

MS4 NPDES PERMITS FREQUENTLY ASKED QUESTIONS (FAQ)¹

Revised, January 25, 2017

The Department of Environmental Protection (DEP) has developed this FAQ document to assist entities with small regulated municipal separate storm sewer systems (MS4s) with understanding the MS4 NPDES permit program, and in particular the changes to the program made by DEP through its reissuance of the PAG-13 General Permit in June 2016, which will become effective on March 16, 2018 (“[2018 PAG-13 General Permit](#)”). This document will be maintained by DEP and updated with additional content over time. Questions on the program may be directed to the appropriate [DEP regional office](#) or to DEP’s Bureau of Clean Water at (717) 787-5017 or RA-EPPAMS4@pa.gov.

2018 PAG-13 NPDES General Permit

1. What are the biggest changes compared to the 2013 General Permit?

- a. **Pollutant Reduction Plans (PRPs)** – The 2013 PAG-13 General Permit required Chesapeake Bay (“Bay”) PRPs for discharges to the Chesapeake Bay watershed. The 2018 PAG-13 General Permit continues that obligation, but added the requirements that permittees estimate their existing sediment load to the Bay and that the PRP identify BMPs that will reduce the existing sediment load by 10%. The 2018 PAG-13 General Permit requires that the 10% sediment load reduction be achieved within 5 years following DEP’s approval of coverage (Appendix D of 2018 PAG-13 General Permit).

The development of a PRP is also required by the 2018 PAG-13 General Permit for discharges to local waters that are impaired for nutrients and/or sediment where there is no wasteload allocation (WLA) in a Total Maximum Daily Load (TMDL). Similar to Bay PRPs, these “Impaired Waters PRPs” require permittees to estimate pollutant loads and reduce those loads within 5 years following DEP’s approval of coverage (Appendix E of 2018 PAG-13 General Permit). If the impairment which triggered the need for an Impaired Waters PRP is due to sediment alone, a minimum 10% sediment reduction is required. If the impairment is based on nutrients alone (phosphorus or nitrogen), a minimum 5% Total Phosphorus (TP) reduction is required. If the impairment is due to both sediment and nutrients, both sediment (10%) and TP(5%) must be controlled. Permittees may propose a presumptive approach in which a 10% sediment reduction is assumed to also result in a 5% TP reduction.

Both types of PRPs are due with the [Notice of Intent \(NOI\)](#) for coverage under the 2018 PAG-13 General Permit. However, if an MS4 is eligible for a waiver and/or has received “advanced waiver approval” from DEP, submission of a PRP with the NOI is not necessary.

- b. **TMDL Plans** – The 2013 PAG-13 General Permit required “TMDL Strategies” with NOIs and individual permit applications and “TMDL Design Details” one year after permit issuance. The 2018 PAG-13 General Permit combined “Strategies” and “Design Details” into a single “MS4 TMDL Plan.” The 2018 General Permit clarified that MS4 TMDL Plans are required only for those MS4s with sediment and/or nutrient WLAs in a TMDL, and it requires those with TMDL Plan obligations to apply for an individual permit. TMDL Plans must be submitted with the next individual permit renewal application.

Note that TMDL Plans and PRPs need not be sealed by a professional engineer. Both types of plans require the completion of a public participation process prior to plan submission.

- c. **Pollutant Control Measures (PCMs)** – The 2013 PAG-13 General Permit made no distinction over the pollutant(s) of concern in a TMDL. If an MS4 was identified with a WLA in a TMDL for any pollutant, the MS4 was expected to develop and implement TMDL Strategies and Design Details. For the 2018 PAG-13

¹**DISCLAIMER:** The questions and answers outlined in this document are intended to supplement existing MS4 regulatory requirements. Nothing in this document shall affect these regulatory requirements. The information provided herein are not an adjudication or a regulation. The Department of Environmental Protection (DEP) reserves the discretion to vary from this supplemental information as circumstances warrant.

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General Permit, DEP is requiring the development of TMDL Plans only when an MS4 is subject to nutrient and/or sediment WLAs. DEP has developed appendices in the 2018 PAG-13 General Permit for metals/pH related to abandoned mine drainage (Appendix A), pathogens (Appendix B) and priority organic compounds (Appendix C). These appendices require PCMs rather than PRPs or TMDL Plans; PCMs include the development of maps, an inventory of known or suspected sources of pollutants, and submission of a report documenting investigations into suspected sources. Where an MS4 discharges to surface waters impaired for any pollutant besides nutrients, sediment, metals/pH, pathogens and priority organic compounds, there are no obligations for the MS4 permittee under the 2018 PAG-13 General Permit.

- d. **MS4 Requirements Table** – DEP developed an MS4 Requirements Table for [municipal](#) and [non-municipal](#) MS4s that are expected to apply for permit coverage and/or a waiver starting in 2017. The Table was developed to help MS4s understand obligations for their next NOI or individual permit application submission. The Table recognizes impairments up to 5 miles downstream of an MS4 as potentially being caused or contributed to by stormwater discharges from the MS4. This is because peak flows from the impervious surfaces in an urbanized area (UA) frequently causes stream erosion, and the eroded sediment can be deposited far from the source of the discharge. The Table was prepared using the 2014 Integrated Water Quality Monitoring and Assessment Report. It will not be revised to add any impairments identified in the 2016 Report. MS4s may review and suggest changes to the Table. Requests for modifications to the Table can be sent to RA-EPPAMS4@pa.gov.
- e. **Reporting and Annual Fees** – Under the 2013 PAG-13 General Permit, some MS4s were required to submit a report to DEP on an annual basis and some MS4s were required to submit a report every two years. Under the 2018 PAG-13 General Permit, all MS4s will report annually. The reporting period (following an initial transition period) will be July 1 – June 30, and reports will be due by September 30th. In addition, a \$500 annual installment payment of the NOI fee will be due by September 30th each year to DEP’s Bureau of Clean Water. See the section below on reporting for additional information.

2. When must NOIs and individual permit applications be submitted for the next permit term?

The following categories of MS4s must submit a complete NOI to DEP by September 16, 2017:

- MS4s with existing coverage under PAG-13 (regardless of whether or not an “approval of coverage” was issued by DEP for the 2013 PAG-13 General Permit) that are eligible for coverage under the 2018 PAG-13 General Permit; and
- New MS4s that are eligible for and desire coverage under PAG-13.

The following categories of MS4s must submit a complete application for an individual permit to DEP by September 16, 2017:

- MS4s with existing coverage under PAG-13 that will no longer be eligible for coverage under the 2018 PAG-13 General Permit (e.g., MS4s needing to submit a TMDL Plan); and
- New MS4s that are not eligible for PAG-13 or otherwise desire coverage under an individual permit.

MS4s with existing individual permits that are not administratively extended must submit a complete NOI (if eligible for PAG-13 coverage and desired) or a complete permit application at least 180 days prior to the expiration date of the individual permit. MS4s with existing individual permits that are administratively extended (i.e., DEP has not acted on an application submitted in 2012 or later) must submit a complete NOI (if eligible for PAG-13 coverage and desired) or a complete permit application by September 16, 2017.

A [waiver application](#) may be attached to any NOI or application, if eligibility criteria are met as explained in the [instructions](#).

MS4s with existing waivers must submit an NOI (if eligible for PAG-13 coverage and desired) or permit application at least 180 days prior to the expiration date of the waiver. If the MS4 continues to be eligible for a waiver, a waiver application may be attached to the NOI or application.

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MS4s requiring an individual permit that wish to be co-applicants/co-permittees (i.e., either desiring to operate together under one permit for the first time or desiring to join another group of MS4s under one permit) should contact DEP to evaluate the best approach for submission of coordinated permit applications and permit issuance.

All MS4s with existing PAG-13 General Permit coverage and new MS4s that are eligible for and desire coverage under PAG-13 must submit a complete NOI to DEP by **September 16, 2017**, which is 180 days before the expiration of the 2013 PAG-13 General Permit on March 15, 2018. MS4s that received approval of coverage to operate under PAG-13 prior to 2013 and have not received approval of coverage after 2013 are also required to submit an NOI by September 16, 2017.

Permit Coverage

3. How do I determine if my small MS4 is regulated?

Not all small MS4s are regulated. Small MS4s are designated as regulated by either:

- a. The Environmental Protection Agency's (EPA's) Automatic Nationwide Designation – all small MS4s located in Urbanized Areas (UAs) as defined by the Bureau of the Census, or
- b. Discretionary designation by DEP.

Please see the [EPA Urbanized Area map](#) webpage to see if all or part of a municipality is located within a UA. You can also check the MS4 Requirements Table. If you are still unsure, you may ask DEP if your municipality has a regulated small MS4.

4. My municipality has only a small portion within the UA. Is my small MS4 still regulated?

Yes, but if your small MS4 is not located entirely within an UA, only the portion of the MS4 that is within the UA and any area that drains into the MS4 is regulated.

5. Part of my municipality is served by a combined sewer system which collects both wastewater and stormwater. Is that area part of my MS4 Planning Area?

No. Only the area that collects stormwater in a separate storm sewer system is regulated under MS4 NPDES permits. If an entire municipality or its UA is served by a combined sewer system, the municipality does not have a small MS4.

6. How do I determine if my regulated small MS4 is eligible for the NPDES PAG-13 General Permit?

Please see the "Discharges Not Authorized" section of the PAG-13 General Permit for eligibility requirements.

7. What must I do to meet the requirements of the MS4 NPDES permit?

The general requirement is to develop and implement a Stormwater Management Program (SWMP) of Best Management Practices (BMPs) to reduce the discharge of pollutants from your regulated small MS4 to the Maximum Extent Practicable (MEP). This is accomplished by implementing the six (6) Minimum Control Measures (MCMs), which are: Public Education & Outreach; Public Participation/Involvement; Illicit Discharge Detection & Elimination; Construction Site Runoff Control; Post-Construction Runoff Control; and Pollution Prevention/Good Housekeeping. Each MCM requires implementation of BMPs according to an approved

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schedule. Annual reports are also required. In addition, an appropriate stormwater management ordinance must be adopted to provide local regulation of development and activities that affect stormwater runoff.

There are permittee-specific additional requirements for discharges to impaired waters with approved TMDLs, impaired waters without approved TMDLs, and watersheds draining to the Chesapeake Bay. Please see the MS4 Requirements Table on [DEP's MS4 website](#) for a listing of the special requirements which apply to your permit. The Table is located in the "Program Updates" section of that page.

8. In addition to the six (6) Minimum Control Measures, what are the MS4 NPDES permit requirements for discharges into impaired waters or into waters tributary to the Chesapeake Bay?

Where a regulated small MS4 discharges into impaired waters or into waters tributary to the Chesapeake Bay watershed, it must meet additional requirements as follows:

- a. For regulated small MS4s discharging into impaired waters with an approved TMDL and with applicable nutrient and/or sediment WLA(s), the permittee must develop, submit for approval, and implement an approved MS4 TMDL Plan that is designed to achieve pollutant reductions consistent with the assumptions and requirements of applicable WLA(s) in the TMDL.
- b. Regulated small MS4s discharging to the Chesapeake Bay watershed must develop, submit for approval, and implement a Chesapeake Bay Pollutant Reduction Plan (PRP), including a schedule, to implement BMPs to reduce nitrogen, phosphorus, and sediment associated with existing stormwater discharges into receiving waters tributary to the Chesapeake Bay.
- c. In addition to the development, submission and implementation of an Impaired Waters PRP, MS4s discharging into impaired waters without an approved TMDL must ensure that new discharges from the permittee's regulated small MS4s do not cause or contribute to exceedances of water quality standards.

9. How long is my permit or permit waiver valid?

For MS4s that apply for and receive coverage under the 2018 PAG-13 General Permit, coverage continues indefinitely as long as 1) the MS4 continues to comply with the General Permit requirements, and 2) DEP does not revoke General Permit coverage. Unless specifically required by DEP, submission of an NOI to renew coverage will not be required. Instead, the submission of annual reports and annual fees to DEP constitutes the MS4's intent to continue operating under PAG-13. DEP will reissue (or administratively extend) PAG-13 every five years, and upon publication of the final reissued General Permit, MS4s will need to comply with the new terms and conditions of PAG-13, or otherwise submit an application for an individual permit.

Individual permits and waivers are generally valid for 5-year terms, and applications to renew the permit or waiver must be submitted at least 180 days prior to the expiration date of the permit or waiver.

10. What stormwater flows and pollutant loads am I responsible for under the permit?

MS4s are, under the PAG-13 General Permit or an individual NPDES permit, responsible for the stormwater flow and associated pollutant load that is generated in the Planning Area and is discharged to surface waters. Below are some practical examples that may help illustrate this concept.

- **Example 1** – A Homeowner's Association (HOA) is within the UA of an MS4 municipality. The streets are owned by the HOA. Stormwater flows through the streets and swales to a stream. Is the flow the responsibility of the MS4?

The MS4 has the option to parse this area out of its responsibility because the flow is not conveyed by nor does it enter upon municipally-owned property prior to discharge to a surface water.

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Decisions on parsing may consider the relative advantage of crediting load reductions from BMPs in the area relative to the disadvantage of being responsible for the load from that area.

Would the answer change if the area was served by municipally-owned streets or separate storm sewers?

Yes; in this case the area could not be parsed out.

- **Example 2** – A large shopping mall is located within the UA of a municipality and discharges stormwater to the MS4. Is the MS4 responsible for the stormwater flows and loads from the shopping mall?

Yes, unless the entity is designated by DEP as an MS4. DEP has the authority under federal regulations to designate “non-traditional” MS4s if warranted.

- **Example 3**– A municipality contains a UA that includes state highways, a university, and an industrial facility. The stormwater discharges to the municipality’s MS4 from all of these facilities have NPDES permit coverage already. Is the municipal MS4 responsible for the stormwater discharged by these facilities?

The municipality has the option to parse those areas from their planning area of MS4 responsibility.

- **Example 4**– An upstream MS4 connects to a downstream MS4. Which municipality is responsible for the upstream flow and load?

The downstream municipality is responsible for managing all stormwater conveyed through its MS4. The pollutant load from the upstream municipality is the responsibility of the upstream municipality. The municipalities should establish an observation point near where the flow crosses jurisdictions.

NOTE – *If the upstream municipality is not designated as an MS4, but is discharging pollutants to the downstream MS4 in amounts that cause or contribute to an impairment of surface waters, DEP may designate the upstream municipality as an MS4 and require the submission of an NPDES permit application or NOI.*

- **Example 5** – A municipality owns 5% of the land area within the Planning Area (streets, parks, municipal buildings, etc.). How much of the pollutant load is the MS4 permittee responsible for?

The MS4 is responsible for the entire pollutant load that drains to the MS4, with the exception of areas that are parsed out as discussed above. The ownership of land does not impact the permittee’s responsibility.

- **Example 6**– An MS4 that discharges to the Chesapeake Bay Watershed is preparing a Chesapeake Bay Pollutant Reduction Plan (PRP). In the PRP, the MS4 is attempting to estimate the current pollutant load that it is responsible to manage. The MS4 receives flow from two upstream municipalities. Should the MS4 exclude the pollutant loads from the upstream municipalities?

Yes. Those areas are outside the Planning Area of the downstream MS4.

- **Scenario 7** – An EPA-approved TMDL provides an overall (bulk) MS4 WLA for three MS4s in a watershed but it is not broken down to reflect individual WLAs for the MS4s. Are all the MS4s in this watershed required to develop a TMDL Plan?

Yes. DEP encourages a cooperative effort between the MS4s to allocate the WLA between the separate MS4s.

- **Scenario 8** – Discharges at an outfall include flows from two MS4 permittees. Whose responsibility is it to screen the outfall?

It is common for flows from one permittee to enter the conveyance system of another permittee within a

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municipality. For example, flow from a municipality could discharge to a PENNDOT conveyance (potentially at a great number of locations), which then flows to a stream at (an) outfall(s). In such a case both permittees are responsible for the discharge at the outfall(s). Establishing an observation point at each interconnection point is not required. The permittees could optionally execute a written agreement to identify whether one or the other or both will screen the outfall(s).

- **Scenario 9** – Where are observation points required?

An observation point is defined as an appropriate location that can be screened in lieu of the actual outfall if it is difficult to access the actual outfall.

PRPs/TMDL Plans

11. Does an MS4 that discharges to a neighboring municipality’s MS4 instead of discharging directly to surface waters need to develop a TMDL Plan or PRP?

Yes, if the upstream municipality is identified in the MS4 Requirements Table with a requirement to prepare a TMDL Plan or a PRP.

12. When is my PRP or TMDL Plan due?

It is due as an attachment to the next NOI or application that is submitted to DEP for permit coverage (see question 2) unless the MS4 is eligible for a waiver and/or has received an advanced waiver approval from DEP.

13. What are the steps to develop a PRP?

Below are some generalized steps that can be taken to develop a PRP:

- a. Locate MS4 infrastructure within the UA, as well as in areas upstream of the UA that drain into the UA.
- b. Identify surface waters that receive drainage from the UA.
- c. Identify the conveyances of the stormwater from the MS4 infrastructure to outfalls.
- d. Delineate the sewershed (drainage area) for each outfall. The delineated areas represent the planning area, subject to reductions in area from parsing (optional).
- e. Calculate existing loads from the planning area. DEP provides a number of suggested methods, but any scientifically-supported method is acceptable. The existing load optionally may be reduced by the pollutant loading reduction from any existing BMP, including existing BMPs installed as a requirement of a Chapter 102 permit. Specific DEP-approved methodologies must be used to calculate those reductions.
- f. Locate BMPs within the planning area to accomplish the required permit term pollutant reductions. The 5-year permit term reduction obligation is calculated based on a percentage of the remaining existing load. The permittee must identify specific BMPs to be installed within the permit term to reduce the load as required. The load reductions from those BMPs must also be calculated using specific DEP-approved methodologies.
- g. Solicit public input on the PRP prior to submission to DEP.

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14. What are my options for calculating existing loads?

- a. One approach is to use a web-based geo-referenced modeling and monitoring tool to derive land use/land cover distribution for a delineated area (one example is Wiki Watershed, which is available at <http://wikiwatershed.org/>). Such tools provide land uses from the National Land Cover Database (NLCD), which can be converted to percent pervious and impervious. MS4s may also estimate pervious and impervious acreage by using DEP's [Statewide MS4 Land Cover Estimates](#). Loading rates provided in the [PRP Instructions \(3800-PM-BCW0100k\)](#) can be multiplied times the pervious and impervious areas to estimate existing loads.
- b. MS4s may optionally model loads (using Mapshed, which is available at <http://www.mapshed.psu.edu/>, or other models). For TMDL Plans, loads are already calculated for the pollutant(s) that were of concern in the TMDL, but may optionally also be remodeled using Mapshed or equivalent.

15. Where can I locate BMPs to address PRP or TMDL Plan obligations?

BMPs must be located in the portion of the planning area that drains to the Chesapeake Bay or to the locally Impaired Waters. An exception is allowed for BMPs like stream restoration, which are sometimes constructed downstream of the pollutant source; in such cases pollutant removal credit is limited to the proportion of the treated flow which originates from the planning area.

16. What are my options for the implementation of BMPs?

MS4s have numerous options for the installation of BMPs. See the Pennsylvania Stormwater BMP Manual (<http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-8305>) for examples. DEP recommends that MS4s look for BMPs that can be installed economically and in a relatively short period of time. Ownership is not an issue as BMPs can be publicly or privately-owned. A typical option to consider is the modification of existing flood control basins to improve their pollution control capability. Another option is to require the installation of stormwater control features at construction sites which disturb less than one acre. The entire load reduction from such BMPs can be credited to the permit obligation. Developers can also be required to install controls in addition to what is required in Chapter 102 permits, although DEP cautions that the Chesapeake Bay Expert Panel reports restrict what is creditable when super-sizing a Chapter 102 BMP. MS4s should instead consider requiring developers to install an additional BMP (which is entirely creditable) or pay into a municipal fund for the construction of other BMPs. Municipalities should also review their SALDO, zoning, and building codes to ensure that opportunities are not lost (for example, require curbs only where they are needed).

The efficiency of BMPs must conform to EPA's Chesapeake Bay Model efficiencies (CAST) or in Chesapeake Bay expert panel reports. [DEP's BMP Effectiveness Values document](#) should be consulted.

Permittees are cautioned to avoid over-reliance on street sweeping as a stormwater BMP. The effectiveness of street sweeping has been studied extensively in recent years, and the effectiveness values have been reduced. See the [Recommendations of the Expert Panel to Define Removal Rates for Street and Storm Drain Cleaning Expert Panel Report](#).

17. What are the approved methods to calculate load reductions from BMPs?

The BMP Effectiveness Values document or the [Final CBP Approved Expert Panel Report on Stormwater Retrofits](#) can be used to calculate the reductions for new retrofits. The Retrofit report can also be used to calculate the reductions from retrofits of existing BMPs. If you wish to use existing Chapter 102-required BMPs to reduce current load, use the [Final CBP Approved Expert Panel Report on Stormwater Performance Standards](#). For stream restoration projects, use the [Final Recommendations of the Expert Panel to Define Removal Rates for Individual Stream Restoration Projects](#). All four Expert Panel reports are on the DEP stormwater website at www.dep.pa.gov/MS4.

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The BMP Effectiveness Values are being phased out by the Chesapeake Bay Program because they are outdated. They are, however, somewhat simpler to use than the Expert Panel reports, and for that reason DEP permits their use for PRPs for the next permit term. Permittees are cautioned that use of the Expert Panel reports frequently provides a small margin of additional load reduction. MS4s may use the Effectiveness Values for some BMPs and the Expert Panel reports for others.

The use of differing methodologies should be avoided. This means for example that the methodology used to calculate existing loads discharged to an impaired water must also be used to calculate the load to an individual BMP from its treated area.

BMPs used to reduce existing load must be functional, with O&M procedures in place, to be credited.

DEP will not review the hydraulic loading rate of BMPs. That is a responsibility of the design engineer.

18. I discharge to both Chesapeake Bay and Locally Impaired Waters. Can a given BMP be credited to both obligations?

Yes, if the BMP is within the planning area and if the impaired water drains to the Chesapeake Bay. DEP recommends that MS4s with both Appendix D (Bay) and E (local impaired waters) planning requirements seek to satisfy Appendix E requirements, which will generally satisfy Appendix D requirements.

19. The MS4 Requirements Table lists an impaired stream and tributaries to that same stream as separate requirements for my MS4. Am I required to implement the specific required pollutant reduction in both?

The MS4 Requirements Table sometimes lists both impaired streams and upstream tributaries to that stream. In such a situation the pollutant load should be calculated for the planning area that drains to the stream, which would include the tributaries to that stream. BMPs can be located anywhere within the planning area as long as they reduce the load to the stream. If some tributaries are impaired and some are not, BMPs should be preferentially located in the impaired watersheds.

20. I would like to work collaboratively with other MS4 permittees to develop a joint Pollutant Reduction Plan. May I do that?

Yes. DEP highly recommends combined efforts to develop PRPs. Such arrangements provide an economy of scale for planning, design, construction, and O&M.

Any party can serve a leadership role in coordinating a combined effort. County Planning Commissions, County Conservation Districts, and larger municipalities are commonly selected.

The planning area for the combined effort is the combined planning area for the participating permittees. As long as the BMP(s) are located in the combined planning area and address the pollutants of concern, the pollutant reductions from BMPs may be shared between the collaborating MS4s. This means, for example, that municipalities which are “built out” can often cost-effectively contribute to BMP implementation in neighboring jurisdictions.

It is not necessary for the participating permittees to be joint permittees. It is, however, expected that there will be a written agreement among the participants to ensure the plan can be implemented. DEP recommends that such agreements include the following topics:

- Scope of the Agreement
 - Complete Pollutant Reduction Plan implementation (or individual BMP implementation)

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- Roles and Responsibilities
 - How projects will be selected
 - Selection of engineering and other contracted services
 - Long-term O&M
 - Adaptive management of the PRP (or the individual BMPs) over the permit term
 - Commitment to using the Plan (or to implementing the individual BMP)
- Allocations of Cost and pollutant reduction
 - Methodology for sharing the cost
 - Methodology for distributing the pollutant reductions
- Timeline for implementation
 - Schedule of milestones to complete and implement the plan (or the individual BMP)

The total pollutant reduction credit is distributed among participating permittees. When a municipality is partnering with PENNDOT or the Pennsylvania Turnpike Commission, both the municipality and PENNDOT/Pennsylvania Turnpike Commission take full credit for the pollutant reduction.

21. When must BMPs be installed in order to be credited to the 2018 Pollutant Reduction Plan commitment?

BMPs can be credited if they are completed after the date your PRP is submitted and before the permit term is completed.

22. I have to reduce sediment loads to the same stream that is impacted by agricultural areas outside my Planning Area. May I partner with the farmer and take credit for those agricultural reductions?

Potentially yes. You would need to apply for and receive approval for coverage under an individual permit that approves the proposal. Pollutant reductions from non-urban BMPs (e.g., agricultural) can only be credited to urban stormwater responsibilities to the degree that their pollutant load reductions exceed the non-urban stormwater sector baseline and threshold requirements. These requirements will be established by DEP on a case-by-case basis.

23. The Table lists multiple streams for my MS4. It will take more than the 5-year permit term to install BMPs in one or more of those streams. For the 2018 permit term obligation, may I implement “extra” reductions in one stream to account for “fewer” reductions in another?

Permittees are expected to consider opportunities to implement the required reductions in each listed stream. If, however, it is impractical to achieve the required reductions in one drainage area during the permit term, it is permissible to substitute additional reductions in another impaired stream. The total pounds of pollutants reduced may not be less than the required total for both streams. Proposals should be discussed in advance with DEP.

In some cases, neighboring MS4 permittees may be collaboratively developing a PRP. BMP flexibility can be exercised to locate BMPs in one jurisdiction for which credit is taken in whole or in part by a neighboring municipality. Although exceptions would be considered, BMP locational flexibility is limited to HUC-12 scale watersheds.

24. One of my streams is listed on the Table with an impairment for sediment, and an upstream tributary to that same stream has an impairment for nutrients. May I install a BMP which satisfies the sediment requirement for the entire stream drainage within my Planning Area, even if it does not fully satisfy the nutrient reduction requirement?

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Yes. MS4s may apply a presumptive approach in which it is assumed that the removal of 10% sediment will also result in the removal of 5% TP.

25. Public Participation requirements apply to Chesapeake Bay PRPs, Impaired Waters PRPs, and TMDL Plans. If changes need to be made to my plan sometime after submittal to DEP, do I need to redo the public participation?

Potentially. If the MS4 permittee decides to modify the location, type or number of proposed BMPs or modify the storm sewershed map (as compared to the original PRP or TMDL Plan approved by DEP), the permittee must submit an update to its PRP or TMDL Plan to DEP prior to implementing the changes. Any update submitted to DEP must follow the public participation requirements of the permit.

26. A portion of my municipality has karst geology. Under normal weather conditions all stormwater discharges to sinkholes rather than to surface waters. Can I parse out that area from my Planning Area?

No, unless you can demonstrate that stormwater flows never discharge to surface water. That generally is possible only where stormwater flows are discharged to a regulated discharge well designed to handle all flow.

27. My TMDL Strategy (and/or Design Details) was submitted as required by the 2013 MS4 permit. Am I required to recalculate the pollutant removal efficiencies to apply the now-required Chesapeake Bay Expert Panel reports?

Much of the TMDL planning work that was done in the 2013 permit term can be incorporated into TMDL Plans required for the 2018 permit. MS4s that submitted TMDL Strategies and Design Details under the 2013 permit and were approved by DEP will not be required, for the permit term starting in 2018, to recalculate BMP load reductions. Recalculations of load reductions for TMDL Strategies and Design Details which were submitted but not approved by DEP will however require that loads be calculated in accordance with current guidance.

28. How much detail must be provided in PRPs and TMDL Plans on selected BMPs?

A credible effort on the part of MS4s to demonstrate that selected BMPs will achieve the required pollutant reductions includes the following information on the selected BMPs:

- Type of BMP (identification based on Chesapeake Bay Model nomenclature wherever possible)
- Location of BMP on a storm sewershed map
- Identification of the area treated
- Calculations of estimated load (input)
- Calculations of estimated load reduction (output)
- Planned O&M

Complete or preliminary designs are not required as PRPs and TMDL Plans are planning level documents.

29. Where can I find the legal definitions for Pollutant, Total Maximum Daily Load (TMDL), and Wasteload Allocation (WLA)?

TMDL, WLA, and Pollutant are defined in 25 Pa. Code § 96.1 as follows:

Pollutant —Any contaminant or other alteration of the physical, chemical, biological, or radiological integrity of

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surface water which causes or has the potential to cause pollution as defined in section 1 of The Clean Streams Law (35 P. S. § 691.1).

TMDL — Total maximum daily load —The sum of individual waste load allocations for point sources, load allocations for nonpoint sources and natural quality and a margin of safety expressed in terms of mass per time, toxicity or other appropriate measures.

WLA — Wasteload allocation — The portion of a surface water's loading capacity that is allocated to existing and future point source discharges.

30. What is a Total Maximum Daily Load (TMDL)?

See definition above. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can assimilate and still meet water quality standards, and an allocation of the allowable discharge of that pollutant load among the various sources. Pollutants can include alteration of the physical, chemical, biological, or radiological integrity of a surface water that causes or has the potential to cause pollution. Pollutant sources are characterized as either point sources that receive a WLA or nonpoint sources that receive a Load Allocation (LA). Point sources include all sources subject to regulation under NPDES permits, such as discharges from MS4s. Nonpoint sources include all remaining sources of the pollutant, including anthropogenic (manmade) and natural background sources. TMDLs must also account for seasonal variations in water quality and include a Margin of Safety (MOS) to account for uncertainty in the estimates of pollutant reductions necessary to meet water quality standards.

If a nutrient or sediment WLA in an approved TMDL is applicable to the discharges from a regulated small MS4, the MS4 permittee must develop and submit an TMDL Plan that is consistent with the assumptions and requirements of applicable WLA(s) in the TMDL.

31. What targets must be met through a TMDL Plan and by when?

TMDL Plans involve short-term and long-term planning. Short-term plans are generally similar to PRPs. The objective for the short-term is to achieve the WLA(s) for the pollutant(s) of concern or, if the MS4 determines this is not feasible, then a reduction of 10% sediment and/or 5% TP compared to existing load within the next individual permit term. The long-term plan may be more conceptual, and the objective is achievement of the WLA(s). DEP will not prescribe when WLA(s) must be achieved in the individual permit issued to an MS4.

32. I'm preparing my TMDL Plan. BMPs have been installed in the past which reduce the pollutant load. Can I credit the load reduction from those BMPs as part of my permit term load reduction obligation?

No, but all existing structural BMPs that continue to function and are maintained can be credited against the existing load. That (reduced) existing load is then used to calculate the permit term obligation (generally a minimum 10% sediment reduction).

33. We plan to use MapShed to model the existing load. We noticed that MapShed not only analyzes land use in terms of pollutant loadings but it also takes into account streambank erosion and groundwater. Can these two sources be excluded from the existing load determination since the basis of PRPs and TMDL Plans is focused more on land use?

You can exclude the loading from groundwater, but not streambank erosion. The streambank erosion routine was built into the MapShed model to account for downstream rate and volume impacts from development (impervious surfaces). There is a tool in the model that distributes the streambank erosion loads back to MS4s based on the UA, impervious surfaces, and other factors. Operationally, the model takes water out of the

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system when stormwater control BMPs are put in place and the streambank loads are linked to the volume removed.

Best Management Practices

34. What are Stormwater Best Management Practices (BMPs)?

For purposes of the NPDES permitting program, stormwater BMPs are defined in the NPDES permit as: “Schedules of activities, prohibitions of practices, structural controls (e.g., infiltration trenches), design criteria, maintenance procedures, and other management practices to prevent or reduce pollution to the waters of the Commonwealth. BMPs include Erosion and Sedimentation Control Plans, Post Construction Stormwater Management Plans, MS4 TMDL Plans, Stormwater Management Act Plans, and other treatment requirements, operating procedures and practices to control runoff, spillage or leaks, sludge or waste disposal, drainage from raw material storage, and methods to reduce pollution, to recharge groundwater, to enhance stream base flow and to reduce the threat of flooding and stream bank erosion.”

35. Is a discharge into a sediment pond an outfall?

A structure that was designed, built, and maintained as a BMP is a BMP, not a surface water. The outfall would be the discharge point into a stream below the BMP.

36. We expect to have opportunities for future BMPs that are not sufficiently developed to specifically locate them in the current PRP. Can I describe them in general in the PRP and estimate their load reductions?

The conceptual BMPs you propose in the plan must be developed to the point that you can locate them on a map and estimate their specific load reductions. You can describe other BMPs that cannot yet be located as possibilities, but may not count them as planned load reductions. If the possibilities become realities, you can update the plan and eliminate any BMPs that you no longer plan to implement.

37. If you sample and report pollutant loads from outfalls, and can demonstrate minimal loadings, can BMP installation be avoided?

No. DEP generally discourages sampling of stormwater discharges. To obtain enough data to be useful, stormwater sampling is extremely time-consuming and costly. The concentration of pollutants at the outfall also does not reflect the impact of downstream stream erosion from peak flows from impervious areas. MS4s that want to address water quality impairments most efficiently should use advanced stormwater models (like Mapshed), maintain records on all BMPs, and add cost-effective new BMPs at every opportunity. If an MS4 would nevertheless like to use stormwater sampling to support its pollutant load estimates, the proposal should be submitted to DEP’s Bureau of Clean Water for review and comment prior to pursuing a monitoring program.

Waivers and Advanced Waiver Approval

38. What is the benefit of receiving a waiver from permit coverage?

MS4s that receive a waiver from DEP are not subject to MS4 permit requirements for the five-year duration of the waiver.

39. What are the criteria for waiver eligibility?

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The criteria for a waiver are:

- a. Population – the MS4 must satisfy at least one of these population criteria:
 - The MS4 serves a population less than 1,000 within the UA; or
 - The MS4 serves less than 10,000 in the municipality (or applicant-owned property if the applicant is not a municipality).
- b. TMDL – The MS4 does not discharge into waters which are subject to any EPA-approved TMDL. (Note that exceptions may be possible if no WLA is applicable to the MS4 and the applicant provides documentation demonstrating that stormwater discharges could not reasonably cause or contribute to the impairment that is the subject of the TMDL. See below).
- c. Local Impairments – The MS4 does not discharge to a local surface water impaired for BOD (organic enrichment), sediment, pathogens, oil and grease, or nutrients. (Note that exceptions are possible if the applicant provides documentation demonstrating that stormwater discharges could not reasonably cause or contribute to the impairment. See below).

40. How do I determine if my regulated small MS4 is eligible for a waiver?

See the [Waiver Application Instructions](#).

Waivers will be approved if **all** of the following are met:

- The applicant satisfies one or both of two population criteria (Questions 1 & 2 on the waiver application);
- The applicant does not discharge stormwater subject to a WLA in a TMDL and does not cause or contribute to the water quality problem addressed in an approved TMDL (Question 3 on the waiver application); and
- The applicant does not discharge stormwater which causes or contributes to a local water quality impairment (Question 4 on the waiver application).

Applicants are encouraged to request DEP review well in advance of the NOI or permit application due date to determine whether a PRP must be submitted with the NOI or application.

41. If my regulated small MS4 is eligible for a waiver and I submit a waiver request, must I also submit an NOI or Individual Permit Application?

Yes, you must submit your NOI or individual permit application and applicable fee together with your waiver request by the NOI or permit application due date.

42. Why should a waiver applicant consider applying for an advanced waiver approval?

DEP has encouraged MS4s that believe they satisfy the waiver criteria, and which are listed on DEP's MS4 Requirements Table as needing to develop a PRP, to seek an advanced waiver approval from DEP at the earliest possible date. DEP established a deadline (now past) of December 31, 2016 for MS4s to submit requests for advanced waiver approval, and DEP has received approximately 200 such requests. DEP is planning to provide all decisions on advanced waiver requests by early March 2017. If DEP approves an advanced waiver request, it means that if the MS4 Requirements Table specifies that an MS4 is subject to a PRP requirement, the MS4 does not need to develop and submit a PRP with its next NOI or permit application. If DEP does not approve the advanced waiver request, it means that DEP will expect the submission of a PRP (if specified in the MS4 Requirements Table) with the MS4's next NOI or permit application.

DEP Bureau of Clean Water's decision regarding advanced waiver requests does not represent a guarantee that a waiver will be approved or denied following a review of the waiver application that is submitted to DEP's

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regional office for review with the NOI or permit application. If DEP Bureau of Clean Water approves of the advanced waiver request, MS4s are encouraged to submit documentation of this approval with the waiver application. If DEP Bureau of Clean Water does not approve of the request, the MS4 may still submit a waiver application.

In evaluating advanced waiver requests, DEP's Bureau of Clean Water considers a number of factors including but not limited to the pollutant(s) associated with the surface water impairment, the likelihood that the MS4 is contributing these pollutant(s) in its stormwater, the size of the drainage area (storm sewershed) associated with outfalls discharging to impaired waters, and characteristics of the storm sewershed (percent impervious, etc.).

Ordinances

43. Which ordinance option can I use?

Renewal permittees must include an executed ordinance consistent with DEP's 2013 or the [2022 Model Ordinance](#), or an executed ordinance consistent with an Act 167 Plan approved by DEP in 2005 or later, or an executed custom ordinance which meets the requirements of [DEP's Stormwater Ordinance Checklist](#) (either 2013 or 2022) with the NOI or permit application.

New permittees must satisfy the same requirement by the fourth year of permit coverage. Renewal permittees are required to meet the requirements of the 2022 model ordinance by September 30, 2022.

Permit Fees

44. What is the fee for a Notice of Intent (NOI) or Individual Permit (IP) Application? What is the annual fee?

General Permits: The initial NOI fee is \$500 for both new and renewal PAG-13 coverage. This fee must be submitted 1) regardless if a waiver application is also included with the NOI and 2) regardless if DEP has not acted on an NOI submitted by the MS4 in 2012 or later. If PAG-13 General Permit coverage is approved, thereafter an annual installment payment of the NOI fee of \$500 is due by September 30th each year. New MS4s (that have not previously had coverage under PAG-13 or an individual permit) will begin paying the annual fee on September 30th following the first full year of permit coverage. For example, if a new MS4 submits a PAG-13 NOI on September 16, 2017 but does not receive approval to operate under PAG-13 until August 1, 2017, the first annual fee is due by September 30, 2018.

Individual Permits: A \$5,000 fee is paid with the initial application for a new permit (new MS4s only that do not qualify for PAG-13). The fee for renewal of individual permits is \$2,500. These fees must be submitted 1) regardless if there is a waiver application attached to the permit application and 2) regardless if DEP has not acted on an individual permit application submitted by the MS4 in 2012 or later. If an MS4 permittee previously had coverage under the PAG-13 but is no longer eligible for PAG-13 coverage, it must submit an individual permit application with a fee of \$2,500. If an MS4 currently has a waiver and is not eligible for PAG-13 coverage, it must submit an individual permit application with a fee of \$2,500 (along with a waiver application if eligible and desired).

If DEP approves a waiver for an MS4, following submission the NOI or permit application fee, the MS4 does not need to pay anything further until the next NOI or application is submitted.

Except for certain federal and state government entities that are exempt from fees under DEP's regulations, a check must be included with the NOI or permit application. The check must be made payable to the *Commonwealth of Pennsylvania*.

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Stormwater Authorities

45. We are considering the use of a Stormwater Authority. What are the MS4 permit implications?

DEP encourages the use of stormwater authorities. If an authority owns and operates the MS4, it must be a permittee, with the municipality(ies) served by the authority serving as co-permittees (because of their role in enacting and enforcing the stormwater ordinance(s)).

Reporting

46. How should MS4s make the transition to the new permit cycle with respect to periodic (annual or progress) reports?

The PAG-13 General Permit that becomes effective on March 16, 2018 will require annual reporting for all MS4s with permit coverage. For existing MS4s, the first annual report will be due on September 30, 2018 and will be required annually thereafter by September 30th. For new MS4s, the first annual report will be due by the first September 30th after the first year of permit coverage, and will be required annually thereafter by September 30th. DEP will issue individual permits with the same annual reporting requirements.

The reporting period will normally run from July 1 – June 30. For existing MS4s, however, the first annual report will need to have a different reporting period to implement the transition. **DEP is extending the reporting period for all MS4s with existing permit coverage (both general and individual permits). If the end of an existing MS4's reporting period is between September 16, 2017 and September 29, 2018, the new reporting period end date should be considered June 30, 2018.**

Example 1 – An MS4 was issued an individual permit on March 16, 2013. The MS4 is not a new MS4 and is not located in the Chesapeake Bay watershed, and is therefore required to submit progress reports. The first progress report covered the period of March 16, 2013 – March 16, 2014 and was due May 15, 2014. The second progress report covered the period of March 16, 2014 – March 16, 2016 and was due May 15, 2016. The third progress report would have been due with the renewal application that is submitted to DEP by September 16, 2017 (180 days prior to permit expiration). However, the adjusted reporting period will now become March 16, 2016 – June 30, 2018 and the report is due September 30, 2018. (Note – submission of a progress report is not required with renewal NOIs or renewal applications).

Example 2 – An MS4 was issued approval of coverage under PAG-13 on January 1, 2014. The MS4 is required to submit progress reports. The first progress report covered the period of January 1, 2014 – January 1, 2015 and was due on March 1, 2015. The second progress report covered the period of January 1, 2015 – January 1, 2017 and was due on March 1, 2017. The third progress report would have been due with the renewal NOI that is submitted at least 180 days prior to expiration of permit coverage. The approval of coverage that the MS4 received indicated an expiration date of December 31, 2018, which would have made the renewal NOI due date July 4, 2018 (180 days prior to expiration date). However, the date established by DEP as the renewal NOI due date in the 2018 PAG-13 General Permit is September 16, 2017 (i.e., the expiration date on previously issued PAG-13 approvals of coverage may be ignored). Since progress reports are not due with renewal NOIs, and considering the extended reporting period noted above, the adjusted reporting period will be January 1, 2017 – June 30, 2018 and the report is due September 30, 2018.

Example 3 – An MS4 was issued an individual permit on August 15, 2014 and must submit annual reports. The reporting periods under the individual permit are: August 15, 2014 – August 15, 2015 (first reporting period), August 15, 2015 – August 15, 2016 (second reporting period), August 15, 2016 – August 15, 2017 (third reporting period), August 15, 2017 – August 15, 2018 (fourth reporting period), and August 15, 2018 – August 15, 2019 (fifth reporting period). The end of the fourth reporting period (August 15, 2018) is between September 16, 2017 and September 29, 2018. Therefore, the end of this reporting period is adjusted to June 30, 2018. The fourth reporting period will run August 15, 2017 – June 30, 2018 (report due September 30, 2018) and the

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fifth reporting period will run July 1, 2018 – June 30, 2019 (report due September 30, 2019). Thereafter, the reporting period will run July 1 – June 30.

47. May I submit our Annual MS4 Status Reports to DEP electronically?

MS4s wishing to submit Annual MS4 Status Reports electronically (i.e., via email) to DEP prior to September 30, 2018 may do so if the DEP regional office that will receive the report agrees to receive it electronically. Starting on September 30, 2018, DEP expects to have an online reporting system available. The use of this system would be required by MS4s. DEP anticipates announcing the availability of the reporting system for voluntary use sometime in 2017.