

## DRAFT MS4 REQUIREMENTS TABLE

### Introduction

The Pennsylvania Department of Environmental Protection (DEP) has developed a draft table containing all municipalities in Pennsylvania with regulated small municipal separate storm sewer systems (MS4s) that have applied or are expected to apply for National Pollutant Discharge Elimination System (NPDES) permit coverage and the receiving waters the MS4 is expected to discharge to that are considered “impaired” according to DEP’s latest [Integrated Water Quality Monitoring and Assessment Report](#) (“Integrated Report”).

The purpose of the MS4 Requirements Table (“Table”) is to identify the specific requirements for MS4s during the next permit term relating to the remediation of impaired waters. These requirements go above and beyond the implementation of the Minimum Control Measures (MCMs) as part of an MS4’s stormwater management program and other permit conditions. In general, the next permit term begins in March 2018, although some MS4s have permit coverage extending past this date. The requirements will be contained in appendices of the NPDES permit or will be required as part of the PAG-13 General Permit Notice of Intent (NOI) or individual NPDES permit application, as discussed further below.

The Table was developed using GIS by initially drawing a 5-mile buffer around each municipality’s urbanized area (UA) based on the 2010 census layer or, if no 2010 UA existed, the municipal boundary. Drainage areas were then delineated within the buffer through topographical interpolation. If, based on these drainage areas, stormwater from an urbanized area was expected to flow into impaired waters within the buffer, the impaired waters were selected for the Table, as were attributes of the impaired waters, including information on the cause(s) of impairment and Total Maximum Daily Loads (TMDLs) that may have been developed for the waters. See Figure 1, below, for a visual example of the analysis undertaken by DEP.

DEP did not utilize any information submitted by MS4s in developing the Table, as such information is generally not in a format that can be used for this purpose at this time. As a result, it is possible that DEP overestimated discharges of stormwater from MS4s into impaired waters. **DEP is soliciting feedback from MS4s on this draft Table. If an MS4 believes an error has been made, a map identifying all MS4 outfalls and surface waters along with a narrative description of the error is necessary and must be sent to the following address so that DEP can review and update the Table as necessary:**

DEP Bureau of Point and Non-Point Source Management  
Rachel Carson State Office Building  
400 Market Street, PO Box 8774  
Harrisburg, PA 17105-8774

The map and description may also be sent via email to [RA-EPPAMS4@pa.gov](mailto:RA-EPPAMS4@pa.gov).

### Understanding the Table

Counties and municipalities are ordered alphabetically in the Table. The following provides a description of each column:

- **MS4 Name** – Name of the municipality. Every municipality listed in the Table is expected to currently have NPDES permit coverage, a waiver of NPDES permit coverage, and/or is expected to apply for NPDES permit coverage by September 2017.
- **NPDES ID** – The NPDES ID number assigned to the MS4 in DEP’s data systems. If an MS4 has been issued an authorization to discharge from DEP, the ID will be the NPDES permit number that is listed on the first page. If an MS4 has been issued a waiver, this number should be identified in the letter from DEP approving the waiver. If the NPDES ID No. is blank, DEP does not have an ID number assigned to the MS4 at this time; where municipalities are listed in the Table because the 2010 census identified an urbanized area for the first time, the NPDES ID No. will be generated following the MS4’s submission of an NOI or individual NPDES permit application by September 2017.

**Note** – MS4s with existing waivers may submit their renewal NOI/permit application with a request for a continued waiver, but it is not a guarantee that a waiver will be granted for the next permit term.

- **Individual Permit Required?** – If “Yes” is indicated in this column, the MS4 will be required to submit an individual NPDES permit application by September 2017 (or no later than 180 days prior to expiration of permit coverage, whichever is later) because a TMDL Plan is required, regardless of the MS4’s existing coverage (i.e., an MS4 currently with PAG-13 General Permit coverage or a waiver will be required to submit an individual permit application). A TMDL Plan will be required as part of an individual permit application anytime a wasteload allocation (WLA) for nutrients and/or sediment (either specific/individual or aggregate/bulk) is specified in a TMDL for the MS4.

**Note** – if this column is blank, it does not necessarily mean that the MS4 is eligible for PAG-13 General Permit coverage, and an individual permit may otherwise be required. For example, if the column is blank but there are discharges from the MS4 to special protection (HQ/EV) waters, an individual permit application would be required. The purpose of this column in the Table is solely to identify which MS4s will need individual permits for the next permit term based on whether or not a TMDL Plan is required.

- **Impaired Receiving Waters** – The name of the surface waters that, according to DEP’s analysis as described above, receives stormwater discharges (either directly or within 5 miles downstream) from the MS4 and are considered impaired according to DEP’s latest Integrated Report. In addition, “Chesapeake Bay” is listed anytime an MS4 discharges stormwater to waters within the Chesapeake Bay watershed.
- **Requirement(s)** – The requirements applicable to MS4s relating to the remediation of impaired waters in the next permit term. The information is presented in the following format:

“Permit Requirement” – “Cause(s) of Impairment” “(Category No.)”

Where:

- **Permit Requirement** – The appendix (i.e., Appendix A, B, C, D or E) in the future version of the PAG-13 General Permit and individual NPDES permit that will be applicable to the MS4 or “TMDL Plan” (if a nutrient and/or sediment WLA exists for the MS4 in a TMDL), for each Impaired Receiving Waters listed. The proposed appendices are contained in a [draft of the PAG-13 General Permit available on DEP’s website](#). Instructions for developing TMDL Plans will be available in a future version of the individual NPDES permit application.

A summary of the possible requirements is as follows:

- **Appendix A** – Pollutant control measures (i.e., best management practices) must be implemented upon permit coverage to control metals and pH in stormwater discharges to impaired waters (with or without a TMDL).
- **Appendix B** – Pollutant control measures must be implemented upon permit coverage to control pathogens in stormwater discharges to impaired waters (with or without a TMDL).
- **Appendix C** – Pollutant control measures must be implemented upon permit coverage to control priority organic compounds (e.g., PCBs, Chlordane, etc.) in stormwater discharges to impaired waters (with or without a TMDL).
- **Appendix D** – Chesapeake Bay Pollutant Reduction Plan must be submitted with PAG-13 NOI or individual permit application to control nutrients and sediment in stormwater discharges to waters in the Chesapeake Bay watershed.
- **Appendix E** – Pollutant Reduction Plan must be submitted with PAG-13 NOI or individual permit application to control nutrients and/or sediment in stormwater discharges to impaired waters without a TMDL, or impaired waters with a TMDL but there is no WLA.

- **TMDL Plan** – TMDL Plan must be submitted with an individual permit application to control nutrients and/or sediment in stormwater discharges to impaired waters with a TMDL in which there is a WLA for the MS4.
- o **Cause(s) of Impairment** – The cause of impairment as listed in DEP’s data systems. Note that the terms “siltation”, “suspended solids” and “sediment” all refer to the same parameter/pollutant (inorganic solids). Also note that causes of “Excessive Algal Growth” and “Organic Enrichment/Low D.O.” are surrogates for nutrients (Nitrogen and Phosphorus).
- o **Category No.** – The category associated with the impairment as contained in DEP’s Integrated Report. Category 4a indicates that the waters are impaired and a TMDL has been completed. Category 5 indicates that the waters are impaired and a TMDL has not yet been completed, but is required.

If no requirement for impaired waters is applicable to an MS4, the phrase, “No requirements at this time” is used. If multiple requirements apply, the requirements are separate by a semicolon.

- **Other Cause(s) of Impairment** – Other causes of impairment, not related to AMD metals and/or pH, pathogens, priority organic compounds, nutrients and sediment are shown in this column. It is for information purposes only – there will be no specific requirements in the permit to address these other causes.

Examples

**Example 1**

MS4 Name	NPDES ID	Individual Permit Required?	Impaired Receiving Waters	Requirement(s)	Other Cause(s) of Impairment
EXAMPLE MS4	PAG130000	Yes	Chartiers Creek	Appendix E - Siltation (5)	TDS (5)
			Sawmill Run	TMDL Plan - Siltation, DO/BOD, Nutrients, Organic Enrichment/Low D.O. (4a); Appendix A - Metals, pH (4a)	
			Ohio River	Appendix B - Pathogens (5)	Dioxins (5)

The MS4 in this example would need to submit an individual permit application at least 180 days prior to expiration of their current permit coverage. The application must include a TMDL Plan for reducing nutrients and sediment (siltation) in stormwater discharges to Sawmill Run. The application must also include a Pollutant Reduction Plan (PRP) for reducing sediment (siltation) in discharges to Chartiers Creek, and must follow Appendix E of the permit. Following DEP’s issuance of an individual NPDES permit to the MS4, the MS4 would need to implement Appendix A to control metals and pH in discharges to Sawmill Run, and Appendix B to control pathogens in discharges to the Ohio River.

**Example 2**

MS4 Name	NPDES ID	Individual Permit Required?	Impaired Receiving Waters	Requirement(s)	Other Cause(s) of Impairment
EXAMPLE MS4	PAG130000		Delaware River	Appendix C - PCB, Priority Organics (4a)	
			Donny Brook	Appendix E - Siltation (5)	
			Schoolhouse Run	Appendix E - Siltation (5)	
			Perkiomen Creek	Appendix B - Pathogens (5)	

The MS4 in this example may be eligible for PAG-13 General Permit coverage because a TMDL Plan is not required; however, all other eligibility criteria must be met. Assuming the MS4 is eligible for the PAG-13 General Permit, the MS4 must submit a PRP for reducing sediment (siltation) in discharges to Donny Brook and

Schoolhouse Run with its NOI, and must follow Appendix E of the permit. The MS4 would also need to implement Appendix C to control PCBs and priority organics in discharges to the Delaware River and Appendix B to control pathogens in discharges to Perkiomen Creek.

**Figure 1: Example GIS-Based Analysis Used to Develop Draft MS4 Requirements Table**

