



**ROSS TOWNSHIP**  
Allegheny County, Pennsylvania

# **Ross Township Municipal Separate Storm Sewer System (MS4)**

## **DRAFT POLLUTANT REDUCTION PLAN Kilbuck Run – Ohio River Sewershed**

**Ross Township, Allegheny County, Pennsylvania  
(NPDES Permit No. PAG136221)**

**Situated In**  
Allegheny County, Pennsylvania

**Prepared For:**  
Ross Township Board of Commissioners  
1000 Ross Municipal Drive  
Pittsburgh, PA 15237

**September 2017**  
Prepared By: The Gateway Engineers, Inc.

**November 2024**  
Revised By: Gibson-Thomas Engineering, Co., Inc.



**Gibson-Thomas**  
ENGINEERING

# **Pollutant Reduction Plan: Kilbuck Run**

## **Ross Township, Allegheny County, Pennsylvania**

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### **Attachments:**

Attachment A – PADEP PAG-13 General Permit for Stormwater Discharges from Small MS4s (NPDES PERMIT NO. PAG136282)

Attachment B - Proof of Publication

Attachment C – Existing Loading: Kilbuck Run Sewershed

Attachment D - Proposed BMPS: Kilbuck Run Sewershed

Attachment E – Kilbuck Run Land Use Area Map

Attachment F – Kilbuck Run BMP Map

## **1. Executive Summary**

The Ross Township Pollutant Reduction Plan (PRP) was prepared as required by the Commonwealth of Pennsylvania's Department of Environmental Protection (PA DEP) as part of Ross Township's National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges from small Municipal Separate Storm Sewer Systems (MS4) into Waters of the Commonwealth impaired by siltation and/or nutrients as determined in the PA DEP report entitled "Pennsylvania Integrated Water Quality Monitoring and Assessment Report (2014)."

Waters of the Commonwealth impaired by siltation and/or nutrients within Ross Township that also receive stormwater discharge from the Township's MS4 include the following along with their impairments:

Water of the Commonwealth	Impairment(s)
Girty's Run and its unnamed tributaries	Nutrients
Little Pine Creek and its unnamed tributaries	Nutrients & Siltation
Nelson Run and its unnamed tributaries	Nutrients
UNT to Ohio River	Nutrients & Siltation
Spruce Run and its unnamed tributaries	Nutrients & Siltation
McKnight Run	Nutrients

Pollutant Reduction Plans were originally prepared by The Gateway Engineers and approved by the PA DEP in 2018 for four HUC12 watersheds in which the Township lies that were identified in 2018 as impaired by siltation and/or nutrients. These HUC12 watersheds include Girtys Run, Kilbuck Run-Ohio River, Little Pine Creek and Lowries Run. Each PRP was developed as an independent document. However, the Township is required to fully implement each PRP to be fully compliant with its MS4 permit. This PRP specifically addresses the Girtys Run watershed.

Streams identified as impaired within the Kilbuck Run HUC12 watershed within Ross Township include Spruce Run and its unnamed tributaries. Spruce Run and its unnamed tributaries have been identified by the above referenced water quality report as impaired by nutrients and by siltation/sedimentation.

Planning areas that incorporate all MS4 sewersheds to each of the impaired waterways within the Spruce Run watershed were delineated based on available LiDAR topographic mapping from PA DCNR and most up-to-date separate storm system mapping. The total combined MS4 sewershed area evaluated for these impaired streams is 469 acres. Existing Total Suspended Solids (TSS), Total Nitrogen (TN) and Total Phosphorus (TP) loading rates into each impaired waterway based on types and areas of land uses present within each sewershed area were then calculated. The Township's MS4 permit mandates that TSS loads from MS4 planning areas for waterways impaired by siltation must be reduced by at least 10% and TP loads from MS4 planning areas for waterways impaired by nutrients must be reduced by at least 5%. These reductions were to be fully achieved by March 2023.

The previously approved PRP was designed using the MapShed method for determining pollutant loads. As the Kilbuck Run watershed is impaired siltation and nutrients, both TSS and TP loads were reported. The total MS4 planning area was 469 acres. The total TSS load for the MS4 planning area was reported to be 88,768 pounds per year (lb/yr). The total TP load for the MS4 planning area was reported to be 30.8 pounds per year (lb/yr). Therefore, the total minimum required TSS load reduction

was 8,878 lb/yr and the total minimum required TP load reduction was 1.54 lb/yr. In order to meet this minimum TSS and TP load reduction, the approved PRP recommended the installation of water quality filters in 17 inlets within the MS4 planning areas for Kilbuck Run, the sweeping of 6,072 feet of street within the MS4 planning areas at a minimum frequency of 25 times per year, the construction of one new stormwater management ponds (either as a dry basin, infiltration basin, or some combination of each type), and 200 feet of stream restoration along Spruce Run. The implementation of all of these structural and non-structural stormwater best management practices (BMPs) would provide a TSS load reduction of at least 30,972 lb/yr and a TP load reduction of at least 21.0 lb/yr.

The 17 inlet water quality filters proposed in the approved PRP accounted for 5,309 lb/yr of TSS removal and 7.72 lb/yr of TP removal, which represents over 37% of the TP load reduction credits. As the Township began to implement the approved PRP, it became apparent to the Township the impracticalities and difficulties that would be encountered both short-term and long-term with the use of a large number of water quality inserts installed in inlets throughout the Kilbuck Run MS4 planning areas. Problems encountered included the following:

1. Being able to identify the appropriate inlets for these filters based on inlet size and depth, inlet location, inlet drainage area, inlet structural condition, and configuration and depths of pipes entering and exiting the inlet boxes.
2. Proper fit of the water quality filter frames inside the inlet - specifically such that the tops of the inlet grates will not protrude above the inlet frames with the filter frames in place underneath, giving the Township concern of snow plow blades hitting the protruding grates and causing damage to the inlets and the snow plow blades.
3. Concern about the water quality filters clogging with debris causing on-street drainage backups and safety concerns for roadway users.
4. Costs associated with constant replacement of filter cartridges and the amount of waste generated from disposal of the spent cartridges.

In addition to the difficulties with the inlet water quality filters, the approved PRP calls for a proposed structural Best Management Practice (BMP) along an unnamed tributary to Spruce Run within the HUC12 watershed. However, the drainage area to this BMP would exceed 100 acres, necessitating a dam safety permit from the PA DEP Division of Dam Safety. The level of permitting required for this BMP would make the project cost prohibitive, the typical time required to obtain such a permit is on the order of years and the liability that the Township would have to accept would be extensive.

Due to these issues, the Township elected to revise its Kilbuck Run PRP to find alternative BMPs to the water quality inserts and to the proposed structural BMP. This PRP is the result of the Township's efforts to develop alternative BMPs to meet its minimum required pollutant load reductions.

This revised PRP reports the same load reduction numbers and methodology as the original PRP. Land uses of the entirety of the Kilbuck Run sewershed area were calculated using the Mapshed Modeling software program. This modeling software using the National Resources Conservation Service Curve Number (NRCS-CN) to evaluate land uses. From here, TSS and TP loads were calculated. The total MS4 planning area delineated and measured for the Kilbuck Run HUC12 watershed within the Township is 469 acres. The resultant existing TSS was found to be 8,878 lb/yr and the resultant existing TP was found to be 30.8 lb/yr from this MS4 planning area.

In order to develop a plan for meeting the minimum TSS and TP load reductions, a desktop analysis was conducted to identify potential sites for structural BMPs. Preliminary site identification criteria included the availability of open spaces, the capacity of the sites to intercept and collect MS4 discharges, drainage areas to those sites and topography of the sites being amenable for hosting



structural BMPs. The default removal rate of 115 lb/ft/yr for sediment load and a default removal value of 1.05 lb/ft/yr for total phosphorus per ton of sediment is used. Field views were then conducted for a number of identified sites that collectively meet or exceed the minimum required TP load reduction to determine any physical or permitting hindrances to constructing BMPs on those sites. Based on this investigation, it is recommended that 200 linear feet of stream restoration along Spruce Run will provide a TSS load reduction of 8,976 lb/yr and a TP load reduction of 13.6 lb/yr which meets the minimum TSS and TP load reduction calculated for Spruce Run. The total construction cost for the one BMPs is estimated to be \$100,000.

## 2. General Permit Information

**Table 1: General MS4 Permit Information**

Permittee Name:	Ross Township	NPDES Permit No:	PAG136221
Mailing Address:	1000 Ross Municipal Road	Effective Date:	March 18, 2018
City, State, Zip	Pittsburgh, PA 15237	Expiration Date:	March 15, 2025
MS4 Contact Person:	Michael Funk	Renewal Date:	
Title:	Director of Public Works	Municipality:	Ross Township
Phone:	412-931-3956	County:	Allegheny
Email:	mfunk@ross.pa.us	Consultant Name:	Gibson-Thomas Engineering Co., Inc.
Permittee Web Address:	http://www.ross.pa.us	Consultant Contact Information:	1004 Ligonier Street Latrobe, PA 15650 724-539-8562 Attn: Doug Siler, P.E.

## 3. Pollutants of Concern

### Kilbuck Run-Ohio River Watershed Background

The Kilbuck Run-Ohio River Watershed is considered the Hydrologic Unit Code (HUC) 12 watershed. Within the Southwestern region of Pennsylvania, these HUC12 watersheds are tributaries to either the Ohio, Monongahela, Allegheny, or Youghiogheny Rivers. For the Kilbuck Run-Ohio River Watershed its tributary is the Ohio River. On a smaller scale, there is a smaller watershed that is a tributary to Kilbuck Run-Ohio River. This smaller watershed is Spruce Run 6808. Within the Kilbuck Run-Ohio River Watershed, Spruce Run is impaired for siltation and nutrients. Kilbuck Run itself and its watershed are not within Ross Township.

## 4. Determining Existing Loading for Pollutants of Concern

The previous engineer used the entirety of the HUC-12 watershed boundary for the applicable watersheds in the previously approved Pollutant Reduction Plan. PennDOT and Allegheny County owned right of ways were parsed out as part of the sewershed delineation. From there, Total Suspended Solids and Total Phosphorus loads were calculated using the MapShed software. The methodology and existing loading numbers from the original plan were used. The MapShed Modeling software uses hydrology, land cover, soils, weather and topography to determine the existing pollutant loads. The software uses the National Resources Conservation Service Curve Number (NRCS-CN) in combination with precipitation and temperature information to model surface runoff and stream flow. Six required input sources, basins, weather stations, streams, soils, land use/cover and surface elevation, are used to perform hydrologic calculations.

- **Basin Layer**

The Basins layer in MapSheds serves as the area modeled for the pollutant loads. The small watershed boundaries were used for this layer. The small watershed boundaries were obtained from Pennsylvania Spatial Data Access (PASDA) and are defined as catchment areas for named and unnamed streams. Utilizing the small watershed boundaries as the basin layer adequately accounts for downstream channel impacts.

- **Weather Stations Layer**

With MapShed, weather data for the Generalized Watershed Loading Functions-Enhanced (GWLFE) input file are automatically prepared using daily climate data contained in "csv-formatted" Excel files. These Excel files are connected to a weather station shapefile through the use of a unique station ID number. A statewide weather database contains temperature and precipitation from 78 weather stations around the state between 1975 and 1998.

- **Streams Layer**

In order to better estimate erosion, a streams layer is required within the model. The stream segments are derived from the National Hydrography Datasets at a 1:24,000 scale or better. The length of a stream within a basin affects many things such as streambank erosion.

- **Soils Layer**

The soils layer holds information pertaining to various soil properties such as the available water-holding capacity, soil erodibility factor, and the dominant hydrologic soil group. These properties are crucial when calculating the loads generated within a basin. Within the Kilbuck Run-Ohio River Watershed, Ross Township has soils mostly comprised of Group C.

- **Land Use Layer**

The Land Use layer is one of the most critical layers used by MapShed since pollutant loads generated within a watershed are largely influenced by land surface conditions. These surface conditions are correlated to runoff, surface erosion and infiltration, which are directly associated with vegetative cover. MapShed's land use data is obtained from the 2011 National Land Cover Database. There are 16 land use classes that each generate different loading rates.

- **Surface Elevation Layer**

This particular grid layer is used to calculate land slope-related data for use within the model. The 30-meter digital elevation model used is considered a higher resolution grid cell data.

Attachment C provides a complete tabulation of the storm sewershed associated with each regulated MS4 Outfall including land cover composition, impervious and pervious area acreages and the calculated existing annual sediment and phosphorus loading.

The existing sediment loading is 88,768 pounds per year and the existing nutrient loading is 30.8 pounds per year of the Planning Area for Ross Township's regulated MS4.

**Table 2: Existing Pollutant Loads within Impaired Kilbuck Run Sewershed Areas**

<b>Sewershed Area</b>	<b>TP Load (lb/yr)</b>	<b>TSS Load (lb/yr)</b>
<b>Kilbuck Run</b>	30.8	88,768
<b>Load Reduction Percentage</b>	5%	10%
<b>Minimum Load Reduction</b>	1.54	8,878

## **5. Selection of BMPs to Achieve Required Reductions in Pollutant Loading**

A reduction of 10% of the existing sediment loading is required. Based on an existing TSS loading of 88,768 pounds per year, the Township minimum pollutant reduction is 8,878 pounds per year. A reduction of 5% of the existing nutrient loading is required. Based on an existing nutrient loading of 30.8 pounds per year, the Township minimum pollutant reduction is 1.54 pounds per year.

The Township will implement BMPs during the PRP period to achieve the required reduction. The Township intends to implement a combination of BMPs during this permit period as described below. Calculations have been provided to demonstrate feasibility of the pollutant reduction potential for each selected BMP option. These calculations assume that new and existing retrofits will utilize filtration practices to achieve pollutant reductions. As this PRP is intended to be a planning document, the final design of BMPs has not been completed. Existing field conditions, detailed surveys, geotechnical investigations and other information will dictate the type of BMPs selected to achieve pollutant reduction and the Township reserves the right to alter BMP types as needed in implementation of the

PRP. For example, if infiltration testing yields favorable infiltration rates, infiltration practices may be implemented in lieu of the assumed filtration practices. At the time of final design, the BMP type that best suits the existing conditions will be selected. BMP name and description that may be implemented, as identified in the Chesapeake Bay Program Model are identified as follows:

*Dry Extended Detention Basins* - Dry extended detention (ED) basins are depressions created by excavation or berm construction that temporarily store runoff and release it slowly via surface flow or groundwater infiltration following storms. Dry ED basins are designed to dry out between storm events, in contrast with wet ponds, which contain standing water permanently. As such, they are similar in construction and function to dry detention basins, except that the duration of detention of stormwater is designed to be longer, theoretically improving treatment effectiveness.

*Infiltration Practices w/ Sand or Vegetation* - A depression to form an infiltration basin where sediment is trapped and water infiltrates the soil. No underdrains are associated with infiltration basins and trenches, because by definition these systems provide complete infiltration. Design specifications require infiltration basins and trenches to be built in good soil, they are not constructed on poor soils, such as C and D soil types. Engineers are required to test the soil before approval to build is issued. To receive credit over the longer term, jurisdictions must conduct yearly inspections to determine if the basin or trench is still infiltrating runoff.

*Filtering Practices* - Practices that capture and temporarily store runoff and pass it through a filter bed of either sand or an organic media. There are various sand filter designs, such as above ground, below ground, perimeter, etc. An organic media filter uses another medium besides sand to enhance pollutant removal for many compounds due to the increased cation exchange capacity achieved by increasing the organic matter. These systems require yearly inspection and maintenance to receive pollutant reduction credit.

*Bioretention/Rain Gardens* - An excavated pit with engineered media, topsoil, mulch, and vegetation. These are planting areas installed in shallow basins in which the storm water runoff is temporarily ponded and then treated by filtering through the bed components, and through biological and biochemical reactions within the soil matrix and around the root zones of the plants.

*Stream Restoration* – Restoring a stream’s ecological state through repairing its function and structure. Structures will be installed along the streams banks to create stabilization and habitat for aquatic life.

Kilbuck Run BMP Map provides a listing of proposed BMPs with corresponding locations. Attachment C provides a tabulation of tributary area and land covers to calculate exiting pollutant loading to the BMPs using the methodology described in Section 4, above.

The Kilbuck Run Sewershed area will consist of one (1) stream restoration project along Spruce Run. There are several portions of Spruce Run near this area where the streambanks are eroded. This project will restore 200 linear feet of stream bank near the ramp and intersection of Union Avenue and Interstate Route 279.

#### Kilbuck Run Sewershed

1. 200 linear feet of Stream Restoration along Spruce Run

**Table 3: Kilbuck Run BMP Load Summary**

<b>Proposed BMP</b>	<b>TP Reduction (lb/yr)</b>	<b>TSS Reduction (lb/yr)</b>
200 LF of Stream Restoration along Spruce Run	13.6	8,976
<b>BMP Load Reduction Total</b>	<b>13.6</b>	<b>8,976</b>
<b>Minimum Load Reduction Requirement</b>	<b>1.54</b>	<b>8,878</b>

Description - BMP implementation consists of alteration of an existing dry detention basins to provide additional treatment capability. Sample feasibility calculations included in this Plan assume treatment will be achieved through engineered filtering media practices. Final design for new retrofits will be dependent upon field conditions, detailed surveys, geotechnical investigations and other information and in consideration of the above qualifying BMPs options, the optimal BMP type will be designs, constructed and implemented.

Description - BMP implementation consists of new BMPs to capture and treat runoff from existing developed areas. Sample feasibility calculations included in this Plan assume BMPs will consist of surface storage basins intended to detain captured runoff for treatment. Sample feasibility calculations included in this Plan assume treatment will be achieved through engineered filtering media practices. Final design for new retrofits will be dependent upon field conditions, detailed surveys, geotechnical investigations and other information and in consideration of the above qualifying BMPs options, the optimal BMP type will be designs, constructed and implemented.

The Township intends to budget costs associated with implementation of the PRP as part of their annual general fund budget, including costs associated with design, permitting, property acquisition, construction and maintenance. Other finding considerations including PENNVEST and/or establishing a stormwater fee if statutorily permissible will be explored during this permit cycle.

## **6. Funding**

The total anticipated cost for implementation is estimated at approximately \$100,000, or an annual budget of approximately \$20,000 through a 5-year implementation period. Preliminary opinions of probable cost, as summarized above have been provided to establish initial budgeting ranges only. It is anticipated that final design and value engineering of each pollutant reduction BMP will impact final implementation cost. Note that it is the Township's intent to achieve the required pollutant reduction as cost-effectively as possible and the above noted budgets should not necessarily be considered final budgetary commitments to PRP implementation if savings can be achieved.

The Township will seek grant funding as opportunities are available. Such funding resources include DCED CFA Small Water and Sewer Projects, LSA Statewide grants and PA DEP Growing Greener. Additional funding can also be pursued through low interest PENVEST loans. To bridge any funding gaps, the Township can budget a portion of its annual general fund toward stormwater capital improvement projects.

**Table 3: Probably BMP Cost**

<b>Probable BMP Cost</b>		
<b>BMP No.</b>	<b>BMP Description</b>	<b>Total</b>
1	200 LF of Stream Restoration along Spruce Run	\$100,000
Total		\$100,000

## **7. Responsible Parties for Operation and Maintenance**

Ross Township will be responsible for operation and maintenance of each proposed BMP. Detailed O&M Plans will be developed with the final design of each BMP. Typical O&M procedures are noted below. Routine inspections of all BMPs will be conducted annually and after rainfall events in excess of one inch.

The following is a list of items that shall be inspected and corrective action taken:

1. Monitor accumulation of debris within structural BMPs.
2. Monitor the mulch layer in bio-filtration/rain gardens.
3. Monitor the condition of the filter media within the water quality filters.
4. Monitor growth of vegetation.

The following actions will be taken to help ensure the implemented BMPs are in working order:

1. Replace or repair facilities so as to function as intended.
2. Remove silt debris and trash accumulated within the BMP.
3. Disposal of collected silt, debris and trash in a manner which will not adversely affect the environment.
4. Replace eroded material and re-vegetate eroded areas.
5. Monitor the condition of the bio-filtration/rain garden areas. Remove and replace the mulch material every three years and additionally as needed. Remove and replace soils as necessary to function properly.
6. Replace dead and dying plantings within the bio-filtration/rain garden areas yearly.
7. When ponding of water is observed in the vicinity of infiltration or filtration BMPs, replace media as necessary to function as intended.



## **8. Public Participation**

This Pollutant Reduction Plan is to be advertised in the Township's general circulation newspaper of record to solicit public comment. The advertisement will identify a 30-day comment period. A copy of proof of publication of the public notice is to be included as Attachment B. During the 30-day comment period, the draft PRP document will be available for public review and comment at the Township Office and on the Township's website. The PRP will also be on the agenda for receiving public comments at an upcoming regular monthly meeting of the Township Board of Commissioners. Any written comments received by the Township during the 30-day public comment period and oral comments made at the Township BOC public meeting will be documented in the final PRP and the comments will be incorporated into the final PRP as deemed necessary by the Township prior to the final PRP being submitted to the PA DEP for their review and approval.

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## Appendix A

PADEP PAG-13 General Permit for  
Stormwater Discharges from Small MS4s  
(NPDES PERMIT NO. PAG136221)



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

FEB 09 2018

Douglas Sample  
Ross Township Allegheny County  
1000 Ross Municipal Road  
Pittsburgh, PA 15237-3102

Re: PAG-13 General Permit Approval  
Ross Township Sewer System  
NPDES Permit No. PAG136221  
Authorization ID No. 1199865  
Ross Township, Allegheny County

Dear Mr. Sample:

The Department of Environmental Protection (DEP) has reviewed your Notice of Intent (NOI) to operate under the PAG-13 General NPDES Permit and has determined that you are eligible for coverage under the statewide General Permit. Your permit is enclosed.

The statewide General Permit expires on March 15, 2023. **However, your coverage under the General Permit does not expire unless your coverage is revoked by DEP. A Notice of Intent (NOI) to renew your coverage is no longer required.** When the statewide General Permit is renewed, the permit will be published in the Pennsylvania Bulletin. Following publication of the final renewed General Permit, you must comply with the terms and conditions of the renewed General Permit or otherwise submit an application for an individual NPDES permit. You may submit an application for a waiver to DEP anytime during the term of your General Permit coverage if, due to changing circumstances, you become eligible for a waiver.

The General Permit contains numerous scheduled requirements that may apply to you. Please review DEP's "Summary of Scheduled Requirements" document, available at [www.elibrary.dep.state.pa.us](http://www.elibrary.dep.state.pa.us) (select "Permit and Authorization Packages", "Clean Water", and "PAG-13 MS4 General Permit").

The submission of Annual MS4 Status Reports is required by the General Permit. You must submit the annual reports to the DEP office that approved your General Permit coverage by September 30<sup>th</sup> of each year to describe activities conducted under the General Permit during the period of July 1 – June 30. You must also submit the annual installment payment of \$500 to DEP's Bureau of Clean Water by September 30<sup>th</sup> of each year. The first annual report and annual payment is due by September 30, 2018. The first annual report will cover the period from the end of your last reporting period under the previous PAG-13 General Permit until June 30, 2018.

You are required to comply with the Pollutant Control Measures (PCMs) contained in Appendix(ces) ( B and C ) for the surface waters identified in DEP's MS4 Requirements Table (see [www.dep.pa.gov/MS4](http://www.dep.pa.gov/MS4)). You are required to submit to DEP the following: 1) a storm

sewershed map for outfalls that discharge to the impaired surface waters; 2) an inventory of all suspected and known sources of the pollutant(s) of concern within the storm sewershed(s); and 3) a report documenting an investigation of each suspected source. Deadlines for submission of this documentation as attachments to future Annual MS4 Status Reports are established in the Appendices. You must also ( enact an ordinance OR adopt an SOP ) that requires proper management of animal wastes on property owned by the permittee. If an ordinance or SOP already exists that controls animal wastes, it must be attached to the first Annual MS4 Status Report due following the first year of coverage unless the ordinance or SOP was attached to the NOI for General Permit coverage). If a new ordinance or SOP is enacted or adopted, the new ordinance or SOP must be attached to the first Annual MS4 Status Report due following enactment or adoption, but no later than September 30, 2022.

DEP has reviewed your Pollutant Reduction Plan(s) and hereby approves the Plan(s) with the following conditions:

- You must provide tentative location(s) of stream restoration within the planning area, within one year of this approval.
- You must keep records on lane miles swept in the Planning Area for street sweeping.

**If considering stream restoration as a BMP for meeting the required pollutant reduction, the municipality must follow the guidelines set in DEP's document titled "Considerations of Stream Restoration Projects" to ensure that your proposal is an eligible MS4 Best Management Practice. A PDF of the guidance can be accessed via the following link: <http://www.dep.pa.gov/Business/Water/CleanWater/StormwaterMgmt/Stormwater/Pages/default.aspx>. You should also consult the "Expert Panel Report" from September 18, 2014 accessible at the link: [http://chesapeakestormwater.net/wp-content/uploads/dlm\\_uploads/2013/05/stream-restoration-merged.pdf](http://chesapeakestormwater.net/wp-content/uploads/dlm_uploads/2013/05/stream-restoration-merged.pdf). Please note that failure to comply with the Department's Stream Restoration guidelines may disqualify your project as an acceptable pollutant reduction measure.**

You are required to implement the load reduction requirements established in Appendix ( Appendix E ) of the General Permit within five years, and you must submit a report demonstrating that you have met these requirements as an attachment to the first Annual MS4 Status Report that is due following completion of the 5th year of General Permit coverage.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on

Mr. Douglas Sample

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audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please contact Mahbuba Iasmin at 412.442.4102.

Sincerely,



Christopher Kriley, P.E.  
Program Manager  
Clean Water Program

Enclosures

cc: The Gateway Engineers  
Regional Files  
Central Office, Division of Operations, Monitoring and Data Systems  
Operations







**PAG-13**  
**AUTHORIZATION TO DISCHARGE UNDER THE**  
**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)**  
**GENERAL PERMIT FOR STORMWATER DISCHARGES FROM**  
**SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)**  
**APPROVAL OF COVERAGE**

**NPDES PERMIT NO. PAG136221**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq. ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq.,

**Ross Township Allegheny County**  
**1000 Ross Municipal Road**  
**Pittsburgh, PA 15237-3102**

is authorized to discharge from a regulated small municipal separate storm sewer system (MS4) located in **Ross Township, Allegheny County** to **Nelson Run, Unnamed Tributary to Girtys Run, Spruce Run, Harts Run, Unnamed Tributary to Ohio River, Unnamed Tributary to Spruce Run, Little Pine Creek, Unnamed Tributary to Little Pine Creek, Unnamed Tributary of Ohio River, Unnamed Tributary to Nelson Run, Girtys Run, and McKnight Run** in Watershed(s) **20-G and 18-A** in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

**APPROVAL OF COVERAGE TO DISCHARGE UNDER THIS GENERAL NPDES PERMIT IS AUTHORIZED BEGINNING ON March 16, 2018. WHEN THE GENERAL PERMIT IS RENEWED, REISSUED OR MODIFIED, THE FACILITY OR ACTIVITY COVERED BY THIS APPROVAL FOR COVERAGE MUST COMPLY WITH THE FINAL RENEWED, REISSUED OR MODIFIED GENERAL PERMIT.**

The authority granted by coverage under this General Permit is subject to the following further qualifications:

1. The permittee shall comply with the effluent limitations and reporting requirements contained in this General Permit.
2. Following initial coverage under this General Permit, the submission of Annual MS4 Status Reports in accordance with Part A III.D of the General Permit shall constitute the permittee's Notice of Intent (NOI) for continued coverage under the General Permit. The permittee shall be responsible for complying with the final renewed, reissued or amended General Permit. If the permittee is unable to comply with the renewed or amended General Permit, the permittee must submit an application for an individual NPDES permit within 90 days of publication of the final General Permit.
3. The NOI and its supporting documents are incorporated into this approval of coverage. If there is a conflict between the NOI or its supporting documents and the terms and conditions of this General Permit, the terms and conditions of this General Permit shall apply.
4. Failure to comply with the terms, conditions, or effluent limitations of this General Permit is grounds for enforcement action, permit termination or revocation.
5. The permittee shall implement Pollutant Control Measures as specified in **Appendix ( B and C )**.
6. The permittee shall achieve pollutant loading reductions for ( **sediment, Total Phosphorus and/or Total Nitrogen** ) as specified in **Appendix E** by **March 15, 2023**.

This approval of coverage is authorized by:

  
**Christopher Kriley, P.E.**  
**Clean Water Program Manager**  
**South West Regional Office**

**Department of Environmental Protection**



**PAG-13**  
**AUTHORIZATION TO DISCHARGE UNDER THE**  
**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)**  
**GENERAL PERMIT FOR STORMWATER DISCHARGES FROM**  
**SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*, the Department of Environmental Protection (DEP) hereby authorizes, by this General Permit, the discharge of stormwater from regulated small municipal separate storm sewer systems (MS4s) to surface waters in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

Eligible dischargers who wish to be covered under this General Permit must submit a Notice of Intent (NOI) to DEP in accordance with the requirements of this General Permit, using the NOI form provided by DEP.

No new discharge may be commenced under this General Permit until the applicant complies with all of the following:

1. The applicant has submitted a complete Notice of Intent (NOI) in accordance with the requirements of this General Permit, using a NOI form provided by DEP.
2. The applicant has received a signed copy of the Approval of Coverage from DEP that authorizes coverage under the PAG-13 General Permit.

DEP may deny coverage under the PAG-13 General Permit and require submission of an application for an individual permit based on a review of the NOI or other relevant information, including monitoring data.

Once coverage is approved under the PAG-13 General Permit, coverage will continue when the PAG-13 General Permit is reissued, unless the permittee is otherwise notified by DEP. The submission each year of the Annual MS4 Status Report in accordance with Part A III.D of the General Permit shall constitute the permittee's NOI for continued coverage under the General Permit unless DEP notifies the permittee in writing that the submission of a new NOI is required.

## **SCOPE**

The PAG-13 General Permit is intended to provide NPDES permit coverage to regulated small MS4s for discharges of stormwater to surface waters. Permittees operating under this General Permit have been either automatically designated as regulated by the U.S. Environmental Protection Agency (EPA) pursuant to 40 CFR § 122.32(a)(1) or designated as regulated by DEP under 40 CFR § 122.32(a)(2).

## **NOI REQUIREMENTS**

### **Deadlines for NOI**

MS4 permittees with existing NPDES permit coverage, MS4s that previously have been waived by DEP, and MS4s newly designated as a result of the 2010 census that are seeking coverage under this PAG-13 General Permit or a waiver must submit and DEP must receive an administratively complete and acceptable NOI by September 16, 2017. MS4s authorized to discharge under an individual NPDES permit who are seeking coverage under this General Permit may continue to discharge in accordance with the individual permit while their NOI and associated documents are being reviewed by DEP.

### **Contents of the NOI**

The NOI shall be signed in accordance with the signatory requirements of this General Permit and shall contain the information required in the NOI form.

### **Where to Submit the NOI**

An NOI is to be submitted to the regional office of DEP that has jurisdiction over the county where the MS4 is located.

### **DISCHARGES AUTHORIZED BY THIS GENERAL PERMIT**

Except where specifically prohibited under the "Discharges Not Authorized by this General Permit" section, this General Permit authorizes the discharge of stormwater to surface waters from regulated small MS4s. In addition, the following non-stormwater discharges are authorized by this General Permit as long as such discharges do not cause or contribute to pollution as defined in Pennsylvania's Clean Streams Law:

1. Discharges or flows from firefighting activities.
2. Discharges from potable water sources including water line flushing and fire hydrant flushing, if such discharges do not contain detectable concentrations of Total Residual Chlorine (TRC).
3. Non-contaminated irrigation water, water from lawn maintenance, landscape drainage and flows from riparian habitats and wetlands.
4. Diverted stream flows and springs.
5. Non-contaminated pumped ground water and water from foundation and footing drains and crawl space pumps.
6. Non-contaminated HVAC condensation and water from geothermal systems.
7. Residential (i.e., not commercial) vehicle wash water where cleaning agents are not utilized.
8. Non-contaminated hydrostatic test water discharges, if such discharges do not contain detectable concentrations of TRC.

In the event existing outfall(s) are identified during the term of General Permit coverage that were not identified on maps submitted as part of the NOI (where required), the permittee shall identify the outfall(s) in the subsequent Annual MS4 Status Report that is submitted to the DEP office that approved permit coverage. In the event new stormwater outfalls are proposed, the permittee shall submit written notification to the DEP office that approved permit coverage at least 60 days prior to commencing a discharge, unless such discharges would meet one or more of the criteria specified in the "Discharges Not Authorized By This General Permit" section, in which case an individual permit application must be submitted and an individual permit obtained prior to commencing a discharge.

### **DISCHARGES NOT AUTHORIZED BY THIS GENERAL PERMIT**

The following discharges are not authorized under the PAG-13 General Permit, and DEP may deny coverage under the General Permit when one or more of the following conditions exist:

1. The discharge, individually or in combination with other similar discharges, is or has the potential to be a contributor of pollution, as defined in the Pennsylvania Clean Streams Law, which is more appropriately controlled under an individual permit.
2. The discharger is not, or will not be, in compliance with one or more of the conditions of the General Permit.
3. The applicant has failed and continues to fail to comply or has shown a lack of ability or intention to comply with a regulation, permit, schedule of compliance or order issued by DEP.
4. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source.
5. Categorical point source effluent limitations are promulgated by the EPA for those point sources covered by the General Permit.
6. The discharge is not, or will not, result in compliance with an applicable effluent limitation or water quality standard.

7. Other point sources within the MS4 require issuance of an individual permit, and issuance of both an individual and a General Permit for the facility would constitute an undue administrative burden on DEP.
8. The discharge from the regulated small MS4 is or would be to a surface water classified as a High Quality (HQ) or an Exceptional Value (EV) water under 25 Pa. Code Chapter 93 (relating to Water Quality Standards).
9. The discharge contains toxic or hazardous pollutants, or any other substance which, because of its quantity, concentration or physical, chemical or infectious characteristics, may cause or contribute to an increase in mortality or morbidity in either an individual or the total population, or pose a substantial present or future hazard to human health or the environment when discharged into surface waters.
10. The discharge individually or cumulatively has the potential to cause significant adverse environmental impact or have been determined by DEP to have caused impairment to the surface waters receiving the discharge(s).
11. The discharge would adversely affect a listed endangered or threatened species or its critical habitat.
12. The MS4 is covered by an individual permit, and coverage under this General Permit would result in less stringent effluent limitations or terms and conditions.
13. DEP determines that the denial of coverage is necessary for any other reason to ensure compliance with the Federal Clean Water Act, the Pennsylvania Clean Streams Law or DEP regulations.
14. The regulated MS4 is a large or medium MS4 as defined in 40 CFR §§ 122.26(b)(4) or (7).
15. The permittee is implementing a local or tribal Qualifying Local Program (QLP) pursuant to 40 CFR 122.44(s) that is not the state's program as outlined in 25 Pa. Code Chapter 102.
16. The regulated small MS4 is assigned a wasteload allocation (WLA) (either specific to the MS4 or general) in a Total Maximum Daily Load (TMDL) approved by the U.S. Environmental Protection Agency (EPA) for local surface waters, where the pollutant(s) of concern are nutrients (i.e., nitrogen and/or phosphorus) and/or sediment (i.e., siltation or total suspended solids), and the MS4 is identified in the "MS4 Requirements Table" (see definitions) as needing to complete a TMDL Plan.
17. The regulated small MS4 1) discharges to waters impaired for nutrients and/or sediment without an EPA-approved TMDL or discharges to the Chesapeake Bay watershed; 2) is identified in DEP's "MS4 Requirements Table"; and 3) has not developed and submitted a Pollutant Reduction Plan (PRP) with the NOI to reduce pollutant loading for the cause(s) of impairment.
18. The discharge will be commingled with sources of non-stormwater unless such non-stormwater discharges are identified in the "Discharges Authorized by this General Permit" section of this General Permit or are in compliance with a separate NPDES permit and do not cause or contribute to pollution.
19. Stormwater discharges associated with industrial activity as defined in 40 CFR §§ 122.26(b)(14)(i)-(ix) and (xi).
20. Stormwater discharges associated with construction activity as defined in 40 CFR § 122.26(b)(14)(x) or 40 CFR § 122.26(b)(15).

**THE AUTHORITY GRANTED BY THIS GENERAL PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:**

1. If the permittee submits a timely NOI for coverage under this General Permit (i.e., received by DEP on or before September 16, 2017) and the previous General Permit expires, the permittee is authorized to continue discharging under the terms and conditions of this General Permit. The permittee must comply with all terms and conditions in this General Permit with the exception of requirements that do not take effect until DEP's approval of coverage, as specified in this General Permit.
2. DEP may require a permittee with discharge(s) authorized by this General Permit to apply for and obtain an individual permit by notifying the permittee in writing that an individual permit application is required. Any interested person may petition DEP to take action under this paragraph.

DEP's notice will include the following:

- A brief statement of the reason(s) for this decision;
- An individual permit application form;
- A deadline for the owner or operator to submit the application; and
- A statement that on the effective date of the individual permit, coverage under this General Permit shall automatically terminate.

If a permittee fails to submit an individual permit application required by DEP under this paragraph in a timely manner, then the applicability of this General Permit to the permittee is automatically terminated at the end of day specified for submission of the application.

3. Any person authorized to discharge by this General Permit may request to be excluded from the coverage of this General Permit by applying for an individual permit.
4. When an individual permit is issued to a person whose discharge(s) are covered by this General Permit, the applicability of this General Permit is automatically terminated on the effective date of the individual permit. When an individual permit is denied to a person whose discharge(s) are covered by this General Permit, the person may continue discharging if all eligibility requirements under this General Permit are met.
5. This General Permit will expire 5 years from the date of its issuance. DEP will publish a notice in the *Pennsylvania Bulletin* of the draft reissued General Permit or of any amendments to this General Permit. After a comment period, notice of the final reissued or amended General Permit will be published in the *Pennsylvania Bulletin*. The permittee shall be responsible for complying with the final renewed, reissued or amended General Permit. If the permittee is unable to comply with the renewed, reissued or amended General Permit, the permittee must submit an application for an individual permit within 90 days of publication of the final renewed, reissued or amended General Permit.
6. If DEP decides to administratively extend this General Permit, DEP will publish a notice in the *Pennsylvania Bulletin*. The terms and conditions of the General Permit will continue during the period of administrative extension. Permittees with existing coverage under the General Permit will continue to have coverage, unless otherwise notified by DEP. DEP will not approve new coverage under the General Permit during the period of administrative extension.
7. Following approval of coverage under this General Permit, if the permittee encounters a condition affecting eligibility under this General Permit as identified above ("Discharges Not Authorized by this General Permit") and does not provide a remedy to correct that condition, coverage under this General Permit may be revoked in writing by DEP, and DEP may require the permittee to obtain an individual permit. Coverage under this General Permit may be revoked if there is evidence indicating potential or actual adverse impacts to water quality as a result of the permittee's discharge(s).
8. No condition of this General Permit shall release the permittee from any responsibility or requirements under other federal or Pennsylvania environmental statutes or regulations or local ordinances.
9. Following initial coverage under this General Permit, the submission of an Annual MS4 Status Report in accordance with Part A III.D of the General Permit shall constitute the permittee's Notice of Intent (NOI) for continued coverage under the General Permit. The permittee is authorized to discharge in accordance with the terms of the General Permit immediately upon submission of the Annual MS4 Status Report.
10. The permittee shall comply with the requirements of this General Permit in accordance with the schedules contained herein. A summary of the scheduled requirements contained in this General Permit is available (see Document ID No. 3800-PM-BCW0100l).

General Permit  
(PAG-13) Issued

By



Lee A. McDonnell, P.E.  
Director  
Bureau of Clean Water

Effective: March 16, 2018

Expires: March 15, 2023



## PART A

### EFFLUENT LIMITATIONS, REPORTING AND RECORDKEEPING REQUIREMENTS

#### I. EFFLUENT LIMITATIONS

- A. This General Permit establishes effluent limitations in the form of implementation of a Stormwater Management Program (SWMP), as specified in Part C I of this General Permit, to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable. The permittee shall comply with Minimum Control Measures (MCMs) and best management practices (BMPs) in Part C I of this General Permit, which constitutes compliance with the standard of reducing pollutants to the maximum extent practicable.
- B. All discharges from regulated small MS4s must comply with all applicable requirements established in accordance with 25 Pa. Code Chapters 91-96, 102, and 105 of DEP's rules and regulations. For all MS4s covered under this General Permit, DEP may, upon written notice, require additional BMPs or other control measures to ensure that the water quality standards of the surface waters receiving stormwater discharges are attained.

#### II. DEFINITIONS

*Best Management Practices (BMPs)* means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce pollutant loading to surface waters of this Commonwealth. The term includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

*Clean Water Act (CWA)* means the Federal Water Pollution Control Act, as amended, 33 U.S.C.A. §§ 1251 - 1387.

*Cleaning Agent* means any product, substance or chemical other than water that is used to clean the exterior surface of vehicles.

*Designated Uses* are those uses specified in 25 Pa. Code §§ 93.4(a) and 93.9a – 93.9z for each water body or segment whether or not they are being attained. (25 Pa. Code § 93.1)

*Dry Weather* means a condition in which there are no precipitation, snowmelt, drainage or other events producing a stormwater discharge for more than 48 consecutive hours.

*Existing Permittee* means any entity that has been designated as a regulated small MS4 and has previously obtained permit coverage under the PAG-13 General Permit or obtained an Individual NPDES MS4 Permit.

*Existing Uses* are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards. (25 Pa. Code § 93.1)

*Illicit Connection* means any physical connection to a municipal separate storm sewer system that can convey illicit discharges into the system and/or is not authorized or permitted by the permittee.

*Illicit Discharge* means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except non-stormwater discharges as described in the "Discharges Authorized by this General Permit" section of this General Permit. Examples of illicit discharges include dumping of motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, animal wastes, or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-stormwater waste into a municipal separate storm sewer system. Illicit discharges can be accidental or intentional.

*Impaired Waters* means surface waters that fail to attain one or more of its designated uses under 25 Pa. Code Chapter 93 and as listed in Categories 4 and 5 of Pennsylvania's Integrated Water Quality Monitoring and Assessment Report.

*Integrated Water Quality Monitoring and Assessment Report* means the report published every other year by DEP to report on the conditions of Pennsylvania's surface waters to satisfy sections 305(b) and 303(d) of the CWA.

*Intermittent Stream* means a body of water flowing in a channel or bed composed primarily of substrates associated with flowing water, which, during periods of the year, is below the local water table and obtains its flow from both surface runoff and groundwater discharges. (25 Pa. Code § 92a.2)

*Load Allocation* means the portion of a surface water's loading capacity that is assigned or allocated to existing and future nonpoint sources and natural quality. (25 Pa. Code § 96.1)

*Low Impact Development (LID)* means site design approaches and small-scale stormwater management practices that promote the use of natural systems for infiltration, evapotranspiration, and reuse of rainwater. LID can be applied to new development, urban retrofits, and revitalization projects. LID utilizes design techniques that infiltrate, filter, evaporate, and store runoff close to its source. Rather than rely on costly large-scale conveyance and treatment systems, LID addresses stormwater through a variety of small, cost-effective landscape features located on-site.

*MS4 Requirements Table* is a compilation of information regarding Pennsylvania MS4s, surface waters that receive stormwater discharges from MS4s, surface water impairments and TMDLs that is posted to DEP's website, [www.dep.pa.gov/MS4](http://www.dep.pa.gov/MS4). The MS4 Requirements Table has been assembled by DEP to assist MS4 permittees in determining applicable requirements for the development of plans and implementation of BMPs, as well as eligibility for the PAG-13 General Permit. In general, the MS4 Requirements Table will be updated prior to each renewal of this General Permit based on DEP's latest published Integrated Water Quality Monitoring and Assessment Report.

*Municipal separate storm sewer* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.26(b)(8))

*Municipal Separate Storm Sewer System (MS4)* means all separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems pursuant to 40 CFR §§ 122.26(b)(4), (b)(7), and (b)(16), respectively, or designated under 40 CFR § 122.26(a)(1)(v). (25 Pa. Code § 92a.32(a) and 40 CFR § 122.26(b)(18))

*Municipality* means a city, town, borough, county, township, school district, institution, authority or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes or other wastes. (25 Pa. Code § 92a.2)

*New Permittee* means any entity that has been designated as a regulated small MS4 and has not previously obtained permit coverage under the PAG-13 General Permit or obtained an Individual NPDES MS4 Permit.

*NOI* means the Notice of Intent for coverage under the NPDES General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems.

*Non-Municipal Permittee* means a regulated small MS4 that is not a municipality, e.g., military bases, large hospital or prison complexes, and highways and other thoroughfares.

*Non-Structural BMPs* means actions that involve management and source controls such as: (1) policies and ordinances that provide requirements and standards to direct growth to identified areas, promote redevelopment, protect areas such as wetlands and riparian areas, maintain and/or increase open space, provide buffers along water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; (2) education programs for developers and the public about minimizing water quality impacts; (3) measures such as minimizing the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, street sweeping, and source control measures such as good housekeeping, maintenance, and spill prevention; and other BMPs as referenced in Chapter 5 of the Pennsylvania Stormwater BMP Manual (363-0300-002).

*Ordinance* means a law enacted by the government of a municipality.

*Outfall* means a point source as defined by 40 CFR § 122.2 at the point where a municipal separate storm sewer discharges to surface waters and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other surface waters and are used to convey surface waters. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.26(b)(9))

*Owner or Operator* means the owner or operator of any "facility" or "activity" subject to regulation under the NPDES program. (25 Pa. Code § 92a.3(b)(1) and 40 CFR § 122.2)

*Permittee* means the owner or operator of a regulated small MS4 authorized to discharge under the terms of this General Permit.

*Point Source* means a discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, Concentrated Aquatic Animal Production Facility (CAAP), Concentrated Animal Feeding Operation (CAFO), landfill leachate collection system, or vessel or other floating craft from which pollutants are or may be discharged. (25 Pa. Code § 92a.2)

*Pollutant* means any contaminant or other alteration of the physical, chemical, biological, or radiological integrity of surface water which causes or has the potential to cause pollution as defined in section 1 of the Pennsylvania Clean Streams Law, 35 P.S. § 691.1. (25 Pa. Code § 92a.2)

*Qualifying Development or Redevelopment Project* means an earth disturbance activity that requires an NPDES permit for stormwater discharges associated with construction activity per 25 Pa. Code Chapter 102.

*Regulated Small MS4* means any small MS4 that is covered by the federal Phase II stormwater program, either through automatic nationwide designation under 40 CFR § 122.32(a)(1) (via the Urbanized Area criteria) or by designation on a case-by-case basis by DEP pursuant to 40 CFR § 122.32(a)(2). "Regulated small MS4s" are a subset of "small MS4s" as defined in this section.

*Riparian Forest Buffer* means an area of permanent vegetation consisting of native trees, shrubs, forbs and grasses along surface water that is maintained in a natural state or sustainably managed to protect and enhance water quality, stabilize stream channels and banks, and buffer land use activities from surface waters.

*Small Municipal Separate Storm Sewer System (Small MS4)* means an MS4, as defined in this section, that is not a large or medium MS4 pursuant to 40 CFR §§ 122.26(b)(4) and 122.26(b)(7). The term small MS4 includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.26(b)(16))

*Standard Operating Procedure (SOP)* means a policy or set of procedures that are enacted by a non-municipal permittee to implement a stormwater management program.

*Storm Sewershed* means the land area that drains to an individual MS4 outfall from within the jurisdiction of the MS4 permittee. The term "combined storm sewershed" means the drainage areas of all MS4 outfalls that discharge to a specific surface water or to waters within the Chesapeake Bay watershed.

*Stormwater* means runoff from precipitation, snow melt runoff and surface runoff and drainage. "Stormwater"

has the same meaning as "storm water." (25 Pa. Code § 92a.2)

*Structural BMPs* means stormwater storage and management practices including, but not limited to, wet ponds and extended detention outlet structures; filtration practices such as grassed swales, sand filters and filter strips; infiltration practices such as infiltration basins and infiltration trenches; and other BMPs as referenced in Chapter 6 of the Pennsylvania Stormwater BMP Manual (363-0300-002).

*Surface Waters* means perennial and intermittent streams, rivers, lakes, reservoirs, ponds, wetlands, springs, natural seeps and estuaries, excluding water at facilities approved for wastewater treatment such as wastewater treatment impoundments, cooling water ponds and constructed wetlands used as part of a wastewater treatment process. (25 Pa. Code § 92a.2)

*Total Maximum Daily Load (TMDL)* means 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. (25 Pa. Code § 96.1)

*Urbanized Area (UA)* means land area comprising one or more places (central place(s)) and the adjacent densely settled surrounding area (urban fringe) that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile, as defined by the United States Bureau of the Census and as determined by the latest available decennial census. The UA outlines the extent of automatically regulated areas.

*Wasteload Allocation (WLA)* means the portion of a surface water's loading capacity that is allocated to existing and future point source discharges. (25 Pa. Code § 96.1)

*Water Quality Criteria* means numeric concentrations, levels or surface water conditions that need to be maintained or attained to protect existing and designated uses. (25 Pa. Code § 93.1)

*Water Quality Standards* means the combination of water uses to be protected and the water quality criteria necessary to protect those uses. (25 Pa. Code § 92a.2)

### III. MONITORING, REPORTING AND RECORDKEEPING

- A. Where samples are collected and analyzed or measurements are taken under this General Permit, the permittee shall assure:
1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(j)(1))
  2. Records of monitoring information shall include (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(j)(3)):
    - a. The date, exact place, and time of sampling or measurements.
    - b. The individual(s) who performed the sampling or measurements.
    - c. The date(s) analyses were performed.
    - d. The individual(s) who performed the analyses.
    - e. The analytical techniques or methods used.
    - f. The results of such analysis.
  3. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless another method is required under 40 CFR Subchapters N or O. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(j)(4))
- B. Records Retention – All records of monitoring activities and results, copies of all plans and reports required by this General Permit, and records of all data used to complete the application for this General Permit shall be retained by the permittee for at least 5 years from the date of the sample measurement, report or application. Such records must be submitted to DEP upon request or as required for annual reports. The permittee must make records available to the public at reasonable times during regular business hours. (25 Pa. Code § 92a.3(c), 40 CFR §§ 122.34(g)(2) and 122.41(j)(2))

- C. Proper Operation and Maintenance (O&M) – The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), including stormwater BMPs, that are installed or used by the permittee to achieve compliance with the conditions of this permit. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(e))

D. Reporting Requirements

1. The permittee shall submit a complete Annual MS4 Status Report using DEP's annual report template (3800-FM-BPNPSM0491) to the DEP regional office that issued General Permit coverage approval by September 30 of each year.
  - a. For existing permittees, the first annual report submitted to DEP under this General Permit shall have a reporting period starting from the end of the latest annual or progress report period (under the previous General Permit) to June 30, 2018. The first annual report is due by September 30, 2018. For new permittees, the first annual report is due by September 30 following the first year of General Permit coverage.
  - b. Following the first annual report, the reporting period shall thereafter be July 1 - June 30, and the report shall be due by September 30.
2. In addition to the Annual MS4 Status Report submitted to the DEP regional office, a check or money order in the amount of \$500.00, which is an installment of the NOI fee, shall be submitted to DEP's Central Office, made payable to "Commonwealth of Pennsylvania." The fee shall be submitted by September 30 of each year to the following address:

PA Department of Environmental Protection  
Bureau of Clean Water  
Rachel Carson State Office Building  
400 Market Street, PO Box 8466  
Harrisburg, PA 17105-8466

For existing permittees, the first fee is due by September 30, 2018. For new permittees, the first fee is due by September 30 following the first year of General Permit coverage.

3. The permittee shall submit the Annual MS4 Status Report and fee to DEP electronically upon receipt of written notification from DEP.
4. Unanticipated Non-Compliance or Potential Pollution Reporting
  - a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b) listed below:
    - (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.
    - (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.
    - (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.

- b. The permittee shall report any non-compliance which may endanger health or the environment in accordance with the requirements of 40 CFR § 122.41(l)(6). These requirements include the following obligations:
  - (i) 24 Hour Reporting - The permittee shall orally report any non-compliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances.
  - (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any non-compliance which may endanger health or the environment. The written submission shall contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.
  - (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(l)(6)(iii))

5. Other Non-Compliance

The permittee shall report all instances of non-compliance not reported under paragraph D.4 of this section or specific requirements of compliance schedules, at the time Annual Reports are submitted, on the Non-Compliance Reporting Form (3800-FM-BPNPSM0440). The reports shall contain the information listed in paragraph D.4.b.(ii) of this section. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(l)(7))

6. Signatory Requirements

- a. Completed Annual Reports and all other reports, NOIs, and information submitted to DEP shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:
  - For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
  - For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
  - For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.
- b. If signed by a person other than the above, the person must be a duly authorized representative of the permittee. A person is a duly authorized representative only if:
  - The authorization is made in writing by a person described in paragraph a., above, and submitted to DEP.
  - The authorization specifies either an individual or a position having responsibility for the operation of the regulated system, facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
- c. Changes in Signatory Authorization - If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the system or facility, a new authorization satisfying the requirements of paragraphs 6.a and 6.b, above, must be submitted to DEP prior to or together with any reports, information or NOI to be signed by an authorized representative.

**PART B**  
**STANDARD CONDITIONS**

**I. MANAGEMENT REQUIREMENTS**

**A. Compliance**

The permittee must comply with all conditions of this General Permit. Any permit non-compliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(a))

**B. Permit Modification, Termination, or Revocation and Reissuance**

1. Permit coverage may be modified, terminated, or revoked and reissued during its term in accordance with Title 25 Pa. Code §§ 92a.72 and 92a.74 and 40 CFR § 122.41(f).
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated non-compliance, does not stay any General Permit condition. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(f))

**C. Duty to Provide Information**

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating coverage under this General Permit, or to determine compliance with this General Permit. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(h))
2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this General Permit. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(h))
3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in an NOI, or submitted incorrect information in an NOI or in any report to DEP, it shall promptly submit the correct and complete facts or information. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(l)(8))
4. The permittee shall give advance notice to the DEP office that approved permit coverage of any planned physical alterations or additions to the regulated small MS4. Notice is only required when: 1) the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR § 122.29(b), or 2) the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(l))

**D. Duty to Mitigate**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(d))

## II. PENALTIES AND LIABILITY

### A. Violations of Permit Conditions

1. Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the CWA or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR § 122.41(a)(2).
2. Any person or municipality, who violates any provision of this General Permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

### B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or
- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or non-compliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 Pa.C.S.A. § 4904 and 40 CFR §§ 122.41(j)(5) and (k)(2).

### C. Liability

1. Nothing in this General Permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance pursuant to Section 309 of the CWA or Sections 602, 603 or 605 of the Clean Streams Law.
2. Nothing in this General Permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the CWA and the Clean Streams Law.

### D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(c))

## III. OTHER RESPONSIBILITIES

### A. Right of Entry

Pursuant to Section 5(b) of Pennsylvania's Clean Streams Law (35 P.S. § 691.5(b)), 25 Pa. Code Chapter 92a and 40 CFR § 122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this General Permit; (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(i)(1))
2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this General Permit; (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(i)(2))



3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this General Permit; and (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(i)(3))
4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(i)(4))

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph B.2 of this section, permit coverage may be transferred by the permittee to a new owner or operator only if this General Permit coverage has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.61(a))
  2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:
    - a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (25 Pa. Code § 92a.3(c) and 40 CFR § 122.61(b)(1))
    - b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; (25 Pa. Code § 92a.3(c) and 40 CFR § 122.61(b)(2))
    - c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue coverage under this General Permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section; and (25 Pa. Code § 92a.3(c) and 40 CFR § 122.61(b)(3))
    - d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any non-compliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate DEP regulations. (25 Pa. Code § 92a.71)
  3. In the event DEP does not approve transfer of coverage under this General Permit, the new owner or controller must submit a new NOI.
- C. Property Rights - The approval of coverage under this General Permit does not convey any property rights of any sort, or any exclusive privilege. (25 Pa. Code § 92a.3(c) and 40 CFR § 122.41(g))
- D. Duty to Reapply - The submission of the Annual MS4 Status Reports (3800-FM-BPNPSM0491) in accordance with Part A III.D of this General Permit constitutes the submission of an NOI for continued coverage under the General Permit. In addition, the permittee must submit an NOI (3800-PM-BCW0100b) to continue coverage under this General Permit when notified by DEP in writing.
- E. Severability – The provisions of this General Permit are severable. If any provision of this General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this General Permit shall not be affected.

**PART C**  
**SPECIAL CONDITIONS**

**I. STORMWATER MANAGEMENT PROGRAM (SWMP)**

A. The permittee must develop, implement, and enforce an SWMP designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act and Pennsylvania Clean Streams Law, as described in paragraph B, below. There are six Minimum Control Measures (MCMs) that comprise the SWMP. Specific BMPs are identified under each MCM. The permittee shall demonstrate compliance with the SWMP through the submission of Annual MS4 Status Reports due by September 30 each year.

B. Minimum Control Measures (MCMs)

1. **MCM #1:** Public Education and Outreach on Stormwater Impacts. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(1))

The permittee shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff.

- a. **BMP #1:** Develop, implement and maintain a written Public Education and Outreach Program.

- (1) For new permittees, a written Public Education and Outreach Program (PEOP) shall be developed and implemented within one year following approval of coverage under this General Permit, and shall be re-evaluated each year thereafter and revised as needed.

- (2) For existing permittees, the existing PEOP shall be reviewed annually and revised as necessary.

The permittee's PEOP shall be designed to achieve measurable improvements in the target audience's understanding of the causes and impacts of stormwater pollution and the steps they can take to prevent it.

- b. **BMP #2:** Develop and maintain lists of target audience groups that are present within the areas served by the permittee's regulated small MS4. In most communities, the target audiences shall include residents, businesses (including commercial, industrial and retailers), developers, schools, and municipal employees.

- (1) For new permittees, the lists shall be developed within one year following approval of coverage under this General Permit, and reviewed and updated as necessary every year thereafter.

- (2) For existing permittees, the lists shall continue to be reviewed and updated annually.

- c. **BMP #3:** The permittee shall annually publish at least one issue of a newsletter, a pamphlet, a flyer, or a website that includes general stormwater educational information, a description of the permittee's SWMP, and/or information about the permittee's stormwater management activities. The list of publications and the content of the publications must be reviewed and updated at least once during each year of permit coverage. Publications should include a list of references (or links) to refer the reader to additional information (e.g., DEP and EPA stormwater websites, and any other sources that will be helpful to readers). The permittee must implement at least one of the following alternatives:

- Publish and distribute in printed form a newsletter, a pamphlet or a flyer containing information consistent with this BMP.
- Publish educational and informational items including links to DEP's and EPA's stormwater websites on the permittee's website.

- (1) For new permittees, stormwater educational and informational items shall be produced and published in print and/or on the Internet within the first year of permit coverage.
- (2) In subsequent years, and for existing permittees, the list of items published and the content in these items shall be reviewed, updated, and maintained annually.

The permittee's publications shall contain stormwater educational information that addresses one or more of the six MCMs.

- d. **BMP #4:** Distribute stormwater educational materials and/or information to the target audiences using a variety of distribution methods, including but not limited to: displays, posters, signs, pamphlets, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements (e.g., at bus and train stops/stations), bill stuffers, presentations, conferences, meetings, fact sheets, giveaways, and storm drain stenciling.

All permittees shall select and utilize at least two distribution methods annually. These are in addition to BMP #3, above.

2. **MCM #2:** Public Involvement / Participation. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(2))

The permittee shall comply with applicable state and local public notice requirements when implementing a public involvement / participation program.

- a. **BMP #1:** Develop, implement and maintain a written Public Involvement and Participation Program (PIPP) which describes various types of possible participation activities and describes methods of encouraging the public's involvement and of soliciting the public's input.

The PIPP for new permittees shall be developed and implemented within one year following approval of coverage under this General Permit. All permittees shall reevaluate the PIPP annually and make revisions as necessary.

The PIPP shall include, at a minimum:

- (1) Opportunities for the public to participate in the decision-making processes associated with the development, implementation, and update of programs and activities related to this General Permit.
  - (2) Methods of routine communication to groups such as watershed associations, environmental advisory committees, and other environmental organizations that operate within proximity to the permittee's regulated small MS4s or surface waters receiving the permittee's discharges.
  - (3) Making Annual MS4 Status Reports and all other plans, programs, maps and reports required by this General Permit available to the public on the permittee's website, at the permittee's office(s), or by mail upon request.
- b. **BMP #2:** The permittee shall advertise to the public and solicit public input on the following documents prior to adoption or submission to DEP:
    - Stormwater Management Ordinances (for municipalities);
    - Standard Operating Procedures (SOPs) (for non-municipal entities); and
    - Pollutant Reduction Plans (PRPs), including modifications thereto.
    - (1) For Ordinances and SOPs, the permittee shall provide notice to the public; provide opportunities for public comment; document and evaluate the public comments; and document the permittee's responses to the comments prior to finalizing the documents. The permittee shall provide this documentation to DEP upon request.
    - (2) For PRPs, public participation requirements are specified in Appendices D and E of this General Permit.

- c. **BMP #3:** Regularly solicit public involvement and participation from the target audience groups using available distribution and outreach methods. This shall include an effort to solicit public reporting of suspected illicit discharges. Assist the public in their efforts to help implement the SWMP.
- (1) The permittee shall solicit public involvement and participation from target audience groups on the implementation of the SWMP. The solicitation can take the form of public meetings or other events. The public shall be given notice in advance of each meeting or event. During the meetings or events, the permittee should present a summary of progress, activities, and accomplishments with implementation of the SWMP, and the permittee should provide opportunities for the public to provide feedback and input. The presentation can be made at specific MS4 events or during any other public meeting. Existing permittees shall conduct at least one public meeting that includes information on SWMP implementation by March 15, 2023; new permittees shall conduct at least one public meeting within 5 years following approval of General Permit coverage.
  - (2) The permittee shall document and report instances of cooperation and participation in MS4 activities; presentations the permittee made to local watershed organizations and conservation organizations; and similar instances of participation or coordination with organizations in the community.
  - (3) The permittee shall also document and report activities in which members of the public assisted or participated in the meetings and in the implementation of the SWMP, including education activities or organized implementation efforts such as cleanups, monitoring, storm drain stenciling, or others.
3. **MCM #3:** Illicit Discharge Detection and Elimination (IDD&E). (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(3))

The permittee shall develop, implement and enforce a program to detect and eliminate illicit discharges into the permittee's regulated small MS4.

- a. **BMP #1:** The permittee shall develop and implement a written program for the detection, elimination, and prevention of illicit discharges into the regulated small MS4. The program shall include the following:
- Procedures for identifying priority areas. These are areas with a higher likelihood of illicit discharges, illicit connections or illegal dumping. Priority areas may include areas with older infrastructure, a concentration of high-risk activities, or past history of water pollution problems.
  - Procedures for screening outfalls in priority areas. The program shall include dry weather field screening of outfalls for non-stormwater flows, and sampling of dry weather discharges for selected chemical and biological parameters. Test results shall be used as indicators of possible discharge sources.
  - Procedures for identifying the source of an illicit discharge when a contaminated flow is detected at a regulated small MS4 outfall.
  - Procedures for eliminating an illicit discharge.
  - Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems (e.g., on-lot septic systems, sanitary piping) with storm drain systems.
  - Mechanisms for gaining access to private property to inspect outfalls (e.g., land easements, consent agreements, search warrants) and for investigating illicit connections and discharges.

- Procedures for program documentation, evaluation and assessment. Records shall be kept of all outfall inspections, flows observed, results of field screening and testing, and other follow-up investigation and corrective action work performed under this program.
  - Procedures for addressing information or complaints received from the public.
- (1) For new permittees, the IDD&E program shall be developed during the first year of coverage under this General Permit and shall be implemented and evaluated each year thereafter.
  - (2) For existing permittees, the IDD&E program shall continue to be implemented and evaluated annually.
- b. **BMP #2:** The permittee shall develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls and, if applicable, observation points, and the locations and names of all surface waters that receive discharges from those outfalls. Outfalls and observation points shall be numbered on the map(s).
- (1) For new permittees, the map(s) must be developed and submitted to DEP as an attachment to an Annual MS4 Status Report by September 30, 2022 or the fourth (4<sup>th</sup>) Annual MS4 Status Report following approval of coverage under this General Permit, whichever is later.
  - (2) For existing permittees, the existing map(s) shall be updated and maintained as necessary during each year of coverage under this General Permit.
- c. **BMP #3:** In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), the permittee shall develop and maintain map(s) that show the entire storm sewer collection system within the permittee's jurisdiction that are owned or operated by the permittee (including roads, inlets, piping, swales, catch basins, channels, and any other components of the storm sewer collection system), including privately-owned components of the collection system where conveyances or BMPs on private property receive stormwater flows from upstream publicly-owned components.
- (1) For new permittees, the map(s) must be developed and submitted to DEP as an attachment to an Annual MS4 Status Report by September 30, 2022 or the fourth (4<sup>th</sup>) Annual MS4 Status Report following approval of coverage under this General Permit, whichever is later.
  - (2) For existing permittees, the existing map(s) shall be updated and maintained as necessary during each year of coverage under this General Permit.
- d. **BMP #4:** The permittee shall conduct dry weather screenings of its MS4 outfalls to evaluate the presence of illicit discharges. If any illicit discharges are present, the permittee shall identify the source(s) and take appropriate actions to remove or correct any illicit discharges. The permittee shall also respond to reports received from the public or other agencies of suspected or confirmed illicit discharges associated with the storm sewer system, as well as take enforcement action as necessary. The permittee shall immediately report to DEP illicit discharges that would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, in accordance with Part A III.D.4 of this General Permit.
- (1) For new permittees, all of the identified regulated small MS4 outfalls shall be screened during dry weather at least twice within the 5-year period following approval of coverage under this General Permit.
  - (2) For existing permittees, each of the identified regulated small MS4 outfalls shall be screened during dry weather at least once by March 15, 2023. For areas where past problems have been reported or known sources of dry weather flows occur on a continual basis, outfalls shall be screened annually during each year of permit coverage.
  - (3) If a discharge is observed from any outfall during dry weather screenings, the discharge shall be inspected for color, odor, floating solids, scum, sheen, and substances that result in observed

deposits in the surface waters. In addition, the discharge cannot contain substances that result in deposits in the receiving water or produce an observable change in the color, odor or turbidity of the receiving water.

If the discharge exhibits any of the above characteristics, or contains any other pollutants or causes an observed change in the surface waters, the permittee shall sample the discharge(s) for field and/or laboratory analysis of one or more common IDD&E parameters in order to determine if the dry weather flow is illicit. Possible parameters include, but are not limited to: pH, Conductivity, Fecal Coliform bacteria, Heavy Metals, Chemical Oxygen Demand (COD), 5-day Biochemical Oxygen Demand (BOD5), Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Oil and Grease, Total Residual Chlorine (TRC) and Ammonia-Nitrogen. Proper quality assurance and quality control procedures shall be followed when collecting, transporting or analyzing water samples. The permittee shall retain sample results with the inspection report in accordance with Part A III.B of this General Permit.

- (4) Each time an outfall is screened, the permittee shall record outfall observations, regardless of the presence of dry weather flow. All outfall inspections shall be documented on the MS4 Outfall Field Screening Report form (3800-FM-BCW0521), or equivalent. The report must be signed by the inspector and be maintained by the permittee in accordance with Part A III.B of this General Permit. If an outfall flow is determined by the permittee to be illicit, the actions taken to identify and eliminate the illicit flow shall also be documented.
  - (5) The permittee shall summarize the results of outfall inspections and actions taken to remove or correct illicit discharges in Annual MS4 Status Reports.
  - (6) If the permittee determines that an outfall cannot be accessed due to safety or other reasons, the permittee shall establish an "observation point" at an appropriate location prior to the outfall where outfall field screening shall be performed. If observation points are established by the permittee, such points shall be identified on the map required under BMP #2 of this section.
  - (7) Permittees must ensure that outfalls are properly maintained in accordance with Part C I.B.6.b of this General Permit.
- e. **BMP #5:** Enact a Stormwater Management Ordinance or SOP to implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to the regulated small MS4.
- (1) Municipal permittees shall submit a copy of an ordinance that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) as an attachment to an Annual MS4 Status Report by September 30, 2022 (existing permittees) or the fourth (4<sup>th</sup>) Annual MS4 Status Report following approval of coverage under this General Permit (new permittees).
  - (2) Permittees that lack the authority to enact ordinances (non-municipal permittees and counties) shall develop and adopt an SOP that prohibits non-stormwater discharges consistent with this General Permit, and shall submit a copy of the SOP as an attachment to an Annual MS4 Status Report by September 30, 2022 (existing permittees) or the fourth (4<sup>th</sup>) Annual MS4 Status Report following approval of coverage under this General Permit (new permittees).
  - (3) Notice must be provided to DEP of the approval of any waiver or variance by the permittee that allows an exception to non-stormwater discharge provisions of an ordinance or SOP. This notice shall be submitted in the next Annual MS4 Status Report following approval of the waiver or variance.
- f. **BMP #6:** Provide educational outreach to public employees, business owners and employees, property owners, the general public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.
- (1) During each year of permit coverage, appropriate educational information concerning illicit discharges shall be distributed to the target audiences using methods outlined under MCM #1.

The permittee shall establish and promote a stormwater pollution reporting mechanism (e.g., a complaint line with message recording) by the end of the first year of General Permit coverage for the public to use to notify the permittee of illicit discharges, illegal dumping or outfall pollution. The permittee shall respond to all complaints in a timely and appropriate manner. The permittee shall document all responses, including the action taken, the time required to take the action, and whether the complaint was resolved successfully.

- (2) Educational outreach may include: distribution of brochures and guidance for target audiences including schools; programs to encourage and facilitate public reporting of illicit discharges; organizing volunteers to locate and visually inspect outfalls and to stencil storm drains; and implement and encourage recycling programs for common wastes such as motor oil, antifreeze and pesticides.

4. **MCM #4:** Construction Site Stormwater Runoff Control. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(4))

Permittees with coverage under the PAG-13 General Permit must rely on DEP's program for issuing NPDES permits for stormwater discharges associated with construction activities to satisfy MCM #4. In addition to relying on the state NPDES permit program for stormwater discharges associated with construction activities, the permittee shall implement the BMPs identified below.

- a. **BMP #1:** The permittee may not issue a building or other permit or final approval to those proposing or conducting earth disturbance activities requiring an NPDES permit unless the party proposing the earth disturbance has valid NPDES Permit coverage (i.e., not expired) under 25 Pa. Code Chapter 102.
- b. **BMP #2:** A municipality or county which issues building or other permits shall notify DEP or the applicable county conservation district (CCD) within 5 days of the receipt of an application for a permit involving an earth disturbance activity consisting of one acre or more, in accordance with 25 Pa. Code § 102.42.
- c. **BMP #3:** Enact, implement and enforce an ordinance or SOP to require the implementation and maintenance of E&S control BMPs, including sanctions for non-compliance, as applicable.
  - (1) Municipal permittees shall enact, implement, and enforce an ordinance to require the implementation of E&S control BMPs, including sanctions for non-compliance. All municipal permittees shall submit a copy of an ordinance that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) as an attachment to an Annual MS4 Status Report by September 30, 2022 (existing permittees) or the fourth (4<sup>th</sup>) Annual MS4 Status Report following approval of coverage under this General Permit (new permittees).
  - (2) Permittees that lack the authority to enact ordinances shall develop, implement and enforce an SOP to require the implementation and maintenance of E&S control BMPs by September 30, 2022 (existing permittees) or the first Annual MS4 Status Report following approval of coverage under this General Permit (new permittees).

5. **MCM #5:** Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(5))

Permittees with coverage under the PAG-13 General Permit must rely on DEP's program for issuing NPDES permits for stormwater discharges associated with construction activities to satisfy MCM #5. In addition to relying on the state NPDES permit program for stormwater discharges associated with construction activities, the permittee shall implement the BMPs identified below.

- a. **BMP #1:** Enact, implement and enforce an ordinance or SOP to require post-construction stormwater management from new development and redevelopment projects, including sanctions for non-compliance.

- (1) Municipal permittees shall enact, implement, and enforce an ordinance to require the implementation of PCSM BMPs, including sanctions for non-compliance. All municipal permittees shall submit a copy of an ordinance that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) as an attachment to an Annual MS4 Status Report by September 30, 2022 (existing permittees) or the fourth (4<sup>th</sup>) Annual MS4 Status Report following approval of coverage under this General Permit (new permittees).
- (2) Permittees that lack the authority to enact ordinances shall develop, implement and enforce an SOP to require the implementation and maintenance of PCSM BMPs and submit the SOP to DEP by September 30, 2022 (existing permittees) or the fourth (4<sup>th</sup>) Annual MS4 Status Report following approval of coverage under this General Permit (new permittees).
- b. **BMP #2:** Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new development and redevelopment. Measures should also be included to encourage retrofitting LID into existing development. Guidance on implementing LID practices may be found on DEP's MS4 website, [www.dep.pa.gov/MS4](http://www.dep.pa.gov/MS4). Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID practices. Submission of an ordinance that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) will satisfy this BMP.
- c. **BMP #3:** Ensure adequate O&M of all post-construction stormwater management BMPs that have been installed at development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

An inventory of PCSM BMPs shall be developed by new permittees by the end of the first year of General Permit coverage and shall be continually updated during the term of coverage under the General Permit as development projects are reviewed, approved, and constructed. Existing permittees shall update and maintain its current inventory during the term of coverage under the General Permit. The permittee must track the following information in its PCSM BMP inventory:

- All PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003.
  - The exact location of the PCSM BMP (e.g., latitude and longitude, with street address).
  - Information (e.g., name, address, phone number(s)) for BMP owners and entities responsible for BMP O&M, if different from BMP owners.
  - The type of BMP and the year it was installed.
  - Maintenance required for the BMP type according to the Pennsylvania Stormwater BMP Manual or other manuals and resources.
  - The actual inspection/maintenance activities conducted for each BMP.
  - An assessment by the permittee if proper O&M has occurred during the year and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements.
6. **MCM #6:** Pollution Prevention / Good Housekeeping. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(6))

The permittee must develop and implement an O&M program that includes a training component and has the ultimate goal of preventing and reducing pollutant runoff from operations, facilities and activities under the control of the permittee (collectively, "operations"). The program must include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.

- a. **BMP #1:** Identify and document all operations that are owned or operated by the permittee and have the potential for generating pollution in stormwater runoff to the regulated small MS4. This includes activities conducted by contractors for the permittee. Activities may include the following: street sweeping; snow removal/deicing; inlet/outfall cleaning; lawn/grounds care; general storm sewer system inspections and maintenance/repairs; park and open space maintenance; municipal building



maintenance; new construction and land disturbances; right-of-way maintenance; vehicle operation, fueling, washing and maintenance; and material transfer operations, including leaf/yard debris pickup and disposal procedures. Facilities can include streets; roads; highways; parking lots and other large paved surfaces; maintenance and storage yards; waste transfer stations; parks; fleet or maintenance shops; wastewater treatment plants; stormwater conveyances (open and closed pipe); riparian buffers; and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, constructed wetlands, etc.).

- (1) New permittees shall create an inventory of all operations and land uses that may contribute to pollution in stormwater runoff within areas of operations that discharge to the regulated small MS4 by the end of the first year of General Permit coverage, and review and update the inventory annually thereafter.
  - (2) All permittees must review and update the inventory each year of General Permit coverage, as necessary.
- b. **BMP #2:** Develop, implement and maintain a written O&M program for all operations that could contribute to the discharge of pollutants from the regulated small MS4, as identified under BMP #1. This program shall address stormwater collection or conveyance systems within the regulated MS4. The written O&M program shall stress pollution prevention and good housekeeping measures, contain site-specific information, and include the following:
- Management practices, policies, and procedures shall be developed and implemented to reduce or prevent the discharge of pollutants to the regulated small MS4s. The permittee shall consider eliminating maintenance area discharges from floor drains and other drains if they have the potential to discharge to storm sewers.
  - Maintenance activities, maintenance schedules, and inspection procedures to reduce the potential for pollutants to reach the regulated small MS4s.
  - Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, salt / sand (anti-skid) storage locations and snow disposal areas. Controls for solid chemical products stored and utilized for the principal purpose of deicing roadways for public safety must be consistent with the BMPs for existing salt storage and distribution sites contained in the PAG-03 NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.
  - Procedures for the proper disposal of waste, including dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, street sweepings, and other debris.
- (1) New permittees shall develop and implement a written O&M program by the end of the first year of General Permit coverage and review and update the program each year thereafter.
  - (2) All permittees must review and update the written O&M program each year of General Permit coverage, as necessary.
- c. **BMP #3:** Develop and implement an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from operations to the regulated small MS4. The program may be developed and implemented using guidance and training materials that are available from federal, state or local agencies, or other organizations. All relevant employees and contractors shall receive training (i.e., public works staff, building, zoning, and code enforcement staff, engineering staff, police and fire responders, etc.). Training topics shall include operation, inspection, maintenance and repair activities associated with any of the operations identified under BMP #1. Training must cover all relevant parts of the permittee's overall stormwater management program that could affect operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.

- (1) New permittees shall develop and implement a training program that identifies the training topics that will be covered and what training methods and materials will be used by the end of the first year of General Permit coverage.
- (2) All permittees must review and update the training program each year of General Permit coverage, as necessary.
- (3) Employee training shall occur at least annually and shall be documented in writing and reported in Annual MS4 Status Reports. Documentation shall include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s).

## II. POLLUTANT CONTROL MEASURES AND POLLUTANT REDUCTION PLANS

Permittees with coverage under this General Permit that discharge to impaired waters are required to implement Pollutant Control Measures (PCMs) and Pollutant Reduction Plans (PRPs), as applicable. Permittees are encouraged to consult DEP's MS4 Requirements Table, available at [www.dep.pa.gov/MS4](http://www.dep.pa.gov/MS4), to determine the applicability of PCMs under Appendices A, B, and C and PRPs under Appendices D and E of this General Permit.

- A. PCMs are activities undertaken by the MS4 permittee to identify and control pollutant loading to impaired waters from MS4s, regardless of whether a TMDL has been approved. PCMs are BMPs and other strategies that are in addition to the permittee's SWMP identified in Part C I of this General Permit. PCMs must be implemented where the permittee 1) has at least one stormwater outfall that discharges to impaired waters, and 2) the "cause of impairment" is one or more of the causes listed in paragraphs A.1 through A.3, below.
  1. Where surface waters are impaired for metals (e.g., Iron, Manganese and Aluminum) and/or pH associated with Abandoned Mine Drainage (AMD), the permittee shall implement the PCMs identified in **Appendix A** of this General Permit, in accordance with the schedule therein.
  2. Where surface waters are impaired for Pathogens (e.g., Fecal Coliform), the permittee shall implement the PCMs identified in **Appendix B** of this General Permit, in accordance with the schedule therein.
  3. Where surface waters are impaired for Priority Organic Compounds (e.g., Polychlorinated Biphenyls (PCBs), pesticides, or other organic compounds), the permittee shall implement the PCMs identified in **Appendix C** of this General Permit, in accordance with the schedule therein.
- B. A PRP is a planning document prepared by the permittee which guides the selection and implementation of specific BMPs to reduce pollutant loading to surface waters. The objective of a PRP is to improve the condition of surface waters such that the waters eventually attain water quality standards and its designated and existing uses in accordance with 25 Pa. Code Chapter 93. A PRP shall be developed and submitted to DEP with the NOI if one or more of the following criteria are met:
  1. At the time of the NOI submission, the permittee has at least one MS4 outfall that discharges to surface waters within the Chesapeake Bay watershed, or otherwise has at least one discharge to storm sewers owned or operated by a different entity within the Chesapeake Bay watershed. Upon DEP's written approval of General Permit coverage, permittees shall implement the PRP in accordance with **Appendix D** of this General Permit.
  2. At the time of the NOI submission, the permittee has at least one stormwater outfall that discharges to waters impaired for nutrients (i.e., nitrogen and/or phosphorus) and/or sediment (i.e., siltation), and a TMDL has not been approved for such waters, or a TMDL has been approved but no wasteload allocation (WLA) has been assigned by the TMDL for the permittee's discharge(s). Upon DEP's written approval of General Permit coverage, permittees shall implement the PRP in accordance with **Appendix E** of this General Permit.

## III. OTHER REQUIREMENTS

- A. Screenings and other solids collected by the permittee shall be handled, recycled and/or disposed of in compliance with the Solid Waste Management Act (35 P.S. §§ 6018.101 – 6018.1003), 25 Pa. Code Chapters 287, 288, 289, 291, 295, 297, and 299 (relating to requirements for landfilling, impoundments, land

application, composting, processing, and storage of residual waste), federal regulation 40 CFR Part 257, The Clean Streams Law, and the Federal Clean Water Act and its amendments.

- B. DEP may require monitoring of stormwater discharge(s) as may be reasonably necessary in order to characterize the nature, volume or other attributes of that discharge or its sources.
- C. The permittee shall ensure that its SWMP, including its Stormwater Management Ordinance(s) or SOPs, is designed to prevent increased loadings of pollutants and to not cause or contribute to a violation of water quality standards by any discharge from its regulated small MS4.
- D. The permittee shall develop and maintain adequate legal authorities, where applicable, and shall maintain adequate funding and staffing to implement this General Permit, including the SWMP contained in Part C I of this General Permit.
- E. In accordance with 40 CFR § 122.35, the permittee may rely on another entity to satisfy NPDES permit obligations to implement a minimum control measure if: (1) the other entity, in fact, implements the control measure; (2) the particular control measure, or component thereof, is at least as stringent as the corresponding NPDES permit requirement; and (3) the other entity agrees to implement the control measure on the permittee's behalf. The permittee must specify in Annual MS4 Status Reports that it is relying on another entity to satisfy some of its NPDES permit obligations. The permittee remains responsible for compliance with permit obligations if the other entity fails to implement the control measure (or component thereof).

## APPENDIX B

### POLLUTANT CONTROL MEASURES FOR WATERS IMPAIRED BY PATHOGENS

The permittee shall implement the following Pollutant Control Measures (PCMs) within the storm sewershed of any outfall that discharges to waters impaired due to Pathogens (e.g., Fecal Coliform), regardless of whether there is an approved TMDL:

A. Map and Inventory.

1. The permittee shall develop map(s) of the storm sewershed(s) associated with all outfalls that discharge to surface waters subject to Appendix B. The purpose is to identify the area the permittee is responsible for within its legal boundaries in developing a source inventory. For new permittees, the map(s) shall be submitted to DEP with an Annual MS4 Status Report that is due no later than two years following DEP's written approval of General Permit coverage. For existing permittees, the map(s) shall be submitted to DEP with an Annual MS4 Status Report due no later than September 30, 2019.
2. The permittee shall develop an inventory of all suspected and known sources of bacteria in stormwater within the storm sewershed, at a minimum, that discharge to impaired waters. The inventory must identify whether the source is suspected or known, the basis for this determination, the responsible party (if known), and any corrective action the permittee has taken or plans to take for any of these sources. For new permittees, the inventory shall be submitted to DEP with an Annual MS4 Status Report is due no later than three years following DEP's written approval of General Permit coverage. For existing permittees, the inventory shall be submitted to DEP with an Annual MS4 Status Report due no later than September 30, 2020.

- B. The permittee shall complete an investigation of each suspected source. This investigation must include stormwater sampling if the investigation is required as part of implementing the IDD&E program under MCM #3 of the General Permit, and otherwise is voluntary. For new permittees, the results of the investigation shall be submitted to DEP with an Annual MS4 Status Report that is due no later than five years following DEP's written approval of General Permit coverage. For existing permittees, the results of the investigation shall be submitted to DEP with an Annual MS4 Status Report due no later than September 30, 2022.
- C. The permittee shall enforce ordinances that prohibit illicit and illegal connections and discharges of sewage to the MS4. Anytime an illicit and illegal connection or discharge of sewage into the MS4 is discovered by the permittee, the permittee shall report the finding in the subsequent Annual MS4 Status Report along with a description of corrective action by the permittee.
- D. If not already established in its Stormwater Management Ordinance (municipal permittees) or SOP (non-municipal permittees), the permittee shall enact an ordinance or develop and adopt an SOP that requires proper management of animal wastes on property owned by the permittee. If an ordinance or SOP already exists that controls animal wastes, it must be attached to the first Annual MS4 Status Report due following the first year of coverage for new permittees and no later than September 30, 2018 for existing permittees (unless the ordinance or SOP was attached to the NOI for General Permit coverage). If a new ordinance or SOP is enacted or adopted, the new ordinance or SOP must be attached to the first Annual MS4 Status Report due following enactment or adoption, but no later than September 30, 2022.
- E. The permittee shall document the progress of its investigations, source control efforts and BMPs to control sources of pathogens in its Annual MS4 Status Reports.

## APPENDIX C

### POLLUTANT CONTROL MEASURES FOR WATERS IMPAIRED BY PRIORITY ORGANIC COMPOUNDS

The permittee shall implement the following Pollutant Control Measures (PCMs) within the storm sewershed of any outfall that discharges to waters impaired due to Priority Organic Compounds, including but not limited to Polychlorinated Biphenyls (PCBs), Pesticides, and any other organic compound listed at 40 CFR Part 423, Appendix A, regardless of whether there is an approved TMDL:

#### A. Map and Inventory.

1. The permittee shall develop map(s) of the storm sewershed(s) associated with all outfalls that discharge to surface waters subject to Appendix C. The purpose is to identify the area the permittee is responsible for within its legal boundaries in developing a source inventory. For new permittees, the map(s) shall be submitted to DEP with an Annual MS4 Status Report that is due no later than two years following DEP's written approval of General Permit coverage. For existing permittees, the map(s) shall be submitted to DEP with an Annual MS4 Status Report due no later than September 30, 2019.
  2. The permittee shall develop an inventory of all suspected and known anthropogenic (caused or produced by humans) sources of Priority Organic Compounds in stormwater within the drainage area of outfalls discharging to impaired waters. The inventory must identify whether the source is suspected or known, the basis for this determination, the responsible party (if known), and any corrective action the permittee has taken or plans to take for any of these sources. For new permittees, the inventory shall be submitted to DEP with an Annual MS4 Status Report that is due no later than three years following DEP's written approval of General Permit coverage. For existing permittees, the inventory shall be submitted to DEP with an Annual MS4 Status Report due no later than September 30, 2020.
- B. The permittee shall complete an investigation of each suspected source. This investigation must include stormwater sampling if the investigation is required as part of implementing the IDD&E program under MCM #3 of the General Permit, and otherwise is voluntary. For new permittees, the results of the investigation shall be submitted to DEP with an Annual MS4 Status Report that is due no later than five years following DEP's written approval of General Permit coverage. For existing permittees, the results of the investigation shall be submitted to DEP with an Annual MS4 Status Report due no later than September 30, 2022.
- C. Where it is determined that sources of Priority Organic Compounds are being discharged in stormwater from industrial sites into the permittee's MS4, the permittee shall notify DEP in writing within 90 days of the permittee's findings. DEP may require the owner or operator of the industrial site to submit an application for NPDES permit coverage and/or implement BMPs to reduce pollutant loadings. This written notification is required only once per industrial site.
- D. The permittee shall document the progress of its investigations, source control efforts and BMPs to control sources of Priority Organic Compounds in its Annual MS4 Status Reports.

## APPENDIX E

### POLLUTANT REDUCTION PLAN REQUIREMENTS FOR DISCHARGES TO WATERS IMPAIRED FOR NUTRIENTS AND/OR SEDIMENT

MS4 permittees with at least one stormwater discharge to surface waters considered impaired for nutrients (nitrogen and phosphorus) and/or sediment, in which a TMDL has not been developed or the TMDL has not identified a wasteload allocation (WLA) for the permittee, must develop and submit a Pollutant Reduction Plan (PRP) with the NOI to reduce the pollutant loads to those waters. In the event the permittee also has at least one stormwater discharge to surface waters within the Chesapeake Bay watershed, the PRP may be combined with the CBPRP described in Appendix D.

The PRP is approved upon DEP's approval of coverage under this General Permit. The permittee shall implement its approved PRP and comply with the following:

- A. The permittee shall achieve the pollutant load reduction(s) (lbs/year) proposed in its PRP within 5 years following DEP's approval of coverage under the General Permit (identified on page 1). The minimum percent reduction for pollutant loadings of sediment and Total Phosphorus (TP) shall be 10% and 5%, respectively. If the surface water is impaired for both sediment and nutrients, both sediment (10%) and TP (5%) reductions must be achieved. If the surface water is impaired for sediment alone, a sediment (10%) reduction must be achieved. If the cause of impairment is nutrients, a TP (5%) reduction must be achieved. Pollutant reduction efficiencies for selected BMPs shall be in accordance with the BMP Effectiveness Values document published by DEP (3800-PM-BCW0100m) or Chesapeake Bay Program Office expert panel reports. The permittee shall submit a report demonstrating implementation of the PRP as an attachment to the first Annual MS4 Status Report that is due following completion of the 5<sup>th</sup> year of General Permit coverage.
- B. The BMPs proposed in the PRP for the term of General Permit coverage shall be implemented in accordance with the schedule in the PRP. In the event the permittee decides to modify the location, type or number of proposed BMPs or modify the storm sewershed map, the permittee shall submit an update to its PRP to DEP prior to implementing the changes. A modified PRP that meets the conditions of paragraphs 1 – 3 herein may be implemented upon submission to DEP unless DEP issues an objection in writing within 60 days.
- C. Where submission of a modified PRP to DEP is required, the permittee shall solicit public involvement and participation, as follows:
  1. The permittee shall make a complete copy of the PRP available for public review.
  2. The permittee shall publish, in a newspaper of general circulation in the area, a public notice containing a statement describing the plan, where it may be reviewed by the public, and the length of time the permittee will provide for the receipt of comments. The public notice must be published at least 45 days prior to the deadline for submission of the PRP to DEP.
  3. The permittee shall accept written comments for a minimum of 30 days from the date of public notice.
  4. The permittee shall accept comments from any interested member of the public at a public meeting or hearing, which may include a regularly scheduled meeting of the governing body of the municipality or municipal authority that is the permittee.
  5. The permittee shall consider and make a record of the consideration of each timely comment received from the public during the public comment period concerning the plan, identifying any changes made to the plan in response to the comment.

Modified PRPs submitted to DEP must include a copy of the newspaper notice, a copy of all written comments received from the public and a copy of the permittee's record of consideration of all timely comments received in the public comment period.

- D. Progress with achieving the required pollutant load reductions shall be reported in each Annual MS4 Status Report.

## Appendix B

Proof of Publication

## Appendix C

Existing Loading: Kilbuck Run Sewershed



## SPRUCE RUN 6808 SMALL WATERSHED

GWLF-E Urban Area Viewer - Version 1.1.3
X

**Select input data file:** C:\MapShed\Runfiles\SpruceRun6808\_Ross\Output\ParsedWatershed-5384495.05203\_ua.csv
📁

Watershed Totals
**Municipality Loads**
Regulated Loads
Unregulated Loads

**View loads for municipality:** Ross (00000)
▼

		Sediment		Nitrogen		Phosphorus	
Source	Source Area (ac)	Total Load (lb)	Loading Rate (lb/ac)	Total Load (lb)	Loading Rate (lb/ac)	Total Load (lb)	Loading Rate (lb/ac)
Hay/Pasture	0	0.00	0.00	0.00	0.00	0.00	0.00
Cropland	0	0.00	0.00	0.00	0.00	0.00	0.00
Forest	163	2901.40	17.80	13.00	0.08	0.00	0.00
Wetland	0	0.00	0.00	0.00	0.00	0.00	0.00
Disturbed	0	0.00	0.00	0.00	0.00	0.00	0.00
Turfgrass	35	1039.50	29.70	17.20	0.49	0.40	0.01
Open Land	54	10497.60	194.40	44.30	0.82	2.20	0.04
Bare Rock	0	0.00	0.00	0.00	0.00	0.00	0.00
Sandy Areas	0	0.00	0.00	0.00	0.00	0.00	0.00
Unpaved Roads	0	0.00	0.00	0.00	0.00	0.00	0.00
LD Mixed	15	148.50	9.90	3.90	0.26	0.50	0.03
MD Mixed	20	1090.00	54.50	23.40	1.17	2.60	0.13
HD Mixed	22	1201.20	54.60	25.70	1.17	2.90	0.13
LD Residential	7	69.30	9.90	1.90	0.27	0.20	0.03
MD Residential	153	8369.10	54.70	179.00	1.17	19.90	0.13
HD Residential	0	0.00	0.00	0.00	0.00	0.00	0.00
Water	0						
<b>Farm Animals</b>				0.0		0.0	0.000
<b>Tile Drainage</b>	0.00			0.0		0.0	0.000
<b>Stream Bank</b>	63451.27			31.4		2.1	0.279
<b>Groundwater</b>				481.7		10.5	0.283
<b>Point Sources</b>				0.0		0.0	0.000
<b>Septic Systems</b>				0.0		0.0	0.000
<b>Totals</b>	<b>469</b>	<b>88767.9</b>		<b>821.5</b>		<b>41.3</b>	

**Source Weighting**

## Appendix D

Proposed BMPs : Kilbuck Run Sewershed

PROJECT NAME:  
LOCATION:  
PREPARED BY:  
CHECKED BY:

MS4 Pollutant Reduction Plan  
Ross Township, Allegheny County, PA  
CEM  
DPS

DATE: 9/18/2024  
DATE:

Kilbuck Run Proposed Stormwater BMP Pollutant Load Reductions																		
Proposed Structural Stormwater BMPs																		
BMP No.	Proposed Structural Stormwater BMP Type <sup>1</sup>	Total Area Controlled by BMP <sup>2</sup> (acres)	Developed Impervious Area (acres)	Developed Pervious Area (acres)	Undeveloped Area (acres)	Loads within BMP Area <sup>3</sup>			BMP Effectiveness Values <sup>4</sup> (%)			Proposed Load Reduction <sup>5</sup> (lb/yr)			Minimum Required Load Reduction <sup>6</sup>			Proposed BMP Name (ID No.) and Location
						TN (lb/yr)	TP (lb/yr)	TSS (lb/yr)	TN	TP	TSS	TN	TP	TSS	TN	TP	TSS	
-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Proposed Nonstructural Stormwater BMPs																		
Stream Restoration		Restoration Length (LF)				Pollutant Load Removal per Unit Length of Stream Restoration <sup>7</sup> (lbs/lb/yr)			Proposed Load Reduction (lb/yr)			Minimum Required Load Reduction <sup>8</sup> (lb/yr)			Stream Name and HUC ID No., Linear Feet and Location			
						TN	TP	TSS	TN	TP	TSS	TN	TP	TSS				
		200				-	-	-	0.075	0.0680	44.88	15.0	13.6	8,976	-	-	-	200 LF of Proposed Stream Restoration along Spruce Run
Totals						-	-	-				-	13.6	8,976.0	-	1.54	8,877.0	

	TN	TP	TSS
Total Proposed Load Reductions due to BMP Retrofits :	-	-	-
Total Proposed Load Reductions due to new Structural BMPs :	-		-
Total Proposed Load Reductions due to Stream Restoration:	-	13.6	8,976.0
Total Proposed Load Reductions due to Storm Sewer System Solids Removal :	-	-	-
Total Proposed Load Reductions due to Tree Plantings :	-	-	-
Total Proposed Load Reductions due to Street Sweeping :	-	-	-

Total Proposed Load Reductions :	-	13.60	8,976
Total Min. Required Load Reductions :	-	1.54	8,868

Total Linear Feet of Stream Restoration :	200
Total Number of Inlets to be Cleaned per Year :	-
Total Number of New Stormwater Detention BMPs :	-
Total Number of Existing BMPs to be Retrofitted :	-

Pollutant Loading Rates (lb/acre/year)			
Land Cover	TN	TP	TSS
Developed Impervious	23.06	2.28	1839
Developed Pervious	20.72	0.84	264.96
Undeveloped	10	0.33	234.6

FOOTNOTES:

1. Listed from DEP General Permit Document 3800-PM-BCW0100m BMP Effectiveness Values and DEP Alternative E&S and PCSM BMPs document.

2. Delineated from DCNR LIDAR mapping by user within AutoCAD.

3. Calculated with user drainage areas and the Penn State University PAMAP 2005 Land Use / Land Cover GIS data.

4. Load Reduction = BMP Effectiveness Values x Load within BMP Area.

5. TP min. required load reduction = 5% x Total net TP loads within planning area  
TSS min. required load reduction = 10% x Total net TSS loads within planning area

6. 2' x 4' x 0.083' = 0.664 CF/yr x 62.4 lb/d x 2.5 x 0.6 = 62.0 lb/yr (where 2'x4'x0.083' is the volume of an inlet box, 62.4 CF/yr is the unit weight of water, 2.5 is the specific gravity of sediment particles, 0.6 is the ratio of solid volume to total bulk volume of accumulated sediment

7. 50% of total solids estimated to be inorganic, 40% of total solids estimated to be organic with remaining 10% to be debris. Dry weight of inorganic is 50% of total inorganic weight; dry weight of organic is 45% of total organic weight as per DEP PRP Instructions.

8. Per PA DEP MS4 BMP Effectiveness Values Document 3800-PM-BCW0100m, one Tree Planting is equivalent to 0.01 acre.

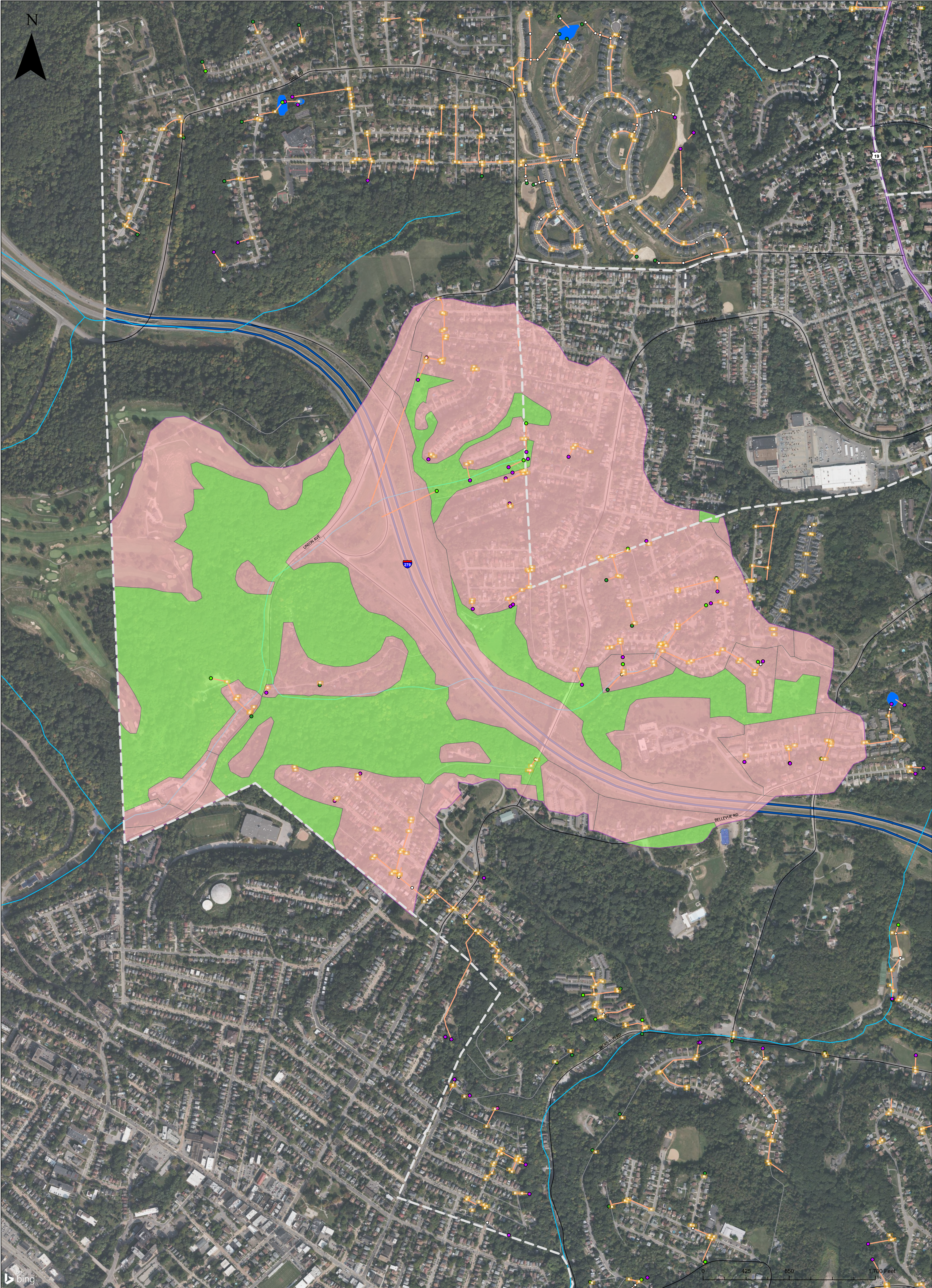
9. Per PA DEP MS4 BMP Effectiveness Values Document 3800-PM-BCW0100m, TN credit cannot exceed 4:1 upslope area-to-buffer area ratio, TP and TSS credits cannot exceed 2:1 upslope area-to-buffer area ratio.

10. Per PA DEP MS4 BMP Effectiveness Values Document 3800-PM-BCW0100m, only street lanes that are swept at least 25 times per year shall be included.

## Appendix E

### Kilbuck Run Land Use Area Map





**Gibson-Thomas**  
ENGINEERING

1004 Ligonier St  
Latrobe, PA 15650  
724-539-8562

Land Use Classification

- Barren Land
- Forest
- Rangeland
- Urban Built-Up

LEGEND

- Sewershed
- Ross Twp Boundary
- Catchbasin
- Storm pipes

- Storm Manholes
- Storm Sewer Inlet
- Storm Sewer Outlet
- Outfall
- Streams

KILBUCK RUN LAND USE AREA  
FOR  
ROSS TOWNSHIP, PA



## Appendix F

### Kilbuck Run BMP Map





**Gibson-Thomas**  
ENGINEERING

1004 Ligonier St  
Latrobe, PA 15650  
724-539-8562

- LEGEND**
- Spruce Run Stream Restoration
  - Killbuck Run Sewershed
  - Impaired Streams
  - Streams

**Proposed Restoration Length**

**Spruce Run - 200 Linear Feet**

**KILBUCK RUN BMP MAPPING  
FOR  
ROSS TOWNSHIP, PA**