impervious acre.

MS4 Boundary Definition

The boundary definition in the Draft Permit is impracticable because it improperly defines the **MS4 size**. Though federal regulations contain a definition of MS4, MDE has used two different descriptions, neither of which is consistent with the federal definition. The following sections evaluate each description and establish the geographic area to be regulated by each. The size and location of the MS4 has a direct bearing on the scope of the requirement to treat 20% of the County's untreated impervious area, and therefore the cost to comply with the Draft Permit. The three MS4 descriptions are as follows:

A. MS4- Federal Register Defined

The definition of an MS4 in the Code of Federal Regulations is as follows:

"Municipal separate storm sewer means 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 (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;*
- ii. Designed or used for collecting or conveying storm water;*
- iii. Which is not a combined sewer; and*
- iv. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2".⁵*

A map of the MS4 that meets this definition is Appendix T. MS4 Boundary Maps: Figure 1. MS4- Federal Register Defined.

Discharges within the County's jurisdictional boundary but outside of the area served by the MS4 are not regulated by the Permit. Areas without a publicly owned municipal discharge component, by definition, are not part of the regulated municipal storm sewer system. Per the federal regulations:

⁴ Accounting for Stormwater Wasteload Allocations and Impervious Areas Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits. MDE, August 2014 is attached as Appendix U.

⁵ 40 CFR 122.26(b)(8).

“(6) Non-municipal separate storm sewers. For storm water discharges associated with industrial activity from point sources which discharge through a non-municipal or non-publicly owned separate storm sewer system, the Director, in his discretion, may issue: a single NPDES permit, with each discharger a co-permittee to a permit issued to the operator of the portion of the system that discharges into waters of the United States; or, individual permits to each discharger of storm water associated with industrial activity through the non-municipal conveyance system. (i) All storm water discharges associated with industrial activity that discharge through a storm water discharge system that is not a municipal separate storm sewer must be covered by an individual permit, or a permit issued to the operator of the portion of the system that discharges to waters of the United States, with each discharger to the non-municipal conveyance a co-permittee to that permit.”

The definition makes clear that conveyances associated with industrial activity that are privately owned, which do not discharge to the municipal MS4, should be permitted on their own terms. It stands to reason that any property under private ownership that does not discharge to the municipal MS4 should be similarly treated. A classic example would be a Walmart that drains directly into a river system and bypasses the municipal MS4.

Moreover, areas without any conveyances should be excluded from the MS4 permit regulated area. EPA deliberately set the boundaries of the MS4 to include only those areas with stormwater facilities in place. The County contains both urban and rural areas that may have no stormwater facilities or systems that feed into the municipally-owned MS4. These areas may have sheet flow and/or natural channels that convey runoff. It is inappropriate and contrary to federal law to apply federal requirements for stormwater management to these areas.

This is the area that is legitimately regulated. However for the purposes of restoration, some portions of this service area include privately-owned drainage; although it is part of the service area and the regulated envelope, the county is limited in its ability to mandate restoration on this private property. For this reason, we have calculated the untreated acreage that can be included in potential restoration goals based on county owned facilities. A discussion of this methodology and acreage is provided in “Requirement to Retrofit MS4 Areas outside of County Control” below. As explained below, the conclusion is that the county can only commence and complete restoration of 416 acres, or 13.5% of the MS4- Federal Register Defined County-Owned Map.

B. MS4- MDE Stormwater Program Defined

MDE Stormwater Program’s MS4 boundary description is provided at page 3 of the Draft Fact Sheet:

“Maryland has historically considered the entire geographic area within the political boundaries of a Phase I NPDES municipal stormwater jurisdiction as the regulated permit area. Since the inception of the NPDES municipal stormwater program, MDE has considered permit coverage to be jurisdiction-wide. This approach considered the fact that specific permit provisions, such as erosion and sediment control and stormwater management programs, are administered under State statute and as county-wide requirements. As an example, private development requires approval from the Frederick Soil Conservation District (SCD) for erosion and sediment control and the County for stormwater management, and is subsequently inspected, maintained, and enforced under local authority. Most jurisdictions also own or operate a comprehensive road system throughout the entire county that generates stormwater discharges. In this context, the entire jurisdiction can be viewed as the regulated permit area. Finally, as part of its preamble discussing the issue, EPA suggested that permit coverage may include areas where jurisdictions have control over land use decisions. Therefore, MDE defines

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

MDE has not historically equated the entire geographic area within the Political Boundaries of a Phase I as the regulated permit area; furthermore, this interpretation clearly is not consistent with federal law. In the Phase II MS4 rulemaking, EPA eloquently stated that “today’s rule does not regulate the county, city, or town. Today’s rule regulates the MS4.”⁶ The Federal MS4 permitting program specifically regulates the discharges from a municipal separate storm sewer system and not the jurisdiction.⁷

In the Federal Register, EPA acknowledges “legal and land use authority” as a litmus test for having the “ability to perform the functions of permit applicant and permittee”. It gives the example that:

“State highways or flood control districts, which may have no land use authority in incorporated cities, will be co-permittees with the city which does possess land use authority. EPA envisions that permit conditions for these systems will be written to establish duties that are commensurate with the legal authorities of a co-permittee. For example, under a permit, a flood control district may be responsible for the maintenance of drainage channels that they have jurisdiction over, while a city is responsible for implementing a sediment and erosion control ordinance for construction sites which relates to discharges to the drainage channel.”⁸

Permittees are not given new abilities with these permits, rather, they must use their existing regulatory authority in the service of the permit. The permit itself states in Part VII H. Property rights that *“the issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, State, or local law or regulations. “*

MDE includes areas of drainage from non-municipal, private systems and areas with no storm sewer. Per federal law, areas within the jurisdictional boundary but outside of the municipal separate storm sewer system would not be regulated by the Permit. This becomes important as MDE attempts to have the permittee regulate discharges and conduct expensive restoration outside of the regulated MS4. Developed land subject to sheetflow with no conveyances should not be regulated under the Permit (the Clean Water Act only regulates point sources; there is no federal authority to regulate disperse sheet flow that is not captured by a storm sewer system and discharged through a point source), nor should storm sewer systems composed entirely of private discharges (they are not a part of the MS4 by EPA’s definition above).

MDE states on page 3 of the Fact Sheet that *“any federal, state, municipal, or industrial properties that are defined in CFR as municipal separate storm sewer systems or industrial stormwater dischargers must obtain separate NPDES general stormwater permit coverage from MDE...these areas shall be subtracted from the County’s regulated permit area.”*

⁶ 64 Fed. Reg. at 68750.

⁷ The MS4 program regulates **discharges**. This is clear from EPA’s “Stormwater Frequently Asked Questions:” “What kinds of stormwater **discharges** are required to have NPDES stormwater permit coverage? The NPDES stormwater permit regulations, promulgated by EPA, cover the following classes of stormwater **discharges** on a nationwide basis...” (available at http://cfpub.epa.gov/npdes/faqs.cfm?program_id=6).

⁸ 55 Fed. Reg. at 47990.

MDE's expectations for municipal stormwater permittees have increased significantly over the last few years. Using the permit to extend federal jurisdiction to areas outside the MS4 service area creates a risk that an MS4 permittee may be subject to federal enforcement and citizens' suits in areas that do not drain to the municipal MS4. Developed land subject to sheetflow with no conveyances should not be regulated under the Permit, nor should storm sewer systems composed entirely of private discharges. This issue is highlighted by MDE's requirement to restore 20% of the untreated urban impervious area in the permit area, discussed later in the document.

Frederick County GIS staff followed the instructions in the fact sheet to develop a map of the MS4 that meets MDE's Stormwater Program definition, attached as Appendix T, Figure 3. MS4- MDE Stormwater Program Defined.

MS4- WIP Defined

MDE's Science Services Administration (SSA), which oversees the development and implementation of total maximum daily loads (TMDLs) such as the Chesapeake Bay TMDL and their associated WLAs, used yet another definition for the regulated municipal MS4 boundary for the development of loads and reduction targets for Maryland's Watershed Implementation Plan for the Chesapeake Bay TMDL. The MDE SSA MS4 definition in the WIP (MS4- WIP Defined) identifies areas of the County as either "NPDES regulated" or "NPDES non-regulated." Contrary to MDE Stormwater Program's MS4 definition, the SSA's Watershed Implementation Plan (WIP) for Frederick County published March 31, 2012, contains nonregulated urban developed area in the jurisdictional boundary but outside of the MS4. The June 26, 2012 version of SSA's Maryland Assessment Scenario Tool (MAST) shows 14,481 nonregulated developed acres in Frederick County.

In the *"Urban Regulated" vs. "Urban Non-Regulated" Land*⁹ document that was provided by MDE SSA on its FTP site in 2012, MDE describes its process to define the MS4 and restoration obligations. MDE SSA states the following:

"The 'NPDES regulated stormwater' areas within a county are defined as the urban areas draining to a stormwater collection system owned and operated by a county... Our delineation of these areas is based on the intensity of development within the designated urban land use areas. In terms of the GIS delineation of these areas, we primarily used a combination of the 'core' urban areas from the Phase 5.3.2 land cover and the 'urbanized areas' from the U.S. Census data to distinguish between NPDES regulated and non-regulated.

Very low-density residential and rural residential urban land areas generally lie beyond the reach of a county's storm sewer system and are thus considered as 'non-NPDES regulated stormwater' areas (sometimes called 'urban non-regulated')."

MDE's SSA definition of the MS4 boundary is used to establish nutrient reduction targets in the Chesapeake Bay TMDL WIP. These targets are referenced in Draft Permit sections Part IV.E and Part V.A, wherein MDE attempts to tie the County's success in meeting TMDL targets directly to permit compliance.

A map of the MS4 that meets this definition was also retrieved from the FTP site in 2012 and is Appendix T. Figure 4. MS4- WIP Defined. The WIP Program Defined MS4 contains the following:

⁹ "Urban Regulated" vs. "Urban Non-Regulated" Land document and accompanying map from MDE are in Appendix V.

- Total Acres: 48,826
 - Pervious Acres: 42,688
 - Untreated Impervious Acres: 3,633
 - Treated Impervious Acres: 2,505

Strikingly, MDE SSA no longer shares this map and instead offers a map showing the entire jurisdictional boundary under the “Stormwater Delineations: NPDES-Regulated Stormwater Systems” link retrievable from its TMDL Data Center as of September 28, 2014¹⁰. This map is included as Appendix W. The map appears to be consistent with the MDE Stormwater Program Definition that is in the Draft Fact Sheet. The information available about this map follows:

“This polygon shapefile represents MDE’s estimate of total property area (i.e., storm sewer ownership) covered under NPDES regulated (permitted) stormwater entities statewide. The file does not represent land-cover within the polygons, rather it represents storm sewer ownership. Only urban pollutant loads are regulated under NPDES stormwater permits, so only the loads from these areas are included in the WLA. Therefore, there could be forested areas associated within an MS4 permit polygon, which are associated with the LA for a TMDL, rather than the WLA. The regulated stormwater permits/entities in this polygon file relate to WLAs in the applicable query via the MS4/regulated stormwater entity name, permit type, or possibly NPDES permit number.”

This new map demonstrates that MDE has not historically considered the boundary of the MS4 to be jurisdiction-wide; rather, this is a recent phenomenon. The new map is not consistent with the methods MDE used to determine TMDL loads and reductions for the MS4. The map is not consistent with the Clean Water Act.

C. Comparison

As illustrated in below in Table 3, the amount of geographic area contained within the MS4 boundary for each definition varies substantially. Table 3 demonstrates that the overall acres for the MS4- MDE Stormwater Program Defined and MS4- WIP Defined boundaries far exceed those of the MS4- Federal Register Defined in almost every category. The MS4- MDE Stormwater Program Defined boundary more than doubles the number of acres within the MS4 boundary. The MS4- WIP Defined boundary increases the size of the MS4 by over 50%. Furthermore, as illustrated in the maps in Appendix T, Figures 1, 3, and 4, the portions of the county covered by the MDE Stormwater Program Defined and MS4- WIP Defined boundaries are wildly inconsistent with the MS4- Federal Register Defined boundary.

Table 3: Comparison of Acres in Different MS4 Definitions

| Acres in MS4 Boundary | MS4- Federal Register Defined Acres | MS4- MDE Stormwater Program Defined Acres | MS4- WIP Defined Acres |
|-----------------------|-------------------------------------|--|--|
| Total Acres | 31,582 | 64,663 (33,081 more than Federal Register) | 48,826 (17,244 more than Federal Register) |
| • Pervious Acres | 25,402 | 55,149 (29,747 more than Federal Register) | 42,688 (17,286 more than Federal Register) |

¹⁰ <http://www.mde.state.md.us/programs/Water/TMDL/DataCenter/Pages/TMDLMaps.aspx>

| | | | |
|--------------------------------------|-------|--|---------------------------------------|
| • Untreated Impervious Acres | 3,604 | 6,747 (3,143 more than Federal Register) | 3,633 (29 more than Federal Register) |
| • Treated Impervious Acres | 2576 | 2,767 (191 more than Federal Register) | 2,505 (71 less than Federal Register) |
| ○ Impervious Acres Treated Pre-1985 | 138 | 149 | |
| ○ Impervious Acres Treated 1985-2001 | 2044 | 2181 | |
| ○ Impervious Acres Treated 2002-2010 | 391 | 434 | |
| ○ Impervious Acres Treated Post-2010 | 2 | 3 | |

Requirement to Retrofit MS4 Areas outside of County Control

The requirement to retrofit areas outside of County control is impracticable because of **impossibility**. One Draft Permit has been issued for all discharges to the MS4 owned or operated by Frederick County Government within Frederick County’s jurisdictional area; however, Frederick County only owns a portion of the MS4 covered by this Draft Permit. Furthermore, Frederick County’s authority to demand retrofits on private property is limited. In CFR, EPA notes that permit conditions for MS4 owner/operators “will be written to establish duties that are commensurate with the legal authorities of a co-permittee. For example, under a permit, a flood control district may be responsible for the maintenance of drainage channels that they have jurisdiction over, while a city is responsible for implementing a sediment and erosion control ordinance for construction sites which relates to discharges to the drainage channel.”¹¹ This becomes important as MDE attempts to have the permittee conduct restoration outside of the portion of the MS4 boundary owned and operated by Frederick County. Being the permittee and the primary operator does not equate to being its sole owner. The Draft Permit states that it “can not authorize any injury to private property or invasion of personal rights.” The Draft Permit is derived from federal regulations that establish requirements based upon on authority that the County has, such as development and redevelopment requirements that are explicitly mentioned. The County does not have the ability to force retrofits on property built in compliance with past standards. Thus, requiring retrofits of private property beyond development and redevelopment is outside the authority of federal law.

A map of the MS4 that meets the Draft Permit definition, MS4- MDE Stormwater Program Defined, is inappropriately used by MDE’s Stormwater Program to define the retrofit obligation. The total impervious acreage in the “MS4- MDE Stormwater Program Defined” that is considered untreated in the *Stormwater Accounting Guidance* document is 9,078 acres. 20% of this area is 1,815 acres.

The map in Appendix T Figure 2– MS4: Federal Register Defined – County Owned illustrates the portions of the MS4 based on the federal definition that are also County-owned for the purposes of determining the County’s Maximum Extent Practicable restoration obligation. This boundary was developed by using the geographic area included in Figure 1 as the baseline and then removing all areas where the county does not have the authority to carry out restoration. The areas meeting the following criteria comprise the MS4 boundary for county-owned:

¹¹ 55 Fed. Reg. at 47990.

1. All County-owned properties minus those covered by industrial discharge permits; and
2. The structures and drainage areas to any County-owned or operated infrastructure (i.e. roads, BMPs, storm drain inlets, etc.).

The Federal-Register Defined MS4 boundary – County Owned within Frederick County contains the following:

- Total Acres: 13,014
 - Pervious Acres: 8,829
 - Untreated Impervious Acres: 3,042 (considered untreated in Phase I and II WIP)
 - Treated Impervious Acres: 1143
 - Pre-1985: 41 (considered untreated in Phase I and II WIP)
 - 1985-2001: 905
 - 2002-2012: 195
 - Post 2010: 2

The total impervious acreage for “MS4: Federal Register Defined – County Owned” that is untreated or treated before 1985 is 3,083 acres. 20% of the total impervious acreage for “MS4: Federal Register Defined – County Owned” that is untreated as required in the WIP is 617 acres.

Implementation Schedule for the Development of Restoration Plans

The County’s Draft Permit mandates that the County submit a restoration plan within one year of Permit issuance to address approved TMDLs; this impracticable due to **implementation schedules**. The timeframe for preparing the kind of restoration plan envisioned by MDE is wholly inadequate, and would set the County up for failure. In particular, the requirements to “*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 initiatives necessary for meeting applicable WLAs; [and] ii. Provide detailed cost estimates for individual projects, programs, controls, and plan implementation*” are not feasible to execute in a single year.

The County has made suggestions regarding ways to address these concerns (see the County’s legal and policy arguments in the Comments).

If the text remains as is, the County believes that it will be impossible for it to complete the type of restoration plan called for by the Draft Permit within a year. The 14 Stormwater WLAs that are applicable to Frederick County are provided from MDE’s TMDL Data Center, retrieved on September 2014 and presented in Appendix X. There is simply too much work to do over too short a timeframe.

Impervious Area Accounting Methodology in the Stormwater Accounting Guidance

The requirement to use the impervious area methodology outlined in the *Stormwater Accounting Guidance* is impracticable because it is **burdensome**. The *Stormwater Accounting Guidance* in Appendix U converts acres of Chesapeake Bay Program-approved watershed restoration into MDE Stormwater Program-approved impervious acres. The County has numerous concerns with the policy implications of this document, and it believes that the document will prevent implementation of cost-effective practices.

The document reduces credit from restoration practices. For example, the Chesapeake Bay Program counts an acre of urban forest buffers as one acre of land conversion from the urban land use to forest, plus an additional acre of urban land treated with a forest efficiency. The standards from MDE count an acre of planting as 34% of one impervious acre treated, requiring 2.9 acres to be planted for every acre credited. The County would have to perform six times the tree planting it performed in its previous Permit to get credit in the next permit cycle using this guidance. In order to treat 20% of the untreated urban impervious area with tree planting, the County would have to actually plant trees on the equivalent of 59% of that land area. Implementation of these otherwise cost-effective practices becomes less desirable and implementation of the restoration requirements more costly. Frederick County believes that significantly more implementation can occur within the MEP if the state reconsiders its accounting for impervious area treatment. There is a substantial loss of credit between Draft Permit Acres and Draft Permit Impervious Acres columns due to the multiplier in the *Stormwater Accounting Guidance* Conversion column. The County is conducting a study with The Nature Conservancy to determine Eco-hydrologically Active flowpaths leading into and out of urban drainages; natural infrastructure practices in these areas also address urban impacts and restore water quality in key areas of the landscape for environmental protections. We would like to propose that these areas at minimum get 1:1 credit for acres planted.

Retrofit Requirements by Era in the Stormwater Accounting Guidance

The stormwater by era requirement in the *Stormwater Accounting Guidance* is deemed impracticable because it is **burdensome** and in some cases, **impossible**. MDE's Phase I and Phase II WIP strategies for the Chesapeake Bay TMDL apply the restoration requirement to "pre-1985 impervious cover."¹² MDE's Stormwater Program has decided that only those facilities built after 2002 are deemed treated to the MEP for purposes of determining the number of impervious acres that must be restored, according to the *Stormwater Accounting Guidance* in Appendix U. In this document, MDE applies the restoration requirement to pre-2002 impervious cover as well as areas with no stormwater management that are outside of the federally defined MS4 boundary. This is inconsistent with the state's Phase I and Phase II WIP policies.

The County disagrees with requiring restoration on stormwater facilities approved prior to 2002 that were designed to the MEP standard at the time of approval. This means that a development built prior to 2002 that met the stormwater requirements at the time of approval would be subject to the 20% restoration requirement in the Draft Permit. The restoration task requires the County to exercise an authority it does not have to force previously developed and therefore grandfathered private lands to conduct restoration outside of a development or redevelopment scenario. Federal law is careful to limit requirements to the permittee's existing authority to control discharges. It is inappropriate to "re-write history" and require the County to revisit these determinations.

Stormwater Accounting Guidance Inappropriately Used as Regulation

The use of the *Stormwater Accounting Guidance* is deemed to be impracticable because it is **burdensome**. The *Stormwater Accounting Guidance* in Appendix U is being used to establish regulatory requirements, but has not received formal peer review, and, most importantly, has not had an adequate public rulemaking process.

¹² Final Phase I WIP at ES-15; Final Phase II WIP at App. A-10.

Stormwater Accounting Guidance Changes Can Affect Compliance

It is possible, and even likely, that the Stormwater Accounting Guidance will change midway through the permit term. This is considered to be impracticable because it can affect the **current ability to finance the permit**. The *Stormwater Accounting Guidance* in Appendix U is dated August 2014. The explicit Draft Permit requirement to use this document or “subsequent versions” opens the County to future requirements in the Permit without adequate review. These requirements could limit credit for practices that are already underway or in the Capital Improvement Program, require that the County change its restoration strategy mid-permit, cost the County substantially more money, and/or impair the County’s ability to comply with its Permit.

Should changes be made mid-permit, the effect on the County’s ability to comply with the Permit could be affected.

Omission of the Equivalency concept in the WIP

Omission of the equivalency concept in the permit from Maryland’s Watershed Implementation Plan for the Chesapeake Bay TMDL is impracticable because it affects the **current ability to finance the permit**. The Draft Permit also omits the equivalency concept included in the Phase I and II WIPs (“The strategy requires reductions in nutrients and sediment **equivalent** to retrofitting 30% of the pre-1985 impervious cover...”).¹³ Permittees must be allowed to comply with the restoration requirement using an alternative approach; otherwise, the state’s cost estimates are flatly wrong. According to the Phase II WIP, MS4s will be allowed to plan for implementation using “alternative stormwater management practices that may include street sweeping, catch basin cleaning, storm drain vacuuming, nutrient management, grass/meadow buffers, stream restoration, impervious surface removal, tree planting, shore line erosion control, and impervious area disconnects, when cost effective.”¹⁴

Equivalency should also allow for trading verified nutrient reduction credits and impervious area credit for stormwater restoration performed outside of the MS4 permit area, but the Draft Permit explicitly prohibits that compliance method by requiring all work to be performed within the MS4 boundary. The concepts of equivalency and trading should be specifically referenced in all Phase I MS4 Permits. These options could provide for a cost savings on the restoration requirement of up to 79% with trading between regulated stormwater, significant Point Sources, and Agricultural Nonpoint Sources inside of the Potomac Tributary Basin within the State of Maryland, according to a May 2012 Chesapeake Bay Commission report¹⁵.

MEP

The County’s MEP is:

Recommendation 1: MS4 Boundary

Neither MDE’s WMA’s definition of the MS4 boundary in the Draft Fact Sheet nor the definition used by MDE’s SSA to establish local targets under the Chesapeake Bay Total Maximum Daily Load is consistent with the definition of an MS4 described in federal law. MDE’s two different definitions of the MS4 are substantially larger than the definition in the Federal Register. In the MDE definition put forth in the Draft Fact Sheet for the permit, MDE equates the jurisdictional boundary with the regulated permit area. In the SSA version, the MS4 includes census –designated urban areas that include agriculture. The MS4 is, in fact, defined by the drainages

¹³ Final Phase I WIP at ES-15; Final Phase II WIP at App. A-10 (emphasis added).

¹⁴ Final Phase II WIP at App. at A-11.

¹⁵ Nutrient Trading for the Chesapeake Bay An Economic Study. Chesapeake Bay Commission May 2012. Included as Appendix P

from the storm sewer system owned or operated by the municipal system. Areas with no existing stormwater treatment and/or areas that do not drain to the County-owned and/or operated municipal MS4 should be excluded from the County’s municipal MS4 boundary and should therefore not be regulated. MDE should use the description of the MS4 provided by federal law.

Recommendation 2: Implementation Schedule for the Development of the Watershed Assessments and Restoration Plans

The County recommends that MDE revise the Restoration Plan requirement in Permit Part IV.E.2 to allow for development of an Implementation Plan by the end of year one of the permit term. The Plan will prioritize the watershed assessments, identify a suite of BMPs to be used to address the restoration/retrofit requirement, and propose an estimated schedule for implementation of restoration/retrofit projects. A detailed restoration plan will be developed for each watershed using the findings from the completed watershed assessment. The County will submit updates and/or revisions to the Implementation Plan with each Annual Report submission.

Recommendation 3: Impervious Area Restoration Requirements

The *Stormwater Accounting Guidance* document should not be referenced in the permit. The permit should contain a per cent reduction requirement that reflects the maximum amount of restoration practicable. MDE must allow for trading to accomplish the goals of the permit at a cheaper cost that are “equivalent to” stormwater retrofits. Restoration requirements should apply to development within the MS4 permit area, and not beyond. Restoration requirements should be applied to county-owned infrastructure and not privately owned infrastructure except during development and redevelopment. Restoration should only apply to pre-1985 development within the MS4, consistent with the requirements of the Phase I and Phase II WIPs.

Permit Part IV.E.3 – Public Participation

Impracticable Permit Task

Part of Permit Part IV.E.3. is determined to be impracticable because of **Impossibility**.

The text from the Draft Permit is as follows: *“Frederick County shall provide continual outreach to the public regarding the development of its watershed assessments and restoration plans.”*

Discussion

It is impossible to **continually** provide outreach.

MEP

The County’s MEP is:

Frederick County shall provide ~~continual~~ outreach to the public regarding the development of its watershed assessments and restoration plans.

Permit Part IV.E.4 – TMDL Compliance

Impracticable Permit Task

Legal issues with this task are discussed in the Comments. This task is determined to be impracticable because of **Impossibility**.

The text from the Draft Permit is as follows:

4. "TMDL Compliance

Frederick County shall evaluate and document the progress toward meeting all applicable stormwater WLAs included in EPA approved TMDLs. An annual TMDL assessment report with tables shall be submitted to MDE. This assessment shall include complete descriptions of the analytical methodology used to evaluate the effectiveness of the County's restoration plans and how these plans are working toward achieving compliance with EPA approved TMDLs. Frederick County shall further provide:

- a. Estimated net change in pollutant load reductions from all completed structural and nonstructural water quality improvement projects, enhanced stormwater management programs, and alternative stormwater control initiatives;*
- b. A comparison of the net change in pollutant load reductions detailed above with the established benchmarks, deadlines, and applicable stormwater WLAs;*
- c. Itemized costs for completed projects, programs, and initiatives to meet established pollutant reduction benchmarks and deadlines;*
- d. Cost estimates for completing all projects, programs, and alternatives necessary for meeting applicable stormwater WLAs; and*
- e. A description of a plan for implementing additional watershed restoration actions that can be enforced when benchmarks, deadlines, and applicable stormwater WLAs are not being met or when projected funding is inadequate."*

Discussion

Preliminarily, from a purely operational perspective, the County submits that it is not possible to provide this report on a yearly basis. This is an extensive exercise that would require hundreds of hours of staff time each year. The County suggests that the requirement be for the five year permit cycle. A five year reporting requirement would acknowledge the enormity of the underlying task, addressing all applicable TMDLs, and allow the County to prioritize its restoration efforts, which will result in real pollutant load reductions, over paperwork.

As noted above, the County has serious concerns regarding its ability to comply with the Watershed Assessments and Restoration Plans sections of the Draft Permit. We believe these sections are well beyond our MEP, and therefore object to MDE including them in the final permit without significant revision. According to MDE's new TMDL Data Center, the County's MS4 has 14 local TMDLs (some with aggregated WLAs) for bacteria (Double Pipe Creek, Lower Monocacy River, Upper Monocacy River), phosphorus (Catoctin Creek, Double Pipe Creek, Lower Monocacy River, Upper Monocacy River, Lake Linganore), and TSS (Catoctin Creek, Double Pipe Creek, Upper Monocacy River, Lower Monocacy River, Potomac River Montgomery County, and Lake Linganore). A list of these TMDLs provided by MDE for Frederick County is in Appendix X. To provide a perspective on the level of effort involved in the planning and restoration effort, the County also provides a list of *Stormwater WLAs for County Storm Sewer Systems in Frederick County* from MDE's TMDL Data Center in Appendix X. Notably absent is the TMDL for Lake Linganore, which has sediment and phosphorus reductions that exceed the requirements of the Bay TMDL.

The pounds of phosphorus to be removed from local TMDLs significantly exceed the Bay goals and must be addressed iteratively. Frederick County also made substantial comments in its August 14, 2012 letter to MDE regarding technical issues with MDE's draft Phosphorus TMDLs; these comments are included as Appendix Y. The County has not attempted to estimate the costs of the local TMDLs in this analysis but notes that The WLAs for Lake Linganore are missing and that the reductions are many times the phosphorus and sediment targets in the Maryland WIP for Frederick County and impracticable to complete within the permit cycle given the costs

associated with the Bay TMDL restoration requirement described below. Addressing the Bay TMDL becomes a “super-priority” for the County, limiting our ability to address local TMDLs.

The costs for stormwater from MDE’s WIP plan for all regulated entities in Frederick County¹⁶ are calculated to be \$1,503,450,109 to reduce 7,197 pounds of phosphorus and 87,170 pounds of nitrogen, including a cost from 2010-2017 of \$790,179,732 and a cost from 2017-2025 of \$713,270,376. Notably, the target to treat 30% of the pre-1985 development in the WIP (which includes 10% previously completed) as discussed in the previous section, is overshadowed by the WIP nutrient reduction target for Frederick County. To calculate this cost, staff used BMPs from MDE’s “Maryland Phase II WIP Strategies: Frederick”¹⁷ and multiplied the number of units for each BMP by unit costs for impervious acres from King and Hagan in Appendix BB. King and Hagan prepared estimates for MDE to go with the Maryland Assessment Scenario Tool that they used to develop scenarios. These numbers are conservative, as they use MDE’s own estimates. To convert nonstructural practices from restoration acres in MDE’s plan to impervious acres in the King and Hagan report, staff used conversions from MDE’s *Stormwater Accounting Guidance* in Appendix U.

Costs are 20-year costs at a net present value. BMPs include all future stormwater restoration within Frederick County in Maryland’s plan, including municipal, state, federal, county-owned and unregulated urban land. It is estimated that the cost to Frederick County Government would be about 43.4% of this cost. This amounts to \$342,938,004 by 2017, estimated to be the end date for the next permit cycle, and \$309,559,343 between 2017 and 2025, for a total of \$652,497,347 by 2025. These costs are just for Frederick County Government to meet the local targets for nutrient reductions in the Chesapeake Bay TMDL WIP and do not include local TMDLs.

MEP

The County’s MEP is:

5. “TMDL ~~Compliance Reporting~~”

Frederick County shall evaluate and document the progress toward ~~meeting~~ addressing all applicable stormwater WLAs included in EPA approved TMDLs. ~~An annual~~-TMDL assessment report with tables shall be submitted to MDE by the end of the permit term. This assessment shall include complete descriptions of the analytical methodology used to evaluate the effectiveness of the County’s restoration plans ~~and how these plans are working toward achieving compliance with EPA approved TMDLs~~. Frederick County shall further provide:

- a. Estimated net change in pollutant load reductions from all completed structural and nonstructural water quality improvement projects, enhanced stormwater management programs, and alternative stormwater control initiatives;*
- b. A comparison of the net change in pollutant load reductions detailed above with ~~the established benchmarks, deadlines,~~ and applicable stormwater WLAs;*
- c. Itemized costs for completed projects, programs, and initiatives; and ~~to meet established pollutant reduction benchmarks and deadlines;~~*
- d. Cost estimates for ~~completing~~ all projects, programs, and alternatives ~~necessary for meeting applicable stormwater WLAs~~ to be undertaken during the following year.; ~~and~~*
- e. ~~A description of a plan for implementing additional watershed restoration actions that can be enforced when benchmarks, deadlines, and applicable stormwater WLAs are not being met or~~*

¹⁶ Frederick County’s Local Area Analysis for the Chesapeake Bay TMDL is presented in Appendix Z

¹⁷ Maryland’s Phase II WIP Strategies: Frederick is presented in Appendix AA

~~when projected funding is inadequate.”~~

Permit Part IV.G.2 – Program Funding

Impracticable Permit Task

Part IV.G.2 is impracticable because of the **Current Ability to Finance the Program**.

The impracticable text is as follows:

“2. 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.”

Discussion

This item is discussed in great detail in Section III: Current Ability to Finance the Program.

MEP

The County’s MEP is:

See Section III: Current Ability to Finance the Program.

Permit Part V.A – Annual Reporting

Impracticable Permit Task

Permit Part V.A. is determined to be impracticable because of **Implementation Schedules**.

The impracticable language in the section is as follows: “2. To enable MDE to evaluate the effectiveness of permit requirements, the following information shall be submitted in a format consistent with Attachment A”.

Discussion

Attachment A is in draft. The updated data requirements are extremely complicated, as shown in Maryland Department of the Environment NPDES Geodatabase Design and Guide Prepared by: Maryland Environmental Service April 2013, and NPDES Database Diagram presented as Appendix CC. Additional changes are anticipated; to instantly update enterprise databases once these requirements are updated is not possible; the problem is a scheduling issue. At least one year should be given to implement the database requirements once finalized.

MEP

The County’s MEP is:

To enable MDE to evaluate the effectiveness of permit requirements, the following information shall be submitted in a format consistent with Attachment A. If MDE revises Attachment A during the course of this permit term, the County will be given 12 months from the revision to update its systems consistent with the new approach:

Permit Part VI.A – Chesapeake Bay Restoration by 2025 (Task: Special Programmatic Conditions) and Part VI.B – Comprehensive Planning (Task: Special Programmatic Conditions)

Impracticable Permit Task

Permit Parts VI.A and VI.B are considered to be impracticable because of **Impossibility**.

The language in the Draft Permit is as follows:

“A. Chesapeake Bay Restoration by 2025

A Chesapeake Bay TMDL has been developed by the EPA for the six Bay States (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia) and the District of Columbia. The TMDL describes the level of effort that is necessary for meeting water quality criteria and restoring Chesapeake Bay. The TMDL is an aggregate of nonpoint sources or the load allocation (LA) and point sources or WLA, and a margin of safety. The State is required to issue NPDES permits to point source discharges that are consistent with the assumptions of any applicable TMDL, including those approved subsequent to permit issuance.

Urban stormwater is defined in the CWA as a point source discharge and will subsequently be a part of Maryland's WLA. The NPDES stormwater permits can play a significant role in regulating pollutants from Maryland's urban sector and in the development of Chesapeake Bay Watershed Implementation Plans. Therefore, Maryland's NPDES stormwater permits issued to Frederick County and other municipalities will require coordination with MDE's Watershed Implementation Plan and be used as the regulatory backbone for controlling urban pollutants toward meeting the Chesapeake Bay TMDL by 2025.

B. Comprehensive Planning

The County shall cooperate with other agencies during the completion of the Water Resources Element (WRE) as required by the Maryland Economic Growth, Resource Protection and Planning Act of 1992 (Article 66B, Annotated Code of Maryland). Such 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.”

The Draft Fact Sheet explains the Special Programmatic Conditions in the Draft Permit in the following way:

“Frederick County will be required to coordinate 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 [as] those implemented during the County's previous stormwater permits and as a part of the other State and local regulations all work toward meeting both of these conditions.”

Discussion

The “Chesapeake Bay Restoration by 2025” section of the Draft Permit states that all NPDES stormwater permits will “require coordination” with the State's WIPs for the Bay TMDL and meet the requirements of the State's Water Resource Element requirement. In addition, per the special condition in Part VI.B, the County will be required to cooperate with other agencies during the completion of the Water Resources Element required by state law.

The County is concerned that the Draft Fact Sheet accompanying the permit inappropriately implies that the County itself, and not merely the regulated MS4, must coordinate with the Bay TMDL. As EPA has made clear, local plans developed by the state's counties are only plans with "targets" for compliance, due in large part to the fact that the Bay TMDL models are not reliable at such a fine scale. Local plans do not bind the locality as a whole to implement the ideas included therein. As noted above, EPA has stated that federal stormwater regulations do "...not regulate the county, city, or town." Rather, they regulate the MS4. In sum, neither EPA nor the state have the authority through the MS4 permit to mandate that the County as a whole make pollutant reductions to address Bay TMDL targets.

Furthermore, in the Draft Permit itself, 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 called "Chesapeake Bay Restoration by 2025," and the last sentence of the section states that "Maryland's NPDES stormwater permits issued to Frederick County and other municipalities will require coordination with MDE's Watershed Implementation Plan and be used as the regulatory backbone for controlling urban pollutants toward meeting the Chesapeake Bay TMDL by 2025." EPA has acknowledged in federal litigation that the TMDL does not mandate a federal timeline for implementation.¹⁸ Rather, members of the Executive Council chose this target date voluntarily, and it can be adjusted if a Bay state so desires. As noted above, the County has determined through this analysis that compliance with the 20% restoration requirement for this permit cycle is impracticable. It stands to reason that implying that the County's MS4 will be compelled to address the Bay TMDL fully by 2025 is an impossibility. MDE has no legal authority for attempting to bootstrap a voluntary timeframe into an enforceable federal permit term.

For this reason alone, it does not belong in any of the state's MS4 Permits. Additionally, MDE has no basis for concluding that the County is capable of actually implementing the kinds of substantial clean-up measures included in the Phase I and Phase II WIPs by 2025. As a matter of principle, an MS4 permittee should not be asked to agree to a Permit term unless it believes that it can comply with that term.

Lastly, the County highlights the fact that even though urban stormwater is one of the Bay source sectors that must make reductions, Maryland's MS4s were not assigned individual WLAs by EPA in the Final TMDL (WLAs were expressed in aggregate). Arguably, this was the only reasonable way to establish WLAs for the state's MS4s, given the spate of concerns expressed regarding the accuracy of the model at a finer-scale. Most importantly, the local targets described above are merely part of a useful local planning exercise, and should not be construed as the WLAs for the MS4 because they are not included in EPA's Final TMDL.

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)." Cooperation "shall entail all reasonable actions authorized by law." The County is required by state law to comply with the WRE planning. However, the requirements of the WRE state statute are far beyond the requirements of the federal CWA, and could subject the County to EPA enforcement or citizen suits for any alleged failure to "cooperate" in

¹⁸ EPA has stated that: "contrary to Plaintiffs' assertion, EPA did not 'establish[] a federal timeline for implementation.' Pl. Opp'n at 14, 17. The 2025 implementation target is the Partnership's target, not EPA's alone." EPA's Memorandum in Support of EPA's Cross-Motion for Summary Judgment at 15, *Am. Farm Bureau Fed'n v. EPA*, No. 1:11-cv-00067-SHR (M.D.Pa. June 20, 2012).

planning. Worse, this requirement would usurp legislative discretion by mandating that the governing body take “all reasonable actions authorized by law,” thereby allowing MDE, EPA and citizens to second guess decisions on local matters.

MEP

The County’s MEP is:

[SECTION ELIMINATED]

Part III: Current Ability to Finance the Program

Current Permit Costs

Frederick County's total estimated 5-year cost to implement its current Permit is \$12,428,322. This includes \$11,129,551 in operating costs and \$1,298,771 in restoration costs.

Frederick County has implemented the current Permit conditions for the past 12 years, because the current Permit was administratively extended in March 2007. Many tasks span more than one year; therefore, the County developed a methodology to calculate an estimated 5-year cost using budget numbers from the 10 years of Permit compliance leading up to FY'2012. A description of the methodology can be found in Appendix DD. The estimated 5-year costs include expenditures for both County staff and Consultants. All funds for the current program come from County General Funds generated from tax revenues.

A full breakdown of costs by task is provided in Table 11.

Draft Permit Costs

The estimated five year cost of the permit operations is estimated to be \$15,568,509. This number is based on an analysis of the costs of tasks under the previous permit that are also included in the draft permit, plus rough cost estimates for future tasks in the draft permit provided by Versar, Inc., a national consulting firm with experience with MS4 permits, including Frederick County's. Estimations of operating costs are provided in Appendix DD.

Using the map of the MS4 that was developed by Frederick County GIS staff using the requirements in MDE's Draft Fact Sheet, the amount of restoration needed to meet the 20% retrofit of untreated urban impervious area in the next permit is 1815 acres. Staff developed a restoration scenario in MDE's Maryland Assessment Scenario Tool [Appendix EE] designed to meet the number of required acres; attention was paid to the most cost effective practices and the number of acres available for each practice. Staff had to convert the number of acres of restoration in the MAST tool to impervious acres to get to 1815 acres. Staff then applied costs per impervious acre from the King and Hagan study commissioned by MDE [Appendix BB] and projected timeframes for each project type based on experience with past projects and the timeframes for county budgeting and procurement. The cost of the requirement to restore 20% of the county's untreated urban impervious area was estimated to be \$95,959,482. Table 4 below shows the scenario built by Frederick County staff to meet the draft permit requirements. Costs are 20-year life cycle costs at a net present value in FY'12 dollars. Note that the Stormwater Accounting Guidance dated August 2014 was released by MDE after this initial analysis, and that the Urban Nutrient Management BMP was eliminated. Changes to this scenario and updated cost projections to the midpoint of the permit (FY'17) were done as part of the work of Brown and Caldwell, described in Section III. Frederick County notes that these all estimates could change with new information, and that the permit requirements are based on compliance activities.

Table 4: Costs and Acres treated for 20% restoration requirement from MDE Stormwater Program Defined MS4 and June 2011 Stormwater Accounting Guidance

| BMP Name | Unit | Stormwater Accounting Guidance Conversion | Draft Permit Units | Draft Permit Impervious Acres | Cost for 20-yr Life Cycle per Impervious Acre | Draft Permit Cost (20 year NPV) |
|---|-------------|--|---------------------------|--------------------------------------|--|--|
| Bioretention/raingardens* | Ac. | 100% | 2 | 2 | \$217,370 | \$434,740 |
| Bioswale | Ac. | 100% | 200 | 200 | \$62,620 | \$12,524,000 |
| Dirt and Gravel Road Erosion and Sediment Control | Ac. | 100% | 0.7557 | 0.7557 | | \$0 |
| Dry Detention Ponds and Hydrodynamic Structures** | Ac. | 0% | 0 | 0 | \$112,620 | \$0 |
| Dry Extended Detention Ponds*** | Ac. | 0% | 0 | 0 | \$97,120 | \$0 |
| Impervious Urban Surface Reduction | Ac. | 62% | 0.05 | 0.031 | \$163,957 | \$5,083 |
| MS4 Permit - Stormwater Retrofit**** | Ac. | 100% | 100 | 100 | \$97,120 | \$9,712,000 |
| Urban Filtering Practices | Ac. | 100% | 50 | 50 | \$88,620 | \$4,431,000 |
| Urban Forest Buffers | Ac. | 34% | 60 | 20 | \$57,207 | \$1,167,023 |
| Urban Infiltration Practices | Ac. | 100% | 0 | 0 | \$84,370 | \$0 |
| Urban Tree Planting: Urban Tree Canopy | Ac. | 38% | 150 | 57 | \$207,207 | \$11,810,799 |
| Vegetated Open Channel – Urban | Ac. | 100% | 0 | 0 | \$38,207 | \$0 |
| Wet Ponds and Wetlands | Ac. | 100% | 200 | 200 | \$81,251 | \$16,250,200 |
| Street Sweeping | Tons | 40% | 2,073.5 | 829 | \$15,079 | \$12,508,031 |
| Urban Nutrient Management | Ac. | 9% | 1,180 | 106 | \$61,620 | \$6,544,044 |
| Urban Stream Restoration/Shoreline Erosion Control | Linear Feet | 100 | 25,000 | 250 | \$82,320 | \$20,580,000 |
| Total | | | | 1815 | | <u>\$95,966,920</u> |
| <p>All acres of implementation from MDE WIP converted to impervious acres using Maryland's "Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated Draft June 2011" document. All costs from Dennis King's "Use of Planning Level Unit Stormwater BMP Costs with MAST Output to compare WIP Alternatives": Planning Level Unit Cost Development for Stormwater Management Best Management Practices (BMPs) Part 4: Integrating Unit Stormwater BMP Costs with MAST Output</p> <p>*Bioretention (Retrofit - Highly Urban) cost data used from King Report.</p> <p>**Dry Detention Ponds (New) and Hydrodynamic Structures (New) are listed separately with different costs in King Report. Used Hydrodynamic Structure Cost data.</p> <p>***Used Dry Extended Detention Ponds (New) cost data from King Report.</p> <p>****Used Dry Extended Detention Ponds (Retrofit) cost data from King Report</p> | | | | | | |

The costs and timeframes were subjected to review by Brown and Caldwell, a nationally recognized engineering firm, under contract to AquaLaw, the County’s outside legal counsel on stormwater matters. Brown and Caldwell’s report, is provided as Appendix L. Brown and Caldwell made recommendations to replace certain BMPs with others, change timeframes for execution based on permitting and other issues, modify cost projections for some BMPs, include projects from the existing CIP, and adjust dollars to FY’17 as the midpoint of the permit.

Brown and Caldwell estimated the cost of the 20% restoration requirement at \$126,777,501.

Brown and Caldwell estimated the full cost of the Draft Permit, including the 20% restoration requirement, to be \$142,346,010.

Using Brown and Caldwell’s schedule, not all projects can be completed within the five years of the permit. Brown and Caldwell’s projections indicate that the full 20%, or 1815 acres, of impervious area restoration would not be possible to complete in the five year permit; a maximum of 1,311 acres would be physically possible to complete in the timeframe.

BC’s projections do show commencement of construction on all 1815 acres; however, the permit requires that permittees commence and complete restoration in the permit timeframe. Thus, the full 20% retrofit cannot be completed in the five year permit and requires an additional fiscal year.

Detail on cost and scheduling estimates was provided to Municipal and Financial Services Group, under contract by AquaLaw, for an evaluation of the cost per ratepayer using the county’s existing stormwater remediation fee structure. MFSVG projected the costs that would be incurred during the permit term into a financial model [Appendix M].

MFSVG states that *“It is obvious that the generic schedules developed by the County’s consulting engineers that would be necessary to complete the 20% impervious surface restoration implementation would take more than five years. The cost and rate estimates in the remainder of this report use a six year projection period (FY 2015 through FY 2020) that reflects this fact.”* The costs that would be incurred executing the draft permit during FY’15-FY20 period would be \$104,852,801.

Table 5: Projected Draft Permit Costs Per Year of Permit

| Permit Costs | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 |
|-------------------------------|---------------------|--------------------|--------------------|---------------------|--------------------|---------------------|
| CIP-Related Total | \$11,023,248 | \$3,992,487 | \$2,828,318 | \$33,554,368 | \$2,759,192 | \$38,745,566 |
| Total Operating | \$3,113,702 | \$3,113,702 | \$3,113,702 | \$3,113,702 | \$3,113,702 | |
| Total MS4 Expenditures | \$14,136,950 | \$7,106,189 | \$5,942,020 | \$36,668,070 | \$5,872,894 | \$38,745,566 |

Applying a consistent stormwater utility rate across this time period to fund the cost of the draft permit from FY'15-FY'20, MFSVG determined that the cost per account to implement the Draft Permit for the existing 49,485 current ratepayers affected by the stormwater remediation fee would be \$462 per year.

This number represents a 400% increase over the \$108 per ratepayer equivalent that is budgeted in Fiscal Year 2015. Note that the program is currently funded through property taxes and comes from the general fund. MFSVG cited that \$467 per account is about 752% higher than the average of the over 1300 utilities surveyed in 2013 by the Western Kentucky University and that “this fee would be one of the highest in the country if implemented immediately in the current fiscal year.” They suggested a 15% governing rate increase based on their professional experience with setting utility rates for municipal governments across the country.

Table 6: Exhibit 6. Stormwater Fee Projection

| | Projected FY 2015 | Projected FY 2016 | Projected FY 2017 | Projected FY 2018 | Projected FY 2019 | Projected FY 2020 |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Total MS4 Projected Funding | \$14,136,950 | \$7,106,189 | \$5,942,020 | \$36,668,070 | \$5,872,894 | \$38,745,566 |
| Planned Funding | \$5,349,840 | \$5,403,338 | \$5,457,372 | \$5,511,946 | \$5,567,065 | \$5,622,736 |
| Total Funding Needed | \$19,486,790 | \$12,509,528 | \$11,399,392 | \$42,180,016 | \$11,439,959 | \$44,368,302 |
| Breakeven MS4 Annual Fee per Customer | \$394 | \$250 | \$226 | \$827 | \$222 | \$853 |
| <i>% Change</i> | 264%* | (-36%) | (-10%) | 266% | (-73%) | 284% |
| Six Year MS4 Average Fee per Customer | \$462 | \$462 | \$462 | \$462 | \$462 | \$462 |

MEP Costs

MFSVG also determined a reasonable initial fee based on the County’s current expenditures on its NPDES MS4 permit. The estimated budget for NPDES tasks in the FY’15 operating budget for Frederick County is \$5,349,840. This includes capital projects and operating expenses.

The MEP cost is determined to be \$46,959,626 in FY’17 dollars based on the current fiscal year funding with a per year escalation rate of 15%. The cost per ratepayer is \$108 in Fiscal Year 2015 consistent with the current FY’15 budget from the general fund and escalates to \$217 per ratepayer in Fiscal Year 2020.

Table 7 below, taken from Exhibit 7 in the MFSVG report, shows the projected amount of fee per year over six fiscal years for two scenarios and compares them to the National Average Stormwater Utility Cost. The first scenario starts with the general funds expended by the County in the current fiscal year and applies 15% escalations per year, which is determined to be the MEP. The current year fee is almost twice the national average. The second scenario averages the cost per year of the full draft permit to create an average fee per year of \$462.

Table 7: Exhibit 7. Projected Fees w/ 0% Increases vs. 15% Increases vs. Full MS4 Funding

| | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| National Average Stormwater Utility Annual Cost | \$58 | \$60 | \$62 | \$64 | \$65 | \$67 |
| Annual Escalator | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| 15% Increases per year Fees | \$108 | \$124 | \$143 | \$164 | \$189 | \$217 |
| Assumed Increase | N/A | 15% | 15% | 15% | 15% | 15% |
| <i>% of National Average</i> | 186% | 207% | 232% | 259% | 289% | 322% |
| Annual Revenue Generated | \$5,349,840 | \$6,213,839 | \$7,217,374 | \$8,382,980 | \$9,736,831 | \$11,309,330 |
| MS4 Funding Annual Fees (six year average) | \$462 | \$462 | \$462 | \$462 | \$462 | \$462 |
| <i>% of National Average</i> | 794% | 771% | 749% | 727% | 706% | 685% |
| Annual Revenue Generated | \$22,865,873 | \$23,094,532 | \$23,325,477 | \$23,558,732 | \$23,794,320 | \$24,032,263 |

Staff used these numbers to develop yearly budget projections for the Maximum Extent Practicable scenario to execute the Draft Permit. Table 8 breaks permit costs into CIP-Related and Total Operating.

Table 8: Projected MEP Costs Per Year of Permit

| MEP Costs | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| CIP-Related Total | \$2,595,847 | \$3,417,528 | \$4,615,063 | \$5,880,669 | \$7,234,520 | \$8,898,108 |
| Total Operating | \$2,754,043 | \$2,796,311 | \$2,602,311 | \$2,502,311 | \$2,502,311 | \$2,411,222 |
| Total MS4 Expenditures | \$5,349,890 | \$6,213,839 | \$7,217,374 | \$8,382,980 | \$9,736,831 | \$11,309,330 |

Staff then modified the schedule of projects developed by Brown and Caldwell for each fiscal year using the per year caps set by MFSVG. To do this, Staff kept projects that met the MEP amounts in each year and moved projects into future years that exceeded MEP amounts; this was done iteratively for each fiscal year of the permit. In a few instances, when differences were not significant enough to move an entire project or project phase, funds were added or subtracted to a project. The priority was to keep projects that emanated from the existing CIP and cheaper projects like tree plantings, and to move other projects first. **Based on the MEP, Frederick County can commence construction on a total of 532 acres and complete restoration on 416 of those acres during the next permit term.**

The number of acres required to retrofit 20% of the County’s untreated urban impervious area according to MDE’s Water Management Administration’s definition of the NPDES MS4 Boundary in the Fact Sheet is estimated to be 1,815. However, as discussed in the MS4 Boundary section, the number of acres in this definition is neither consistent with the MS4 boundary used by SSA to develop the Watershed Implementation Plan for the TMDL or the MS4 as defined in the Code of the Federal Register.

Table 9 below shows the % goal met depending on which version of the MS4 boundary is used. **Frederick County can commence and complete 416 acres in the permit term. This represents a 13.5% retrofit of the statutorily defined MS4’s untreated urban impervious area owned by the County and built without stormwater or built prior to 1985.**

Table 9: Impervious Acres Restored

| Scenario | Total Acres in MS4 | Total Untreated Impervious Acres | Acres needed for 20% Retrofit Requirements | Percent of Restoration Goal met by restoring 416 acres |
|--|--------------------|----------------------------------|--|--|
| MDE WMA MS4 | 64,663 | 9077 | 1815 | 4.6% |
| MDE SSA WIP-Defined MS4 | 48,826 | 3633 | 727 | 11.5% |
| CFR-Defined MS4 with County-Owned Drainages (untreated areas or areas built prior to 1985) | 13,014 | 3083 | 617 | 13.5% |

Table 10 reviews the numbers of acres of restoration required by the Draft Permit and commenced and completed under the MEP scenario and is broken down by project type. Frederick County focused on the most cost-effective practices to develop the MEP spreadsheets using BCs analysis as the basis.

Table 10: Acres Required by Draft Permit, and Commenced and Completed under MEP

| Projects | MEP Permit Impervious Acres Completed | MEP Permit Impervious Acres Commenced | Draft Permit Impervious Acres Required |
|---------------------------|--|--|--|
| Bioretention New | 0 | 0 | 49.95 |
| Bioretention Highly Urban | 0 | 0 | 49.95 |
| Bioswale New | 0 | 0 | 52.36 |
| Bioswale Highly Urban | 0 | 0 | 42 |
| SW Retrofits | 177 | 207 | 307 |
| Urban Forest Buffer | 18.36 | 20.4 | 20.4 |
| Urban Filtering Practices | 0 | 0 | 48 |
| Urban Tree Planting | 75.24 | 159.6 | 164.16 |
| Street Sweeping | 55 | 55 | 829.5 |
| Stream Restoration | 90 | 90 | 252 |
| Total | 415.73 | 532.13 | 1815.35 |

Table 11 below is a breakdown of costs for each task in the existing, draft and MEP permits. The Current Permit Cost \$12,428,322, the Draft Permit is estimated to cost \$142,316,010 and the MEP Permit is estimated to cost \$46,959,626.

Table 11: Cost Comparison by Task for Frederick County’s Current Permit, Draft Permit, and MEP

| Permit Tasks | Existing Costs | MEP Costs | Draft Permit Costs | Notes |
|---|----------------|-------------|--------------------|--|
| GIS Mapping | \$508,665 | \$508,665 | \$508,665 | |
| NPDES Permit Monitoring | \$1,034,812 | \$1,459,037 | \$1,459,037 | |
| MD 2000 Stormwater Manual | \$864,581 | \$864,581 | \$864,581 | |
| Stormwater Management Program | \$2,532,573 | \$2,532,573 | \$2,532,573 | Proposed costs remain the same at this time because of an unknown additional amount of effort required in the future to meet increased inspections, verification, etc. for ESD practices. |
| E&S Control | | | | |
| IDDE & Spill Response Program | \$301,177 | \$362,386 | \$362,386 | We've kept County staff costs the same but realize that this is a minimum number. The IDDE program will have to expand to meet the conditions of the proposed Permit but it is difficult to estimate at this time. We are saying that it is not practicable because of the requirement to inspect commercial/industrial areas. |
| Outreach & Education | \$49,952 | \$49,952 | \$49,952 | All other County outreach & education costs are incorporated into the General Permit Compliance costs |
| Litter & Floatables | NA | \$0 | \$0 | Staff time in managing this task is incorporated into the General Permit Compliance costs. |
| Property Management | \$4,314,534 | \$3,995,251 | \$3,995,251 | Costs for street sweeping for the Draft Permit (\$12,508,031) and MEP (\$588,081) are reflected in restoration costs. The current cost (\$420,820.60) is included in operating. |
| Road Maintenance | | | | |
| Herbicide/Pesticide/Fertilizer Use | | | | |
| NPDES Industrial Discharge Permitting | \$44,767 | \$89,358 | \$89,358 | |
| Watershed Assessments and Restoration Plans | \$211,303 | \$1,761,006 | \$1,761,006 | MEP reflects draft permit costs minus \$600,000 for the TMDL Assessment in year one. |

| Permit Tasks | Existing Costs | MEP Costs | Draft Permit Costs | Notes |
|---|-----------------------|---------------------|---------------------------|---|
| TMDL Compliance | \$0.00 | \$45,000 | \$45,000 | |
| Program Funding | N/A | N/A | N/A | |
| Annual Report and Database Management | \$260,724 | \$340,724 | \$340,724 | |
| Special Programmatic Conditions | See note | See note | See note | Costs associated with this task are incorporated into General Permit Compliance costs. Additional costs associated with project construction are incorporated into Implementation & Tracking of Restoration Efforts. |
| General Permit Compliance | \$1,006,464 | \$3,559,977 | \$3,559,977 | Miscellaneous operating costs (i.e. outreach materials, staff mileage, training, etc) plus salary and fringe for staff managing overall Permit compliance. Costs are a minimum estimate that include current staff (one Project Manager IV and one PMIII) cost plus three proposed staff (one PMII, two Watershed Planners and one Administrative position) plus an average 5-year operating miscellaneous cost |
| Subtotal Operating Costs | \$11,129,551 | \$15,568,510 | \$15,568,510 | |
| Implementation & Tracking of Restoration Efforts | \$1,298,771 | \$31,391,116 | \$126,777,500 | All costs of restoration requirement minus street sweeping (captured in road maintenance) |
| ESTIMATED TOTAL | \$12,428,322 | \$46,959,626 | 142,346,010 | Total costs |

Sage Policy Group, under contract to AquaLaw, conducted an analysis of the costs of the draft permit. They evaluated total economic impacts in Frederick County associated with alternatives to NPDES permit compliance using IMPLAN. They put forth three alternatives using an estimated \$107M in eligible permit costs, the estimated cost of the draft permit from FY'2015-FY'2020. (Their numbers differ slightly from MFSVG estimates because they projected operating tasks from FY'12 dollars to FY'17 dollars):

1. Frederick County Government expending the funds on other services like schools and public safety;
2. Frederick County taxpayer/citizen spending for this same amount;
3. Frederick County Government expenditures on other services like schools and public safety using this same amount. The difference between this and the permit scenario is largely whether the funds are spent in Frederick County or elsewhere.

Three types of economic impact were evaluated for the draft permit costs:

- Years of work (full-time and part-time jobs)
- Income (millions of 2017 dollars)
- Business sales (millions of 2017 dollars)

Table 12 below shows that the permit is expected to generate 334 job years, \$16.8M income in 2017 dollars, and \$47.2M in business sales. The table below shows the projections for each scenario.

Table 12: Exhibit 6. Total economic impacts in Frederick County associated with alternatives to NPDES permit compliance: fiscal years 2015 –2020

| <i>Type of impact</i> | <i>Additional Frederick County services</i> | <i>Frederick County taxpayer/resident spending</i> | <i>NPDES permit compliance</i> |
|--|---|--|--------------------------------|
| Years of work (full-time and part-time jobs) | 1,153 | 717 | 334 |
| Income (millions of 2017 dollars) | \$60.9 | \$25.5 | \$16.8 |
| Business sales (millions of 2017 dollars) | \$197.7 | \$78.5 | \$47.2 |

According to Sage, *“The analysis outlined above illustrates that the requirement to comply with the NPDES permit requirements will have real, quantifiable opportunity costs for Frederick County. Either using these funds for other County government services or returning them to taxpayers in the county results in substantially more jobs in the county as well as other economic benefits.”*

The Opportunity costs from the permit scenario versus the two other scenarios are presented in the Table 13 below, that reproduces Exhibit 7 from the report:

Table 13: Exhibit 7. Opportunity Cost: Total additional economic impacts in Frederick County

| <i>Type of impact</i> | <i>Additional Frederick County services</i> | <i>Frederick County taxpayer/resident spending</i> |
|--|---|--|
| Years of work (full-time and part-time jobs) | 819 | 383 |

| | | |
|---|---------|--------|
| Income (millions of 2017 dollars) | \$44.1 | \$8.6 |
| Business sales (millions of 2017 dollars) | \$150.5 | \$31.3 |

According to Sage, *“If the \$107 million were allocated to tax relief, the county’s economy would support an additional 383 jobs once one fully considers multiplier effects. Conversely, if the \$107 million were spent on other Frederick County services, including on education and public safety, the Frederick County economy would support an additional 819 jobs over that period. Those jobs would be associated with an additional \$44 million in worker income and an additional \$150 million in local business sales. Returning monies to taxpayers would increase economic impacts although not as dramatically as adding county government services. Taxpayers would not spend all of this new disposable income in Frederick County and their spending would support retail and service-oriented business, which generally do not pay as well as many other sectors of the economy. Nevertheless, these economic benefits are significantly higher than those linked to NPDES permit compliance as reflected in Exhibit 7.”*

Conclusion

The full cost of the draft permit is estimated to be \$142,346,010, if all terms are able to be met, including the 20% retrofit requirement. Execution of this full amount is not possible due to financial and scheduling reasons. The County Adopted a Clean Water Policy in January 2014, presented in Appendix FF; these impracticable costs and schedules also violate County Policy. The MEP cost is determined to be \$46,959,626 in FY’17 dollars based on the current fiscal year funding with a per year escalation rate of 15%. The cost per ratepayer is \$108 in Fiscal Year 2015 consistent with the current FY’15 budget from the general fund and escalates to \$217 per ratepayer in Fiscal Year 2020. Based on the MEP, Frederick County can commence construction on a total of 532 acres and complete restoration on 416 of those acres during the next permit term. Frederick County can execute 22.9% of the 20% retrofit requirement using MDE WMA’s definition of the MS4 boundary, and 67.4% of the 20% retrofit requirement using the CFR-Defined MS4 with County-Owned Drainages.

The state’s own figures from the Phase II Watershed Implementation Plan (Phase II WIP) confirm that local governments are facing enormous stormwater management costs under MDE’s plan, estimated at \$2.051 billion through 2017 and \$6.272 billion through 2025. The County cannot agree with a state policy (i.e., requiring all MS4 permittees to comply with a numeric restoration requirement) that would impose an unprecedented financial burden that is orders of magnitude beyond our collective abilities to manage.