

**Maryland Department of the Environment
Water and Science Administration**

**Basis for Final Determination to Issue the General Permit for Discharges
from State and Federal Small Municipal Separate Storm Sewer Systems**

**GENERAL DISCHARGE PERMIT NO. 13-SF-5501
GENERAL NPDES NO. MDR055501**

**Final Determination: April 27, 2018
Effective Date: October 31, 2018
Expiration Date: October 30, 2023**

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Executive Summary

The Maryland Department of the Environment (MDE) has issued a Final Determination regarding the Small MS4 National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from State and Federal Small Municipal Separate Storm Sewer Systems (MS4), General Discharge Permit No. 13-SF-5501, and NPDES No. MDR055501. The federal Clean Water Act (CWA) and Code of Federal Regulations (CFR), and numerous guidelines of the United States (U.S.) Environmental Protection Agency (EPA) provide the legal framework for permit requirements. In addition, this permit relies on long established Statewide programs under the Environment Article, Annotated Code of Maryland, Code of Maryland Regulations (COMAR), and policies and guidelines of MDE to comply with the goals of the CWA.

EPA has authorized MDE as the permitting authority responsible for issuing NPDES permits in the State of Maryland. MDE issued the first generation permit for State and federal agencies on November 12, 2004, which has been administratively continued since its expiration on November 12, 2009. Presently, 34 State and federal agencies are covered under this permit. The second generation permit expands coverage to additional properties in Maryland according to the 2010 U.S. Census designation of additional urbanized areas. The permit and a list of potentially affected agencies are available on MDE's website at the link:
www.mde.maryland.gov/programs/Water/StormwaterManagementProgram/Pages/NPDES_MS4_New.aspx

Conditions of the permit are effective for a five-year term unless administratively continued by MDE. This final determination permit requires implementation of stormwater management programs and restoration actions to control the discharge of pollutants from eligible State and federal MS4s. Compliance with the permit will improve local water quality and contribute to long-standing State efforts to restore the Chesapeake Bay.

Section I of this Basis for Final Determination documents the regulatory framework under the CWA, federal regulations, and State laws that support the permit's requirements. Also provided in Section I is a brief description of prior small MS4 program accomplishments toward achieving water quality goals. Section II addresses comments received during the public process and provides clarifications made by MDE in the permit. Each of these factors has contributed to MDE's process for finalizing conditions in the permit as well as this Basis for Final Determination.

SECTION I: Background

NPDES MS4 Permits

The EPA promulgated NPDES regulations to address stormwater discharges in two phases as required by section 402(p) of the CWA. The first regulation, known as the Phase I Rule, was published in the federal register (FR) on November 16, 1990 (55 FR No. 222). The rule established application requirements for designated Phase I MS4s to obtain NPDES permits.

The Phase I requirements applied to stormwater discharges associated with 11 categories of industrial activity and to MS4s serving populations of 100,000 or more. Ten counties and the Maryland Department of Transportation, State Highway Administration are regulated through individual NPDES stormwater permits under the Phase I rule. These are considered priority sources of stormwater pollutants that necessitate comprehensive stormwater programs to minimize these discharges to improve water quality. While smaller cities and towns, and State and federal agencies often had significant MS4s located within these Phase I jurisdictions, they were not directly affected by the Phase I NPDES regulations.

The EPA published the Phase II Rule on December 8, 1999 (64 FR No. 235). The rule designated additional sources of stormwater discharges from small MS4s to be covered under NPDES permits. Small MS4 permit requirements are outlined in 40 CFR § 122.34(b) and include the implementation of six minimum control measures (MCMs). These MCMs are public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site stormwater runoff control, post construction stormwater management, and pollution prevention and good housekeeping.

The compliance target for implementation of the six MCMs is established under 40 CFR § 122.34(a), which states that “the NPDES permitting authority must include permit terms and conditions to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality, and satisfy the appropriate water requirements of the Clean Water Act.” This is known as the “MS4 permit standard.” EPA did not provide a precise definition of MEP to allow maximum flexibility in permitting.

Federal regulations direct the permitting authority to determine the MS4 permit standard based on best professional judgment and consideration of available information when writing permit conditions (64 FR 68754). Accordingly, MDE’s Basis for Final Determination considered the following information when developing Maryland’s second generation small MS4 general permit for State and federal agencies:

- Regulating new small MS4s based on the 2010 U.S. Census
- Phase II Remand Rule regulation changes (81 FR No. 237, December 9, 2016)
- Chesapeake Bay and local total maximum daily loads
- Small MS4 program implementation: EPA audits and MDE annual report reviews
- Comments received during the permit’s tentative determination process

Regulated State and Federal MS4s and MDE Eligibility Criteria

MDE issues general permits to provide coverage for regulated small MS4s. State and federal properties that meet MDE eligibility criteria must submit a Notice of Intent (NOI) in accordance with instructions in the permit. MS4 permittees have options for compliance that can include partnerships with other agencies or surrounding municipalities to meet permit requirements. MDE encourages these relationships so that water quality improvement efforts can be coordinated to enable cost effective implementation and permit compliance.

MDE eligibility criteria for State and federal MS4s in the second generation permit

The definition of a small MS4 is noted under 40 CFR § 122.26(b)(16)(iii), and specifies that these are: “[o]wned or operated by the United States, a State, city, town, borough, county, parish district, association, or other public body...” and are: “...systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospitals or prison complexes, and highways or other thoroughfares.” Therefore, the CFR definition of a small MS4 indicates that regulated State and federal properties are similar to municipal systems. EPA clarifies that regulated small MS4s should be those that provide stormwater drainage service to human populations, and not to individual buildings (64 FR 68749).

Numerous scientific studies indicate that impervious areas associated with land development contribute to impacts of local water quality. For example, *Impacts of Impervious Cover on Aquatic Systems* (Center for Watershed Protection, 2003) indicates that in-stream water quality declines when watershed impervious cover exceeds ten percent. Based on this information, MDE has concluded that eligible State and federal properties will be those that have greater than ten percent impervious area. This threshold will allow the focus of the small MS4 program to concentrate on the most developed properties, such as military bases, hospitals, prison complexes, and highways and is consistent with the intent of federal regulations.

MS4s located on State and federal properties that are eligible for coverage:

1. Are owned or operated by the State of Maryland or the U.S. and located within an urbanized area; and
2. Serve developed land area greater than five acres and have at least ten percent impervious area property wide; or
3. Are those properties already covered under an NPDES small MS4 general permit.

State and Federal MS4 General Permit Waiver Criteria

MDE may grant a waiver from permit coverage if a State or federal agency does not own or operate a system of conveyances on a property, consistent with the intent of EPA guidelines described above. The owner or operator must demonstrate that the property:

1. Is comprised of very discrete areas, such as individual buildings. For example, a small property containing few buildings that have associated parking and driveways with storm drains directly connected to a surrounding MS4 may be eligible for a waiver. On the other hand, properties with numerous buildings, interior roads, and interior storm sewer infrastructure would not qualify for a waiver;
2. Does not discharge a significant amount of pollutants from its MS4; or
3. Is not a military base, large hospital complex, prison complex, highway, or thoroughfare, and meets MDE's waiver criteria one or two above.

A State or federal agency that owns or operates any property that meets the eligibility criteria above and is not eligible for a waiver is responsible to file an NOI and obtain coverage under the NPDES program and comply with all terms and conditions of this permit. A list of potential State and federal agencies that may be affected by the eligibility criteria is available in the permit. Permittees may file joint applications and share responsibilities in an effort to efficiently comply with permit requirements.

Phase II Remand Rule

On December 9, 2016, the EPA published regulation changes affecting NPDES small MS4 general permits, known as the "Remand Rule" (81 FR No. 237). The new rule was promulgated in response to a remand from the U.S. Court of Appeals for the Ninth Circuit in *Environmental Defense Center et al. v. EPA*. The Court determined that provisions of the Phase II regulations lacked opportunity for public comment on NOIs submitted by MS4 permittees. In addition, the Court found that Phase II regulations must be revised to preclude permittees from determining on their own the actions necessary to meet the MS4 permit standard. The Court emphasized that the permitting authority is responsible for establishing requirements that meet the standard of reducing pollutants to the MEP.

The Remand Rule under 40 CFR § 122.34(a) specifies that "the NPDES permitting authority must include permit terms and conditions to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality and satisfy the appropriate water requirements of the Clean Water Act." The preamble to the rule (81 FR 89333 – 89334) explains that these revisions were placed to "reinforce the fact that the permitting authority is the entity responsible for establishing the terms and conditions necessary to meet the MS4 standard." In addition, this regulation specifies that permit requirements "must be expressed in clear, specific, and measurable terms."

The preamble to the final rule clarifies that while federal regulations specify the minimum elements to be addressed in permits, these minimum elements are not sufficient for meeting the MS4 permit standard (81 FR 89342). The preamble also provides examples of language that *would not qualify* as “clear, specific, and measurable” (see 81 FR 89335) and include:

- “Permit provisions that simply copy the language of the Phase II regulations verbatim without providing further detail on the level of effort required.”
- “Permit requirements that include ‘caveat’ language, such as ‘if feasible,’ ‘if practicable,’ ‘to the maximum extent practicable,’ and ‘as necessary’ or ‘as appropriate’ unless defined. Without defining parameters for such terms...this type of language creates uncertainty as to what specific actions the permittee is expected to take, and is therefore difficult to comply with and assess compliance.”
- “Permit requirements that lack a measurable component, for instance, permit language implementing the construction minimum control measure that requires inspections ‘at a frequency determined by the permittee’ based on a number of factors. This type of provision includes no minimum frequency that can be used to measure adequacy and, therefore, would not constitute a measurable requirement for the purposes of the rule.”
- “Provisions that require the development of a plan ... but does not [sic] include details on the minimum contents or requirements for the plan, or the required outcomes, deadlines, and corresponding milestones.”

To address the regulatory changes in the Remand Rule and associated guidance, MDE has developed its second generation small MS4 general permit to meet the “Comprehensive General Permit” option as provided in CFR, which has been approved by EPA. MDE has established clear, specific, and measureable terms and conditions using available information to develop requirements that meet the standard of reducing pollutants to the MEP. Public participation requirements have been met according to Maryland’s Administrative Procedures Act (APA) and during the public review process.

Chesapeake Bay and Local Total Maximum Daily Loads

The EPA established the Chesapeake Bay total maximum daily load (TMDL) in 2010 for the six Chesapeake Bay States (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia) and the District of Columbia. The TMDL describes the level of effort necessary to reduce pollution, meet water quality standards, and restore the Chesapeake Bay. Under 40 CFR § 122.44(d)(1)(vii)(B), MDE is required to issue NPDES permits to point source discharges that are consistent with the assumptions and requirements of any applicable TMDL. In addition, 40 CFR § 122.34(c) of the Phase II rule states that small MS4 general permits must include more stringent terms and conditions based on approved TMDLs, or where the permitting authority determines such terms and conditions are required to protect water quality.

MDE relies on Maryland’s Phase II Watershed Implementation Plan (WIP), which has been approved by EPA, for establishing consistent NPDES permit requirements to address the Chesapeake Bay TMDL goals. The WIP incorporates a scientific model to estimate pollution loads from major pollutant source sectors (e.g., wastewater treatment plants, agriculture, stormwater) that contribute to the Chesapeake Bay’s water quality impairment. Maryland’s WIP

established a 20% restoration requirement for impervious areas not already controlled to the MEP as a key strategy for the stormwater sector to achieve the necessary nutrient and sediment load reductions to meet the Chesapeake Bay TMDL by 2025.

In keeping with the WIP strategy, this permit will make progress toward reducing urban stormwater pollution by requiring small MS4 permittees to commence restoration efforts for 20% of existing impervious areas that have little or no stormwater management. The restoration programs developed under this permit will provide stormwater controls proven to reduce nutrients, sediments, and other pollutants such as PCBs, bacteria, mercury, and chlordane. Compliance with restoration criteria in the permit constitutes adequate progress toward compliance with Maryland's receiving water quality standards and EPA approved stormwater WLAs for the Chesapeake Bay and local TMDLs.

Small MS4 Program Implementation: EPA Audits and MDE Annual Report Reviews

MDE uses an iterative process where future small MS4 permits are informed by current conditions. Permit requirements are updated over time in order to achieve reasonable progress toward attainment of water quality standards. This second generation permit has been developed to incorporate findings from program implementation by the small MS4 community during the first generation permit. Likewise, new permit requirements have been informed by EPA audits of thirteen small MS4 permittees in Maryland performed between 2013 and 2015.

Among the common issues noted during EPA's audits were a lack of standard operating procedures (SOPs) for illicit discharge detection and elimination and for good housekeeping practices at public works facilities. In addition, EPA noted that improvements were needed regarding inspection frequency and enforcement for both construction sites and maintenance of stormwater best management practices (BMPs). Other common issues were incomplete MS4 maps and inconsistent annual report submittals to MDE.

MDE used information from the EPA audits to provide greater guidance and clarity to the small MS4 community during annual report reviews. As a result, the quality of annual reports has improved, reflecting an improvement in program implementation. Specific areas of progress include more complete MS4 mapping, more widespread adoption of SOPs, and improved BMP database tracking, which has led to more frequent field inspections and more effective BMP performance.

MDE's evaluation of small MS4 program implementation along with the mandate to provide greater specificity required under the Remand Rule have been used to develop Maryland's second generation permit for State and federal agencies. Clear, specific, and measureable terms and conditions have been established in the permit, which outline the requirements necessary to meet the MS4 permit standard. A reporting form has been provided in the permit to clarify the specific information required to be submitted to MDE to demonstrate compliance with the permit. Therefore, MDE has crafted more specific requirements by building on past efforts and incorporating impervious area restoration. Through these efforts water quality will be improved and the goals of the CWA will be met.

SECTION II: MDE Response to Public Comments on Tentative Determination Permit

Administrative Procedures and Public Process

The Tentative Determination to issue the small MS4 general permit was made on December 22, 2016. Public notices of MDE's Tentative Determination appeared in the Washington Post on December 22 and 29, 2016, and in The Baltimore Sun and eleven additional regional newspapers published throughout the State of Maryland on December 23 and December 30, 2016, as required by Maryland's Administrative Procedures Act (APA). Additionally, MDE maintains an interested party list for NPDES MS4 permits that include federal, State, and local municipal officials, and numerous citizens of the State of Maryland. Individuals on this list were notified of the Tentative Determination on December 22, 2016.

Subsequent to the notification of the Tentative Determination, MDE held a public hearing on February 6, 2017, to accept testimony and comment regarding the draft permit. At the hearing, testimony was given by one representative from Maryland-National Capital Parks and Planning Commission and two representatives from the Washington Suburban Sanitary Commission. The official transcript of the proceedings was furnished by For The Record, Inc., and is available on MDE's website.

After the hearing, the public record regarding the draft permit remained open until March 30, 2017, to accept further comment in accordance with the APA. Comments were received during this time from Maryland Department of Agriculture, Maryland Department of Transportation, Maryland Port Administration, Maryland-National Capital Park & Planning Commission, United States Department of Defense, University of Baltimore, University System of Maryland, and Washington Suburban Sanitary Commission. The comments offered a wide range of perspectives and questions on the draft permit.

This section explains MDE's rationale for finalizing the requirements in the permit based on comments received during the public process. Notable issues raised during the public comment period included permit requirements related to waiver criteria, impervious area restoration, specific management program requirements, and numerous unique comments specific to individual State and federal properties. MDE's responses to these comments are provided below.

Impervious Area Restoration Requirements

The permit requires the development of restoration programs to make progress toward reducing urban stormwater pollution. Permittees are required to commence efforts to restore 20% of existing impervious areas that have little or no stormwater management. This requirement addresses federal regulations under 40 CFR § 122.44(d)(1)(vii)(B) and 122.34(c) that specify that small MS4 general permits shall include terms and conditions consistent with approved TMDLs or water quality concerns. Comments related to this permit condition are addressed below.

1. The impervious area restoration requirement as a surrogate for meeting WLAs

One commenter had several concerns related to the impervious area restoration requirement. Specifically, the commenter requested that MDE provide “existing documentation within the control of Maryland demonstrating the linkage between the 20% impervious area restoration requirement as a surrogate pollutant parameter and the documented impairment in the Chesapeake Bay and local TMDLs.” The commenter also requested documentation of how WLAs are expressed in terms of impervious area restoration.

Maryland’s Phase II WIP strategy for meeting applicable stormwater WLAs for the Chesapeake Bay for Phase I individual permittees and Phase II small MS4 permittees is to restore 20% of their impervious surface areas that are not already restored to the MEP. EPA approved Maryland’s Phase II WIP, which includes the 20% restoration strategy for addressing stormwater WLAs associated with the Chesapeake Bay TMDL. In addition, EPA approved individual permits to Maryland’s Phase I jurisdictions as well as this permit that incorporate this strategy.

Acceptable BMPs for addressing impervious area restoration requirements are referenced in MDE’s 2000 Stormwater Design Manual (the Manual), updated in 2009, and MDE’s 2014 *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated*, referred to hereafter as the Accounting Guidance. The pollutant removal performance of these BMPs has been approved by Chesapeake Bay Program (CBP) expert panels based on research that demonstrates their effectiveness for reducing nutrients, sediments, and other pollutants associated with local TMDLs. The report *Potential Benefits of Nutrient and Sediment Practices to Reduce Toxic Contaminants in the Chesapeake Bay Watershed* published by Chesapeake Stormwater Network (CSN) in 2015 verifies that stormwater BMPs are also effective for reducing toxic pollutants.

The Maryland State Court of Appeals in *MDE et al. v. Anacostia et al.* recognized that permitting authorities are granted the flexibility to “set controls *they deem necessary* [emphasis added] to reduce the discharge of pollutants to their waters” and affirmed the 20% restoration requirement as a “well developed and vetted strategy.” The Court also noted that “MDE chose a standard that relates to the very problem the 20% restoration requirement serves to abate: the increase in stormwater runoff and the discharge of pollutants because of the increase in impervious surfaces.”

MDE also relies on the 20% impervious area restoration requirement for small MS4 general permits to simplify reporting and accounting of progress toward water quality improvement. Small MS4 permittees will have a significant learning curve when developing programs from scratch in order to meet this new requirement. Additional requirements to perform modeling methods related to nutrient load analysis will stretch resources further. MDE and the CBP can use the information reported by the small MS4 community to inform more sophisticated models to evaluate water quality improvements and future needs. The permit requirements are structured to enable permittees to direct

their resources toward BMP implementation, which will directly result in the pollutant load reductions that environmental stakeholders desire.

In summary, permittees are required to initiate strategies to implement stormwater BMPs proven to reduce nutrients, sediments, and other pollutants such as PCBs, bacteria, mercury, and chlordane. Utilizing BMPs with specific performance standards and implementation schedules provides assurance that Chesapeake Bay and local TMDLs can be met. MDE has determined that compliance with the 20% impervious area restoration requirement in the permit constitutes adequate progress toward compliance with Maryland's receiving water quality standards and EPA approved stormwater WLAs for Chesapeake Bay and local TMDLs.

2. Regulatory basis for impervious area restoration

One commenter objected to the inclusion of a 20% impervious area restoration requirement as a pollutant parameter for meeting Chesapeake Bay and local TMDLs. The comment stated that “[e]xisting statutory and regulatory authority cannot be reasonably interpreted as providing a basis to require that a federal agency, as part of a Clean Water Act permit, restore impervious area on its federal property.”

MDE established conditions for impervious area restoration to comply with federal regulations under 40 CFR § 122.34(c). This regulation states: “As appropriate, the permit will include: (1) More stringent *terms and conditions* including permit requirements that modify, or are in addition to, the minimum control measures based on an approved TMDL or equivalent analysis, or where the Director determines such *terms and conditions* are needed to protect water quality” [emphasis added].

Examples of acceptable terms and conditions are specified in 40 CFR § 122.34(a), which states this “may include narrative, numeric, or other types of requirements (e.g., implementation of specific tasks or best management practices (BMPs), BMP design requirements, performance requirements, adaptive management requirements, schedules for implementation and maintenance, and frequency of actions).”

Conditions in the permit require developing implementation schedules for completing 20% impervious area restoration by 2025. Specific deliverables are required to be submitted each year, including a baseline impervious area assessment, a restoration work plan that outlines specific tasks for achieving permit requirements, a restoration activity schedule, and a BMP database that tracks proper BMP maintenance. These conditions are consistent with the examples outlined under 40 CFR § 122.34(a). MDE has established these permit conditions to meet federal regulations under 40 CFR § 122.44(d)(1)(vii)(B) and § 122.34(c).

3. Restoration requirements and maximum extent practicable (MEP)

A commenter expressed concern that “the Clean Water Act statutory requirement for small MS4s is to reduce pollutants to the maximum extent practicable. Small MS4s require the flexibility to determine where and if restoration is necessary in order to comply with regulatory requirements for discharges and to improve water quality.” Furthermore, the commenter requested clarification as to the flexibility for implementing projects within the 5 year permit term when the 2025 completion date is outside of the permit term.

As noted in the Remand Rule discussion, regulatory changes under 40 CFR § 122.34(a) clarify that “the NPDES permitting authority must include permit terms and conditions to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality and satisfy the appropriate water requirements of the Clean Water Act.” The preamble to the rule (81 FR 89333 – 89334) explains that these revisions were placed to “reinforce the fact that the permitting authority is the entity responsible for establishing the terms and conditions necessary to meet the MS4 standard.”

MDE carefully considered how the small MS4 community could develop restoration programs recognizing that it takes time to identify projects and meet local funding needs before moving toward final implementation. MDE included conditions in the permit to enable permittees to focus on long term planning strategies that set the foundation for a successful restoration program. While the permit does not require water quality improvement projects to be completed within the permit term, the requirements focus on a balanced approach of program development and implementation to improve long term restoration program success.

The permit is also structured to allow flexibility toward obtaining credit for existing water quality improvement projects. MDE has been encouraging permittees over the past several years to begin development of programs and many have initiated these efforts. MDE is allowing permittees to take credit dating back to 2006 for projects that meet restoration criteria in the permit. Furthermore, any restoration projects completed within the five year permit term will be credited toward the overall 2025 Chesapeake Bay restoration goals.

Numerous existing small MS4 permittees have submitted information in annual reports documenting various projects that may receive credit toward the impervious area restoration requirement. These include stream restoration, tree planting, street sweeping, and plans for BMP retrofit implementation. Permittees can evaluate past records during this permit term and refine their impervious area baseline analysis to determine whether additional restoration projects are needed in order to meet permit requirements.

In summary, the permit does not require any minimum level of restoration to be completed by the end of the term. The requirements are constructed to allow time for program development while updating past records associated with existing water quality

improvement projects and other BMPs. This approach enables permittees to establish necessary resources for effective and efficient programs for long term success. The permit allows permittees to develop programs consistent with an MEP level of effort while ensuring consistency with Maryland's WIP and making continuous progress toward meeting water quality standards. MDE will use information gained under this general permit to inform requirements in the next Phase II general permit consistent with 40 CFR § 122.34(a)(2).

4. Other comments on restoration requirements:

a. *Baseline impervious area analysis and impervious surface restoration*

One commenter requested clarification on defining the baseline year and whether the restoration requirement is affected by the year chosen. Several commenters requested that the permit clarify the time periods of when restoration and redevelopment would be subtracted from the baseline versus applied to restoration credit. Another commenter requested clarification regarding "how projects built after 2002 will be counted if half the site was new development but the other half of the site was on existing impervious areas (i.e., redevelopment)." In addition, a clarification was requested as to whether restoration credits may be granted to innovative BMPs approved by the Chesapeake Bay Program. A commenter recommended changing the baseline assessment deadline from year 1 to year 2 due to fiscal year budgeting cycles.

Using 2002 as the baseline year is allowed and can be a useful approach because this is the year the Manual requiring water quality went into effect. However, MDE allows permittees the flexibility to use a baseline year that makes the most sense based on available land use data and BMP records. The baseline and restoration credits are calculated using a permittee's BMP data and the final restoration target should be the same regardless of the baseline year chosen. The time periods that restoration and redevelopment are deducted from the baseline or applied to impervious area restoration targets has been clarified in the permit. Acceptable restoration BMPs have also been clarified.

The permit's BMP database requires annual updates and this information can help to refine the impervious area baseline analysis. MDE has clarified in the permit that the database development will be an ongoing process through the course of the permit. Permittees can adjust impervious area baselines as the database and other information is updated during the permit term. MDE has clarified that an updated baseline assessment may be submitted after year 1.

An impervious area baseline analysis must be completed in the first year to inform the planning process, determine resource needs, and form the initial framework for long term strategies. As baselines are adjusted and new information is available, strategies and funding capabilities will be continuously adapted through the permit term.

b. *BMP Maintenance*

A commenter requested clarification on how to determine the life of a BMP, the definition of “life cycle”, and whether a BMP requires complete restoration at the end of its life expectancy regardless of inspection and maintenance history. Another commenter stated that the language in the permit suggests that all BMPs need repairs to be considered maintained. The commenter requested that MDE confirm that this section of the permit only applies to pre-2000 BMPs with significant structural problems and water quality concerns.

If a BMP is maintained for its life expectancy, it can continue to be accounted for after that time if it continues to be maintained and functioning as designed. If the BMP has been inspected and maintained, complete restoration would not be necessary. BMP enhancement and restoration as described in the permit applies to old failed structures (pre-2000) with significant structural problems and water quality concerns.

c. *Definition of impervious area*

Two existing small MS4 permit holders requested clarification on the definition of “impervious area.”

Impervious area is any surface that prevents stormwater from infiltrating into the ground. These surfaces include roads, buildings, sidewalks, driveways, parking lots, and recreational courts. For unique situations, MDE can provide additional guidance on a case by case basis as permittees develop their impervious area baselines. Gravel surfaces (e.g., gravel roads and driveways) are considered impervious because over time, they are compacted and prevent stormwater infiltration.

d. *BMP database*

A commenter requested that BMP reporting and Chesapeake Bay WIP reporting be integrated “seamlessly into MS4 reporting to streamline the process for all involved.” A commenter requested that the BMP database be simplified to be less difficult and expensive to complete.

MDE eliminated redundant fields and revised the database for greater clarity. MDE has also created a Microsoft Excel spreadsheet that offers examples for the small MS4 community on how to fill out the database for various BMP scenarios. The spreadsheet is currently available on MDE’s website. By submitting the database with MS4 Progress Reports, permittees will fulfill their Chesapeake Bay Program BMP reporting obligations for the stormwater sector.

e. *Implementation of BMPs*

One commenter requested clarification on whether “implemented” refers to when the BMP was installed or designed.

The term “implemented” applies to when a BMP has been constructed and as-built plans have been accepted by the appropriate approval authority, which is typically MDE for State and federal projects.

f. *Documentation of existing BMPs*

One commenter recommended “that full (or partial) credit be given to BMPs based on when they were built and their current physical (visual) condition. A viable option would be to evaluate those BMPs on a case-by-case basis based on documentation related to the most recent inspection, field verification and necessary maintenance...”

MDE has developed guidance for MS4 permittees that explains the type of information and level of detail needed when as-built documentation for existing BMPs is not available. This process will include performing robust site level inspections, review of historic records, review of aerial photography, etc. to verify the existing and intended function of the BMP and the BMP’s condition.

g. *Partnerships and sharing credits*

One commenter asked whether permittees “have the choice to apply permit requirements as an aggregate and/or a subset of institutions and/or each individual institution” for those required to obtain coverage.” In addition, the commenter asked if restoration “credit trading” between different institutions within the same university system is permitted. Another commenter requested flexibility in the 20% restoration implementation plan to avoid project competition or impeding the progress of other permittees.

As noted in the permit, “[a]n NOI application may represent an individual government property or multiple properties owned or operated by a single entity.” A university system may submit one NOI for multiple institutions. Permittees have the option to combine the impervious area of separate properties and implement restoration on either. This strategy allows a permittee to implement additional restoration on one property if the other property has limited restoration opportunities. MDE can also provide technical assistance on the coordination/partnerships toward restoration activities with other regulated entities. MDE supports this collaboration with the understanding that two permitted entities will be unable to claim restoration credits for the same projects.

h. *Impervious area restoration and cost to State and federal agencies*

One small MS4 agency stated that the 20% restoration requirement of impervious areas that are not already treated to the MEP would be extremely costly. Another commenter stated that, “[t]he inclusion of an arbitrary and costly restoration requirement, which may provide little or no benefit for the attainment of water quality standards in receiving waters, is inappropriate.”

Recent MS4 BMP implementation data indicate that the cost of restoration is coming down. The report, *Costs of Stormwater Management Practices in Maryland Counties*, (King and Hagan, 2011), indicated that the median cost of restoration per acre of implementation was \$55,000. However, MDE’s 2016 Annual Report on Financial Assurance Plans and the Watershed Restoration and Protection Program found that the cost of restoration per impervious acre by Phase I jurisdictions was \$18,704.

The difference in cost information indicates that MS4 permittees in Maryland are finding more efficient options for implementing restoration projects as their programs mature. The King and Hagan study referenced older data and implementation of more traditional stormwater BMPs. The Financial Assurance Plans provided more recent implementation data and incorporated new and alternative BMPs provided by MDE in its Accounting Guidance that can be more cost effective, including tree planting, septic upgrades, street sweeping, outfall stabilization, and inlet cleaning.

MDE considered BMP cost relative to the time required by small MS4 permittees to develop restoration programs from scratch and secure adequate funding. The permit has been structured to allow permittees the necessary time to develop programs while exploring cost effective BMP options. Additional strategies to reduce cost for State and federal agencies include partnerships with similar agencies or neighboring MS4 permittees, collaboration with volunteer watershed groups, and public private partnerships.

i. *Trading as an option to reduce cost*

One agency commenter requested that trading be allowed as a viable strategy for meeting the permit’s restoration requirement. Specifically, the commenter requested for MDE to “...stay committed to maintaining permit flexibility, permittee partnerships, offsite restoration projects, and new innovative solutions, as well as establishing a trading program.”

MDE is actively working to establish a trading program in Maryland as an additional way to help stormwater permittees comply with restoration requirements. This approach would allow State and federal small MS4 permittees to trade with wastewater treatment plants, and farmers and private property owners implementing BMPs for credit. The permit states: “Trading with other sectors may also be considered as another method to achieve pollutant reductions, once a program has been established, regulations are adopted, public participation requirements are

satisfied, and its use is approved by EPA.” As stated in the Draft 2017 Maryland Trading and Offset Policy and Guidance Manual (Draft Trading Manual), the State of Maryland believes that nutrient credit trading provides flexibility by offering the potential for permittees to “achieve results faster and at a lower cost.”

MDE will allow nutrient credit trading to be used as a method to achieve small MS4 restoration requirements. In December 2017, the Maryland Water Quality Trading Advisory Committee published draft regulations, COMAR 26.08.11, and released the Draft Trading Manual to the public for review. Final trading regulations are anticipated in 2018. The concurrent development of Maryland’s Nutrient Trading Program along with the small MS4 permit provides ample time for permittees to develop sound restoration strategies that may include trading. MDE will provide further guidance on applying credits toward restoration requirements once the regulations and manual have been finalized.

Illicit Discharge Detection and Elimination (IDDE)

The State and federal small MS4 general permit includes provisions that require “the development, implementation, and enforcement of a program to detect and eliminate illicit discharges” in accordance with 40 CFR § 122.34(b)(3). Components of this program must include mapping the MS4, prohibiting non-stormwater discharges, implementing a plan to detect and address non-stormwater discharges, and informing constituents of hazards associated with illicit discharges. MDE established requirements for an acceptable IDDE program in the permit to meet these regulatory provisions. Criteria for developing SOPs, screening outfalls, documenting inspections, mapping MS4 infrastructure, and reporting are outlined in the permit.

1. Definition of an outfall

Comments submitted to MDE included concern that the definition of an outfall is different than that in federal regulation. MDE edited the definition of an outfall in the permit to be consistent with the definition in 40 CFR § 122.26(b)(9). The language used in the permit was intended to be guidance related to prioritizing the location of outfall inspections. The edits made by MDE clarify that screenings may be performed further up the system in areas with a high pollution potential. This clarification will offer greater flexibility to investigate priority areas closer to the source of a potential illicit discharge.

2. Mapping

One small MS4 agency expressed concern that submitting installation maps would compromise operational security of properties and suggested that permittees instead provide an example of the maps available to MDE during an on-site audit. Language has been revised to clarify that permittees can take into consideration security risks when determining what mapping information to make publicly available.

In response to comments received on mapping requirements, MDE made clarifications in the permit. Language has been revised to include stormwater conveyances to clarify that the

MS4 is not limited to pipe infrastructure. MDE changed “surface waters” to “waters of the U.S. receiving stormwater discharges” to be consistent with CFR. Inlets have been removed as a mapping requirement within the current permit term to take into consideration the significant effort mapping inlets may entail. However, inlets should be added to maps as they are field verified to facilitate more efficient discharge source tracking.

MDE also clarified the requirements on reporting illicit discharge screening locations. These locations were removed as a mapping requirement, but permittees must document how outfalls are prioritized by identifying and describing the areas within which screenings were conducted. The reporting requirements have been revised accordingly.

3. Standard operating procedures

One commenter requested that SOPs be submitted for MDE’s “acceptance” in lieu of “approval.” Another commenter stated that requirements to have a policy to prohibit illicit discharges and to include that policy in the SOPs are duplicative. The commenter suggested reference to that policy should be sufficient for the SOPs.

Criteria used by EPA to assess permit compliance in prior small MS4 audits have included a review of comprehensive written SOPs for each permittee. As the permitting authority, MDE must also determine permittees’ compliance status. “Approval” is appropriate language related to MDE’s oversight role in assessing permittees’ activities to meet IDDE permit requirements.

A summary of the policy with directions on how to access the formal policy is acceptable for inclusion in the SOPs. The policy must be easily accessible to those implementing the SOPs.

4. Outfall screening

One commenter requested clarification on how outfall screening frequency may vary based on pollution risk for permittees that are required to screen less than 100% of all outfalls per year. Another commenter stated that outfall screening checklists should not include outfall maintenance needs such as cracks, erosion, and excessive vegetation because they are “outside the scope” of the IDDE program.

Guidance in the permit directs permittees to prioritize outfall screening locations in areas of high pollution potential (e.g., industrial/commercial land uses, areas with aging infrastructure, highly developed areas). Permittees are also expected to consider priority areas when developing an outfall screening schedule. Permittees must justify in the SOPs how priority locations and screening frequencies are determined.

Identifying structural stability and erosion is an important component of an illicit discharge program. As discussed in *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Section 11.8 (Center for Watershed Protection and Robert Pitt, 2004), “physical indicators found at both flowing and non-flowing outfalls...can reveal the impact of past discharges...Physical indicators include

outfall damage, outfall deposits or stains, abnormal vegetation growth, poor pool quality, and benthic growth on pipe surfaces.” Failing infrastructure can be useful information when prioritizing illicit discharge screening locations. The guidance in the permit has been revised to clarify that correcting all structural problems is not mandated. However, permittees should develop a schedule for addressing areas of high erosion that create infrastructure problems.

Pollution Prevention and Good Housekeeping

The permit includes provisions for small MS4 permittees to develop a pollution prevention and good housekeeping program in accordance with 40 CFR §122.34(b)(6), which requires the “...implementation of an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.” Components of this program include procedures and schedules for maintenance and inspection of stormwater controls; practices to reduce or eliminate discharge of pollutants from permittee owned or operated roads, parking lots, maintenance yards, and storage areas; and proper waste disposal. MDE has established requirements for an acceptable pollution prevention and good housekeeping program in the permit to meet these regulatory provisions. Numerous small MS4 commenters requested clarification on these requirements. MDE has responded below and provided further clarity in the final permit.

1. Activities and properties requiring pollution prevention plans

One commenter requested clarification on whether the pollution prevention plan must cover an entire campus and associated satellite locations. The commenter stated that this would not be reasonable and instead suggested that it be considered adequate by MDE to maintain pollution prevention plans for high risk locations that are covered under the Maryland General Permit for Stormwater Discharges Associated with Industrial Activity. Another commenter requested clarification on activities that are considered a pollution risk and would require a pollution prevention plan.

MDE added language to the permit to clarify that a plan should be developed at properties owned or operated by the permittee where key site activities are performed that have a risk of discharging pollutants through stormwater runoff into waters of the State. The activities listed in the permit include maintenance of roads, inlets, vehicles, or heavy equipment; management of storage areas for vehicles or heavy equipment; and handling of: deicers, anti-icers, fertilizers, pesticides, road maintenance materials such as gravel and sand, or hazardous materials.

2. Pollution prevention plans are too prescriptive

Several commenters requested that the permit be revised so that pollution prevention plan requirements are less prescriptive. One commenter suggested requiring a more general summary of pollution prevention measures to avoid requirements that are redundant with other permits. Another commenter stated that the prescriptive requirements do not consider property-specific operations.

MDE changed the reference to “pollution prevention plan” in the permit to a “good housekeeping plan” to distinguish the permit requirement from the SWPPPs required by the Maryland General Permit for Stormwater Discharges Associated with Industrial Activity. The criteria for a good housekeeping plan are not as comprehensive as those required in a SWPPP. For example, a SWPPP requires: quarterly stormwater sampling at all outfalls; comparison of sampling results to benchmark levels to determine whether control measures must be reviewed and updated; submittal of discharge monitoring reports (DMRs) to MDE; submittal of corrective action reports to MDE for any spill, leak, or unauthorized discharge that occurs on site. The good housekeeping plan does not require any of these components, and instead focuses on identifying potential pollution sources, preventing the release of pollution discharges from stormwater runoff, and developing corrective actions to address a spill, release, or leak. If a permittee already has a SWPPP to fulfill another NPDES permit requirement, the permittee is not expected to create a second SWPPP. Permittees are expected to focus on developing good housekeeping plans for properties and activities that are not already addressed in a SWPPP.

As noted in the Remand Rule discussion, the permitting authority is required to establish permit terms and conditions “in clear, specific, and measurable terms” in accordance with 40 CFR § 122.34(a). Although the good housekeeping plans are not as extensive as a SWPPP, the plan requirements must be prescriptive to an extent sufficient for MDE to determine permit compliance. MDE acknowledges that properties have unique operations. The good housekeeping plan requirements provide enough flexibility for permittees to adapt them to site-specific conditions.

3. Additional comments related to pollution prevention and good housekeeping

a. *Creating a standard pollution prevention plan for a category of site operations*

One commenter suggested that generalized management plans tailored by property purpose would be appropriate to cover groups of numerous properties with similar operations. Another commenter requested that “separate pollution prevention plans for unstaffed stabilized small sites not be required if there are existing site plans that delineate all drainage structures and existing or planned BMPs.”

MDE added language to clarify that permittees may create a standard plan for multiple properties with similar operations. The plan must outline procedures to identify the location of potential sources of pollution on site, and consider how runoff enters, flows across, and leaves the site. This will enable permittees to prioritize inspections to prevent the discharge of these pollutants off site. The standard plan must also describe corrective actions taken for cleanup and containment of any spill.

b. *Pollution prevention plans for permittee-owned areas operated by tenants*

A couple of commenters expressed concern about how pollution prevention plans are addressed for tenants that may already be covered under other NPDES permits. The commenters stated that requiring plans for those leased areas would be duplicative with other permits.

Permittees are required to ensure that pollutants from their properties are not discharged into the MS4. As the property owner or operator of the property, the permittee is responsible for ensuring that tenants are aware of and engage in good housekeeping practices. Permittees may address this in different ways. Lease agreements can be structured to require tenants to develop and implement a good housekeeping plan. As previously discussed, good housekeeping plans are not as comprehensive as SWPPPs and do not require that level of reporting requirements. However, if a tenant has an existing SWPPP that covers all applicable activities on the site, that plan is acceptable for the purposes of this permit. As the property owner, it is the permittee's responsibility to verify that tenants have good housekeeping plans.

c. *Clarifying mandatory good housekeeping activities*

In response to a question on what pollution prevention efforts are mandatory, MDE clarified permit language to indicate that street sweeping should be reported when applicable. For example, street sweeping is not a mandatory activity but instead is listed as one option to show compliance with this permit condition. The permittee may prioritize other good housekeeping activities to control pollutant discharge from property operations.

Pollution prevention measures during the use of pesticides, fertilizers, and deicing materials should be addressed by all permittees when these materials are used on a permittee's property(ies), e.g., during road and landscape maintenance. Permittees should summarize in their annual reports the pollution prevention measures performed during these operations, including controls that contactors utilize during property activities. Annual reports may note, if appropriate legal arrangements have been established, whether another entity performs these activities within the permit area to fulfill these permit requirements. However, the permittee must report the pollution prevention controls that contactors utilize during property activities.

d. *Determining coverage for properties under the Maryland General Permit for Stormwater Discharges Associated with Industrial Activity, Sector AD.a*

A comment was submitted requesting greater clarity on the information permittees must submit regarding properties covered under the Maryland General Permit for Stormwater Discharges Associated with Industrial Activity. MDE updated the permit language to require permittees to provide in the NOI a list of properties that perform the activities listed in the permit and to indicate whether the properties are covered by

the industrial general permit. Subsequent annual reports must include an update only if any information has changed.

Additional Comments

1. Compliance with water quality standards

- **Comment:** One federal agency expressed confusion related to language in the permit. The commenter suggested clarifying that the permit meets the Chesapeake Bay TMDL stormwater loading requirement.

Response: The permit states that compliance with the conditions of the permit will constitute adequate progress toward compliance with any stormwater WLA approved by the EPA.

2. Personnel Education and Outreach

- **Comment:** A small MS4 commenter requested clarification on whether “personnel” included tenants and/or contractors at its properties, and if the agency is “responsible for directly overseeing the implementation of personnel education and outreach for these individuals.”

Response: As the property owner or operator, the permittee is responsible for ensuring that tenants and contractors are aware that they cannot engage in activities that pollute stormwater on the permittee’s property(ies). It is up to the discretion of the permittee as to how that information is disseminated to contractors and tenants, and which individuals should be targeted based on on-site activities. Events targeted to these individuals may be more appropriate to report under Public or Personnel Involvement and Participation.

- **Comment:** One small MS4 commenter stated that the definition of “community” is unclear regarding the distribution of educational materials and needs to be defined. Another commenter requested clarification on whether outreach refers to internal staff or to the public.

Response: Property operations vary across properties, so the term “community” is not specifically defined to allow for these differences under a general permit. The permit requires the permittee to determine the target audience and describe outreach activities in MS4 Progress Reports. For example, “community” can include people and personnel that live and work on properties.

- **Comment:** A small MS4 commenter recommended replacing the requirement to maintain a hotline with the implementation of a process for reporting stormwater-related complaints.

Response: The complaint response process must include a phone number; however, the phone number does not need to be a hotline dedicated solely to stormwater. A dedicated phone line used for multiple purposes (e.g., 311 services) must incorporate processes that allow a water quality complaint to be successfully directed to the appropriate respondent.

3. Public Involvement and Participation

- **Comment:** A small MS4 commenter recommended providing “a definition of public as it relates to federal and state facilities or revise the permit to state ‘...why controlling these discharges is important, and what personnel living and working on the facility can do to reduce pollutants in stormwater runoff.’”

Response: The definition of public can differ across permittees based on property operations and security, and is therefore not specifically defined in the permit. Examples can include but are not limited to employees, families of employees, base residents, visitors, travelers through public transit systems, and the general public participating in off-site events (e.g., regional fairs). The MCM has been revised to “Public or Personnel Involvement and Participation” to account for these differences. Permittees may specify the target audience in MS4 Progress Reports.

- **Comment:** A federal agency commenter recommended allowing permittees to provide a summary of activities online to consider both transparency and operational security.

Response: MDE acknowledges that publishing some information may create a security risk at certain properties. MDE revised permit language to address information that may be deemed confidential.

- **Comment:** A small MS4 commenter expressed concern that under public involvement and participation, non-compliance with public notice requirements would be a violation duplicative of other permits or regulations.

Response: The language was clarified in the permit that the permittee must comply with all State and federal public notice requirements for regulated activity associated solely with this permit.

4. Construction Site Stormwater Runoff Control

- **Comment:** A small MS4 commenter requested that the requirement to notify a complainant of an investigation and findings within 7 days be extended to at least 14 days because investigations may take longer to complete and document.

Response: The requirement is consistent with COMAR 26.17.01.09 and shall remain unchanged.

5. Post Construction Stormwater Management

- **Comment:** A small MS4 commenter asked when inspection and maintenance checklists for alternative BMPs will be available.

Response: Small MS4 permittees shall follow the criteria in the Accounting Guidance and Chesapeake Bay Program expert panel reports when inspecting alternative BMPs.

6. Financial Reporting

- **Comment:** One small MS4 commenter requested that the requirement to report costs of each MCM be removed and permittees be instead required to report on overall program management costs. The commenter also expressed concern that submitting a long term budget will impact competitive bids. Another requested guidance on what type of financial plan is required for restoration.

Response: Total estimates with an explanation of how numbers were derived are sufficient. The costs of specific projects in the Restoration Activity Schedule (Table 2) can be provided upon project completion so as to not publish budgets for individual projects that go out to bid.

7. Standard Permit Conditions

- **Comment:** One small MS4 commenter requested a permit revision to clarify language related to terminating permit coverage under Standard Permit Condition – Requiring an Individual Permit.

Response: The permit condition is intended to recognize that permittees covered under an individual small MS4 permit do not need coverage under a general permit for applicable conditions.

- **Comment:** Two small MS4 commenters requested clarification on the definition of non-compliance that would endanger human health or the environment as referenced in the Standard Permit Condition – Reporting Requirements. Two commenters stated that the reporting requirements were redundant with other permits and created confusion as to the primary process by which non-compliance is reported. A commenter also expressed concern about the 24 hour reporting time frame.

Response: The 24-hour reporting of noncompliance which may endanger health or the environment is required under 40 CFR § 122.41(l)(6)(i) that details conditions applicable to all NPDES permits. In addition, illicit discharges into the MS4 have the potential to occur outside of an area regulated under an industrial permit. Reporting these discharges is therefore not redundant.

8. Waivers

- **Comment:** One small MS4 commenter requested clarity on “how smaller satellite buildings/parcels that drain into another storm drain system will be accounted for/included...[and] on how future property acquisitions will be handled.”

Response: Permittees have the option to submit waiver requests for properties that may meet the criteria outlined in the permit. Permittees should evaluate each property to determine whether it may qualify. Waiver submissions will be reviewed by MDE on a case by case basis. If the property does not meet waiver criteria, the permittee will need to include it in program implementation and the impervious area baseline assessment. If properties are acquired after the effective date of this permit, permittees have the option to account for those properties in an updated baseline, but restoration plans will not need to address the impervious area of those properties until the next permit term.

- **Comment:** A small MS4 commenter requested clarification on the timing of the waiver process as it relates to NOI submittals. The commenter noted that it may take significant time for MDE to review and suggested extending the NOI deadline to one year for properties that are denied a waiver.

Response: MDE has not set a due date for waiver requests, but encourages permittees to submit them as soon as possible after final determination (April 27, 2018). Timely submission will allow MDE the time to review requests prior to the NOI due date (i.e., October 31, 2018). Early planning will allow permittees the time needed to focus on properties that are required to come under permit coverage.

- **Comment:** A small MS4 commenter requested that MDE allow one year from the date of the waiver determination to submit an impervious area baseline and work plan to account for the time needed to go through the scope of work and bidding process before completing this work.

Response: The permit’s effective date is the NOI due date (October 31, 2018). Impervious area assessments and work plans are due one year thereafter (October 31, 2019) and the permit will remain unchanged. MDE is available for preliminary discussions related to waiver eligibility and technical issues associated with impervious area baselines and work plans. Permittees should take advantage of the time before the effective date of the permit to plan accordingly. MDE will allow impervious area baselines to be adjusted during the permit term as data are refined, and updated work plans through adaptive management.

- **Comment:** One small MS4 commenter requested guidance on how to determine whether pollutant loadings from a property to a regulated MS4 are substantial and whether it requires monitoring of flow volumes and pollutant loads. The commenter requested consideration of a desktop analysis, such as impervious area, predicted flow volumes, or an affirmation that there are no sources of pollutants exposed to stormwater. Another

commenter noted that the waiver form in the permit is ambiguous, requires greater explanation, and whether co-permit status with a Phase I MS4 is required.

Response: A State or federal MS4 permittee may provide a desktop assessment that evaluates whether significant sources of pollution have the potential to be discharged off-site and impact local water quality. Relevant factors such as percent impervious area that is untreated, total site area, agency operations, and population served should be considered when evaluating potential pollutant sources. Permittees should contact MDE for further guidance on site specific questions pertaining to waiver applicability.

- **Comment:** A small MS4 commenter requested a more detailed definition of a “physical interconnection” between an MS4 at a facility and a regulated MS4.

Response: The waiver criteria have been edited to remove language pertaining to interconnected MS4s and allow agencies to focus waiver application analysis on site specific activities and the potential for significant pollutant discharges from their properties.

- **Comment:** A small MS4 commenter noted that granting waivers to properties that are currently covered would not be considered backsliding under CWA § 402(o) or 40 CFR § 122.44(1). The commenter referenced regulations that tied the anti-backsliding rule to the establishment of effluent limitations in permit requirements.

Response: MDE will consider waiver requests for any property that meets the waiver provisions identified in the permit.

9. Miscellaneous

- **Comment:** One small MS4 commenter requested replacing the term “jurisdiction” with language appropriate to State and federal properties.

Response: The permit has been updated with language appropriate for State and federal properties.

- **Comment:** One State agency requested that in places where the permit references permitting by MDE, the language “or designated local permitting agency” be added to account for exceptions unique to individual permittees.

Response: MDE has made this clarification in the permit.

- **Comment:** A small MS4 commenter requested “additional guidance on each MS4 owner/operator’s responsibility when storm drains are interconnected, including limits of permit coverage, MS4 mapping requirements, and IDDE obligations.”

Response: The limit of permit coverage is the MS4 owner/operator’s property boundary. Permittees are required to map the MS4 and conduct outfall screenings within their

property boundaries. In some instances, one MS4 may be physically interconnected and drain into another MS4. Cooperation between the two may be needed when an illicit discharge is originating from the interconnected system. Permittees are responsible for addressing illicit discharges discovered on their properties.

- **Comment:** A small MS4 commenter expressed concern that requiring plans to be formally reviewed and approved by MDE will limit permittees' ability to develop plans unique to their operations. The commenter requested that "approve" be removed or replaced with "accept."

Response: Permittees are expected to develop plans or procedures that are specific to the operations on site and MDE will consider unique site conditions in the plan approval process.

References

1. 2000 Maryland Stormwater Design Manual Volumes I & II, revised 2010, Maryland Department of the Environment.
2. Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits, Maryland Department of the Environment (August 2014).
3. Basis for Final Determination to Issue Stormwater Permits to Phase I MS4s (Anne Arundel, Baltimore, Carroll, Charles, Frederick, Harford, Howard, and Prince George's Counties, Baltimore City, and Maryland State Highway Administration, available at www.mde.maryland.gov/programs/Water/StormwaterManagementProgram.
4. Chesapeake Bay Program, information available at www.chesapeakebay.net.
5. Impacts of Impervious Cover on Aquatic Systems, Watershed Protection Research Monograph No. 1, Center for Watershed Protection (March 2003).
6. Maryland Department of the Environment et al. v. Anacostia Riverkeeper et al., No. 42, September Term, 2015, Blue Water Baltimore et al. v. Maryland Department of the Environment, No. 43, September Term, 2015, Blue Water Baltimore et al. v. Maryland Department of the Environment et al., No. 44, September Term, 2015, Opinion by Adkins, J.
7. National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System General Permit Remand Rule, Federal Register / Vol. 81, No. 237 / Friday, December 9, 2016 / Rules and Regulations.
8. Pilot TMDL Applications Using the Impervious Cover Method, Submitted by ENSR Corporation to the U.S. Environmental Protection Agency, Region I (October 2005), available at www.epa.gov/tmdl/pilot-tmdl-applications-using-impervious-cover-method.
9. U.S. Environmental Protection Agency letter from David B. McGuigan, Associate Director, Office of NPDES Permits and Enforcement, Water Protection Division, to Lynn Buhl, Director, Water Management Administration, re: Phase II General Permit for Discharges from State and Federal Small Municipal Separate Storm Sewer Systems (MS4) (MDR055501) (December 5, 2016).
10. Watershed Implementation Plans, information available at www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-watershed-implementation-plans-wips and www.mde.maryland.gov/programs/water/TMDL/TMDLImplementation/Pages/wip.aspx.

Attachments

1. Summary of Permit Language Clarifications.
2. List of organizations sending comments. Full comments are available on MDE's website.
3. U.S. Environmental Protection Agency letter from David B. McGuigan, Associate Director, Office of NPDES Permits and Enforcement, Water Protection Division, to Lynn Buhl, Director, Water Management Administration, re: Phase II General Permit for Discharges from State and Federal Small Municipal Separate Storm Sewer Systems (MS4) (MDR055501) (December 5, 2016).

Summary of Permit Language Clarifications

On December 22, 2016, MDE published the tentative determination NPDES small MS4 general permit to address pollutant discharges from State and federal properties. The public comment period ended on March 30, 2017, and MDE received numerous comments pertaining to the requirements of the permit. As a result, MDE provided edits and clarifications to address questions related to permit conditions. However, the requirements in the permit remain substantively unchanged. The language changes provide greater clarity of the intent of specific requirements and how to comply with these provisions. A summary of these editorial changes are listed below.

Permit Area

- Clarified regulatory provisions that pertain to State and federal small MS4s to be regulated under the permit

Eligible Small MS4s

- Clarified eligibility for coverage under the permit

Notice of Intent Requirements: Contents

- Clarified which permits MDE requests information about coverage

Water Quality

- Title was changed to “Water Quality” for consistency with language in this section and the permit

Minimum Control Measures Overview

- Clarified when permittees are required to initiate and implement program activities

Public or Personnel Education and Outreach

- Added language to clarify that staff are included in public education and outreach
- Clarified that water quality complaints may be submitted by the public or staff by other means in addition to a phone number
- Clarified MDE’s intent of question 5 requesting permittees to describe how education programs complement and strengthen other programs of the MS4 permit

Public or Personnel Involvement and Participation

11. Revised the title of the minimum control measure to clarify that personnel can be included in the activities implemented to meet permit requirements

Illicit Discharge Detection and Elimination (IDDE)

- Revised mapping requirements: Changed “surface waters” to “waters of the U.S. receiving stormwater discharges” for consistency with CFR; changed “pipes” to “stormwater conveyances” to clarify that the MS4 as defined by CFR is not limited to pipe infrastructure; removed “inlets” to clarify that mapping inlets can be accomplished gradually through field investigations; and revised how illicit discharge screening locations are documented to demonstrate outfall prioritization.

Construction Site Stormwater Runoff Control

- Revised language to account for unique instances when the approval authority is not MDE
- Clarified that the permittee is only required to track construction activities for which a grading permit is required

Post Construction Stormwater Management

- Language edited to clarify that violations are not issued by MDE for post construction BMPs because inspections of installed BMPs are the responsibility of the State or federal permittee
- Revised language to account for unique instances when the approval authority is not MDE
- Clarified that all new and redevelopment projects must adhere to the design criteria and performance standards described in the *2000 Maryland Stormwater Design Manual*
- Clarified which staff are required to be trained

Pollution Prevention and Good Housekeeping

- Clarified which staff are required to be trained
- Clarified which properties are required to have a good housekeeping plan, based on the activities that are conducted at the property
- Clarified that a standard plan can be created to address multiple properties where similar activities are conducted
- Clarified that good housekeeping plans may cover multiple sites and are therefore not required to have a map
- Clarified that for properties covered under other NPDES permits, the permittee is only required to submit information if there are any status changes

Develop a Restoration Activity Schedule

- Clarified how to calculate treatment greater than one inch provided by BMPs

Attachment 1

- Clarified that BMP cost information is required to be submitted after project completion

Reporting

- Updated due date of first MS4 Progress Report to reflect one year after effective date of permit (October 31, 2019)

Designation Criteria: Further Guidance

- Clarified regulatory provisions for regulating State and federal MS4s
- Clarified eligibility for coverage under the State and federal small MS4 general permit
- Clarified waiver criteria allowing agencies to focus waiver application analysis on site specific activities and the potential for significant pollutant discharges from their property

Compliance: Further Guidance

Options for filing a Notice of Intent (NOI) Application

- Simplified language to differentiate between the municipal small MS4 general permit and the State and federal small MS4 general permit

Mapping

- Revised the definition of “outfall” to be consistent with CFR
- Removed reference to private outfalls to clarify that it is not applicable to State and federal properties
- Clarified that initial mapping efforts can be prioritized in areas with a higher potential to pollute

Standard Operating Procedures

- Clarified that permittees may prioritize the implementation of IDDE standard operating procedures in areas of high pollution potential

Illicit Discharge Investigation

- Clarified that permittees have the option to conduct dry weather screenings at a point further up the system from the outfall to detect illicit discharges closer to their sources

Illicit Discharge Elimination and Enforcement

- Clarified that State and federal properties are required to take appropriate action to eliminate the source of an illicit discharge

Land Use and Impervious Surface Area Analysis

- Clarified that the baseline year chosen can be the date when best available land use data is available
- Clarified which era of stormwater BMPs are considered to have acceptable water quality treatment

Attachment 1

Impervious Surfaces in Rural Areas

- Clarified required documentation to verify rural areas have acceptable treatment to remove from untreated impervious areas

Criteria for Impervious Area Restoration Crediting

- Updated section title to clarify meaning
- Clarified that BMPs designed to treat greater than one inch of rainfall may receive additional credit according to the Accounting Guidance

Acceptable Restoration Strategies

- Clarified that restoration BMPs may be implemented anywhere within the property(ies) boundary

Alternative Stormwater BMPs

- Provided additional information on how to calculate credit for new, innovative, or alternative BMPs

Urban Best Management Practice (BMP) Database and Codes

- Simplified the information fields required in the BMP database

Notice of Intent Form

- Updated language in signature of NOI to be consistent with federal regulations

Reporting Forms

- Updated to be consistent with permit requirements and clarifications noted above

**Public Comments Received by MDE Regarding the National Pollutant Discharge
Elimination System (NPDES) General Permit for Discharges from State and Federal
Small Municipal Separate Storm Sewer Systems**

Public Comment Period: 12/22/16 – 3/30/17; Public Hearing: 2/6/17

Organization Sending Comments	Signature, Co-Signatures, and/or Affiliated Organizations
Maryland Department of Agriculture	Hans Schmidt, Assistant Secretary
Maryland Department of Transportation	R. Earl Lewis, Jr., Deputy Secretary
Maryland Port Administration	William Richardson
Maryland-National Capital Park & Planning Commission	Michael F. Riley, Director of Parks
United States Department of Defense	Sean S. Heaney, Environmental Program Manager, by direction of the Commander, Department of the Navy, on behalf of military services
University of Baltimore	Stephen Reid, University of Maryland, on behalf of the University of Baltimore
University System of Maryland	Stephen Reid, Environmental Planner, Campus Development, University of Maryland
Washington Suburban Sanitary Commission	James (J.C.) Langley, Chief of Plant Operations

U.S. Environmental Protection Agency letter from David B. McGuigan, Associate Director, Office of NPDES Permits and Enforcement, Water Protection Division, to Lynn Buhl, Director, Water Management Administration, re: Phase II General Permit for Discharges from State and Federal Small Municipal Separate Storm Sewer Systems (MS4) (MDR055501) (December 5, 2016)



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

Ms. Lynn Buhl, Director
Water Management Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

DEC 05 2016

Re: Phase II General Permit for Discharges from State and Federal Small Municipal Separate Storm Sewer Systems (MS4) (MDR055501)

Dear Ms. Buhl:

In September 2014, the U.S. Environmental Protection Agency (EPA), received the first draft of the permit referenced above from the Maryland Department of the Environment (MDE). Since that time, EPA has reviewed various iterations of the permit documents and provided comments, most recently related to the 2010 census and EPA's MS4 General Permit Remand Rule (pre-publication version available at <https://www.epa.gov/npdes/npdes-stormwater-final-ms4-general-permit-remand-rule>). As a result of our reviews, numerous changes have been made to this MS4 permit to ensure that it: meets regulatory requirements; is enforceable; and achieves the water quality objectives of the Clean Water Act and implementing regulations.

On August 3, 2016, EPA received the draft permit and fact sheet, which contained significant changes from previous versions. EPA reviewed these documents pursuant to 40 C.F.R. § 123.44 and the Memorandum of Agreement (MOA) between MDE and EPA Region III (May 22, 1989). Extensive discussions on this draft occurred between EPA and MDE, and on September 29, 2016, EPA sent written comments and a marked-up version of the permit and fact sheet to MDE requesting that changes be made to the draft documents.

Subsequently, representatives from EPA and MDE participated in discussions to address the issues identified as deficient by EPA. Based upon these communications, MDE agreed to make changes to the draft permit and fact sheet to address EPA's concerns. MDE submitted a final revised draft permit and fact sheet to EPA on November 16, 2016. These versions of the permit and fact sheet are intended to serve as the basis for public notice.

This correspondence serves as EPA's acceptance of the November 16, 2016 version of the permit documents. The draft permit establishes a clear path forward for both local and Chesapeake Bay water quality restoration through the development and implementation of a plan



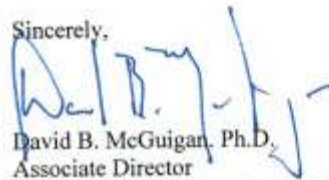
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that requires permittees to perform watershed assessments, identify water quality improvement opportunities, secure appropriate funding, and develop an implementation schedule to show the twenty percent impervious area restoration requirement will be achieved by 2025 to meet Chesapeake Bay restoration targets.

Additionally, the permit requires specific deliverables and implementation schedules as enforceable provisions of the permit, which is supported by MDE guidance regarding the quantification of restoration efforts and comprehensive annual reporting requirements.

At this time, EPA expects the permit documents to be made available to the public for review and comment. Should you have any questions, please contact me or Liz Ottinger of my staff at (215) 814-5783.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. B. McGuigan", is written over the typed name.

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