

# MS4 ANNUAL REPORT

Spring Grove Borough,  
York County, PA

July 1, 2019 through June 30, 2020

*SEPTEMBER 2020*

*ENGINEER'S PROJECT NO. 10856.29*

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Prepared by:



ARRO Consulting, Inc.

108 West Airport Road

Lititz, PA 17543



## ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT

FOR THE PERIOD July 1, 2019 TO JUNE 30, 2020

GENERAL INFORMATION					
Permittee Name:	Borough of Spring Grove		NPDES Permit No.:	PAG133749	
Mailing Address:	1 Campus Avenue		Effective Date:	May 1, 2018	
City, State, Zip:	Spring Grove, PA, 17362		Expiration Date:	March 15, 2023	
MS4 Contact Person:	Andrew Shaffer		Renewal Due Date:	September 17, 2022	
Title:	Manager		Municipality:	Spring Grove	
Phone:	717-225-5791		County:	York	
Email:	Manager@SpringGroveBoro.com				
Co-Permittees (if applicable):					
Appendix(ces) that permittee is subject to (select all that apply):					
<input type="checkbox"/> Appendix A <input type="checkbox"/> Appendix B <input type="checkbox"/> Appendix C <input checked="" type="checkbox"/> Appendix D <input type="checkbox"/> Appendix E <input type="checkbox"/> Appendix F					
WATER QUALITY INFORMATION					
Are there any discharges to waters within the Chesapeake Bay Watershed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Identify all surface waters that receive stormwater discharges from the permittee's MS4 and provide the requested information (see instructions).					
Receiving Water Name	Ch. 93 Class.	Impaired?	Cause(s)	TMDL?	WLA?
Codorus Creek	WWF	Yes	Source Unknown-Pathogens	No	No
UNT To Codorus Creek	WWF	Yes	Source Unknown-Pathogens	No	No

### GENERAL MINIMUM CONTROL MEASURE (MCM) INFORMATION

Have you completed all MCM activities required by the permit for this reporting period? ☒ Yes ☐ No

List the current entity responsible for implementing each MCM of your SWMP, along with contact name and phone number.

MCM	Entity Responsible	Contact Name	Phone
#1 Public Education and Outreach on Storm Water Impacts	Borough of Spring Grove	Andrew Shaffer	717-225-5791
#2 Public Involvement/Participation	Borough of Spring Grove	Andrew Shaffer	717-225-5791
#3 Illicit Discharge Detection and Elimination (IDD&E)	Borough of Spring Grove	Andrew Shaffer	717-225-5791
#4 Construction Site Storm Water Runoff Control	Borough of Spring Grove	Andrew Shaffer	717-225-5791
#5 Post-Construction Storm Water Management in New Development and Redevelopment	Borough of Spring Grove	Andrew Shaffer	717-225-5791
#6 Pollution Prevention / Good Housekeeping	Borough of Spring Grove	Andrew Shaffer	717-225-5791

### MCM #1 – PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

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

1. For new permittees only, has the written PEOP been developed and implemented within the first year of permit coverage?

☒ Yes ☐ No

2. Date of latest annual review of PEOP: 8/28/19

Were updates made? ☒ Yes ☐ No

3. What were the plans and goals for public education and outreach for the reporting period?

The following goals and plans were developed for the annual report (2018 - 2019) based on Spring Grove Borough's (Borough) Target Audiences:

Goal A. Discuss MS4 program related topics during Borough Council Meetings and encourage public interaction/comments.

Goal B. Utilize County partners to provide educational and outreach opportunities.

Goal C. Circulate and update a quarterly newsletter which contains stormwater related announcements for the Borough.

Goal D. The Borough will attempt to quantify the most-likely residential activities to produce an illicit discharge in the Borough with the purpose of better defining educational material it's residential property owners.

Goal E. The Borough will assess adding educational information to zoning and building permit packages based on the type of projects being submitted to the Borough.

4. Did the MS4 achieve its goal(s) for the PEOP during the reporting period? ☒ Yes ☐ No

5. Identify specific plans and goals for public education and outreach for the upcoming year:

In order to reduce contamination into the local impaired waterways the following goals have been established for the 2020/2021 reporting year:

1. The Borough will assess the potential for municipal operations to produce an illicit discharge with the intent of developing educational materials to distribute to Borough personnel.

2. The Borough will distribute an educational public survey aimed at gauging the target audience groups' current understanding of and involvement in the stormwater program.

3. The Borough will produce and distribute educational information in zoning and building permit packages based on the target audience group submitting the application.

**BMP #2: Develop and maintain lists of target audience groups present within the areas served by your MS4.**

1. For new permittees only, have the target audience lists been developed and implemented within the first year of permit coverage?  
☒ Yes ☐ No
2. Date of latest annual review of target audience lists: 5/4/20 Were updates made? ☒ Yes ☐ No

**BMP #3: Annually publish at least one educational item on your Stormwater Management Program.**

1. For new permittees only, were stormwater educational and informational items produced and published in print and/or on the Internet within the first year of permit coverage?  
☒ Yes ☐ No
2. Date of latest annual review of educational materials: 5/4/20 Were updates made? ☒ Yes ☐ No
3. Do you have a municipal website? ☒ Yes ☐ No (URL:  
<http://www.springgroveboro.com/>)



If Yes, what MS4-related material does it contain?

The quarterly newsletter "Boro Bits", accessible the Borough website contains MS4 materials related to the progress in construction of Pollution Reduction Plan required BMPs, information on what residents can do to improve water quality, information on when and where the public can make comments on the MS4 program, and other MS4 activities.

4. Describe any other method(s) used during the reporting period to provide information on stormwater to the public:

The Borough provides information on stormwater to the public during monthly Borough Council Meetings. During the Borough Council, Matthew Warfel of ARRO Consulting gives information on progress of the MS4 program, such as updates to MS4 mapping. The Borough posts stormwater educational material on their municipal website.

5. Identify specific plans for the publication of stormwater materials for the upcoming year:

The Borough will continue to produce quarterly newsletters containing MS4 related materials and continue to foster discussion on MS4 related topics during monthly Borough Council Meetings.

The Borough plans on completing a MS4 program analysis to determine the most likely sources of contamination and will produce and provide publications of stormwater materials pertinent to those likely sources of contamination.

**BMP #4: Distribute stormwater educational materials to the target audiences.**

Identify the two additional methods of distributing stormwater educational materials during the previous reporting period (e.g., displays, posters, signs, pamphlets, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements, bill stuffers, posters, presentations, conferences, meetings, fact sheets, giveaways, or storm drain stenciling).

1. The Borough will continue to produce quarterly newsletters containing MS4 related materials.
2. A stormwater program update has been uploaded to the municipal website for the target audiences to review.

**MCM #1 Comments:**

Attachment 1.1: Public Education and Outreach Plan

Attachment 1.2: Municipal Website

Attachment 1.3: Educational Materials

Attachment 1.4: Program Update

Attachment 1.5: MS4 Goals & Accomplishments

**MCM #2 – PUBLIC INVOLVEMENT/PARTICIPATION**

**BMP #1: Develop, implement and maintain a written Public Involvement and Participation Program (PIPP)**

1. For new permittees only, was the PIPP developed and implemented within one year of permit coverage?

☒ Yes ☐ No

2. Date of latest annual review of PIPP: 5/4/20

Were updates made? ☒ Yes ☐ No

**BMP #2: Advertise to the public and solicit public input on ordinances, SOPs, Pollutant Reduction Plans (PRPs) (if applicable) and TMDL Plans (if applicable), including modifications thereto, prior to adoption or submission to DEP:**

1. Was an MS4-related ordinance, SOP, PRP or TMDL Plan developed during the reporting period? ☐ Yes ☒ No

2. If Yes, describe how you advertised the draft document(s) and how you provided opportunities for public review, input and feedback:

-

3. If an ordinance, SOP or plan was developed or amended during the reporting period, provide the following information:

<b>Ordinance / SOP / Plan Name</b>	<b>Date of Public Notice</b>	<b>Date of Public Hearing</b>	<b>Date Enacted or Submitted to DEP</b>
-	-	-	-

**BMP #3: Regularly solicit public involvement and participation from the target audience groups using available distribution and outreach methods.**

1. At least one public meeting or other MS4 event must be held during the 5-year permit coverage period to solicit participation and feedback from target audience groups. Was this meeting or event held during the reporting period?

☒ Yes ☐ No

If Yes, Date of Meeting or Event:

Every month the members of the Spring Grove Borough meets for the Borough Council Meeting. All residents and members of the target audience groups are invited to speak and wiegh in on the progress of the MS4 program during the meetings.

2. Report instances of cooperation and participation in MS4 activities; presentations the permittee made to local watershed and conservation organizations; and similar instances of participation or coordination with organizations in the community.

The Borough continued to work together with the York County Planning Commision in order to more efficiently and effectively maintain BMPs and educate the residents on MS4 information.

3. 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 efforts such as cleanups, monitoring, storm drain stenciling, or others.

In an effort to maintain compliance with CDC guidelines, the Borough hosted a Community Clean Up Week. During this week, the residents were invited to submit photos and descptions of what they had prevented from entering the municipal waterways.

**MCM #2 Comments:**

Attachment 2.1: Borough Council Meeting Minutes

Attachment 2.2: Public Involvement and Participation Plan

Attachment 2.3: "Boro Bits" Municipal Website

Attachment 2.4: Cooperation with Other Organizations

Attachment 2.5: Business List

**MCM #3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E)**

**BMP #1: Develop and implement a written program for the detection, elimination, and prevention of illicit discharges into the regulated small MS4.**

1. For new permittees only, was the written IDD&E program developed within one year of permit coverage?

☒ Yes ☐ No

2. Date of latest annual review of IDD&E program: 5/4/20

Were updates made? ☐ Yes ☒ No

**BMP #2: 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. Have you completed a map(s) that includes all components of BMP #2? ☒ Yes ☐ No

If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.

If No, date by which permittee expects map(s) to be completed:

2. Date of last update or revision to map(s): 8/27/19

3. Total No. of Outfalls in MS4: 15

Total No. of Outfalls Mapped: 17

4. Total No. of Observation Points: 5                      Total No. of Observation Points Mapped: 5
5. During the reporting period, have you identified any existing outfalls that have not been previously reported to DEP in an NOI, application or annual report, or are any new MS4 outfalls proposed for the next reporting period?
- ☐ Yes ☒ No                      If Yes, select: ☐ Existing Outfall(s) Identified ☐ New Outfall(s) Proposed

**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. Have you completed a map(s) that includes all components of BMP #3? ☒ Yes ☐ No

If Yes and you are a new permittee and have not submitted the map(s) previously, attach the map(s) to this report.

If No, date by which permittee expects map(s) to be completed:

2. If Yes to #1, is the map(s) on the same map(s) as for outfalls and receiving waters? ☒ Yes ☐ No

3. Date of last update or revision to map(s): 8/27/19

**BMP #4:** Conduct dry weather screenings of 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.

For new permittees, all identified outfalls (and if applicable observation points) must be screened during dry weather at least twice within the 5-year period following permit coverage. For existing permittees, all identified outfalls (and if applicable observation points) must be screen during dry weather at least once within the 5-year period following permit coverage and, for areas where past problems have been reported or known sources of dry weather flows occur on a continual basis, outfalls must be screened annually during each year of permit coverage.

1. How many unique outfalls (and if applicable observation points) were screened during the reporting period? 7
2. Indicate the percentage of all outfalls screened in the past five years. 80%
3. Indicate the percent of outfalls screened during the reporting period that revealed dry weather flows: 0%
4. Did any dry weather flows reveal color, turbidity, sheen, odor, floating or submerged solids? ☐ Yes ☒ No
5. If Yes for #4, attach all sample results to this report with a map identifying the sample location. Explain the corrective action(s) taken in the attachment.
6. Do you use the MS4 Outfall Field Screening Report form (3800-FM-BCW0521) provided in the permit?

☐ Yes ☒ No

If No, attach a copy of your screening report form.

**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. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that prohibits non-stormwater discharges? ☒ Yes ☐ No
- If Yes, indicate the date of the ordinance or SOP: 12/03/2012
2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) with respect to authorized non-stormwater discharges? ☐ Yes ☒ No

If Yes to #2 and the ordinance or SOP has not been submitted to DEP previously, attach the ordinance or SOP.

3. Were there any violations of the ordinance or SOP during the reporting period? ☐ Yes ☒ No

If Yes to #3, complete the table below (attach additional sheets as necessary).

Violation Date	Nature of Violation	Responsible Party	Enforcement Taken
-	-	-	-

4. Did you approve any waiver or variance during the reporting period that allowed an exception to non-stormwater discharge provisions of an ordinance or SOP? ☐ Yes ☒ No

If Yes to #4, identify the entity that received the waiver or variance and the type of non-stormwater discharge approved.

**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. Was IDD&E-related information distributed to public employees, businesses, and the general public during the reporting period? ☒ Yes ☐ No

If Yes, what was distributed? Yes, IDD&E-related information distributed to public employees, businesses, and the general public during the reporting period. Note the following: Information on the Penn Waste Residential Recycling Program; Information on the York County Solid Waste Authority Electronics Recycling Program; Information on the Borough's Property Maintenance Code.

2. Is there a well-publicized method for employees, businesses and the public to report stormwater pollution incidents?

☒ Yes ☐ No

3. Do you maintain documentation of all responses, action taken, and the time required to take action? ☒ Yes ☐ No

**MCM #3 Comments:**

Attachment 3.1: Outfall Reconnaissance Inventory/ Sample Collection Field

Attachment 3.2: MS4 Map

Attachment 3.3: Illicit Discharge Reporting Form (Public Facing)

**MCM #4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

Are you relying on PA's statewide program for stormwater associated with construction activities to satisfy this MCM?

☒ Yes ☐ No

*(If Yes, respond to questions for BMP Nos. 1, 2 and 3 only in this section. If No, respond to questions for all BMPs in this section)*

**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.**

During the reporting period, did you comply with 25 Pa. Code § 102.43 (relating to withholding building or other permits or approvals until DEP or a county conservation district (CCD) has approved NPDES permit coverage)?

☒ Yes ☐ No ☐ Not Applicable (no building permit applications received)

**BMP #2: A municipality or county which issues building or other permits shall notify DEP or the applicable 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.**

During the reporting period, did you comply with 25 Pa. Code § 102.42 (relating to notifying DEP/CCD within 5 days of receiving an application involving an earth disturbance activity of one acre or more)?

☒ Yes ☐ No ☐ Not Applicable (no building permit applications received)

**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. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that requires implementation and maintenance of E&S control BMPs? ☒ Yes ☐ No

If Yes, indicate the date of the ordinance or SOP: 12/03/2012

2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)? ☐ Yes ☒ No

3. If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.

**BMP #4: Review Erosion and Sediment (E&S) control plans to ensure that such plans adequately consider water quality impacts and meet regulatory requirements.**

Specify the number of E&S Plans you reviewed during the reporting period: N/A

**BMP #5: Conduct inspections regarding installation and maintenance of E&S control measures during earth disturbance activities. Maintain records of site inspections, including dates and inspection results, in accordance with the record retention requirements in this permit.**

Specify the number of E&S inspections you completed during the reporting period: N/A

**BMP #6: Conduct enforcement when installation and maintenance of E&S control measures during earth disturbance activities does not comply with permit and/or regulatory requirements.**

Specify the number of enforcement actions you took during the reporting period for improper E&S: N/A

**BMP #7: Develop and implement requirements for construction site operators to control waste at construction sites that may cause adverse impacts to water quality. The permittee shall provide education on these requirements to construction site operators.**

Specify the method(s) by which you are educating construction site operators on controlling waste at construction sites:

N/A

**BMP #8: Develop and implement procedures for the receipt and consideration of public inquiries, concerns, and information submitted by the public to the permittee regarding local construction activities.**

1. A tracking system has been established for receipt of public inquiries and complaints. ☐ Yes ☐ No

2. Specify the number of inquiries and complaints received during the reporting period: N/A

**MCM #4 Comments:**

Attachment 4.1: Stormwater Management Ordinance

**MCM #5 – POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

**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. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that requires implementation and maintenance of post-construction stormwater management (PCSM) BMPs? ☒ Yes ☐ No  
If Yes, indicate the date of the ordinance or SOP: 12/03/2012
2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)? ☐ Yes ☒ No
3. If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.

**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. Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID practices.**

1. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that encourages and expands the use of LID in new development and redevelopment? ☒ Yes ☐ No  
If Yes, indicate the date of the ordinance or SOP: 12/03/2012
2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j)? ☐ Yes ☒ No
3. If Yes to #2 and the ordinance or SOP has not been submitted previously, attach a copy of the ordinance or SOP.

**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.**

1. Do you have an inventory of all PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003? ☒ Yes ☐ No  
If Yes to #1, complete Table 1 on the next page.
2. Has proper O&M occurred during the reporting period for all PCSM BMPs? ☒ Yes ☐ No
3. If No to #2, explain what action(s) the permittee has taken or plans to take to ensure proper O&M.  
  
N/A

*If you are relying on PA's statewide program for stormwater associated with construction activities, you may skip to MCM #6, otherwise complete all questions for BMPs #4 - #6 in this section.*

**BMP #4: Require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to the local community, that minimize water quality impacts, and that are designed to maintain pre-development runoff conditions.**

1. Specify the number of PCSM Plans reviewed during the reporting period for projects disturbing 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): N/A
2. Has a tracking system been established and maintained to record qualifying projects and their associated BMPs?  
  
☐ Yes ☐ No



### PCSM BMP INVENTORY

**Table 1.** To complete the information needed for MCM #5, BMP #3, list all existing structural BMPs that discharge stormwater to the permittee's MS4 that were installed to satisfy PCSM requirements for earth disturbance activities under Chapter 102, and provide the requested information (see instructions).

BMP No.	BMP Name	DA (ac)	Entity Responsible for O&M	Latitude	Longitude	Date Installed	O&M Requirements	NPDES Permit No.
1	Infiltration Basin	6.18	Spring Grove Borough	39°53'29"	76°51'55"	2014	Annual visual screening; minimum O&M defined in the PA BMP manual	-
2	Vegetated Swale	3.63	Spring Grove Borough	39°53'40"	76°51'46"	2014	Annual visual screening; minimum O&M defined in the PA BMP manual	-
3	Wet Pond Retention Basin	7.11	Spring Grove Borough	39°53'40"	76°51'38"	2014	Annual visual screening; minimum O&M defined in the PA BMP manual	-
4	Infiltration Basin	3.47	Spring Grove Borough	39°53'29"	76°51'30"	2014	Annual visual screening; minimum O&M defined in the PA BMP manual	-
5	Vegetated Swale	3.47	Spring Grove Borough	39°53'25"	76°51'31"	2014	Annual visual screening; minimum O&M defined in the PA BMP manual	-
6	Subsurface Infiltration Bed	1.53	Spring Grove Borough	39°52'46"	76°51'48"	2010	Annual visual screening; minimum O&M defined in the PA BMP manual	PAG2006710025 R
7	Infiltration Basin	0.17	Spring Grove Borough	39°52'30"	76°51'43"	2008	Annual visual screening; minimum O&M defined in the PA BMP manual	-
8	Pervious Pavement Infiltration Bed	0.11	Spring Grove Borough	39°52'23"	76°51'39"	2015	Annual visual screening; minimum O&M defined in the PA BMP manual	-

9	Subsurface Storage Facility	0.15	Spring Grove Borough	39°52'28"	76°51'58"	2015	Annual visual screening; minimum O&M defined in the PA BMP manual	-
10	Dry Detention Basin	100.3 0	Spring Grove Borough	39°53'17"	76°51'37"	-	Annual visual screening; minimum O&M defined in the PA BMP manual	-
11				o ' "	o ' "	-		
12				o ' "	o ' "	-		
13				o ' "	o ' "	-		
14				o ' "	o ' "	-		
15				o ' "	o ' "	-		
16				o ' "	o ' "	-		

**BMP #5: Ensure that controls are installed that shall prevent or minimize water quality impacts. The permittee shall inspect all qualifying development or redevelopment projects during the construction phase to ensure proper installation of the approved structural PCSM BMPs. A tracking system (e.g., database, spreadsheet, or written list) shall be implemented to track the inspections conducted and to track the results of the inspections (e.g., BMPs were, or were not, installed properly).**

1. During the reporting period have you inspected all qualifying development and redevelopment projects during the construction phase to ensure proper installation of approved structural BMPs?  
☐ Yes ☐ No ☐ Not Applicable (no qualifying projects during reporting period)
2. Has a tracking system been established and maintained to record results of inspections?  
☐ Yes ☐ No

**BMP #6: Develop a written procedure that describes how the permittee shall address all required components of this MCM.**

Have you developed a written plan that addresses: 1) minimum requirements for use of structural and/or non-structural BMPs in plans for development and redevelopment; 2) criteria for selecting and standards for sizing stormwater BMPs; and 3) implementation of an inspection program to ensure that BMPs are properly installed? ☐ Yes ☐ No

**MCM #5 Comments:**

Attachment 5.1: BMP Standard Operation Procedures  
Attachment 5.2: BMP Inspections Report

**MCM #6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING**

**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 MS4. This includes activities conducted by contractors for the permittee.**

1. Have you identified all facilities and activities owned and operated by the permittee that have the potential to generate stormwater runoff into the MS4? ☒ Yes ☐ No
2. When was the inventory last reviewed? 5/4/20
3. When was it last updated? 8/2019

**BMP #2: Develop, implement and maintain a written O&M program for all operations that could contribute to the discharge of pollutants from the MS4, as identified under BMP #1. This program shall address stormwater collection or conveyance systems within the regulated MS4.**

1. Have you developed a written O&M program for the operations identified in BMP #1? ☒ Yes ☐ No
2. Date of last review or update to written O&M program: 5/4/20

**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. All relevant employees and contractors shall receive training.**

1. Have you developed an employee training program? ☒ Yes ☐ No
2. Date of last review or update to training program: 5/4/20 Date of latest training: 6/17/20

3. Training topics covered:

Spring Grove MS4 SWMP, Good Housekeeping of the Municipal Facilities, Illicit Discharge Control, and Standard Operating Procedures.

4. Name(s) of training presenter(s):

Collin Fox

5. Names of training attendees:

Andrew N. Shaffer, Anthony Leonis Jr, Scott Zeigler, and Robert Staub Jr.

**MCM #6 Comments:**

Attachment 6.1: Training Documentation and Sign In Sheet

Attachment 6.2: Good Housekeeping Operation & Maintenance Program

The municipality has developed a Good Housekeeping Plan as part of its Stormwater Program. Many of the components that make up the Good Housekeeping Plan currently exist as stand-alone documents within the annual report. It is the goal of the municipality to consolidate these attachments and update the current state of the Good Housekeeping Plan. The municipality will provide an update to this effort within the next annual report.

**POLLUTANT CONTROL MEASURES (PCMs)**

*Indicate the status of implementing PCMs in Appendices A, B and/or C by completing the table below. Skip this section if PCMs are not applicable.*

Task	Date Completed	Attached	Anticipated Completion Date
Storm Sewershed Map(s)		<input type="checkbox"/>	
Source Inventory		<input type="checkbox"/>	
Investigation of Suspected Sources		<input type="checkbox"/>	
Ordinance/SOP for Controlling Animal Wastes		<input type="checkbox"/>	

**PCM Comments:**

Not a requirement of Spring Grove Borough during this permit cycle.

**POLLUTANT REDUCTION PLANS (PRPs) AND TMDL PLANS**

1. Complete this section if the development and submission of a PRP and/or TMDL Plan was required as an attachment to the latest NOI or application or was required by the permit, regardless of whether DEP has approved the plan(s).

Type of Plan	Submission Date	DEP Approval Date	Surface Waters Addressed by Plan
<input checked="" type="checkbox"/> Chesapeake Bay PRP (Appendix D)	9/29/2017	04/06/2018	Chesapeake Bay
<input type="checkbox"/> Impaired Waters PRP (Appendix E)			
<input type="checkbox"/> TMDL Plan (Appendix F)			
<input type="checkbox"/> Combined Chesapeake Bay / Impaired Waters PRP			Chesapeake Bay,

<input type="checkbox"/> Combined PRP / TMDL Plan			
<input type="checkbox"/> Joint Plan <i>(if checked, list the name of the MS4 group or names of all entities participating in the joint plan below)</i> Joint Plan Participants:			
2. Identify the pollutants of concern and pollutant load reduction requirements under the permit (see instructions).			
Type of Plan	TSS Load Reduction (lbs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)
<input checked="" type="checkbox"/> Chesapeake Bay PRP (Appendix D)	28,076.90	-	-
<input type="checkbox"/> Impaired Waters PRP (Appendix E)			
<input type="checkbox"/> TMDL Plan (Appendix F)			
<input type="checkbox"/> Combined Chesapeake Bay / Impaired Waters PRP			
<input type="checkbox"/> Combined PRP / TMDL Plan			

3. Date Final Report Demonstrating Achievement of Pollutant Load Reductions Due: May 1, 2023

4. Have any modifications to the plan(s) occurred since DEP approval? ☐ Yes ☒ No

If Yes to #4, was the updated plan(s) submitted to DEP? ☐ Yes ☐ No

If Yes to #4, did you comply with the public participation requirements of the applicable appendix? ☐ Yes ☐ No

If Yes to #4, describe the plan modifications.

N/A

5. Summary of progress achieved during reporting period.

The Borough has reviewed and maintained the mapping of their MS4 system. The construction of the stream restoration described in the Spring Grove Pollution Reduction Plan is underway and approaching completion.

6. Anticipated activities for next reporting period.

The Borough anticipates completion of the stream restoration described in the Spring Grove Pollution Reduction Plan. The MS4 mapping will be continually reviewed and updated as needed.

**PRP/TMDL Plan Comments:**

N/A

### NEW BMPs FOR PRP/TMDL PLAN IMPLEMENTATION

**Table 2.** List all new structural BMPs installed and ongoing non-structural BMPs implemented during the reporting period that are being used toward achieving load reductions in the permittee's PRP and/or TMDL Plan (see instructions).

BMP No.	BMP Name	DA (ac)	% Imp.	BMP Extent	Units	Latitude	Longitude	Date Installed or Implemented	Planning Area?	Ch. 102?	Annual Sediment Load Reduction (lbs/yr)
SR1	Campus Ave. Stream Restoration			1,250 LF		39°53'02"	76°51'56"	2019	<input checked="" type="checkbox"/>	<input type="checkbox"/>	56,100
						0 1 11	0 1 11		<input type="checkbox"/>	<input type="checkbox"/>	
						0 1 11	0 1 11		<input type="checkbox"/>	<input type="checkbox"/>	
						0 1 11	0 1 11		<input type="checkbox"/>	<input type="checkbox"/>	
						0 1 11	0 1 11		<input type="checkbox"/>	<input type="checkbox"/>	

### BMP INVENTORY FOR PRP/TMDL PLAN IMPLEMENTATION

**Table 3.** List all existing structural BMPs that have been installed in prior reporting periods and are eligible to use toward achieving load reductions in the permittee's PRP and/or TMDL Plan (see instructions).

BMP No.	BMP Name	DA (ac)	% Imp.	BMP Extent	Units	Latitude	Longitude	Date Installed	Annual Sediment Load Reduction (lbs/yr)	Date of Latest Inspection	Satisfactory?
	N/A					0 1 11	0 1 11				<input type="checkbox"/>
						0 1 11	0 1 11				<input type="checkbox"/>
						0 1 11	0 1 11				<input type="checkbox"/>
						0 1 11	0 1 11				<input type="checkbox"/>
						0 1 11	0 1 11				<input type="checkbox"/>

						O   '   ''	O   '   ''				<input type="checkbox"/>
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### CERTIFICATION

**For PAG-13 Permittees:** I have read the latest PAG-13 General Permit issued by DEP and agree and certify that (1) the permittee continues to be eligible for coverage under the PAG-13 General Permit and (2) the permittee will continue to comply with the conditions of that permit, including any modifications thereto. I understand that if I do not agree to the terms and conditions of the PAG-13 General Permit, I will apply for an individual permit within 90 days of publication of the General Permit. I also acknowledge that any facility construction needed to comply with the General Permit requirements shall be designed, built, operated, and maintained in accordance with operative laws and regulations.

**For All Permittees:** I certify under penalty of law that this report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

MARK HARMAN

Name of Responsible Official

717-560-6083

Telephone No.

[Signature]  
Signature

9/28/20

Date



# ATTACHMENTS

Attachment 1.1 - Stormwater Management Program

Attachment 1.2 - Municipal Website

Attachment 1.3 – Educational Materials

Attachment 1.4 – Program Update

Attachment 1.5 – MS4 Goals & Accomplishments

Attachment 2.1 - Borough Council Meeting Minutes

Attachment 2.2 – Public Involvement and Participation Plan

Attachment 2.3 - “Boro Bits” Municipal Newsletters

Attachment 2.4 – Cooperation with Other Organizations and  
Public Participation

Attachment 3.1 - Outfall Reconnaissance Inventory/Sample  
Collection field Sheets

Attachment 3.2 - MS4 Map

Attachment 3.3 – Illicit Discharge Reporting Form

Attachment 4.1 - Stormwater Management Ordinance

Attachment 5.1 – BMP Standard Operation Procedures

Attachment 5.2 – BMP Inspections Report

Attachment 6.1 - Training Documentation and sign in sheet

Attachment 6.2 – Good Housekeeping Operation & Maintenance  
Program

# ATTACHMENT 1.1

STORMWATER MANAGEMENT PROGRAM

# Spring Grove Borough



## Stormwater Management Program (SWMP)

ARRO Consulting, Inc.  
108 West Airport Road  
Lititz, PA 17543





## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

In order to establish a more thorough understanding of the causes and impacts of stormwater pollution in Spring Grove Borough (Borough), ARRO consulting, Inc. (ARRO) completed a Target Audience Analysis to identify Target Audience Groups (TAGs) that will most likely contribute to local waterway impairments or produce Illicit Discharges. The Target Audience Analysis was conducted in Geographic Information Systems (GIS) with Spring Grove Borough's Urbanized Area 2010 (UA), and Appendix D Watersheds, that were identified from the Pennsylvania Department of Environmental Protection (PA DEP) Municipal Requirements table. The data was obtained from the United States Geological Survey (USGS) Stream Stats Application and Land Use information from 2020 York County parcel data. TAGs were identified by comparing Appendix D Watershed, and the UA areas with Google Earth Aerial Imagery. By understanding the most likely sources for pollution, the Borough has the ability to establish location-specific Minimum Control Measures (MCMs) and associated Best Management Practices (BMPs) for their MS4 program.

**Figure 1. Pennsylvania Department of Environmental Protection Municipal Requirements Table**

MS4 Name	NPDES ID	Individual Permit Required?	Reason	Impaired Downstream Waters or Applicable TMDL Name	Requirements	Other Cause(s) of Impairment
<b>York County</b>						
Spring Grove Borough		No		Chesapeake Bay Nutrients/Sediment	Appendix D- Nutrients, Siltation (4a)	

Figure 1 shows the Appendix D streams that were used to delineate watersheds.

As dictated by the Borough's MS4 Permit, the following sections of this document address each of the 6 required MCMs and the associated BMPs.

### **MCM #1: PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS**

#### **BMP #1: PUBLIC EDUCATION AND OUTREACH PROGRAM (PEOP):**

The Borough will engage in a PEOP with the TAGs through the activities listed under MCM #1; BMP #3 and MCM #1; BMP #4, which are outlined later in this document.

The PEOP was designed to achieve measurable improvements in the TAG's understanding of the causes and impacts of stormwater pollution and the steps they may take to prevent it. TAGs are identified under MCM #1; BMP #2 which is outlined later in this document.

The Borough may partner with other MS4s, the county, schools, watershed associations and/or environmental organizations to improve the TAG's understanding of MS4 related topics.



## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

Listed below are the Borough's PEO objectives and goals. PEO objectives are intended to be the short-term means for achieving the long-term program goals. The Borough's annual MS4 reports will evaluate the effectiveness of each PEO objective and provide a method to measure improvements in the TAG's understanding. Annual MS4 reporting of the PEO to include the following:

- Assess what actions the MS4 permit holder took during the reporting period to achieve measurable improvements in the TAGs understanding.
- Describe what the MS4 permit holder has learned as a result of implementing the PEO objectives over the course of the reporting period.
- Based on what was learned during that reporting year, outline what actions the MS4 permit holder will undertake over the course of next annual reporting period to achieve measurable improvements in the TAGs understanding.

### GENERAL PUBLIC

- *Objective* – Define the methods to expose the general public to stormwater related information outside of a municipal setting.
  - Long Term Goal –Increase the public's (residential, commercial and industrial, institutional, and Borough staff/elected officials to the Borough) awareness and understanding of the Borough's MS4 program, causes and impacts of stormwater pollution, and how to prevent pollutant discharges into the Borough's regulated MS4.

Each MS4 reporting year the Borough will review the PEO and update as necessary to maintain relevancy.

### BMP #2: TARGET AUDIENCE GROUPS:

The Borough's TAGs have been defined as (1) Residential Uses/Residential Activities, (2) Commercial and Industrial Users, (3) Institutional Areas/Uses, (4) Borough Elected Officials/Borough staff. Each Target Audience will be reviewed and updated as necessary as part of each annual MS4 report. A description of each Target Audience is as follows:

Land Use		Total	
		Acres	%
<b>Apartments</b>	<i>A</i>	134.65	23.12
<b>Commercial</b>	<i>C</i>	51.56	8.85
<b>Institutional</b>	<i>E</i>	55.49	9.53
<b>Farm</b>	<i>F</i>	26.40	4.53
<b>Industrial</b>	<i>I</i>	70.48	12.10
<b>Residential</b>	<i>R</i>	243.77	41.86

582.34

Rank	
#1	Residential (41.86%)
#2	Apartments (23.12%)
#3	Industrial (12.10%)
#4	Institutional (9.53%)
#5	Commercial (8.85%)
#6	Farm (4.53%)



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

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Land use information derived from 2020 York County parcel data.

### **TARGET AUDIENCE GROUP 1:**

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- **Residential Uses/ Residential Activities:** The Borough is primarily built-out with limited options for new development or redevelopment; therefore, the primary sources of pollution to the regulated MS4 Conveyance System are likely caused from existing residential uses and activities. 42% of the Borough's land use is residential, so the probability of illicit discharges from residential activities is high. Sources of pollution from residential uses include everyday activities such as car washing, lawn maintenance, power washing, storage of materials (trash, recyclables, etc.) and vehicle and equipment maintenance. In order to address pollutants generated from residential uses the Borough must consider methods for source control to retain pollutants at the locations where those pollutants are generated. This presents the necessity for a rigorous public education and outreach program that involves residents in the community in the MS4 improvement process. This can be done by educating the public how to use and practice proper homeowner best management practices. Furthermore, instructing the public to use residential BMPs, such as rain gardens and rain barrels will supplement the Borough's effort in reducing the effect that the community has upon the local waterways.

### **TARGET AUDIENCE GROUP 2:**

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- **Commercial and Industrial Areas/Uses:** Commercial and industrial areas/uses present the potential for pollution to the regulated MS4 Conveyance System through everyday business activities. 21% of the Borough's land use is classified as either commercial or industrial. In order to address pollution generated from commercial and industrial areas/uses the Borough must assess each commercial and industrial activity and determine (1) the ability of that commercial or industrial operation to generate pollution that could impact the regulated MS4 Conveyance System and (2) the ability of that commercial or industrial operation to address a pollution release. This can be done by establishing a comprehensive list of commercial and industrial businesses and activities in the Borough, determining what commercial and industrial uses have the potential for an offsite pollution discharge, then establishing partnerships with those commercial and industrial businesses in order to prevent a potential discharge.

### **TARGET AUDIENCE GROUP 3:**

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- **Institutional Areas and Activities:** Institutional areas and activities present the potential for pollution to the regulated MS4 Conveyance System through everyday activities. 10% of the Borough's land use is classified as institutional. In order to address pollution generated from institutional uses the Borough must assess each institutional activity and determine (1) the ability of that institutional operation to generate pollution that could impact the regulated MS4 Conveyance System and (2) the ability of that institutional operation to address a pollution release. This can be done by establishing a comprehensive list of institutions and activities in the Borough, determining what institutional uses have the potential for an offsite pollution discharge then establish partnerships with those institutions in order to prevent any potential discharge.



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

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### **TARGET AUDIENCE GROUP 4:**

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- **Elected Officials and Borough Staff:** The Borough Council is an elected representative group of the Spring Grove Borough community. The Borough Council guides the Borough through the major decision-making processes such as budget approval and the passing of ordinances. Because of the unique position the Borough Council holds, having an educated group of elected officials on all the uses, activities, and changes to the MS4 program that may impact the regulated MS4 Conveyance System is important. The Borough must consider methods for source control to retain pollutants at the locations where those pollutants are generated and reduce the Borough's impact on waterways of the United States. This presents the necessity for a rigorous education and outreach program that involves elected officials in the decision-making process to improve the Borough's MS4 program. This can be done by educating elected officials on necessary changes and processes that need to be implemented. The Borough Staff is in charge of proper O&M of Borough-owned stormwater facilities and to ensure that compliance is achieved for their MS4 Permit.

Each annual MS4 reporting year, the Borough will review the Target Audience list and methods for distributing educational materials to these groups and update as necessary.

### **BMP #3: PUBLISH STORMWATER INFORMATION:**

On an annual basis, the Borough will produce stormwater education material and informational items about the Borough's Stormwater Management Program that will be published in print and/or on the internet. Each annual MS4 reporting year the Borough will review, update and maintain published stormwater education material and informational items about the Borough's Stormwater Management Program, general stormwater information and the Boroughs stormwater management activities.

The Borough utilizes many different forms of handouts, flyers, newsletters and brochures along with the Borough website and other avenues to present general stormwater educational material and informational items about the Borough's Stormwater Management Program, and information on the Boroughs stormwater management activities to the community and TAGs. The Borough will continue the aforementioned and will attempt to partner with other MS4s, the county, schools, watershed associations and/or environmental organizations to meet this BMP.

The Borough will utilize the above referenced methods for developing MS4 related material and updates for the public. As the knowledge of each TAG increases, the Borough will evaluate other methods for producing stormwater education material and informational items about the Borough's Stormwater Management Program, general stormwater information and information on the Boroughs stormwater management activities.

(Please reference educational materials attached in the Annual Report.)



**Spring Grove Borough**  
**Municipal Separate Storm Sewer System**  
**Stormwater Management Program**  
**(MS4 SWMP)**

**BMP #4: DISTRIBUTE STORMWATER EDUCATIONAL MATERIALS AND/OR INFORMATION:**

The Borough will utilize at least four methods of distribution of stormwater education material and informational items about the Borough's Stormwater Management Program to the public and the TAGs.

The Borough utilizes the displays, posters, signs, pamphlets, booklets, and/or brochures (Method 1) located in the Borough Office and displayed at monthly Borough Council meetings (Method 2). Information provided on the Borough's website (Method 3) and made available through email upon request (Method 4) as the 4 methods of distribution. The Borough will continue the aforementioned and will attempt to locate additional distribution methods based on the TAGs.

The Borough will utilize the above referenced methods for reporting MS4 related material and updates to the public. As the knowledge of each TAG increases, the Borough will evaluate other distribution methods.





## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

### **MCM #2: PUBLIC INVOLVEMENT / PARTICIPATION**

#### **BMP #1: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM (PIPP):**

The Borough will engage in a PIPP with the TAGs listed under MCM #1, BMP #2 through activities listed under MCM #2 BMP #3 and MCM #2 #4, which are outlined later in this document. The PIPP is connected to the PEOP so updates to one program will be reflected in the other program.

The Borough may partner with other MS4s, the county, schools, watershed associations and/or environmental organizations to improve the public and TAGs understanding of the causes and impacts of stormwater pollution and the steps they can take to prevent it.

Annual MS4 reporting of the PIPP to include the following:

- Opportunities for the public to participate in the decision making processes associated with the development, implementation and updating of programs and activities associated with the Borough's MS4 permit.
  - The Borough conducts open public meetings, which have also been held online due to Coronavirus concerns and social distancing recommendations, once a month on a regularly scheduled basis. These meetings are properly advertised in accordance with all applicable State and local public notice requirements. Each of the aforementioned public meetings will have a scheduled time on the agenda for public participation on any item, which may include items related to the Borough's Stormwater Program. Any comments received at these meetings regarding the Borough's Stormwater Management Program will be recorded in the meeting minutes. The Borough Staff that is responsible for the Stormwater Management Program will make appropriate follow-up contact with public participants, to ensure that their comments or concerns are addressed.
  - In addition to the public meetings, public comment on the Stormwater Management Program can be received at the Borough office during normal business hours by phone or by contact through the Borough Website.
- Methods for routine communication for groups that operate within proximity to the MS4 conveyance system or receiving waters.
  - Have discussions regarding MS4 related topics such as implementation of residential BMPs, pollution prevention, and information regarding the program in an advertised public meeting to communicate.
  - Follow up with the community when questions, concerns or complaints related to stormwater are raised.
  - Based on the findings of the PEOP objectives and goals, the Borough shall assess other means for making MS4 reports available to the public.
- Means for making annual MS4 reports available to the public:



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

- Continue to provide reports, available for public review, which are available to be reviewed upon request at the Borough main office located at 1 Campus Avenue, Spring Grove, PA 17362 between the hours of 8:00am-4:30pm.
- Based on the findings of the PEOP objectives and goals, the Borough shall assess other means for making MS4 reports available to the public.
- Participation by the public in programs and activities related to the MS4 permit are be achieved by:
  - Providing a MS4 based discussion at an advertised public meeting.
  - Based on the findings of the PEOP plans and goals, the Borough will assess other participation options for reaching each TAG.
  - Based on the findings of the PEOP objectives and goals outlined under MCM #1, BMP #1, the Borough will assess other options for soliciting public involvement and participation.

### **BMP #2: PUBLIC NOTIFICATION OF ADOPTION OF ORDINANCE AS REQUIRED BY MS4 PERMIT:**

The Borough will advertise any proposed MS4 Stormwater Management Ordinance or Standard Operating Procedure (SOP), provide opportunities for public comment, evaluate any public input and feedback, and document the comments received and the Borough's response. The Borough will update their ordinance to be consistent with PA DEP's Model 2022 Stormwater Management Ordinance.

Each annual MS4 reporting year the Borough will review Ordinances and SOPs and update as necessary to maintain their relevancy.

### **BMP #3: SOLICIT PUBLIC INVOLVEMENT AND PARTICIPATION:**

The Borough will conduct at least one public meeting per year to solicit public involvement and participation from the TAGs. This meeting may be part of one of the regularly scheduled meetings, conducted as a specific portion of the meeting or may be a separate meeting. The public should be given reasonable notice in advance of each meeting.

During the meetings, the Borough will present a summary of progress, activities, and accomplishments regarding implementation of the Stormwater Management Plan, and provide opportunities for the public to provide feedback and input. The Borough will report instances of cooperation and participation in activities; presentations made to local watershed organizations and conservation organizations; and similar instances of participation or coordination with organizations in the community.

The Borough will document and report activities in which members of the public assisted or participated in meetings and in the implementation of the Borough's Stormwater Management Plan, including education activities or organized implementation efforts such as cleanups, monitoring, storm drain stenciling, or others.



## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

### MCM #3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E)

To report an illicit discharge at any time, please submit an illicit discharge/water quality complaint form by visiting the MS4 page of the Borough's website and clicking the link. During normal business hours, Monday-Friday 8 AM to 4:30 PM, one could also report illicit discharges by calling the Borough office at 717-225-5791.

During the Target Audience Analysis, watershed areas were analyzed to identify 3 priority area categories. These categories are high, medium, and low. The level of priority area is designed as based on the amount of watershed area, the amount of impervious surface, and the type of land use and potential pollutants. The Appendix D Watershed is prioritized over the other impaired downstream waters so the Borough can meet its reduction goals stated in the Pollutant Reduction Plan (PRP). In order of importance the areas are the following:

1. **High Priority**
2. **Medium Priority**
3. **Low Priority**

#### SCHEDULE OF DRY WEATHER OUTFALL SCREENINGS

Planning Area	Inspection Frequency
High Priority	Seasonally
Medium Priority	Annually
Low Priority	Annually

#### DRY WEATHER SCREENING PROTOCOLS

##### WHAT IS DRY WEATHER SCREENING?

Dry weather screening is a field test method for inspecting stormwater drainage areas to help locate and identify illicit discharges to a municipal stormwater system. Field testing or screening is designed primarily for assessing flowing discharges from a stormwater conveyance system.



# Spring Grove Borough

## Municipal Separate Storm Sewer System

### Stormwater Management Program

#### (MS4 SWMP)

#### TRAINING AND QUALITY CONTROL FOR MS4 STAFF

Anyone performing dry weather screens must be properly trained in the (I) Site Procedures, (II) Monitoring Procedures and (III) Illicit Discharge Elimination Procedures outlined in this document. The aforementioned procedures should be reviewed, at a minimum, on an annual basis and updated as necessary. The person(s) performing the dry weather screenings should provide an acknowledgement that they have read and are familiar with the procedures outlined in the document. A sample sign off sheet has been included at the end of this document.

#### SITE PROCEDURES

This section outlines field staff protocols, safety precautions and the recommended field equipment, sampling sequence and sampling collection methods.

The dry weather screening locations should be chosen in advance based on the MS4 map and the MS4 Outfall Sampling Protocol. The latest version of the Pa DEP Outfall Reconnaissance Inventory / Sample Collection Field Sheet, or similar Pa DEP required field collection data sheet, must be used to record the dry weather sampling events. The person(s) performing dry weather sampling should note the background data (date, location, weather, etc.) on the required Pa DEP field collection data sheets for each sampling location prior to entering the field.

The person(s) performing dry weather sampling must have and be familiar with the required dry weather screening equipment and be prepared to take photographs at each dry weather sampling location. Photographs represent proof of sampling activities and provide a visual record to document the conditions of the outfall and surrounding area.

Dry weather screening events should not occur within 72-hours of a rainfall event. Performing screenings 72-hours after a rainfall reduces the likelihood that flow from an outfall is precipitation related.

#### The recommended procedure to document the dry weather screening is as follows:

1.	Using a dry erase board mark the outfall number, inspection date and initials of the person performing the inspection.
2.	Position the dry erase board within close proximity to the outfall.
3.	Take a photograph of the dry erase board (making sure the outfall number, inspection date and initials of the person performing the inspection are visible) and the outfall.
4.	Complete the Pa DEP Outfall Reconnaissance Inventory / Sample Collection Field Sheet, or similar Pa DEP required field collection data sheet, including the inspector's signature and initials.
5.	Print the outfall inspection photograph, staple the photograph to the Pa DEP Outfall Reconnaissance Inventory / Sample Collection Field Sheet, or similar Pa DEP required field collection data sheet, and note on the field report that a photograph of the inspection has been attached to the field report.
6.	Pa DEP Outfall Reconnaissance Inventory / Sample Collection Field Sheets, or similar Pa DEP required field collection data sheets should be filed according to the annual MS-4 reporting cycle.



# **Spring Grove Borough**

## **Municipal Separate Storm Sewer System**

### **Stormwater Management Program**

#### **(MS4 SWMP)**

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#### **DRY WEATHER SAMPLING SAFETY / GENERAL PRECAUTIONS**

1. Review and familiarize yourself with this document.
2. Read all manufacture instructions to familiarize yourself with the test equipment before you begin. Note any manufacture precautions in the instructions.
3. Notify a designated person of your activities and dry weather screening route before you go into the field. The designated person should be contacted when dry weather screening activities cease. If the designated person is not notified within a specified amount of time, the designated person should notify the Borough Manager and the authorities of your absence.
4. Wear reflective clothing or a vest and an identification badge.
5. If possible, place signage on your vehicle to identify you as professional or acting for the Borough.
6. In the event of an accident or suspected poisoning, immediately call 911.
7. Avoid contact between fluids and skin, eyes, nose and mouth.
8. Wear safety goggles or glasses and rubber gloves when handling fluids.
9. Use the caps or stoppers to cover test tubes or samples bottles.
10. Wipe up any spills, liquid or powder, as soon as they occur.
11. Do not expose materials or equipment to direct sunlight for long periods of time and protect materials or equipment from extremely high or low temperatures.
12. Safely dispose of all waste materials appropriately.
13. Park your vehicle safely off roads and out of the way of traffic. The placement of orange safety cones is recommended around the vehicle.
14. Approach the screening location safely. Watch out for traffic on bridges and when crossing roads. Be on the lookout for snakes, fire ants, wasps, poison ivy, Africanized honeybees, wild animals or briars.
15. Avoid areas of high water.
16. Perform dry weather sampling another day or at another location if any dangerous condition is encountered.

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#### **SUGGESTED DRY WEATHER SAMPLING EQUIPMENT LIST**

1. MS4 Map
2. Required Pa DEP Field Collection Data Sheets
3. Armored thermometer, centigrade
4. pH Meter
5. Octa-Slide Comparator
6. Conductivity Meter



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

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7. Storm Drain test kit with tests for copper, chlorine, and detergent
8. Ammonia Nitrogen test kit
9. Gloves for handling chemicals
10. Safety goggles
11. Container for bringing back liquid reagent wastes from the field
12. Bottle of deionized or distilled water for rinsing equipment after sampling
13. Paper towels or rags
14. Tape measure or ruler
15. Camera
16. Dry Erase Board
17. Dry Erase Pen

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### **SUGGESTED IN-FIELD DRY WEATHER SAMPLING SEQUENCE**

1. pH meter calibration
2. Initial site observations: trash, sewage, surface scum, etc.
3. Air temperature
4. Physical observations: flow, color, odor, oil sheen
5. Water temperature
6. pH
7. Detergent
8. Ammonia-Nitrogen
9. Copper
10. Chlorine
11. Conductivity

It is important to know if dry-weather flow is typical at the dry weather sampling site. Spring flow or groundwater intrusion into a MS4 system is not uncommon in south eastern Pennsylvania. If a dry weather flow is encountered the flow should be photographed and described then a sample should be collected to confirm the nature of the flow. If it is confirmed that a flow is from a groundwater source, the person performing the dry weather screenings should be notified so they can make a comparison during the next dry weather sampling event at that location. If conditions at the location have changed, additional sampling may be warranted.



## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

Along with the information provided on the required Pa DEP field collection data sheets the following should also be noted to assist the person performing the next dry weather sampling event at that location:

- Record site access information, outlining how you accessed or approached the outfall and how you collected the sample.
- Note any environmental issues such as poison ivy or saturated soils.
- Detail any other issues which may affect future dry weather screening activities.

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### METHODS OF WATER (FLOW) SAMPLE COLLECTION OF A SUSPECTED ILLICIT DISCHARGE

There are three accepted methods for collecting water samples:

1. **Discharge Grab** - Rinse the test tubes or sampling containers twice with the water to be sampled. Collect the sample by putting the sampling container under the discharge of the outfall. Be sure to wear safety gloves and goggles.
2. **Surface Water Grab** - Rinse the test tubes or sampling containers twice with the water to be sampled. If deep enough, collect the sample at a depth of approximately twelve inches under the surface of the flow. Lower your container vertically to a depth of approximately twelve inches and then turn the container upright. Rinses should be done at the same depth you are sampling at. Approach the sampling location from downstream of any flow, so as not to disturb sampling site. If there is a current, be sure you are standing downstream of the container. Be sure not to drag the container on the bottom or kick up sediment into the sample.
3. **Bucket Grab** - Rinse the bucket twice with water to be sampled. Dispose of rinse water away from where actual sample will be taken. Gently lower bucket approximately twelve inches into the water or to one-third of total depth whichever is less and fill. Retrieve and take samples in the test tubes or sampling containers directly out of the bucket. Be sure and rinse those containers twice before collecting samples to be tested.

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### MONITORING PROCEDURES - TESTS AND OBSERVATIONS

This section outlines the suggested parameters to sample if a dry weather flow is encountered, illicit discharge protocol and the sample clean-up and storage of equipment.

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#### PARAMETER 1: CONDUCTIVITY

Conductivity can be used for describing inorganic materials in water and fluctuating levels of conductivity can be an indicator of pollution from a number of activities such as wastewater discharges, oil production activities, irrigation, removal of vegetation shading a stream and causing increased evaporation, overuse of fertilizers, spreading of road salt during icy conditions, etc.

Conductivity can be recorded using the Total Dissolved Solids (TDS) Tester.



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

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### **PARAMETER 2: TEMPERATURE**

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Temperature dramatically affects the rates of chemical and biochemical reaction within the water. Many biological, physical, and chemical principles depend on the temperature. Some of the most common of these are the solubility of compounds in water, distribution and abundance of organisms living in the water, rates of chemical reactions, density inversions and mixing, and current movements. Unusual temperature variations in a MS4 conveyance system could indicate thermal pollution by illegal discharges into the system.

Water temperature can be collected using a thermometer.

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### **PARAMETER 3: AMMONIA-NITROGEN**

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Nitrogen is a fundamental plant nutrient and required by all living plants and animals for building protein. Ammonia nitrogen is produced largely by deamination of organic nitrogen-containing compounds and by hydrolysis of urea. Sources of ammonia nitrogen in a MS4 conveyance system could be illegal connections to the sanitary sewer system, poorly functioning septic systems, or wildlife (particularly large concentrations of ducks and geese).

Ammonia-Nitrogen can be collected using a Testing Procedure and Ammonia-Nitrogen test kit.

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### **PARAMETER 4: PH**

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pH is a measure of how acidic or basic (alkaline) a solution is. Pure water has a pH of 7.0. When the pH is less than 7.0, the water is said to be acidic. When the pH is greater than 7.0, the water is said to be basic or alkaline. Water's ability to resist changes in pH is critical to aquatic life. There are several activities in water that can severely affect the pH. Human activities such as accidental spills, agricultural runoff (pesticides, fertilizers, animal wastes), and sewer overflows may also change pH.

pH can be defined using a pH Meter.

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### **PARAMETER 5: CHLORINE**

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Chlorine is used in water treatment and wastewater treatment processes to disinfect water. It has the same effect on natural waters. Chlorine in natural waters is toxic to aquatic life, particularly micro-organisms and can create a "sterile" environment. Chlorine in storm drain discharge could indicate an illicit connection with the water supply system or someone's swimming pool.

Chlorine levels can be defined using a Chlorine test Kit.





## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

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### **PARAMETER 6: COPPER**

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Copper is a metallic element essential to human growth and is literally found all over the world. Generally, detection of copper during monitoring could indicate an illicit discharge into the storm drain system.

Copper levels can be defined using a Copper test Kit.

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### **PARAMETER 7: DETERGENTS**

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Detergents can be toxic to many aquatic plants, bugs, and fish. In addition to their possible toxicity, detergents can also lower the level of oxygen that is available to aquatic life, such as fish. This is a result of biodegradation of the detergent. Detergent enters our surface water through a variety of channels. Illicit discharges into storm drains account for some of the detergent detected in storm drain outfalls. Car washing and outdoor cleaning of screens and grills also introduce detergent into our water bodies. Leaking sanitary sewers could also contribute detergents used in household cleaning.

Detergent levels can be defined using a Detergent test Kit.

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### **PARAMETER 8: COLOR**

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Color is determined by visually comparing the sample to known color standards.

The Borger Color System (BCS) can be utilized to assess color. BCS uses 147 color chips representing colors that actually occur in aquatic insects. Since protective coloration is part of some aquatic insects' natural defense mechanisms, this color chart will provide a range of natural colors found in creeks nationwide. Some aquatic insects also demonstrate bright colors in a range that would include those associated with illicit flows. The presence of dyes and process chemicals may be indicated when unusual colors are observed in storm drain systems.

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### **PARAMETER 9: OIL SHEEN**

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Hydrocarbons such as oil, gasoline, and grease often wash into the storm drain system through stormwater runoff. Less often, leaking or abandoned underground petroleum storage tanks account for larger influxes of hydrocarbons. These substances are toxic to aquatic organisms.

Oil sheen is determined through human observation. Observe outfall area for the presence of oil sheen (hydrocarbon residue). These are identified by a rainbow-like sheen on the water's surface.

NOTE: There are some types of algae that will produce a surface sheen, especially in isolated, stagnated pockets or pools in soils next to the outfall pool. Disregard these small packets of stagnated water.



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**PARAMETER 10: ODOR**

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"Clean" natural drainage water (during most of the year) produces no distinctive odors other than a slight mustiness. Since most organic and many inorganic chemicals generate some odor, a simple sensory "smell" test can be a valid indicator of possible illicit flows in a waterway.

Water odor can be determined as follows:

1. Rinse sample container twice with water to be tested.
2. Fill the sample container at least halfway with sample water and hold the sample about six inches from your nose. Use your free hand to fan the scent to your nose.

0.	No odor detected
1.	Gasoline
2.	Dry cleaning fluid
3.	Unidentified solvent odor
4.	Musty or septic
5.	Sweet or fruity
6.	Putrid (decay or decomposition odor)
7.	Chlorine
8.	Other (describe)

**Note 1:** Never inhale the air directly off the top of the sample, as many potential contaminants are injurious to delicate nasal membranes and lung tissues.

**Note 2:** When stream-side sediments are disturbed, odors associated with anaerobic decomposition are often released. Therefore, disturb streamside sediments as little as possible

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**PARAMETER 11: TRASH, SEWAGE AND SURFACE SCUM**

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Sewage, surface scum, and trash are undesirable and the observer should try to identify these features at the outfall as best as possible. Color of scum and/or floating solids should also be noted.

Often water in the outfall pool area will reveal signs of storm drain contamination by sewage collection systems or toxic conditions. Look for these indicators and record the appropriate code.



## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

0 -	None observed
1 -	Fish kills
2 -	Fecal matter
3 -	Toilet paper (typically resembles flocculent material)
4 -	Food products (such as corn)
5 -	Condoms or plastic tampon applicators
6 -	Tubifex worms (blood worms)
7 -	Mosquito larvae concentrations ("wigglers")
8 -	"Sewage fungus," actually observable, threadlike colonies of grayish white bacteria
9 -	Absence of aquatic life (sterile)
10 -	Other - describe on sheet

### CLEAN-UP AND STORAGE OF EQUIPMENT

- **Glassware Cleaning Procedure** - It is important to wash test tubes and/or sample containers with Deionized Water, 3 times in succession, after each test procedure is completed. At the end of each day, all sampling and test glassware should be washed with detergent and rinsed 3 times in succession.
- **Waste Disposal Procedure** - Collect all waste from tests in one lidded container to be taken with you from the test site. All waste from tests may be disposed of by flushing with lots of water down a toilet or drain which is connected to a central treatment facility. Waste should never be discarded on the ground or back into water being sampled.
- **Storm Drain And Ammonia-Nitrate Kits Storage** - Store testing kits in a clean, dry space away from pets and children. Do not subject them to extreme cold, heat, or humidity. Don't leave them lying in the sun. It is best to store them in a closet in your home, classroom, or workplace. Do not store them outside. Follow manufacture instructions.
- **pH Meter** - The pH meter is your most sensitive piece of equipment. It is very sensitive to excessive heat (like a closed car), excessive shaking, and excessive moisture (drizzle, being laid on a wet surface, dropping it in a lake, wearing it in the shower, immersing the meter above the immersion line). The pH pens are not waterproof or even water resistant. Be very careful to protect against moisture, especially during rainy conditions. Pens will not work properly if moisture gets into electronics. If pen gets damp, pull out batteries and allow electronics to dry. After electronics have dried, replace batteries. Rinse the probe section of the pH pen in tap water. Put the pH Pen away wrapped in a towel or a protective covering. Follow manufacture instructions.

### METHODS FOR REMOVING OR CORRECTING AN ILLICIT DISCHARGE

*Please note illicit discharge sources vary greatly therefore a step by step procedure for locating and removing the source for an illicit discharge cannot be provided. This section is intended as an outline*



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

*to help the inspector assess the nature of the illicit discharge and begin the process of eliminating the discharge.*

If an illicit discharge is found the inspector should perform the procedures outlined in this document to determine the source. If the illicit discharge source can be determined the inspector should immediately notify the property owner(s)/persons responsible for the illicit discharge source and make them aware they are in violation of the Borough's MS4 Permit. The specifics for notifying, resolving and implementing an enforcement action based on an illicit discharge are governed under the municipal code(s).

If the illicit discharge source cannot be determined the inspector should utilize the MS4 Map to trace and isolate the area where the illicit discharge source may have originated. For example, if an illicit discharge is noted from MS4 Outfall X the inspector can evaluate each upslope stormwater management feature until the source is found (e.g., illegal dumping into a stormwater inlet) or until the discharge can be isolated (e.g. stormwater inlet 4 shows signs of the discharge while the adjoining upslope inlet shows no signs of the discharge).

**BMP #1: THE BOROUGH HAS DEVELOPED AND IMPLEMENTED A PROGRAM FOR THE DETECTION, ELIMINATION, AND PREVENTION OF ILLICIT DISCHARGES INTO THE BOROUGH'S REGULATED MS4S. THE PROGRAM INCLUDES THE FOLLOWING:**

1. The Borough will consider screening outfalls in priority areas during varying seasonal and meteorological conditions. The operation of the stormwater system is monitored by staff.
2. Procedures for identifying the source of an illicit discharge when a contaminated flow is detected at a regulated small MS4 Outfall will be determined on a case-by-case basis and will generally follow published procedures.
3. Procedures for eliminating an illicit discharge will be determined on a case-by-case basis and will generally follow published procedures.

The existing IDD&E program shall continue to be implemented and evaluated annually. Records shall be kept of all MS4 Outfall inspections, flows observed, results of field screening and testing, and other follow-up investigation and corrective action work performed under this program and kept in annual files. IDD&E information must be reviewed, updated when necessary, and provided to Borough employees, businesses and the general public during each reporting cycle. IDD&E information will be reviewed and updated based on findings of the PEOP plans and goals in order to provide relevant information to each TAG.



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

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**BMP #2: THE BOROUGH WILL UPDATE AND MAINTAIN A MAP FOR THE REGULATED MS4 CONVEYANCE SYSTEM.**

A copy of the current MS4 conveyance map has been included with this document. The following features are required to be located on the MS4 Conveyance Map as per MS4 Permit requirements:

- Outfalls
- Names and locations of all surface waters of the Commonwealth

**BMP #3: THE BOROUGH WILL MAINTAIN A MS4 CONVEYANCE MAP THAT INCLUDES THE INFORMATION OUTLINED UNDER MCM#2, BMP AND MCM#2, BMP#3 OF THE BOROUGH'S MS4 PERMIT.**

A copy of the current MS4 map has been included with this document. The following additional features are required to be located on the MS4 Conveyance Map as per MS4 Permit requirements:

- Entire storm sewer collection system
- Roads
- Inlets
- Piping
- Swales
- Catch Basins
- Channel Basins

Any other features of the MS4 permittee's storm sewer system including the municipal boundaries and/or watershed boundaries will be included with this map.



## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

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**BMP #4: THE BOROUGH WILL CONDUCT OUTFALL FIELD SCREENING, IDENTIFY THE SOURCE OF ANY ILLICIT DISCHARGES, AND REMOVE OR CORRECT ANY ILLICIT DISCHARGES USING PROCEDURES DEVELOPED UNDER BMP #1:**

Borough employees should review and be familiar with the following publication: *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments* (CWP, October 2004) available through the EPA at [https://www3.epa.gov/npdes/pubs/idde\\_tableofcontents.pdf](https://www3.epa.gov/npdes/pubs/idde_tableofcontents.pdf)

All of the identified regulated small MS4 Outfalls will be screened during Dry Weather on at least once during each permit coverage term. Problem areas associated with past problems such as illicit discharges, illegal dumping, or known sources of dry weather flows that occur on a continual basis will be screened annually.

For each MS4 Outfall, if the screening reveals dry weather flow, the discharge from the outfall and the area around the outfall shall be screened in accordance with DEP approved document MS4 Outfall Field Screening Report  
<http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=10087&DocName=MS4%20OUTFALL%20FIELD%20SCREENING%20REPORT.PDF%20%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E%3C%2Fspan%3E>.

If an outfall does not have any dry weather flows, then sampling and testing are not needed.

The following three methods can be used to measure the flow rate at a flowing outfall.

**Method 1:** Utilizing a graduated bucket or jug marked at 1 Liter and a stopwatch record the amount of time required to fill the jug to 1 Liter. Ensure you are capturing the entire flow. When the flow is only a trickle, use a smaller volume container and follow the same method. The following equation is used to calculate flow:

Discharge = Volume filled (cu. ft.) x Time (sec).

For pipes that are discharging larger volumes where it is not possible to capture the volume in a graduated container, see Method 2.

**Method 2:** This method should only be used with a free-flowing outfall (i.e. water drops out of the pipe and falls to the stream channel) and when the depth of flow is relatively uniform. Utilizing a tape measure, record the flow depth in the pipe at the deepest point and the total flow width. Then use the following equation:

Discharge = 3.1 x wetted width (ft) x flow depth (ft)<sup>1.5</sup>



## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

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**Method 3:** Using a tape measure record the width of the flow. Next, measure and record the depth of the flow. Using a measuring tape, leaf or ping pong ball, and stop watch, record the length of time it takes to travel a known distance and repeat. Repeat velocity measurement 3-5 times and average the results. Then use the following equations to calculate the flow rate and record the results on the ORI form:

- $\text{Area} = \text{Wetted width (ft)} \times \text{flow depth (ft)}$
- $\text{Velocity} = \text{Length of ping pong ball run (ft)} / \text{Time (sec)}$
- $\text{Discharge} = \text{Area} \times \text{Velocity}$

The Borough will prioritize outfall inspections according to the perceived chance of illicit discharge within the outfall's contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless of the presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, transporting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance Inventory/Sample Collection field sheet. Adequate written documentation shall be maintained to justify a determination that a flow is not illicit. If a flow is illicit, the actions taken to identify and eliminate the illicit flow also shall be documented. The results of outfall inspections and actions taken to remove or correct illicit discharges shall be summarized in periodic reports.

The Borough acknowledges it is possible for illicit discharges/connections to occur at various times of the year and during or just after rain events and will consider conducting dry weather screenings during varying seasonal and meteorological conditions. Seasonal dry weather screenings conducted during periods of both low and high groundwater conditions can be beneficial in identifying illicit discharges that can occur during these times.

Non-routine inspections - If an employee observes evidence of an illicit discharge during the normal course of duties or an informal or non-routine inspection, he/she should collect as much information about the potential illicit discharge as possible then contact his/her supervisor or municipal office so that appropriate action can be taken.

It is important to collect as much information as possible at the time of initial observation because of the likelihood that a discharge may be transitory or intermittent. Initial identification of the likely or potential sources of the discharge is also very important. The employee should make a reasonable attempt to collect information.

- The person observing the discharge can provide the information verbally to the supervisor or engineer who can then complete the Illicit Discharge Tracking Sheet;
- The person observing the discharge can log as much information as they can recall onto the form upon returning to the office; or
- A person dedicated to inspecting and tracing illicit discharges can be sent to the location as soon as possible where the potential illicit discharge was observed to collect the necessary information directly on the form.



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

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### **BMP #5: NON-STORMWATER DISCHARGE PROHIBITION**

The Borough enacted a Stormwater Management Ordinance to implement and enforce a stormwater management program that includes prohibition on non-stormwater discharges to the MS4 conveyance system. The Borough will continue to enforce the Stormwater Management Ordinance and appropriate countermeasures will be taken if a violation occurs. The Borough is in the process of adding a “Report an Illicit Discharge” section to their Stormwater Management page on their website.

### **BMP #6: AS PART OF MCM #1 THE BOROUGH WILL PROVIDE IDD&E RELATED INFORMATION AND EDUCATIONAL OUTREACH TO THE TARGET AUDIENCE GROUP, PUBLIC EMPLOYEES, AND PROPERTY OWNERS, THE GENERAL PUBLIC AND ELECTED OFFICIALS ABOUT THE PROGRAM TO DETECT AND ELIMINATE ILLICIT DISCHARGES:**

The Borough will distribute educational information in the form of brochures and other forms of handouts to educate and guide TAGs about the Boroughs IDD&E program.

Information being distributed will include:

- Program Goals
- Illicit Discharge protocols and reporting information
- Local options for the recycling and disposal of household hazardous waste
- Explanation of an illicit discharge
- Opportunities to join “neighborhood watch” groups to identify and report illicit discharges to the Borough





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**MCM #4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

**The Borough will rely on DEP's statewide QLP for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under this MCM #4.** While this permit allows the Borough to rely on the Conservation District to complete MCM 4 activities, the Borough is responsible to ensure the District completes the required activities.

Under 25 Pa. Code, Chapter 102 of Department regulations issued under the authority of the Pennsylvania Clean Streams Law, the permittee (a Borough or a county) may not issue a building or other permit or final approval to those proposing or conducting earth disturbance activities requiring a DEP permit until the DEP has issued an individual NPDES Permit, or DEP or a delegated county conservation district (CCD) has approved coverage under the general NPDES Permit for Stormwater Discharges Associated With Construction Activities.

As recommended, the Borough will work with the County to authorize an agreement between the Borough and the County Conservation District (CCD) that defines roles for each entity. A written copy will be kept in the Borough files, consistent with the Retention of Records requirements in this Permit.

The CCD monitors earthmoving activities for compliance with E&S requirements and provides inspection reports and violation notices to the Borough. The Borough will retain a copy of all correspondence from CCD in a MS4 file (as well as the development permit file).

The Borough will provide stormwater and E&S educational information to builders & developers with building and zoning permits.

During the normal course of duties, the Borough staff will endeavor to verify/ensure proper waste control by contractors and builders.

The Borough will investigate any public complaints regarding stormwater issues on a case by case basis. When the Borough receives an inquiry, a Borough representative will make a thorough investigation of the issue of concern. The results of the investigation are then given to the responsible party to correct, if necessary. A copy of the Borough's response is provided to the person who made the inquiry. All inquiries will be handled on a case by case basis.

*(Please reference the Stormwater Management Ordinance attached in the Annual Report.)*



## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

### MCM #5: POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) IN NEW AND RE-DEVELOPMENT

#### ACTIVITIES

**BMP #1, BMP #2, & BMP #3:** The Borough shall rely on DEP's statewide QLP for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under BMPs #1 through #3 of this MCM #5.

#### BMP #4: PCSM ORDINANCE:

The Borough has enacted and will continue to implement, and enforce its Stormwater Management Ordinance to address post-construction stormwater runoff from new development and redevelopment projects and provide sanctions and penalties associated with non-compliance, to the extent allowable under State or local law.

**BMP #5: DEVELOP AND IMPLEMENT MEASURES TO ENCOURAGE AND EXPAND THE USE OF LOW IMPACT DEVELOPMENT (LID) PRACTICES IN NEW AND REDEVELOPMENT; MEASURES ALSO TO ENCOURAGE RETROFITTING LID INTO EXISTING DEVELOPMENT.**

The Borough's Stormwater Management Ordinance allows for development and redevelopment to manage rainfall at the source using distributed small-scale controls. We believe the ordinances allow landowners to mimic a site's predevelopment hydrology by using BMPs that infiltrate, filter, store, evaporate, and detain runoff close to the source. This is recognized as difficult for most areas in this urbanized Borough where a significant amount of land has been developed before stormwater controls were implemented.

For certain sites, the Borough encourages the use of the U.S. EPA website which provides publications on LID, including [Reducing Stormwater Costs through Low Impact Development \(LID\) Strategies and Practices](http://www.epa.gov/owow/nps/lid/costs07/) Publication Number EPA 841-F-07-006, December 2007 at <http://www.epa.gov/owow/nps/lid/costs07/>. The Pennsylvania [Standards for Residential Site Development](http://www.engr.psu.edu/phrc/), Pennsylvania Housing Research/Resource Center, The Pennsylvania State University, April 2007 at <http://www.engr.psu.edu/phrc/>. Information on LID can be found on the Borough's website and is also handed out to the public as part of an educational packet when applying for any permits.



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

### **BMP #6: ENSURE ADEQUATE OPERATION & MAINTENANCE OF POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) BMPS.**

The Borough maintains an inventory of PCSM BMPs as development projects are reviewed, approved, and constructed. This inventory includes all PCSM BMPs installed since March 10, 2003 that discharge directly or indirectly to the Borough's regulated MS4 Conveyance system.

The Borough will endeavor to maintain and update an inventory of PCSM BMPs as development projects are reviewed, approved, and constructed. This inventory shall include all PCSM BMPs installed since March 10, 2003 that discharge directly or indirectly to your regulated small MS4s.

As data is available, the inventory will be developed to include:

- 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., street address);
- Information (e.g., name, address, phone number(s)) for BMP owner and entity responsible for BMP Operation and Maintenance (O&M), if different from BMP owner;
- 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 for each BMP;
- An assessment by the permittee if proper operation and maintenance occurred during the year and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements;
- Include a separate inventory of projects that incorporated LID practices and for each project list and track the BMPs that were used.

### **INSPECTION**

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The Borough will use BMP inspection forms to inspect BMPs. The Borough is to follow up on any deficiencies reported during inspection. The Code Official will provide letters and notifications regarding deficiencies and violations of ordinances to the property owners. The Borough is to record the number of enforcement actions taken during this reporting period.

*(Please reference PCSM BMP information and inspection records attached in the Annual Report.)*



## Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)

### MCM #6: POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

**BMP #1:** THE BOROUGH HAS IDENTIFIED AND DOCUMENTED ALL TYPES OF MUNICIPAL OPERATIONS, FACILITIES AND ACTIVITIES AND LAND USES THAT MAY CONTRIBUTE TO STORMWATER RUNOFF WITHIN AREAS OF MUNICIPAL OPERATIONS THAT DISCHARGE TO THE MS4 CONVEYANCE SYSTEM:

***Municipal Operations:*** General public works duties that involve construction and maintenance. Construction and maintenance activities that may contribute to stormwater runoff that has the potential to discharge to the MS4 conveyance system are evaluated on a case by case basis.

***Facilities:*** The Municipal building and associated areas; public works facility and associated areas; park and open space, streets, roads, alleys, other large paved surfaces and stormwater conveyances (open and closed pipe); and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, etc.).

***Activities:*** 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.

**BMP #2:** DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE OF A WRITTEN O&M PROGRAM FOR ALL MUNICIPAL OPERATIONS AND FACILITIES THAT COULD CONTRIBUTE TO THE DISCHARGE OF POLLUTANTS.

The Borough has established an O&M Program that will be updated as needed to maintain its relevancy.

**BMP #3:** DEVELOPMENT OF A WRITTEN BOROUGH EMPLOYEE TRAINING PROGRAM THAT ADDRESSES APPROPRIATE TOPICS TO FURTHER THE GOAL OF PREVENTING OR REDUCING THE DISCHARGE OF POLLUTANTS FROM MUNICIPAL OPERATIONS TO THE MS4 CONVEYANCE SYSTEM.

#### EMPLOYEES TO BE TRAINED:

Any employee of the Borough and any contractor in or involved with the Borough may receive training. This could include public works staff, building / zoning / code enforcement staff, engineering staff (on-site and contracted), administrative staff, elected officials, police and fire responders, volunteers, and contracted personnel. As a minimum, the Borough will endeavor to train Public Works management personnel.



## **Spring Grove Borough Municipal Separate Storm Sewer System Stormwater Management Program (MS4 SWMP)**

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### **TRAINING METHODS AND MATERIALS:**

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The Borough may use guidance and training materials that are developed in house or available from federal, state or local agencies, or other organizations including local organizations and other MS4s.

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### **TOPICS:**

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Training topics typically will include operation, inspection, maintenance, and repair activities associated with any of the municipal operations / facilities identified under legal control of the Borough. Training is intended to cover all relevant parts of the permittee's overall stormwater management program that could affect municipal operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.

- Topic 1: Minimum Control Measures
- Topic 2: Dry Weather Screening Protocol
- Topic 3: Standard Operating Procedures for Municipal Maintenance and Other Activities
- Topic 4: Conducting Illicit Discharge Detection and Elimination Investigations: IDDE 201

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### **TIMEFRAME:**

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Employee training will occur at least annually (i.e., during each permit coverage year) and will be documented in writing and reported in periodic reports. Documentation will include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s).

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### **ADDITIONAL GUIDANCE:**

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According to PA DEP, the training requirements of this BMP can be in various ways. Training can be:

- Joint training events with other nearby operators of regulated small MS4s
- Formal or informal;
- Conducted on-site or off-site;
- Conducted on-the-job or during dedicated training periods;
- Conducted one-on-one or in a group setting (including with staff from other MS4s);
- Conducted by municipal staff or consultants or volunteers;
- Conducted via oral presentations/instructions and/or via written materials (e.g., SOPs, guidance manuals, tests).



**Spring Grove Borough  
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(MS4 SWMP)**

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**Example Record Sheet:**

<b>Date of Training / Presenter</b>	<b>Training Topics Covered</b>	<b>Names of Attendees</b>

*(Please reference pollution prevention/good housekeeping information attached in the Annual Report.)*

# ATTACHMENT 1.2

MUNICIPAL WEBSITE





# Spring Grove Borough Storm Water Program

[August 3 – Borough Council Meeting Public Access Information](#)

[August 3 – Council Agenda](#)

[July 2020 Boro Bits Newsletter](#)

[Republic Service Collection Calendar – 2020](#)

[Electronics Recycling Program](#)

[Act 44 Disclosure Form](#)



## About The Borough's Storm Water (MS4) Program

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., Spring Grove Borough is authorized to discharge from a regulated small municipal separate storm sewer system (MS4) located in York County to Waters of the United States. The Borough has been issued a National Pollutant Discharge Elimination System (NPDES) permit. As a requirement of The Permit, The Borough has developed and is continually updating a Storm Water Management Program. The Program includes the following elements including Minimum Control Measures (MCM).

- MCM 1 – Public Education and Outreach on Storm Water Impacts
- MCM 2 – Public Involvement / Participation.
- MCM 3 – Illicit Discharge Detection and Elimination (IDD&E)
- MCM 4 – Construction Site Storm Water Runoff Control
- MCM 5 – Post-Construction Storm Water Management
- MCM6 – Pollution Prevention / Good Housekeeping
- Appendix D – Pollutant Reduction Plan for Discharges to the Chesapeake Bay Watershed

## Spring Grove Borough Illicit Discharge/Water Quality Complaint Form

**See Something? Say Something!**

**Report an Illicit Discharge / Water Quality Complaint to Borough Staff**

or call (717) 225-5791

The EPA defines an illicit discharge as "any discharge to an MS4 (Storm Water System) that is not composed entirely of Storm Water. The Borough encourages residents to report any illicit discharges or water quality complaints to Borough Staff. Some examples of reportable activities include:

- Household cleaners and chemicals
- Lawn fertilizers, grass clippings and other maintenance products
- Vehicle fluids including oil and runoff from washing
- Animal waste
- Plastics and other trash

## Other Storm Water / MS4 Related Links

[Spring Grove Public Program Update 2019-2020](#)

[Spring Grove Borough Storm Water Code](#)

[More Information on Illicit Discharges](#)

## DATES TO REMEMBER

No upcoming events

[View full calendar](#)



## NIXLE SIGNUP

Sign up for alerts from the  
**Boroughs of Spring Grove and New Salem**  
& other public safety agencies in your area.

Mobile #	<input type="text" value="Public safety Text messages sent here"/>
Email	<input type="text" value="Public safety email sent here"/>
Zip Code	<input type="text" value="County message for your location"/>



# ATTACHMENT 1.3

EDUCATIONAL MATERIALS



## *Borough of Spring Grove*

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# **STORMWATER** frequently asked **QUESTIONS**

### **1. There are no storm sewers on or near my property. Why should I pay a fee?**

All properties produce stormwater runoff that must be managed by the Borough. Even if your property has never flooded and there are no nearby storm sewers, the stormwater that flows off of your property must be managed by the Borough so that it does not contribute to pollution and flooding downstream. This also applies to cases in which the majority of stormwater is managed onsite, property owners should contribute to services provided by the Borough that are beyond their property lines, such as permit compliance, MS4 system maintenance, and stormwater improvements throughout the Borough. Stormwater management is a community-wide service and the Program costs need to be distributed to all residents.

### **2. Why not just include the stormwater program costs in our property taxes?**

The advantages of using taxes is that we can deduct them on our federal return if we itemize, even though the deduction will be small. A disadvantage is that there is no correlation between assessed values and the amount of impervious surface on a given property.

The Borough is required to reduce the volume and improve quality of stormwater that flows into the streams and eventually to the Chesapeake Bay. It will be difficult and expensive for the Borough to accomplish this objective. An advantage of a fee-based system is that we can offer credits to the business community & residents to reduce the amount of stormwater that leave their sites. The Borough will be credited with all such reductions assisting us in meeting the EPA/DEP requirements. We cannot give such a credit on a tax-based system.

Another disadvantage is that on a tax-based system, residents would be hit unfairly with a larger share of the costs of the budget. By requiring that the percentage of impervious surface be used as the basis rather than assessed value, the cost is shifted to the properties that create more stormwater runoff and have more ability to reduce it.

### **3. There is no separate fee/dedicated fund for police, fire, roads, etc. Why do we need it for stormwater?**

Those services (police, fire, roads) are general services that the Borough provides. Stormwater is evolving to be a true utility, just like sewer, water and electricity, because of the regulatory requirements and the amount of infrastructure (pipes, channels, catch basins, etc.) that the Borough needs to operate and maintain. These utilities have separate fees because they need to link the fee to the services provided. For example, the more water you use the higher your water bill is. The best way of estimating the stormwater fee is to use impervious area (rooftops, driveways, etc.) because runoff from each property depends mainly on the amount of impervious area.

### **4. My property has less than 3,586 SF of impervious surface. Shouldn't I pay less?**

Although there are variations in the amount of impervious surface between residential parcels and types of structures, a flat rate per residential unit is typically used and has been selected for the following reasons:



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# *STORMWATER* frequently asked **QUESTIONS**

- A flat rate structure is easier to comprehend and administer, requiring minimal cost and effort to implement and oversee compared to other billing options. The Borough wants to use the funds in projects that will solve problems and the operation and maintenance of the stormwater system.
- Spring Grove has invested a significant amount of money and time to collect additional impervious area for the existing geographical information system (GIS) in order to bill each residential customer for its amount of impervious surface. The resulting changes will be small, so at this time, it is not recommended to individually calculate the rates for residential parcels.
- All property owners benefit from the community-wide stormwater management system that manages stormwater from roads and properties.
- Residential customers pay a flat rate for wastewater and trash service (even though the amount of trash or wastewater generated by each property varies). The stormwater fee will take a similar approach and will facilitate consistency with these utility fees.

### **5. Isn't this fee really just another tax?**

Some properties are exempt from taxes, but all developed properties contribute stormwater runoff and should pay the stormwater fee. Furthermore, the revenue can only be used for stormwater management and cannot be redirected for other uses.

### **6. My neighborhood has a stormwater pond and other residential neighborhoods do not. Can you provide a credit to reduce our fees?**

Neighborhoods with existing stormwater retention or detention ponds still contribute runoff and pollution to the Borough's overall stormwater/drainage system. Stormwater management is a community wide service and the Program costs need to be distributed to the Borough residents. Moreover, all residents of the Borough benefit from our stormwater/drainage infrastructure, public streets, and public streams and lakes.

### **7. Why will the Borough be charging me for rain?**

Residents and businesses are not being charged for rain. The stormwater management fee will fund a storm water management program to help reduce the pollution associated with stormwater runoff from reaching our local waterways, maintain the current stormwater drainage system, and address localized flooding concerns.

### **8. How do I affect stormwater runoff?**

If you have a roof, driveway, parking lot or other impervious surface on your property you impact the amount and quality of stormwater that runs off the property. Also, household tasks such as car washing and use of fertilizer can impact stormwater quality. Because everyone contributes in some



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# *STORMWATER* frequently asked QUESTIONS

way to the stormwater system, everyone should play a role in supporting its maintenance and upkeep.

**9. Hasn't the Borough always had a stormwater system? Nothing has changed on my property. Why will I be charged now when I haven't been in the past?**

Yes, the Borough has had a stormwater system for a long time. However, new and forthcoming federal regulations require a comprehensive stormwater quality and management program. The stormwater management fee enables the Borough to meet its responsibilities to manage the stormwater system more closely, identify and eliminate illegal discharges, provide public education, and other regulatory requirements. It will also allow for increased inspection and maintenance of aging infrastructure and the ability to rehabilitate/replace infrastructure that's reached the end of its useful life.

**10. Will I still be charged even if it doesn't rain for a longtime?**

Yes, the pollutant potential in stormwater runoff is actually much greater when it has not rained in a long time because pollutants can build up on all impervious surfaces. In any storm, the initial runoff, or first flush, is the most contaminated. In addition to costs incurred to reduce pollution, maintenance of storm water facilities is required whether it rains or not.

**11. How much will I be billed for the stormwater fee?**

Single-family residential (SFR) properties will be billed a flat rate at \$30.50 per quarter, or \$122 per year. While everyone with buildings, pavement and other impervious surfaces on their property will pay the fee, the amount will differ between residential and non-residential areas. SFR properties will pay a quarterly fee equal to one Equivalent Residential Unit (ERU). All non-residential properties will pay a multiple of that ERU based on the impervious surface area of their property since runoff and pollution increases as the amount of impervious surface area on a property increases.

**12. Does everyone in the Borough pay the fee, including non-profits?**

Yes, everyone who owns developed property in the Borough will pay the fee – homeowners, business owners, schools, churches. Tax-exempt properties are required to pay for other utility charges including electric, water and sewer and the stormwater fee is no different. Runoff from impervious surfaces from all properties makes its way into the stormwater collection system and receiving streams which need to be managed and maintained by the Borough.

**13. What is an ERU?**

An Equivalent Residential Unit (ERU) is the amount of impervious surface (measured in square feet) on a typical, single family, residential property. That amount in Spring Grove Borough is 3,586 square feet. The ERU was determined by performing detailed measurements of impervious surfaces contained on SFR properties selected at representative locations across all areas of the Borough. The resulting data was analyzed along with records of impervious area for all buildings, and the average impervious surface value was set as the ERU value.



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# **STORMWATER** frequently asked **QUESTIONS**

### **14. What is impervious area?**

Impervious area is any surface which inhibits infiltration of rainfall into the soil. This includes pavement (asphalt, concrete, etc.), rooftops, patios, sidewalks, and compacted graveled surfaces such as parking areas and driveways.

### **15. How are impervious surfaces determined?**

Impervious surfaces are measured from aerial photographs that have been processed to produce scaled images from which accurate measurements can be made. In certain cases, the Borough may also utilize field measurements or data supplied on site plans to augment information available on aerial photography.

### **16. How did you come up with the cost of the stormwater management fee?**

A list of known problems, scheduled improvements, and projected projects to comply with future regulatory requirements was used as a basis for preparation of a forecast of stormwater program expenses. A 5-year budget projection, including administrative and operation & maintenance costs was also developed to establish funding needs. These overall stormwater system costs were divided by the number of ERUs to come up with the stormwater management fee.

### **17. How will residential properties be billed?**

For those properties with an existing sewer or trash bill from the Borough, the stormwater fee will appear as a separate line item on your existing bill. For those without a current sewer or trash bill from the Borough, a new quarterly stormwater bill will be issued. There will be no pro-rating of fees for partial billing periods. For example, a fee billed in July will cover the entire 3rd quarter of the year, even if the property was vacated in August.

### **18. How will non-residential properties be billed?**

Each non-residential property has been measured to determine the amount of impervious area on the property. That impervious area will be converted to a quantity of ERUs based on one ERU per 3,586 square feet of impervious area, rounded down to the nearest whole number. Each property will be billed the number of ERUs times the Stormwater Assessment Fee rate. The fee will appear on a quarterly bill from the Borough and no property will be billed for less than one ERU.

### **19. Where does the money collected from the stormwater fee go?**

All stormwater fees and interest generated by stormwater charges will be accounted for separately from all other Borough revenues and funds and will be used solely for the operation, maintenance, and management of the stormwater system. The fee will fund many initiatives required by the stormwater program, including:

- **Maintaining and Installing Stormwater Infrastructure** – Miles of piping and other system components make up the storm drainage system that protects Spring Grove Borough from flooding and makes the roads drivable during storms. Improvements to better control flooding are needed in areas of the Borough.



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# *STORMWATER* frequently asked **QUESTIONS**

- **Education** – The best way to protect stormwater quality and stop pollution is to educate our citizens. We make changes in our behaviors when we learn about the negative consequences they create.
- **Protection of the Environment/Regulatory Compliance** – Development and other human interactions with the environment increase the amount of stormwater runoff which is contaminated and carries pollutants into our surface waters. The Borough is required by state and federal regulations to address these issues, and works to reduce stormwater pollution, stop illegal dumping, clean up our watershed and restore local streams.
- **Mapping the System** – In order to effectively maintain the storm drainage system, our staff continues to work regularly to map all of Spring Grove's outfalls, drains, ditches, pipes and other system components while assessing the stability/safety of the existing infrastructure and monitoring for illicit discharges.

### **20. Will property taxes go down as a result of the Stormwater Management Fee?**

Spring Grove Borough Council is responsible for setting and adjusting property taxes. No changes are anticipated as a result of the stormwater management fee. Revenue from the stormwater management fee will be used only for stormwater management within the Borough.

### **21. How is unoccupied property treated?**

Vacant residential structures and empty commercial/industrial buildings are charged because they continue to generate runoff similar to that generated by occupied property.

### **22. How is undeveloped property treated?**

Undeveloped property is defined as real property that has not been altered by improvements such as buildings, parking lots, structures, or the addition of any other impervious areas. Undeveloped property will not be charged a stormwater fee.

### **23. How is billing for new properties initiated?**

Most of the time, properties undergoing initial development will begin paying the stormwater fee when a certificate of occupancy is issued. This coincides with billing of sanitary sewer and trash. New residential properties will be billed a single ERU. New non-residential properties will be charged based on the amount of impervious area reported as required on the site plan which must be reviewed and approved by the Borough.

### **24. What happens when a residential property becomes vacant and other utility services are cut off?**

The stormwater fee applies whether the property is occupied or not. When a vacant property becomes occupied, sewer and trash service will not start until any back stormwater fees are paid and the account is brought up to date.

# Governor Wolf Announces Support for 17 Municipal Stormwater Projects in Pennsylvania Counties in Chesapeake Bay Watershed

June 29, 2017

## Environment, Press Release

**York, PA** – Today, Governor Tom Wolf announced the approval of funding to support 17 municipal stormwater projects in Pennsylvania's portion of the Chesapeake Bay Watershed.

"The convenience we all enjoy with pavement comes with a tangible cost: increased runoff pollution in our local waters," said Governor Wolf. "I'm pleased to support the municipalities—towns, cities, and other large land owners—striving to meet the stormwater challenge in Pennsylvania."

DEP is ramping up its work on implementation of the U.S. Environmental Protection Agency's Municipal Separate Storm Sewer System (MS4) permit program, which incorporates more stringent stormwater management requirements. About 1,000 municipalities around the state must meet new requirements; approximately 340 are in the 43 Pennsylvania counties in the Bay watershed.

"To make the greatest, most timely impact with our resources," said Department of Environmental Protection Secretary Patrick McDonnell. "This funding targets projects in our Bay watershed counties with the highest pollutant loads. Collectively, the projects will remove 396 pounds of phosphorous, 2,800 pounds of nitrogen, and almost 800,000 pounds of sediment from local waters."

Projects are funded through the EPA Chesapeake Bay Implementation Grants Program, a vital part of Pennsylvania's progress in cleaning up its local waters and thereby benefiting the Bay.

Earlier today, Secretary McDonnell acknowledged the projects in-person at an event at the York County Prison to showcase the county's model approach to stormwater management.

The prison project—converting stormwater basins to bioretention basins—was one of 19 projects chosen last year for EPA grant funding. Led by the York County Planning Commission, it reflects the county's outstanding teamwork approach to municipal stormwater management.

"The County of York and 43 municipalities are working together to clean up impaired streams through their MS4 [stormwater] permits," said Felicia Dell, director of the York County Planning Commission. "Together we've developed a regional plan that identifies best management practices and collectively funds and constructs them. The municipalities should be lauded for their vision and spirit of cooperation."

The complete list of projects approved includes:

- **Altoona City:** St. Therese of the Child Jesus rain garden phase 2 (\$55,349)
- **Blair Township:** Edgewood Drive stormwater basin retrofit (\$100,000)
- **Carlisle Borough:** Urban stormwater park native wetland plantings (\$200,000)
- **Denver Borough:** Denver Memorial Park rain gardens and streambank restoration (\$38,220)
- **Duncansville Borough:** Duncansville Memorial Park bioretention, rain gardens, and permeable pavement (\$200,000)
- **East Lampeter Township:** Mill Bridge Campground riparian buffer stream restoration (\$199,610)
- **Goldsboro Borough:** Stream restoration between South York and Water Streets (\$86,290)
- **Mechanicsburg:** Northside stormwater basin retrofit (\$164,381)
- **Mount Joy Borough:** Rotary Park vegetation swale (\$64,633) and Pink Alley stormwater basin retrofit (\$40,422)
- **Lancaster Township:** Kensington Club stormwater basin retrofit (\$200,000)
- **Lemoyne Borough:** Streambank restoration at Harrisburg Academy (\$176,700)
- **Paradise Township:** BMC Paradise Truss Plant retrofit (\$142,082)





# Stormwater Phase II Final Rule

## Illicit Discharge Detection and Elimination Minimum Control Measure

### Stormwater Phase II Final Rule Fact Sheet Series

#### Overview

1.0 – Stormwater Phase II Final  
Rule: An Overview

#### Small MS4 Program

2.0 – Small MS4 Stormwater  
Program Overview

2.1 – Who's Covered? Designation  
and Waivers of Regulated Small  
MS4s

2.2 – Urbanized Areas: Definition  
and Description

#### Minimum Control Measures

2.3 – Public Education and  
Outreach

2.4 – Public Participation/  
Involvement

2.5 – Illicit Discharge Detection  
and Elimination

2.6 – Construction Site Runoff  
Control

2.7 – Post-Construction Runoff  
Control

2.8 – Pollution Prevention/Good  
Housekeeping

2.9 – Permitting and Reporting:  
The Process and Requirements

2.10 – Federal and State-Operated  
MS4s: Program Implementation

#### Construction Program

3.0 – Construction Program  
Overview

3.1 – Construction Rainfall  
Erosivity Waiver

#### Industrial "No Exposure"

4.0 – Conditional No Exposure  
Exclusion for Industrial Activity

This fact sheet profiles the Illicit Discharge Detection and Elimination minimum control measure, one of six measures the operator of a Phase II regulated small municipal separate storm sewer system (MS4) is required to include in its stormwater management program to meet the conditions of its National Pollutant Discharge Elimination System (NPDES) permit. This fact sheet outlines the Phase II Final Rule requirements and offers some general guidance on how to satisfy them. It is important to keep in mind that the small MS4 operator has a great deal of flexibility in choosing exactly how to satisfy the minimum control measure requirements.

### What Is An "Illicit Discharge"?

Federal regulations define an illicit discharge as "...any discharge to an MS4 that is not composed entirely of stormwater..." with some exceptions. These exceptions include discharges from NPDES-permitted industrial sources and discharges from fire-fighting activities. Illicit discharges (see Table 1) are considered "illicit" because MS4s are not designed to accept, process, or discharge such non-stormwater wastes.

### Why Are Illicit Discharge Detection and Elimination Efforts Necessary?

Discharges from MS4s often include wastes and wastewater from non-stormwater sources. A study conducted in 1987 in Sacramento, California, found that almost one-half of the water discharged from a local MS4 was not directly attributable to precipitation runoff. A significant portion of these dry weather flows were from illicit and/or inappropriate discharges and connections to the MS4.

Illicit discharges enter the system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, or paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waterbodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

Table 1

#### Sources of Illicit Discharges

Sanitary wastewater  
Effluent from septic tanks  
Car wash wastewaters  
Improper oil disposal  
Radiator flushing disposal  
Laundry wastewaters  
Spills from roadway accidents  
Improper disposal of auto and  
household toxics



## What Is Required?

Recognizing the adverse effects illicit discharges can have on receiving waters, the Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement and enforce an illicit discharge detection and elimination program. This program must include the following:

- ☐ A storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;
- ☐ Through an ordinance, or other regulatory mechanism, a prohibition (to the extent allowable under State, Tribal, or local law) on non-stormwater discharges into the MS4, and appropriate enforcement procedures and actions;
- ☐ A plan to detect and address non-stormwater discharges, including illegal dumping, into the MS4;
- ☐ The education of public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and
- ☐ The determination of appropriate best management practices (BMPs) and measurable goals for this minimum control measure. Some program implementation approaches, BMPs (i.e., the program actions/activities), and measurable goals are suggested below.

## Does This Measure Need to Address All Illicit Discharges?

No. The illicit discharge detection and elimination program does not need to address the following categories of non-stormwater discharges or flows unless the operator of the regulated small MS4 identifies them as significant contributors of pollutants to its MS4:

- ☐ Water line flushing;
- ☐ Landscape irrigation;
- ☐ Diverted stream flows;
- ☐ Rising ground waters;
- ☐ Uncontaminated ground water infiltration;
- ☐ Uncontaminated pumped ground water;
- ☐ Discharges from potable water sources;
- ☐ Foundation drains;
- ☐ Air conditioning condensation;
- ☐ Irrigation water;
- ☐ Springs;
- ☐ Water from crawl space pumps;

- ☐ Footing drains;
- ☐ Lawn watering;
- ☐ Individual residential car washing;
- ☐ Flows from riparian habitats and wetlands;
- ☐ Dechlorinated swimming pool discharges; and
- ☐ Street wash water.

## What Are Some Guidelines for Developing and Implementing This Measure?

The objective of the illicit discharge detection and elimination minimum control measure is to have regulated small MS4 operators gain a thorough awareness of their systems. This awareness allows them to determine the types and sources of illicit discharges entering their system; and establish the legal, technical, and educational means needed to eliminate these discharges. Permittees could meet these objectives in a variety of ways depending on their individual needs and abilities, but some general guidance for each requirement is provided below.

### The Map

The storm sewer system map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. It is needed to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the particular waterbodies these flows may be affecting. An existing map, such as a topographical map, on which the location of major pipes and outfalls can be clearly presented demonstrates such awareness.

EPA recommends collecting all existing information on outfall locations (e.g., review city records, drainage maps, storm drain maps), and then conducting field surveys to verify locations. It probably will be necessary to walk (i.e., wade through small receiving waters or use a boat for larger waters) the streambanks and shorelines for visual observation. More than one trip may be needed to locate all outfalls.

### Legal Prohibition and Enforcement

EPA recognizes that some permittees may have limited authority under State, Tribal or local law to establish and enforce an ordinance or other regulatory mechanism prohibiting illicit discharges. In such a case, the permittee is encouraged to obtain the necessary authority, if possible.

### The Plan

The plan to detect and address illicit discharges is the central component of this minimum control measure. The plan is dependant upon several factors, including the permittee's available resources, size of staff, and degree and character of its illicit discharges. As guidance only, the four steps of a recommended plan are outlined below:

### ① Locate Problem Areas

EPA recommends that priority areas be identified for detailed screening of the system based on the likelihood of illicit connections (e.g., areas with older sanitary sewer lines). Methods that can locate problem areas include: visual screening; water sampling from manholes and outfalls during dry weather; the use of infrared and thermal photography, cross-training field staff to detect illicit discharges, and public complaints.

### ② Find the Source

Once a problem area or discharge is found, additional efforts usually are necessary to determine the source of the problem. Methods that can find the source of the illicit discharge include: dye-testing buildings in problem areas; dye- or smoke-testing buildings at the time of sale; tracing the discharge upstream in the storm sewer; employing a certification program that shows that buildings have been checked for illicit connections; implementing an inspection program of existing septic systems; and using video to inspect the storm sewers.

### ③ Remove/Correct Illicit Connections

Once the source is identified, the offending discharger should be notified and directed to correct the problem. Education efforts and working with the discharger can be effective in resolving the problem before taking legal action.

### ④ Document Actions Taken

As a final step, all actions taken under the plan should be documented. This illustrates that progress is being made to eliminate illicit connections and discharges. Documented actions should be included in annual reports and include information such as: the number of outfalls screened; any complaints received and corrected; the number of discharges and quantities of flow eliminated; and the number of dye or smoke tests conducted.

### Educational Outreach

The Center for Watershed Protection and Robert Pitt (2004) researched the most cost-effective and efficient techniques that can be employed to identify and correct inappropriate discharges. Data from Montgomery County, Maryland, was analyzed and it was determined that staff identify and correct about six inappropriate discharges per year as a result of regular screening. By contrast, over 185 inappropriate discharges are corrected each year in Montgomery County as a direct result of citizen complaints and calls to a storm water compliant hotline. Public education and labeling of outfalls and other storm drain infrastructure is an important element of establishing a successful citizen hotline. Outreach to public employees, businesses, property owners, the general public, and elected officials regarding ways to detect and eliminate illicit discharges is an integral part of this minimum measure.

Suggested educational outreach efforts include:

- Developing **informative brochures, and guidances** for specific audiences (e.g., carpet cleaning businesses) and school curricula;
- Designing a program to **publicize and facilitate public reporting** of illicit discharges;
- **Coordinating volunteers** for locating, and visually inspecting, outfalls or to stencil storm drains; and
- Initiating **recycling programs** for commonly dumped wastes, such as motor oil, antifreeze, and pesticides.

### What Are Appropriate Measurable Goals?

Measurable goals, which are required for each minimum control measure, are intended to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, should reflect the needs and characteristics of the operator and the area served by its small MS4. Furthermore, they should be chosen using an integrated approach that fully addresses the requirements and intent of the minimum control measure.

EPA has developed a Measurable Goals Guidance for Phase II MS4s that is designed to help program managers comply with the requirement to develop measurable goals. The guidance presents an approach for MS4 operators to develop measurable goals as part of their stormwater management plan. For example, an MS4 could establish a measurable goal of responding to all complaints received by the citizen complaint hotline within 24 hours to minimize water quality impacts or recurrent dumping. A complaint tracking system could be used to log response and enforcement activity.

The educational outreach measurable goals for this minimum control measure could be combined with the measurable goals for the Public Education and Outreach minimum control measure (see Fact Sheet 2.3).

### Sources

Center for Watershed Protection and R. Pitt. 2004. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. Center for Watershed Protection, Ellicott City, MD, and University of Alabama, Birmingham, AL.

Maryland Department of the Environment, Water Management Administration. 1997. *Dry Weather Flow and Illicit Discharges in Maryland Storm Drain Systems*. Baltimore, Maryland.

U.S. EPA Office of Water. 1993. *Investigation of Inappropriate Pollutant Entries into Storm Drainage Systems: A User's Guide*. EPA/600/R-92/238. Washington, D.C.

Wayne County Rouge River National Wet Weather Demonstration Project. 1997. *Guidance for Preparing a Program for the Elimination of Illicit Discharges*. Wayne County, Michigan.

## For Additional Information

### Contacts

☞ U.S. EPA Office of Wastewater Management  
<http://www.epa.gov/npdes/stormwater>  
Phone: 202-564-9545

☞ Your NPDES Permitting Authority. Most States and Territories are authorized to administer the NPDES Program, except the following, for which EPA is the permitting authority:

Alaska	Guam
District of Columbia	Johnston Atoll
Idaho	Midway and Wake Islands
Massachusetts	Northern Mariana Islands
New Hampshire	Puerto Rico
New Mexico	Trust Territories
American Samoa	

☞ A list of names and telephone numbers for each EPA Region and State is located at <http://www.epa.gov/npdes/stormwater> (click on "Contacts").

### Reference Documents

- ☞ EPA's Stormwater Web Site  
<http://www.epa.gov/npdes/stormwater>
- Stormwater Phase II Final Rule Fact Sheet Series
  - Stormwater Phase II Final Rule (64 FR 68722)
  - National Menu of Best Management Practices for Stormwater Phase II
  - Measurable Goals Guidance for Phase II Small MS4s
  - Stormwater Case Studies
  - And many others
- ☞ Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments  
[http://www.cwp.org/idde\\_verify.htm](http://www.cwp.org/idde_verify.htm)

# ATTACHMENT 1.4

PROGRAM UPDATE



# Borough of Spring Grove Annual Public Stormwater Program Update



Prepared June 2020 by





# What is Stormwater?

- ▶ Stormwater is rainwater or melted snow that runs off streets, lawns and other sites. When stormwater is absorbed into soil, it is filtered and ultimately replenishes aquifers or flows into streams and rivers.
- ▶ In developed areas, impervious surfaces such as pavement and roofs prevent precipitation from naturally soaking into the ground. Instead, water runs rapidly into storm drains, sewer systems and drainage ditches and can cause
  - ▶ Downstream flooding
  - ▶ Stream bank erosion
  - ▶ Increased turbidity (muddiness created by stirred up sediment) from erosion
  - ▶ Habitat destruction
  - ▶ Combined storm and sanitary sewer system overflows
  - ▶ Infrastructure damage
  - ▶ Contaminated streams, rivers and coastal water





# Sanitary Sewer vs. Storm

- The Sanitary Sewer receives water from interior plumbing such as toilets, sinks and showers and goes to a treatment plant for processing.
- The Storm Sewer receives stormwater from the street, parking lots, roofs, yards and sidewalks. This water goes **DIRECTLY TO THE NEAREST STREAM, WITHOUT ANY TREATMENT.**







# Typical Stormwater Pollutants

- ▶ Petroleum
  - ▶ Oil, Grease, Leaking Vehicles
- ▶ Cooking greases/oils (homes, restaurants)
- ▶ Sediment (soil)
- ▶ Trash/garbage
- ▶ Engine coolants/antifreeze (glycols)
- ▶ Heavy metals from vehicle break parts and tires
- ▶ Fertilizers and pesticides (residential, industrial, agriculture uses)
- ▶ Fecal Bacteria
  - ▶ Pet Waste, Human Waste from sewer breaks
- ▶ Detergents from outdoor car washing, mop wash water dumped outdoors, etc.
- ▶ Liquids from uncovered dumpsters
  - ▶ printing inks, food, solutions







# Spring Grove's Stormwater (MS4) Program

- ▶ The EPA's National Pollutant Discharge Elimination System (NPDES) general permit covers small municipal separate storm sewer systems (MS4s) in certain portions of the State of Pennsylvania
  - ▶ [For More Info - https://www.epa.gov/npdes/npdes-permit-basics](https://www.epa.gov/npdes/npdes-permit-basics)
- ▶ Spring Grove is categorized as an MS4 designated by the Pennsylvania Department of Environmental Protection (PA DEP) under the Clean Water Act (CWA) and associated regulations.
- ▶ Spring Grove is a PAG-13 General Permit holder
- ▶ MS4 owners and operators covered under this general permit must manage, implement, and enforce management programs for controlling all stormwater discharges
- ▶ [Link to PA DEP's NPDES General Permit Requirements](#)



# Spring Grove's Stormwater (MS4) Program (Continued)

- ▶ 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.



# Minimum Control Measures (MCMs)



MCM #1- PUBLIC  
OUTREACH AND  
EDUCATION



MCM #2 - PUBLIC  
INVOLVEMENT AND  
PARTICIPATION



MCM#3 - ILLICIT  
DISCHARGE DETECTION  
AND ELIMINATION  
(IDDE)



MCM#4 -  
CONSTRUCTION SITE  
STORMWATER RUNOFF  
CONTROL



MCM#5 - POST  
CONSTRUCTION  
STORMWATER  
MANAGEMENT



MCM#6 - POLLUTION  
PREVENTION AND  
GOOD HOUSEKEEPING



# MCM Descriptions

## ▶ MCM 1

- ▶ Permittees are required to implement and maintain a public education and outreach program, and distribute education materials to the community and employees to help reduce the discharge of pollutants caused by stormwater runoff.

## ▶ MCM 2

- ▶ Permittees are required to create and foster opportunities for public participation in the MS4 management program for controlling stormwater discharges. Recommended activities include adopt-a-stream programs, public surveys, storm drain stenciling, stream cleanups, tree plantings, and Earth Day events.

## ▶ MCM 3

- ▶ Permittees are required to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4 in accordance with 40 CFR § 122.34(b)(3). A permittee will satisfy this MCM by field screening outfalls, inspecting the MS4 to identify sources of illicit discharges, eliminating illegal connections or illicit discharges, and enforcing penalties where appropriate. The illicit discharge program must also address illegal dumping and spills.



# MCM Descriptions(continued)

## ▶ MCM 4

- ▶ Permittees are required to maintain an ordinance to require the implementation of E&S control BMPs, including sanctions for non-compliance, that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) by September 30, 2022. The permittee may not issue a building or other permit or final approval to those without valid NPDES permit coverage under 25 Pa. Code Chapter 102. DEP or the applicable county conservation district must be notified within 5 days of any permit applications involving an earth disturbing activity involving one acre or more, in accordance with Pa. Code § 102.42.

## ▶ MCM 5

- ▶ Permittees are required to maintain an ordinance to require implementation of PCSM BMPs, including sanctions for non-compliance, that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) by September 30, 2022. Use of low impact development (LID) should be expanded and encouraged, as well as ensuring adequate O&M of all PCSM BMPs.

## ▶ MCM 6

- ▶ Permittees are required to develop and implement an operation and maintenance program that includes a training component to prevent and reduce pollutant runoff from municipal operations in accordance with 40 CFR § 122.34(b)(6). A permittee will satisfy this MCM by developing, implementing, and maintaining procedures for pollution prevention and good housekeeping on permittee owned or operated properties and / or roads.



# MCM 1 - Education and Outreach

- ▶ Annual Public Program Updates
- ▶ Target Audience Groups
  - ▶ Residents
  - ▶ Businesses
  - ▶ Borough Staff
- ▶ Educational Materials, Contact Information for Complaints Regarding Water Quality and/or Illicit Discharges can be found on The Borough's Stormwater page.
  - ▶ <http://springgroveborough.com/ms4/>

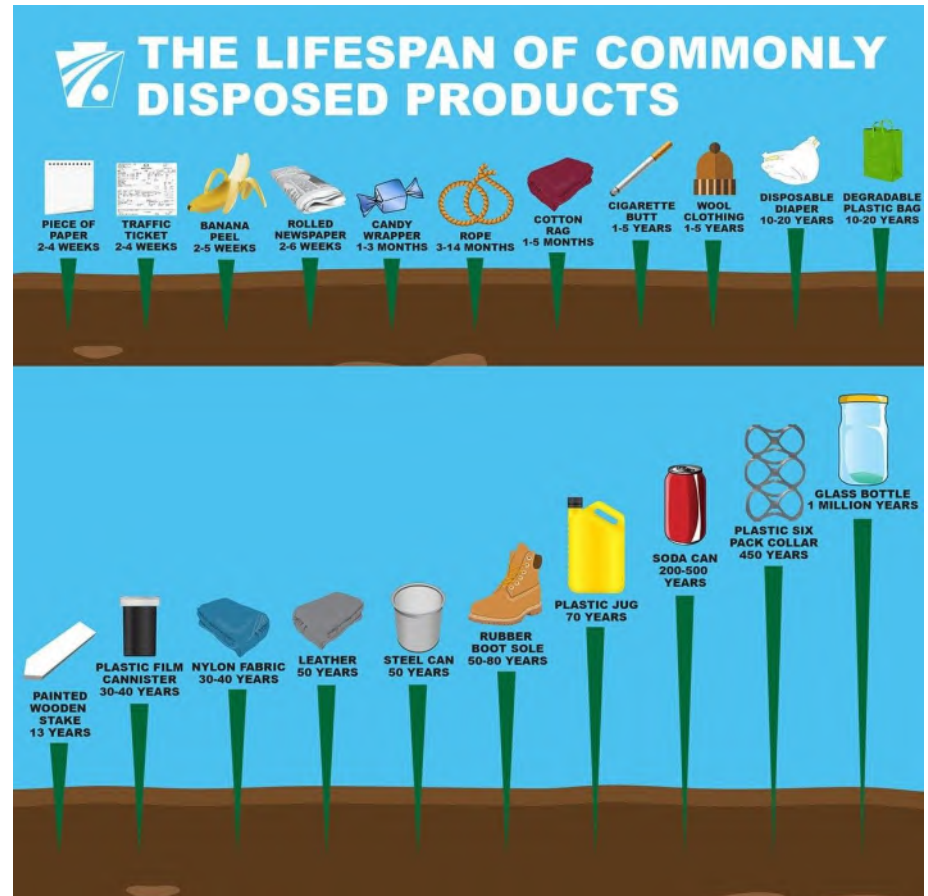


# MCM 2 - Involvement and Participation

- ▶ Involvement of Target Audience Groups in Stormwater related events that promote active participation and further the education of Spring Grove's Stormwater program.
  - ▶ Adopt-A-Stream
  - ▶ Public Surveys
  - ▶ Storm Drain Stenciling
  - ▶ Rain Barrel Workshops
  - ▶ Social Media Driven Events
  - ▶ Stream Cleanups
  - ▶ Tree Plantings
  - ▶ Earth Day Events

# Spring Grove Borough Community Cleanup Week

- ▶ Did you know the most common litter in streams is household trash?
- ▶ Plastic bags, bottles, food wrappers, and many other items can quickly be transported by wind and/or surface water runoff during storm events (storm water).
- ▶ Products such as cleaners, lawn fertilizers, and vehicle fluids are often inadvertently collected into storm drains. Organic material such as leaves, sticks, gravel and grass clippings also can be carried by storm water into the municipal system.
- ▶ These materials often make their way into nearby waterways and eventually the ocean.
- ▶ These are all forms of water pollution, and pose a great risk to aquatic life, water quality, and even our own health and safety.
- ▶ During the **Community Cleanup Week**, join your neighbors and local businesses (while maintaining social distancing!) and help keep Spring Grove Borough Clean!
- ▶ Submit photos and/or a simple description of what you and your household or business cleaned up on The Borough's Facebook page. Use the hashtag #CleanSGB for a chance to be featured on our page.
- ▶ Please remember to dispose of waste in an appropriate manner. We encourage the use of reusable or bio-degradable containers and/or bags! Together we can keep our community clean!
- ▶ You can learn more about the impacts of litter on our waters and other ways to help here:
  - ▶ <https://www.epa.gov/trash-free-waters>
- ▶ Contact: [manager@springgroveboro.com](mailto:manager@springgroveboro.com) or 717-225-5791







# MCM 3 - Illicit Discharge Detection and Elimination

- ▶ Federal regulations define an illicit discharge as “Any discharge to an MS4 that is not composed entirely of stormwater.” (With the exception of those discharges found on slide 6.)
  - ▶ For more information, visit <https://www3.epa.gov/npdes/pubs/fact2-5.pdf>
- ▶ Information regarding public illicit discharge reporting can be found on The Borough’s Stormwater page. If you witness an illicit discharge, please do one of the following:
  - ▶ Call (717) 225-5791
  - ▶ Fill Out SGB’s Illicit Discharge Form
    - ▶ <https://survey123.arcgis.com/share/da2d7f57dcd0487eab29cf2f52460581?portalUrl=https://bsgpa.maps.arcgis.com>
- ▶ The Borough screens 20% of all outfalls each year to prevent illicit discharges.
- ▶ If you see something, say something!



# MCM 4/5 - Construction Site and Post Construction Stormwater Management

- ▶ The Borough has an ordinance that requires the implementation and maintenance of Erosion and Sediment Control BMPs, including sanctions for non-compliance as applicable.
- ▶ The Borough has an ordinance that requires the implementation and maintenance of post-construction stormwater management for new development and redevelopment projects, including sanctions for non-compliance.
- ▶ <https://ecode360.com/30595386>



# MCM 6 -

## Pollution Prevention Plan and Good Housekeeping Procedures

- ▶ The Borough is required to develop and implement an operation and maintenance program that includes a training component to prevent and reduce pollutant runoff from municipal operations.
- ▶ Provide annual training aimed to eliminate the discharge of pollutants during municipal operations.
  - ▶ Spill Prevention and Response
  - ▶ Waste Disposal
  - ▶ Routine Visual Inspections to Detect and Correct Potential Discharges At Properties Owned or Operated By The Permittee
- ▶ Develop, implement, and maintain a good housekeeping plan for Borough-owned or operated properties where the following occurs.
  - ▶ Vehicle or Heavy Equipment Maintenance
  - ▶ Handling of:
    - ▶ Deicers, fertilizers, pesticides, road maintenance materials, or hazardous materials.



## Questions/Comments/ Want to Get Involved?

► [manager@springgroveboro.com](mailto:manager@springgroveboro.com)

► 717-225-5791



# ATTACHMENT 1.5

MS4 GOALS & ACCOMPLISHMENTS

# MS4 Goals & Accomplishments

*2018-2023 Reporting Period*

Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 10856.29

PREPARED BY:



ARRO CONSULTING, INC.  
108 W Airport Rd  
Lititz, PA 17543

## 2018-2019

### MCM I

#### Goal 1

**Discuss MS4 program related topics during Borough Council Meetings and encourage public interaction/comments.**

##### *Accomplishments*

The Borough has invited and/or initiated conversation with the residents/Target Audiences at every Borough Council Meeting. Matthew Warfel, the Borough Engineer, gives reports on MS4 progress. The Borough has attached meeting minutes to the annual reports.

#### Goal 2

**Utilize County partners to provide educational and outreach opportunities.**

##### *Accomplishments*

The Borough works with the York County Consortium to foster MS4 progress in many areas including education and outreach. Information regarding the cooperation is frequently posted on both entities' websites. The Borough has attached information regarding the partnership to the annual reports.

#### Goal 3

**Circulate and update a quarterly newsletter which contains stormwater related announcements for the Borough.**

##### *Accomplishments*

The Borough creates and circulates a quarterly newsletter to all residents and posts the newsletter to the municipal website. The newsletter includes MS4 educational information and information on public involvement events. The Borough has attached the newsletter to annual reports.

## 2019-2020

### MCM I

#### Goal 1

**The Borough will attempt to quantify the most-likely residential activities to produce an illicit discharge in the Borough with the purpose of better defining educational material it's residential property owners.**

##### *Accomplishments*

A land use analysis was performed in Geographic Information Systems (GIS) using 2020 York County parcel data. Land use classifications were broken down by watershed and analyzed in order of total acreage. According to the analysis, the most prevalent land use in the Borough is residential. With these results, the Borough has determined that the residential activities most likely to produce an illicit discharge include lawn and garden care, such as the application of fertilizers and pesticides; vehicle maintenance, including oil changes and car washing; and removal of pet waste. The Borough will continue to distribute educational information covering all of the above topics. The Borough has attached MS4 program updates and educational materials to the annual reports.

#### Goal 2

**The Borough will assess adding educational information to zoning and building permit packages based on the type of projects being submitted to the Borough**

##### *Accomplishments*

The Borough has analyzed the types of projects being submitted and identified two (2) classes of project applications: residential and commercial. The "Benefits of Low Impact Development" pamphlet from EPA is currently utilized for distribution with building permits. The Borough will consider adding additional informational materials targeted to the specific groups. The Borough has attached educational materials to the annual reports.



## MCM II

### Goal 1

**The permittee will conduct 1 (one) digital/online activity within the reporting period**

#### Accomplishments

In an effort to maintain compliance with CDC guidelines, the Borough hosted a Community Clean Up Week. During this week, the residents were invited to submit photos and descriptions of what they had prevented from entering the municipal waterways.

### Goal 2

**The permittee will plan and provide an outline for at least 1 (one) anticipated 2020-2021 in the 2019-2020 report.**

#### Accomplishments

Next year's event will replicate the event from the 2019-2020 reporting period, the Borough considers it to be a success. In addition, the Borough plans to have another event. This will hopefully be an in person clean up event. The Borough will act in compliance with the CDC guidelines at the time of the event.

### Goal 3

**The permittee will begin to develop one (1) individual list including contact information of businesses within the municipality in an effort to reach out to these entities for future public involvement projects.**

#### Accomplishments

The Borough investigated the Planning Area of the MS4 and found 57 businesses within. The Borough considers most of them to be low risk of illicit discharge. The Borough will focus on the higher risk entities for outreach.

## 2020-2021

### MCM I

#### Goal 1

The Borough will assess the potential for municipal operations to produce an illicit discharge with the intent of developing educational materials to distribute to Borough personnel.

##### Accomplishments

N/A

#### Goal 2

The Borough will distribute an educational public survey aimed at gauging the target audience groups' current understanding of and involvement in the stormwater program.

##### Accomplishments

N/A

#### Goal 3

The Borough will produce and distribute educational information in zoning and building permit packages based on the target audience group submitting the application.

##### Accomplishments

N/A

### MCM II

#### Goal 1

The permittee will conduct 1 (one) in person public involvement activity within the reporting period.

##### Accomplishments

N/A

#### Goal 2

The permittee will conduct 1 (one) in person public involvement activity within the reporting period.

##### Accomplishments

N/A

### Goal 3

**Conduct an analysis of 2019-2020 participation and quantify results for the annual report. Using the results, attempt to double the participation for 2020-2021 events in total and include at least 1 (one) member(s) of each target audience group.**

#### Accomplishments

N/A

# ATTACHMENT 2.1

BOROUGH COUNCIL MEETING MINUTES

**MINUTES OF SPRING GROVE BOROUGH  
COUNCIL MEETING  
November 4, 2019**

At this time, President Graham announced to those present that Council will be holding the Public Meeting prior to the Invocation and the Pledge to the Flag.

After the Public Meeting was over, President Graham called the meeting to order.

The Spring Grove Borough Council met in Regular Session on Monday, November 4, 2019. President James D. Graham led those in attendance in a word of prayer and Pledge to the Flag. The meeting was called to order at 8:30 PM.

**BOROUGH COUNCIL PRESENT**

James D. Graham  
David B. Kile  
Peter A. Lombardi  
Larry McConnell  
Joshua D. Moore  
Rebecca J. Stauffer  
Kristyn Stouch

**ALSO PRESENT:**

Beverly Hilt, Mayor  
Andrew N. Shaffer, Borough Manager  
Melissa J. Helm, Adm. Assist/Recording Secty  
Matt Warfel, (ARRO Inc.)  
Peter Ruth, Solicitor

**ALSO ABSENT:**

None

**BOROUGH COUNCIL ABSENT:**

None

**Public Comment / Visitors**

A. Mr. Dan Miller, resident of Spring Grove Borough and an officer with York Area Regional Police Department, was present to address Council regarding the services they can offer Spring Grove Borough. He pointed out that both York Area Regional Police Department and Northern Regional Police Departments offer very professional service. Both departments look very similar to each other on paper. But, that being said, there are some things that each department does differently.

When York Area Regional Police Department took on Red Lion Borough Police Department, they also took on those officers. All but two of the officers are still with them today. York Area Regional Police Department is very committed to providing the absolute best police services that they believe the residents desire. They feel that their job isn't necessarily numbers, or statistics. Their job is the people they police.

B. Mr. Bill Kessler, Monocacy Trail, inquired on the status of the Spring Grove Area Community Center.

## **Approval of Minutes**

### October 2019

The Minutes of the Regular Council Meeting held October 7, 2019 and the Committee Meeting held October 21, recessed to October 28, 2019 were presented to Council for their review. Peter A. Lombardi made a motion, seconded by Rebecca J. Stauffer, to approve the minutes for October as amended, after a correction is made. Motion Carried

## **Treasurer's Report**

### October 2019

The Treasurer's Report for October 2019 was tabled until Committee Meeting, to be held November 18, 2019 so that Council has a chance to review the information.

## **President's Report**

None

## **Mayor's Report**

### Parking Enforcement Officer's Report –October 2019

The Parking Enforcement Officer's Report for October 2019 was presented to Council for their review.

### Southwestern Regional Police Activity Report –September 2019

The Police Activity Report for September 2019 was presented to Council for their review. Officer in Charge Jaimie Stalcup was present to answer any questions.

### Southwestern Regional Police Financial Report – September 2019

The Financial Report for September 2019 was presented to Council for their review.

### Southwestern Regional Police Board Minutes - September 2019

The Minutes of the Southwestern Regional Police Board for the month of September 2019 were presented to Council for their review.

## **Manager**

### 2020 Community Center Leases

Manager Shaffer reported to Council that the Community Center Lease Agreements for 2020 have all been mailed out to the tenants. The new Lease Agreements explain the new rates for 2020 as well as the new language that was previously proposed. Those will need executed by the end of this year.

Sales Agreement – 65 South Main Street

Manager Shaffer reported to Council that the Borough applied to DCED under the Commonwealth Financing Authority (CFA) Grant program. The Borough has a draft real estate purchase agreement. Solicitor Ruth has reviewed the agreement with only a few modifications.

DCNR Meeting – Community Center

Manager Shaffer reported to Council that he and Mayor Hilt attended a meeting with DCNR regarding the potential conversion of the Community Center. Because there were grant funds that were used to make improvements at the Community Center, there is a section in the grant agreement that addresses conversion of the property. If there is a conversion, the department needs to be informed as there is a potential of a payback of those grant funds. Manager Shaffer provided a history of how they got to the point of possibly selling the building with regards to the feasibility study, the condition of the building, as well as the public presentation. Manager Shaffer felt that overall they were impressed with the due diligence of the Borough that was completed. Additionally, if there is an offer on the table, they are asking for that information to be provided to them, as well as a depreciation schedule of the assets that were improved using funds. As a result, should there be an offer, it would be up to the Borough to prove that the assets that were improved are fully depreciated to offset any payback. In addition, if there is a payback amount, that amount can be invested back into the current Community Park to offset.

**ARRO Engineering**Main Street Improvements

Engineer Warfel reported to Council that ARRO has had a change in status regarding the Main Street Improvement project. The project has been bid and it is in the PennDOT's point of view, in a pre-award status. It is ARRO's understanding that they intend to award the bid to the low bidder, JVI Group. Their bid was \$2,178,271.00. That is for the combined project. For an approximate breakdown, the Borough's portion of that project would be \$1,239,000. Engineer Warfel reminded Council that there is a MTF grant for \$500,000, a TAP grant for \$334,000 available and an ARLE grant for approximately \$230,000 for that project. Engineer Warfel reported that ARRO has been invited to the pre-construction meeting to be held in a week and a half, but have not had much success in actually meeting with and/or discussing with the state on the Borough's position on this project. It is estimated that the Borough's portion for this project would be \$1,239,122.35.

East Railroad Street Improvements

Engineer Warfel requested action to be taken on two items:

Consider Approval of Payment Request #2

Joshua Moore made a motion, seconded by Larry McConnell, to approve Payment Request #2, for state wage work, in the amount of \$54,689.17 to H&H General Excavating. It was noted that this money will be paid from Borough funds.

Consider Approval of Payment Request #2 (Federal Funds)

Joshua Moore made a motion, seconded by Kristyn M. Stouch, to approve Payment Request #2, for federal wage work, in the amount of \$165,754.12 to H&H General Excavating. It was noted that this money will be paid from CDBG (Community Development Block Grant) funds on behalf of the Borough.

Stormwater/ MS4

Engineer Warfel reported to Council that ARRO is in the process of preparing the stormwater/MS4 compliance report for submittal for next year's report.

Engineer Warfel also noted that they are reviewing stormwater plans for 208 Hauer Terrace, 209 Hauer Terrace and 325 Greenwood Road in the Spring Forge Development.

Glenview Road and SR 116

Engineer Warfel reported to Council that ARRO and Manager Shaffer are reviewing a possible funding source for the intersection of SR 116 and Glenview Road. It's called "Green Light Go" Grant Program. That signal is shared by the Borough and Jackson Township. Manager Shaffer has reached out to the township to meet to discuss submitting a joint application.

Strategic Management Planning

Engineer Warfel reported to Council that he and Manager Shaffer are working on a strategic management plan for the Borough.

Small Water and Sewer Grant Opportunity

Engineer Warfel reported to Council that they will be pursuing a Small Water and Sewer Grant from the state for improvements to the North Loop Interceptor. That is the interceptor that runs from the Roundabout down to the wastewater treatment plant. The project would be targeted to help reduce the amount of inflow and infiltration into the system. He noted that grant money for this has a very limited scope. The grant would be for construction and engineering costs not to exceed \$500,000.

**Solicitor's Report**

Solicitor Ruth reported that he has three ordinances for Council's to consider:

1. Sixth Amendment to the Articles of Agreement- Has already been authorized for advertisement. This will be advertised for approval at the Committee Meeting on November 18. This ordinance will eliminate the one year waiting time for the dissolution of Southwestern Regional Police Department.
2. Advertisement of an Ordinance Amending the Parking Ordinance to modify the prohibited and time limited parking as a result of the street improvements on Railroad Street. Rebecca J. Stauffer made a motion, seconded by Joshua Moore, to authorize the advertisement for this ordinance. Motion Carried.



3. Advertisement of an Ordinance directing the dissolution of the Southwestern Regional Police Department and the termination of the Intergovernmental Cooperation Agreement between Spring Grove Borough, North Codorus Township, Manheim Township, and Heidelberg Township. Peter A. Lombardi made a motion, seconded by Larry McConnell, to authorize the advertisement of this ordinance. Motion Carried.

### **Zoning & Code Enforcement**

#### Zoning Report- October 2019

The Zoning Officer's Report for October 2019 was presented to Council for their review.

#### Code Enforcement Report-October 2019

The Code Enforcement Report, which shows code violations in the month of October 2019 as well as the status of any outstanding violations, was presented to Council for their review.

#### Zoning Hearing Board – October 30, 2019

Manager Shaffer reported to Council that there will be a Zoning Hearing Board meeting held on October 30, 2019 regarding 223 West Jackson Street.

### **Recreation**

#### Spring Grove Regional Parks & Recreation Center Meeting Minutes –September 2019

The Minutes of the Spring Grove Regional Parks and Recreation Meeting for the month of September were not available.

#### Spring Grove Regional Parks and Recreation Center Financial Report – September 2019

The Financial Report for the Spring Grove Regional Parks and Recreation Center for the month of September was not available.

### **Committee Reports**

There were no new updates from the Personnel or Highway Committees.

### **Unfinished Business**

None

### **New Business**

#### Consider Authorizing Advertisement of the 2020 Budget and Tax Resolution

David B. Kile made a motion, seconded by Joshua Moore, to authorize the advertisement of the 2020 Budget and Tax Resolution. Motion Carried.

### **Correspondence**

#### PSAB Pension Plan Statement – Month Ending September 2019.

The PSAB Pension Plan Statement for the month of September was presented to Council for their review.

Executive Session

At this time Council convened into executive session at 9:35 PM to discuss Personnel. Council reconvened at 9:57 PM.

Hearing no further business, the meeting was adjourned until Committee Meeting to be held Monday, November 18, 2019 at 7:00 PM.

Adjournment was at 9:58 PM

Respectfully submitted,  
Melissa J. Helm  
Recording Secretary

**MINUTES OF SPRING GROVE BOROUGH  
COUNCIL MEETING  
February 3, 2020**

The Spring Grove Borough Council met in Regular Session on Monday, February 3, 2020. President James D. Graham led those in attendance in a word of prayer and Pledge to the Flag. The meeting was called to order at 7:00 PM.

**BOROUGH COUNCIL PRESENT**

James D. Graham  
Peter A. Lombardi  
Joshua D. Moore  
Rebecca J. Stauffer  
David B. Kile  
Vincent Catalano

**ALSO PRESENT:**

Beverly Hilt, Mayor  
Andrew N. Shaffer, Borough Manager  
Velda Nickell, Adm. Assist/Recording Secty  
Matt Warfel, (ARRO Inc.)  
Peter Ruth, Solicitor

**BOROUGH COUNCIL ABSENT:**

Larry McConnell

**ALSO ABSENT:**

None

**Public Comment / Visitors**

None

**Approval of Minutes**

**January 2020**

The Minutes of the Regular Council Meeting held January 6, 2020 and January 20, 2020 were presented to Council for their review. David Kile made a motion, seconded by Vincent Catalano, to approve the minutes for January as amended (January 6<sup>th</sup> minutes). Motion carried unanimously.

**Treasurer's Report**

**February 2020**

The Treasurer's Report for January 2020 will be submitted at the Committee Meeting on February 17<sup>th</sup>.

**President's Report**

President Graham took this opportunity to welcome Velda Nickell.

**Mayor's Report**

**Parking Enforcement Officer's Report – January 2020**

The Parking Enforcement Officer's Report for January 2020 was presented to Council for their review.

Southwestern Regional Police Financial Report – December 2019

The Financial Report for December 2019 was presented to Council for their review.

Southwestern Regional Police Board Minutes – December 2019

The Minutes of the Southwestern Regional Police Board for the month of December 2019 were presented to Council for their review. President Graham commented it will be interesting to see the financial report for January to see how quickly the \$300,000 gets used. V. Nickell stated that the accrued vacation and sick time was paid out December 31<sup>st</sup> but the taxes weren't paid until January.

Meetings Attended

The Mayor reported on January 27<sup>th</sup> she attended the VFW Dedication Ceremony for Roths Church Road. A portion of the road was dedicated to Earl Markle, a 19-year-old serviceman who died in the Korean War. She also attended a census meeting and will be swearing in officers at the fire department on Wednesday, February 5, 2020.

York Area Regional Police Activity Report –January 2020

The Police Activity Report for January 2020 was presented by Sgt. Krzywulak to Council for their review. He reported that all the evidence has been transferred from the former Southwestern Regional Police Department headquarters.

**Manager**

Manager Shaffer welcomed Velda Nickell and thanked Mayor Hilt for her assistance in the office during the time period between Melissa Helm's retirement and the present. He reported that he has been busy comprising the year-end reporting for PennDOT and DCED. On January 24<sup>th</sup> he provided the Spring Grove Chamber of Commerce with a report of the various projects that are in progress and/or "wish list" types of projects. The Mayor was also in attendance and they received a lot of good feedback. President Graham requested one of the speed signs be moved onto Spring Forge, it will be beneficial to see the traffic count and speeds now. Rebecca J. Stauffer commented that people in her neighborhood have been pleased with the slowdown in traffic.

**ARRO Engineering**Main Street Improvements

Engineer Warfel reported to Council that they are still targeting March for a start date. They will be teaming with PennDOT and JVI. The associated tap funding has been increased from \$333,730 to \$389,405; however, on-going conversations are being conducted with PennDOT regarding the split in cost of the project.

East Railroad Street Improvements

Engineer Warfel reported to Council that this project is effectively finished, there are a few punch list items to be addressed. They are holding \$3,000 on the contractor until these are completed.

Stormwater/ MS4

Engineer Warfel reported to Council that there isn't anything new to report. The planning for MS4 has been initiated, a report is due annually and they plan to start this in the beginning of summer.

Glenview Road and SR 116

Engineer Warfel reported to Council PennDOT has responded to the scoping form submitted by ARRO for the "Green Light Go" Grant. They said the project is too extensive for that grant and recommended applying for the ARLE program. This is the same program used on Main Street. They are going to submit for this when it opens in June. They are planning to conduct a traffic impact study at the intersection to further define the improvements they are planning, which are currently undefined. The hope is the study shows the need for left turn lanes on all three (3) approaches except Glenview, which already has a left turn lane.

Strategic Management Planning

Engineer Warfel reported to Council that ARRO has assisted the Borough in preparing an RFP requesting proposals on January 4<sup>th</sup>. The proposals will be due March 9, 2020. They have already seen some interest from consultants.

Small Water and Sewer Grant

Engineer Warfel reported to Council that ARRO has responded to the questions from the DCED and they anticipate a decision. This grant is to replace the North Loop Interceptor and goes up to \$500,000. Currently they anticipate needing \$411,669. A decision from DCED is scheduled in July but will probably be later. If the Borough decides to go ahead with the project, they will have to pay a 15% match, a maximum of \$75,000.

Chapter 94 Report

Engineer Warfel reported to Council that the PA DEP had gotten back to the Borough on the Chapter 94 Report (Waste Load Management Report). The report showed three (3) consecutive months in 2018 (a year of a lot of wet weather) where they exceeded the hydraulic capacity of the facility. In June of 2019, after they had done some televising, they found a break right outside the head of the plant which they repaired. Since then they have seen a significant reduction in flow (50%) during wet-weather events. They submitted these results to PA DEP and they concur that the issue has been addressed; however, they maintain their restriction of no new connections, so we have one (1) year of data to collect. In June of 2020 ARRO will submit one (1) year of flow data to confirm the major I & I (inflow & infiltration) issue has been addressed.

ARRO is currently working on the Chapter 94 Report for 2019, and prior to June they once again showed an exceedance for three (3) consecutive months. He suspects there are some continuing problems with I & I, but not to this extent. The bottleneck isn't at the plant and replacing the North Loop Interceptor should help to address this. They have done five (5) projects since 2008 to reduce I & I and there has been a significant reduction at the conclusion of each of these projects. He encouraged the Borough to continue to

monitor the sewer system. Current construction has already been allocated, so they will not be restricted from connecting, however; no new, unallocated connections are permitted at this time. Manager Shaffer does not foresee this as a problem, as currently there haven't been any new plans for subdivision submitted.

#### Code Enforcement Services

Engineer Warfel presented a proposal to Council that would provide the Borough with Rental Housing Maintenance and Inspection, Property Maintenance Code Enforcement and Zoning Ordinance on an as-needed basis. ARRO currently provides these services to three (3) or four (4) other municipalities. Manager Shaffer reported that residents have been complaining as code enforcement has been reactive instead of proactive due to being down 1.5 employees. After extended discussion a motion was made by Rebecca J. Stauffer, seconded by David B. Kile, to approve the proposal presented by ARRO to provide the Borough with Code Enforcement Services. Motion carried unanimously.

#### **Solicitor's Report**

##### Draft Ordinance – Refuse Amendment

Solicitor Ruth presented a draft of an ordinance to amend the current Refuse Ordinance. This draft defines a non-residential unit and updates some outdated language. It also beefs up the requirements for a non-residential unit owner to contract separately with a private refuse service. Motion was made by Rebecca J. Stauffer, seconded by Joshua D. Moore, to advertise the Refuse Amendment Ordinance as presented. Motion carried unanimously. Manager Shaffer stated that letters should go out to business owners once the ordinance is adopted, informing them of the clarifications.

#### **Zoning & Code Enforcement**

##### Zoning Report- January 2020

The Zoning Officer's Report for January 2020 was presented to Borough Council for their review.

##### Code Enforcement Report-January 2020

The Code Enforcement Report, which shows code violations for the month of January 2020 as well as the status of any outstanding violations, was not available.

#### **Recreation**

##### Spring Grove Regional Parks & Recreation Center Meeting Minutes –December 2019

The Minutes of the Spring Grove Regional Parks and Recreation Meeting for the month of December 2019 were presented to Council.

##### Spring Grove Regional Parks and Recreation Center Financial Report – December 2019

The Financial Report for the Spring Grove Regional Parks and Recreation Center for the month of December was presented to Council for their review. They are struggling but will not owe the Borough any money. There was \$15,000 spent on summer camp supplies, which is understandable as the program goes all day and they have a lot of activities. The Before & After School supplies appears high at \$43,000. There was an

extended discussion regarding the expenses of the Rec Center. President Graham reported they have received a \$25,000 grant and are planning to apply for more.

### **Committee Reports**

#### Highways

There has been a request for additional speed tables on Hamlet Drive. After discussion Sgt. Krzywulak offered to place a York Area Regional Police speed trailer in the area to see if that addresses the concerns. The Council agreed to this solution

### **Unfinished Business**

**None**

### **New Business**

#### Consider Re-appointment of Mark Bortner to the Spring Grove Regional Parks and Recreation Center for a Five-Year Term

This appointment was missed at the Reorganization Meeting. Rebecca J. Stauffer made a motion, seconded by Peter A. Lombardi, to appoint Mark Bortner to the Spring Grove Regional Parks and Recreation Center for a five-year term. Motion carried unanimously.

#### Review Committee Appointments

Rebecca J. Stauffer made a motion, seconded by Peter Lombardi to appoint Vincent Catalano as Council Chair of the Highways Committee. Motion carried unanimously.

### **Correspondence**

#### Letter from Predix Properties LLC

President Graham presented a letter that was just received from Predix Properties LLC to Council for review. Said letter is requesting a reduction in trash bags from four (4) bags per unit to two (2) bags per unit at the apartment complex located at 327 N. Pine Avenue. The letter states these units do not produce four (4) bags, and since they were denied private trash service would like Council to consider allowing them to reduce their service to two (2) bags per unit. After discussion Council tabled this request until the next Council Meeting to allow time for review.

#### PSAB Pension Plan Statement – Month Ending December 2019.

The PSAB Pension Plan Statement for the month of December was presented to Council for their review.

#### Executive Session

At this time Council convened into Executive Session at 8:25 PM to consult with Solicitor Ruth. Council reconvened at 9:26 PM. Hearing no further business, the meeting was adjourned until Committee Meeting to be held Monday, February 17 at 7:00 PM.

Respectfully Submitted,

***Velda Nickell***

Recording Secretary





# ATTACHMENT 2.2

PUBLIC INVOLVEMENT AND PARTICIPATION PLAN

# **PUBLIC INVOLVEMENT AND PARTICIPATION PLAN**

## **2018-2019 Reporting Period**

### **Spring Grove Borough**

**GOAL:** To develop, implement, and maintain a written Public Involvement and Participation Plan that encourages the public's active participation in stormwater planning and management.

#### **DEVELOPING OPPORTUNITIES FOR PUBLIC PARTICIPATION**

- A. Identify and list additional opportunities for the public to participate in the MS4 program.
- B. Identify and list specific communication methods to the target audiences. Make certain that the target audiences know that they can make their thoughts and opinions can be made known during the Borough Council Meetings. Maintain records of contacts with these groups.
- C. Maintain a record of public participation activities noting number of participants, date and location of activity, and quantify the results of the activity.
- D. Endeavor to determine quantifiable impacts of activity on MS4 program and its goals to evaluate results.
- E. Maintain a list of notices and invitations for participation distributed each year to document efforts to engage public. Attach the documentation to the annual report to the PA DEP.

#### **DEVELOPING PUBLIC NOTICE AND INPUT ON STORMWATER ORDINANCES**

- A. Advertise the date and time of the Borough Council Meetings in which the proposed stormwater ordinances will be discussed.
- B. Adapt the protocol for advertising and reviewing proposed stormwater ordinances based on results found.
- B. Create records to list proposed stormwater ordinances, date of ordinance advertisement, date reviewed by the

municipality, public comments and municipal responses, and date adopted.

- C. Notify public through the website and other electronic means available to the municipality.
- D. Review and update protocol annually.

## **COMMUNICATING STORMWATER ORDINANCE ACTIONS TO THE PUBLIC**

- A. Continue to hold public Borough Council meetings monthly to solicit public involvement and participation in the stormwater management program.
- B. Notify target audience directly and through the municipal website (<http://springgroveborough.com/>) and postings in public locations.
- C. Continue to use the public Borough Council meetings to present a summary of progress, activities, and accomplishments through implementation of the Stormwater Management Plan (SWMP)
- D. Solicit feedback from the public on the SWMP.
- E. At meeting document and report cooperation and participation with other organizations and participation of public in supporting the implementation of the SWMP. Activities could include cleanups, storm drain stenciling, water quality monitoring, and educational activities.
- F. Summarize the meeting in writing and post on the municipal website.

## ATTACHMENT 2.3

"BORO BITS" MUNICIPAL NEWSLETTERS



# Boro Bits

A quarterly newsletter for the residents, businesses and property owners of Spring Grove Borough, York County, Pennsylvania.

Volume 24 Issue 98

July 18, 2019

## Smoke in the Grove - 2019

The Borough of Spring Grove is proud to be hosting the Third Annual Smoke in the Grove State Championship BBQ Competition and Festival on July 26 & 27, presented by Kennie's Markets. Over 50 professional Kansas City Barbeque Society (KCBS) Teams and 21 Backyard Teams will be competing for \$14,825 in cash prizes with the chance to compete in the Annual Jack Daniel's World Championship Invitational in Lynchburg, Tennessee and the American Royal in Kansas City, Missouri. New for 2019, is the Kennie's Steak and Sausage Challenge sanctioned by the Steak Cookoff Association.

Be sure to come out on **Friday, July 26** and support your local First Responders while they compete in the First Responder's Cup Wing Competition. During this time, wings prepared by 12 different police, fire, and veteran organizations will be available for public purchase. For \$10, event attendees will receive 12 wings and one vote. Sampling and voting will begin at 6:00 PM on Friday. We will also have a family activity area with bounce houses, yard games, carnival style games, and a rock wall. Nashville -recorded singer/songwriter Brittany Opperman will be on stage, beer will be on tap from House of Brew, and wine will be available from



Jackson Square Vineyard. If you're looking for more than just wings, Sarah's Creamery, Big Chipper's BBQ, Brickers Fries, and Tom's Pit Stop will be on site. The First Responder Cup Awards will be presented at approximately 8:30 PM, with awards for the Kennie's Steak and Sausage Challenge to follow.

On **Saturday, July 27**, the professional and backyard teams will be competing, while BBQ food vendors, other food trucks, a family activity area, and craft vendors will be available beginning at 11:00 AM. Live music by the band VELVEETA from State College will begin at 12:30 PM.

Don't miss the opportunity to purchase raffle tickets for a chance to win a Traeger Smoker, Big Poppa Drum Smoker, and more! We've brought back the People's Choice Pork Competition, where the public will be able to sample and vote for their favorite pulled pork, prepared by our professional BBQ teams.

Check out [www.SMOKEINTHEGROVE.com](http://www.SMOKEINTHEGROVE.com) or the Borough's Facebook Events Page for more information and to purchase event items.

### PRESENTING SPONSOR



## Railroad Street Improvement Project

Work on the East Railroad Street Improvement Project is slated to begin on July 29 and should be sustainably completed by the end of September.

During portions of construction, East Railroad Street will be closed from Main Street to Hosier Avenue.



During this time, the section of East Street from Constitution Avenue to East Railroad Street will only have ingress and egress access via Constitution Avenue, creating a limited two-way street. Similarly, the section of East Street from East Railroad Street to East Church Street, will only have access via East Church Street. While the closures will create a temporary inconvenience, the long term benefit of the project will far outweigh. As a recap, the project will involve the widening and realignment of the roadway at the intersection of East Railroad Street and Main Street. In addition, parking spaces will be installed, along with a hardscaped area for future improvements, and groundwork will be laid for the future alignment of the Trolley Trail through downtown. Sidewalk improvements along East Railroad Street will stretch from Main Street to the end of East Railroad Street at the Community Park. Funding for this project has been obtained through a Community Development Block Grant.

# NO PLASTIC BAGS IN YOUR RECYCLE BIN!



**Please do not bag your recyclables!**  
**Do not place plastic bags in your recycle bin!**

When you place plastic bags in your recycle bin, they can get wrapped around our sorting equipment, then Penn Waste team members at our recycle center have to climb into the machinery and cut off the plastic bags. Plastic bags should **never** be placed in your curbside recycling bin for this reason.



**Always place your recyclables  
directly in your recycling container.**

To recycle plastic bags, please visit [www.Earth911.com](http://www.Earth911.com) for a list of drop off locations.

## Your Elected Officials

### Borough Council

#### President

James Graham 225-3847

#### Vice President

Rebecca Stauffer 524-5244

#### President Pro Tempore

Peter Lombardi 676-8192

Larry McConnell 495-1151

Kristyn Stouch 225-0272

David Kile 880-3784

Joshua Moore 476-6117

### Mayor

Beverly Hilt 739-6357

#### Office Hours:

1<sup>st</sup> & 3<sup>rd</sup> Monday

6:00 PM - 7:00 PM

[mayor@springgroveboro.com](mailto:mayor@springgroveboro.com)

### Tax Collector Information

Brian Stormes

P.O. Box 118

Spring Grove, PA 17362

(717) 739-6125

[sgtaxcollector@gmail.com](mailto:sgtaxcollector@gmail.com)

## Meeting Dates

### Council

### Committee

August 5

--

September 3

September 16

October 7

October 21

All meetings begin at 7:00 PM at the Borough Office.

## Borough Office

Memorial Day - Labor Day

Monday - Thursday

7:00 AM - 5:00 PM

Labor Day - Memorial Day

Monday - Friday

8:00 AM - 4:30 PM

717-225-5791

### Manager

Andrew Shaffer extension 3

### Administrative Assistant

Melissa Helm extension 2

### Zoning Office

extension 4

### Holiday Closings

September 2 - Labor Day

## Save the Date

### SPRING GROVE COMMUNITY TREE LIGHTING

DECEMBER 5

6:00 PM to 8:00 PM

Hoke House Grounds



## Sewer Bill Access

Residents are encouraged to access and view their sewer, refuse, and stormwater billing via the Borough's website. Simply visit [www.springgroveborough.com](http://www.springgroveborough.com) and click on the Sewer Bill Access tab located at the top of the page. From this page, residents can register for an account, where the ability to make payments and view account history is provided.

Additionally, a Quick Pay feature is available to those that do not wish to establish an account.





## Glatfelter Memorial Library

101 Glenview Road  
Spring Grove, PA 17362  
Phone 717-225-3220  
<https://www.yorklibraries.org/spring-grove-glatfelter/>



### Hours

Monday  
12:00 PM - 8:00 PM  
Tuesday  
10:00 AM - 7:00 PM  
Wednesday  
10:00 AM - 7:00 PM  
Thursday  
12:00 PM - 8:00 PM  
Friday  
10:00 AM - 2:00 PM  
Saturday  
10:00 AM - 2:00 PM  
Sunday  
Closed

### Upcoming Events

September 18  
York Revolution Baseball

October  
Evening Appraisal Clinic  
Cordier Auction & Appraisals

October-November  
Fruit Sale  
Florida Indian River Groves

Please call the library or visit the website for more information about these events and other programs.

### Available Amenities

Wi-Fi  
Public Computers  
Printing, Copying, & Scanning  
After Hours Book Drop  
Room Rental  
Ongoing Used Book Sale  
Public Restrooms  
Play, Learn, Grow

## A Look Back in Time: July 11, 1932 - Council Minutes - Expenses

The following bills were presented and ordered paid by Motion of Edward Ream and duly seconded by H.J.Breighner.

C.L.Markle, June 15 part payment of Police Salary...	\$40.00
C.L.Markle, Balance of June Police Salary.....	43.00
C.L.Markle, Janitor Services for Fire Company.....	4.00
McCullough & Crumrine..Collecting Garbage for June..	75.00
Mary Swartz..Garage Rent for June.....	1.50
Edison Light & Power Co., Street Lighting fo June...	84.00
Harry Shue,..Health Officer Salary for June.....	4.00
P.H.Glatfelter Co., Hall & Water Rent.....	52.50
P.Stambaugh & Son..Truck\$3.25 Motor cycle? \$1.66....	4.91
Spring Grove Garage,,5 Gal Gas for Fire Truck.....	.85
T.F.Chrostwaite,..Municipal Law Reporter.....	7.50
The office Equipment Store..Minute Book.....	9.09
Jesse Zeigler....Paint&Brushes, Bolts, Cartridges...	3.85
C.Ernest Bischoff, Printing 500 auto Summonses.....	7.00
Services Supply Co., ..Warning Sign.....	11.02
Lillie Kessler// Janitress Salary.for 6 Months.....	3.00
C.A.Chronister...Sharpening Pick & Grinding Scythe..	.30
Spring Grove National Bank..Desk.....	15.00

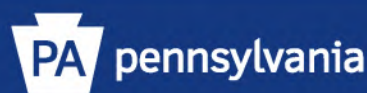
Total \$366.52

## PENNSYLVANIA YELLOW DOT PROGRAM



Pennsylvania's Yellow Dot Program was created to assist citizens in the "golden hour" of emergency care following a traffic crash when they may not be able to communicate themselves. Placing a yellow dot in your vehicle's rear window alerts first responders to check your glove compartment for vital information to ensure that you receive the critical medical attention you need.

The program is a cooperative effort among the Pennsylvania Departments of Transportation, Health and Aging; the Pennsylvania State Police; the Pennsylvania Turnpike Commission; and first responders and local law enforcement.



## How the Program Works

Participants complete a personal information portion in the booklet, which includes the participant's name, contact information, emergency contact information, medical history and medications, allergies and the participant's doctors' contact information. A photo – showing only the participant's head and shoulders – is then taped on the spot allocated in the booklet.

The yellow dot decal provided in the program kit is placed in the lower left corner of the vehicle's rear window. The top of the sticker should be no higher than 3.5 inches from the bottom of the window. This decal alerts first responders that vital information can be found in the vehicle.



Place the completed information booklet, with the attached picture, into the vehicle's dashboard glove compartment.



## How to Participate

For more information on Pennsylvania's Yellow Dot Program or to request a kit, visit [www.YellowDot.pa.gov](http://www.YellowDot.pa.gov). You can also call the PennDOT Sales Store at: 717-787-6746.

## Need Back to School Clothing?

St Paul Lutheran Church  
201 South Main Street - Spring Grove

**Friday, August 2 - 4:00 PM - 6:30 PM**

New & Gently Used Clothing & Shoes

Families with children entering kindergarten to eighth grade or in sizes three to adult small are encouraged to stop by and shop for their child's back to school needs.

Free-will offering accepted

Clothing donations accepted Thursday  
August 1 - 8:00 AM - 11:00 AM

Sale is offered as a community program of several area churches to benefit families in need within the Spring Grove School District.



## Street Sweeping



Please make sure that you remove your car from the designated streets on the 1<sup>st</sup> and 3<sup>rd</sup> Thursday of the month between 7:30 AM and 8:30 AM. Violators will be ticketed at a cost of \$25.00.

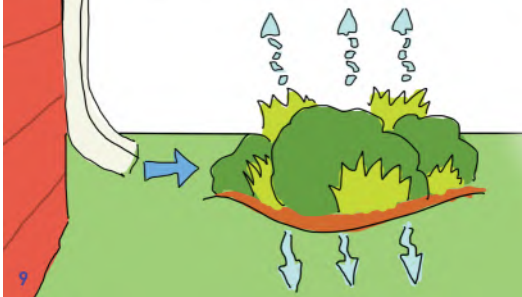
## Rain Gardens & Small Bioretention

### What is it?

A rain garden or bioretention area is a shallow depression that will hold runoff. It is planted with specially selected native vegetation that will filter and use runoff, as well as increase infiltration.

### How does it work?

Rain gardens reduce the amount of runoff and remove pollutants. As the water pools in the depression, it can infiltrate deeper into the soil, or be used by the vegetation through evapotranspiration. The deep and dense root system of perennial vegetation increases the amount of water that infiltrate as compared to the shallow roots of lawn grasses. Even in a larger event during which the rain garden may overflow, runoff is still filtered through the vegetation removing pollutants.



## Twice A Week Trash Collection

Twice a week trash collection will continue until November 2. Trash will be collected on Tuesday and Friday. Recycling and large item collection (one item) will remain on Friday. The annual collection schedule calendar and guidelines for recycling are available on the Borough's website.



## Council Highlights

- ✕ Adopted a Capitalization Policy which modifies the accounting system to account for capital assets and long-term debt in a manner that is similar to the private sector.
- ✕ Approved Ordinance 1-2019 which amended the non-uniformed pension plan to align benefits with Medicare and Social Security benefits for any new hires after January 1, 2019.
- ✕ Authorized the rebuild of the retaining wall at the Community Center.
- ✕ Approved the submission of a grant application to the Commonwealth Financing Authority in the amount of \$250,000 to be used for the demolition of the property at 65 South Main Street and to construct a parking area and small park.
- ✕ Approved amendments to the Community Development Block Grant for the East Railroad Street Improvement Project, bringing the total funding to \$251,000.
- ✕ Received funding for improvements at the intersection of Main Street and Jackson Street under the Automated Red Light Enforcement Program in the amount of \$229,855.
- ✕ Approved the installation of traffic calming measures in Spring Forge Development.
- ✕ Authorized grant agreements for the Main Street Improvement Project under the Transportation Alternatives Program and the Multimodal Transportation Program.
- ✕ Approved the low bid from H&H General Excavating Inc. for the East Railroad Street Improvement Project in the amount of \$338,975.





# Boro Bits

A quarterly newsletter for the residents, businesses and property owners of Spring Grove Borough, York County, Pennsylvania.

Volume 24 Issue 99

October 16, 2019

## Spring Grove Community Tree Lighting

**Thursday, December 5, 6:00 PM - 8:00 PM**

Work has already begun on the 5<sup>th</sup> Annual Spring Grove Community Christmas Tree Lighting event! Santa will be arriving around 6:00 PM to open the event. The evening will be filled with Christmas caroling, storytelling, crafts, face painting, photography areas, ice sculpting, and a live reindeer! Refreshments will include cookies, hot cocoa, and a local food vendor. New this year will be character appearances and a one mile jingle bell fun run, which will start at 5:45 PM. Be sure to check the Borough's website and Facebook page for more information and details on a scavenger hunt in anticipation of this year's event. Please find a donation request form included with this newsletter. This great community event would not be possible without multiple small contributions from our community members. Thank you in advance for your consideration and support!



## Police Service

Recent discussions with regards to the continuation of the Southwestern Regional Police Department (SWRPD) have forced the Borough of Spring Grove to investigate possible policing alternatives as soon as January 1, 2020. During the October Police Board Meeting, it was determined that the department can no longer exist and the dissolution process must begin. Therefore, the following options remain for the Borough as it is likely SWRPD will fail to exist after December 31, 2019.

York Area Regional  
Northern York County Regional  
Pennsylvania State Police

Borough Council will be discussing this decision in great detail during the November 4, 2019 Council Meeting beginning at 7:00 PM. It is imperative that residents attend to better understand the current situation, ask questions, and assist Council in making the best decision for the future of policing in Spring Grove Borough. A short presentation will be given before the public comment period of the meeting.



## Fall Leaf Collection Begins October 21



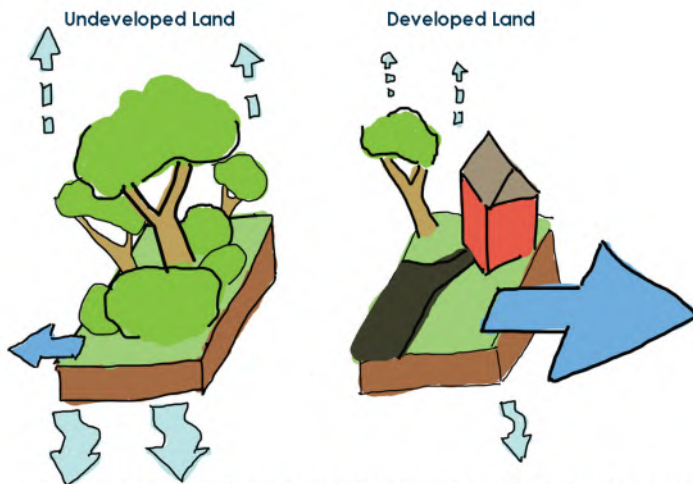
Leaf collection notices are available on the Borough's website and at the Borough Office. Please remember to follow the guidelines outlined in the notice. Leaves WILL NOT be collected where guidelines are not followed. Remember, if the rear of your property abuts an alley, place leaves in the alley.

# WHAT IS STORM WATER?

**Stormwater is the water that runs off the land after precipitation,** either rain or snowmelt. Rain or snow can drain down into the soil (called infiltration), evaporate back into the atmosphere, be used by plants, or flow into streams or water bodies. The water that runs off the land to streams or lakes is referred to as stormwater runoff.

Stormwater runoff happens in natural, undeveloped areas, but typically only for larger storms. For most areas in Pennsylvania that are wooded or natural meadows, it takes about an inch or more of rain to produce runoff.

After development, the natural wooded or meadow areas are replaced with roofs, driveways, sidewalks, and streets. These hard surfaces are called impervious surfaces, and they do not allow water to drain through them, unlike how rain can drain into soil (which is called a pervious surface). When rain falls on impervious surfaces, it runs off rather than infiltrating into the soil or being taken up by vegetation.



## Snow is Coming

In the event the Borough declares a snow emergency, information will be posted on the following sites:

- \* [www.springgroveboro.com](http://www.springgroveboro.com)
- \* Facebook: @sgbpa
- \* NIXLE.com – free text or email alerts, sign up on the Borough's website
- \* TV: Channel 8 (NBC)
- \* Radio: FM107.7 and FM 98.5



## Smoke in the Grove

A special thank you to everyone involved with Smoke in the Grove. This successful community event continues to grow with the support of residents, businesses, community organizations, vendors, and of course the BBQ teams. Planning for 2020 is already underway. Based on survey feedback, event attendees would like to see more BBQ themed vendors and demonstrations. The committee has made this a priority for 2020. Mark your calendars for July 24-25.

## Your Elected Officials

### Borough Council

#### President

James Graham 225-3847

#### Vice President

Rebecca Stauffer 524-5244

#### President Pro Tempore

Peter Lombardi 229-9887

Larry McConnell 495-1151

Kristyn Stouch 586-3047

David Kile 880-3784

Joshua Moore 476-6117

### Mayor

Beverly Hilt 739-6357

#### Office Hours:

1<sup>st</sup> & 3<sup>rd</sup> Monday

6:00 PM - 7:00 PM

[mayor@springgroveboro.com](mailto:mayor@springgroveboro.com)

### Tax Collector Information

Brian Stormes

P.O. Box 118

Spring Grove, PA 17362

(717) 739-6125

[sgtaxcollector@gmail.com](mailto:sgtaxcollector@gmail.com)

## Meeting Dates

### Council

November 4

December 2

January 6

### Committee

November 18

December 16

January 20

All meetings begin at 7:00 PM at the Borough Office.

## Borough Office

Monday - Friday  
8:00 AM - 4:30 PM

717-225-5791

### Manager

Andrew Shaffer extension 3

### Administrative Assistant

Melissa Helm extension 2

### Zoning Office

extension 4

### Holiday Closings

November 28-29 - Thanksgiving

December 24-25 - Christmas

January 1 - New Year's



## Glatfelter Memorial Library

101 Glenview Road  
Spring Grove, PA 17362  
Phone 717-225-3220  
<https://www.yorklibraries.org/spring-grove-glatfelter/>



### Hours

Monday  
12:00 PM - 7:00 PM  
Tuesday  
10:00 AM - 2:00 PM  
Wednesday  
10:00 AM - 2:00 PM  
Thursday  
12:00 PM - 7:00 PM  
Friday  
10:00 AM - 2:00 PM  
Saturday  
10:00 AM - 2:00 PM

### Upcoming Events

October 31 - 6:00 PM  
Book Discussion  
*The Whole Town's Talking*  
November 2 - November 11  
Book Sale

Please call the library or visit the website for more information about these events and other programs.

### Available Amenities

Wi-Fi, Public Computers,  
Printing, Copying, &  
Scanning, After Hours Book  
Drop, Room Rental, Public  
Restrooms



Thursday,  
October 31, 2019  
6:00 PM - 8:00 PM

If you wish to participate, please leave your porch light on. Please remember to stay safe with the increased traffic during this time. Happy Halloween!



### General Election

Don't forget to vote on November 5 between the hours of 7:00 AM - 8:00 PM at the Municipal Office. Sample ballots are available one to two weeks before the election at [yorkcountypa.gov/voting-elections.html](http://yorkcountypa.gov/voting-elections.html)



There is something about the winter months and curling up with a good book by the fireplace. But did you know that heating equipment is one of the leading causes of home fire deaths? With a few simple safety tips and precautions you can prevent most heating fires from happening.

### BE WARM AND SAFE THIS WINTER!

- Keep anything that can burn at least three-feet (one metre) away from heating equipment, like the furnace, fireplace, wood stove, or portable space heater.
- Have a three-foot (one metre) "kid-free zone" around open fires and space heaters.
- Never use your oven to heat your home.
- Have a qualified professional install stationary space heating equipment, water heaters or central heating equipment according to the local codes and manufacturer's instructions.
- Have heating equipment and chimneys cleaned and inspected every year by a qualified professional.
- Remember to turn portable heaters off when leaving the room or going to bed.
- Always use the right kind of fuel, specified by the manufacturer, for fuel burning space heaters.
- Make sure the fireplace has a sturdy screen to stop sparks from flying into the room. Ashes should be cool before putting them in a metal container. Keep the container a safe distance away from your home.
- Test smoke alarms at least once a month.



### Heating Equipment Smarts

**Install** wood burning stoves following manufacturer's instructions or have a professional do the installation. All fuel-burning equipment should be vented to the outside to avoid carbon monoxide (CO) poisoning.

**Install** and maintain CO alarms to avoid the risk of CO poisoning. If you **smell** gas in your gas heater, do not light the appliance. Leave the home immediately and call your local fire department or gas company.



### FACT

Half of home heating fires are reported during the months of **December, January, and February.**

# STOP THIS INVADER!

## SPOTTED LANTERNFLY



Adult (with wings closed) can be found July–December



Nymph (early stage) can be found late April–July



Egg mass (fresh) can be found September–December



Adult (with wings open) can be found July–December



Nymph (late stage) can be found July–September



Egg mass (older) can be found January–June

**THIS INVASIVE INSECT POSES A SIGNIFICANT THREAT** to Pennsylvania agriculture, including the grape, tree fruit, hardwood, and nursery industries, which are collectively worth nearly \$18 billion to the state's economy.

**REPORT** spotted lanternfly sightings at [extension.psu.edu/spotted-lanternfly](https://extension.psu.edu/spotted-lanternfly).

**DESTROY** all life stages that you find. Check your car and outdoor equipment before traveling.

**SHARE** your knowledge with others!

For more information, visit [extension.psu.edu/spotted-lanternfly](https://extension.psu.edu/spotted-lanternfly) or call 1-888-4BAD-FLY (1-888-422-3359).

### Main Street Improvement Project

On October 10, the Borough, in collaboration with PennDOT received bids for the Main Street Improvement Project. The apparent low bid is from the JVI Group, based out of York Springs, Pennsylvania. However, as of the date of this newsletter, a review validating the bid has not been completed. This project, focused on improving pedestrian movement downtown, includes upgrades to all curb ramps, sidewalk replacement, street lighting upgrades, street trees, crosswalks, a pedestrian signal, and a complete overlay of Main Street from the roundabout to the bridge at Pixelle. Funding has been awarded under PennDOT's Multimodal Transportation Fund, PennDOT's Automated Red Light Enforcement Program, and York County's Transportation Alternatives Program. Minor work is anticipated over the winter with the majority of work to occur in the 2020 construction season.

### Electronics Recycling

York County Solid Waste Authority's Residential Electronics Recycling Program is free and open to York County residents.

Monday thru Friday  
8:00 AM to 4:00 PM  
Saturdays 8:00 AM to 12:00 PM

Located in the parking area directly across from the York County Resource Recovery Center, at 2651 Blackbridge Road, York. Please bring help with you to unload heavy electronic items if needed.

#### Acceptable Items:

- ✖ Computers & Peripherals – PC's, Laptops, Servers, Mice, Keyboards, Printers, Monitors
- ✖ Televisions of all types-Limit 5
- ✖ Audio/Video Devices – CD/DVD/VHS/Blue-Ray Players, MP3 Players, Projectors, Amplifiers, Receivers, Recorders, Stereos, Video Game Consoles, etc.
- ✖ Communication Devices – Cell Phones, Smartphones, Telephones, Answering Machines, Pagers, etc.
- ✖ Food Preparation Devices – Microwaves, Coffee Makers, Mixers, Blenders, Toasters
- ✖ Healthcare Devices – Blood Pressure Monitors, CPAP Machines (remove mask), TENS Units, etc.
- ✖ Networking Devices – Modems, Routers, Servers, Switches, Hubs, etc.
- ✖ Power Tools – Drills, Sanders, Saws - powered using an electrical cord
- ✖ Printing Devices – Printers, Copier/Scanners, Fax Machines, Typewriters, Word Processors, etc.
- ✖ Electronic Device Hardware – Circuit boards, Hard drives, Processors, Power Suppliers, Converters, etc.
- ✖ Wires and Cables used in the operation of electronic devices





# Boro Bits

25 YEAR ANNIVERSARY

A quarterly newsletter for the residents, businesses and property owners of Spring Grove Borough, York County, Pennsylvania.

Volume 25 Issue 101

April 20, 2020

**DUE TO COVID-19 AND THE UNCERTAINTY CAUSED BY SUCH, DATES AND TIMES REFERENCED IN THIS NEWSLETTER ARE SUBJECT TO CANCELLATION OR RESCHEDULING. STAY SAFE AND HEALTHY!**

## Smoke in the Grove

The Borough of Spring Grove is proud to be hosting the Fourth Annual Smoke in the Grove State Championship BBQ Competition and Festival on July 24 & 25, presented by Kennie's Markets. Professional and Backyard Kansas City Barbeque Society (KCBS) Teams will be competing for over \$17,000 in cash prizes with the chance to compete in the Annual Jack Daniel's World Championship Invitational in Lynchburg, Tennessee and the American Royal in Kansas City, Missouri. Back for 2020, the Kennie's Steak and Sausage Challenge sanctioned by the Steak Cookoff Association. New for 2020, the International Chili Society Chili Cookoff on Saturday, July 25.

Be sure to come out on **Friday, July 24** and support your local First Responders while they compete in the First Responder's Cup Wing Competition. During this time, wings prepared by 12 different police, fire, and veteran organizations will be available for public purchase beginning at 6:00 PM. Additionally, BBQ food vendors, other food trucks, a family activity area, beer and wine, live music, and BBQ demonstrations will begin at 5:00 PM.

On **Saturday, July 25**, the professional and backyard teams will be competing, while BBQ food vendors, other food trucks, a family activity area, live music, and BBQ demonstrations will be available beginning at 11:00 AM. We've brought back the People's Choice Pork Competition, where the public will be able to sample and vote for their favorite pulled pork, prepared by our professional BBQ teams. **New for 2020**, the ICS Chili Cookoff will also feature a People's Choice Competition, where again the public will be able to sample and vote for their favorite.

Check out [www.SMOKEINTHEGROVE.com](http://www.SMOKEINTHEGROVE.com) or the Borough's Facebook Events Page for more up to date information and a schedule of events.



## Main Street Project

Due to COVID-19, the Main Street Improvement Project was placed on hold. The Borough is working with Pixelle to provide off street parking during construction. Details on parking and an updated project schedule will be communicated to residents, once available.

## Street Sweeping

A reminder that street sweeping has resumed as of April 2. Please make sure that you remove your vehicle from the designated streets on the 1<sup>st</sup> and 3<sup>rd</sup> Thursday of the month between 7:30 AM and 8:30 AM. Additional streets will be posted for sweeping, as needed.

## Summer Hours

The Borough Office will implement Summer Hours of 7:00 AM to 5:00 PM Monday through Thursday, beginning May 25 through September 3. After-hour payments or other correspondence may be placed in the drop box located in front of the handicap parking spaces.

## York Area Regional Police Department Online Reporting

The York Area Regional Police Department has enabled an online reporting option on their website, [www.yapd.org](http://www.yapd.org), to report non-active crimes. Once the report is submitted, an officer will contact you to follow up with the online submission. This site will not be monitored outside of regular business hours (8:00 AM - 4:30 PM) and on the weekends. Therefore, by submitting this form you may not be contacted until the following business day.

As an example, the following types of incidents could be reported through the online reporting feature: \* Fraud \* Criminal Mischief/ Vandalism \* Found or recovered property \* Non-active neighbor disputes. \*

Online reporting should not be used for crimes-in-progress, where information and/or evidence is time sensitive, and where acts of physical or threatening violence have occurred. These incidents should be reported by calling 911.

## Primary Election

Don't pass up the opportunity to cast your vote for your favorite candidates in the primary election on June 2. The polls open at 7:00 AM at the Spring Grove Borough Office, 1 Campus Avenue and close at 8:00 PM. Visit [yorkcountypa.gov/voting](http://yorkcountypa.gov/voting) -elections for up to date information including sample ballots.

## 2020 PRIMARY ELECTION IMPORTANT DATES

**MAY  
18**

Last day to register to vote for the primary election.  
[register.votesPA.com](http://register.votesPA.com)

**MAY  
26**

Last day to apply for a mail-in or absentee ballot.  
[votesPA.com/ApplyMailBallot](http://votesPA.com/ApplyMailBallot)

**JUNE  
02**

Voted mail-in and absentee ballots must be received by the county by 8 PM.  
[votesPA.com/County](http://votesPA.com/County)

**JUNE  
02**

Primary election day. Polls are open from 7 AM to 8 PM.  
[votesPA.com/Polls](http://votesPA.com/Polls)

**VotesPA.com**

## Your Elected Officials

### Borough Council

#### President

James Graham 225-3847

#### Vice President

Rebecca Stauffer 524-5244

#### President Pro Tempore

Peter Lombardi 229-9887

Larry McConnell 495-1151

David Kile 880-3784

Joshua Moore 476-6117

### Mayor

Beverly Hilt 739-6357

#### Office Hours:

1<sup>st</sup> & 3<sup>rd</sup> Monday

6:00 PM - 7:00 PM

[mayor@springgroveboro.com](mailto:mayor@springgroveboro.com)

### Tax Collector Information

Brian Stormes

P.O. Box 118

Spring Grove, PA 17362

(717) 739-6125

[sgtaxcollector@gmail.com](mailto:sgtaxcollector@gmail.com)

## Meeting Dates

### Council

May 4 & May 18

June 1

July 14

All meetings begin at 7:00 PM at the Borough Office.

## Borough Office

Monday - Friday  
8:00 AM - 4:30 PM

Summer Hours  
Monday - Thursday  
7:00 AM - 5:00 PM

717-225-5791

[www.springgroveboro.com](http://www.springgroveboro.com)

#### Manager

Andrew Shaffer extension 3

#### Administrative Assistant

Velda Nickell extension 2

#### Zoning Office

extension 4

### Holiday Closings

May 27 - Memorial Day

July 2 - Independence Day



## Spring Grove Women's Club - Serving the Community for 80 Years



*Charter Members: 1<sup>st</sup> row-Mrs Arthur Alwine, Mrs S.T. Shue, Mrs Charles Myers, Mrs James Hawkins; 2<sup>nd</sup> row-Mrs Leonard Becker, Mrs Donald Senft, Mrs Emerson Tower, Mrs Harry Trimmer*



*Packaging fresh fruits and vegetables at Harvest of Hope: Betty Sterenberg, Pat Reichley, Connie Clancy and Rhonda Harrison.*



*Susan Erlemeier & Barbie Gault tending the flower urns - Main Street*

In April of 1940, Mrs. Paul Koenig invited 12 women to her home to organize as a Woman's Club. The Club then joined the General Federation of Women's Clubs (GFWC), an international women's organization dedicated to community improvement by enhancing the lives of others through volunteer service.

For the past 80 years, the Club has served the Spring Grove Area Community. Over the years, we contributed to a wide variety of causes. The Spring Grove Free Public Library, now the Glatfelter Memorial Library, has been one service project that we have donated to monetarily and by volunteering at the library since the very first year the Club was organized.

Some other service projects: a Clothing Bank which evolved into the Thrift Shop, yearly scholarships to seniors at the Spring Grove Area High School and sponsoring a sophomore student to the Hugh O'Brien Youth Foundation for their Leadership Training Program, an art contest for students in the District, donations to the Visiting Nurse Association, Fire Companies, Ambulance Club, Windy Hill Senior Center, and many, many other causes. We are very proud of the flower urns on Main Street that we repot every Spring and Fall and water all season long. We have maintained these urns for some 50 years. Our current emphasis is serving at Harvest of Hope twice a month besides giving a monetary donation.

The Club helps its members continue to educate and improve themselves with speakers, going to GFWC workshops and fieldtrips. All the while we have a wonderful time giving to our community. And this is what we want, for it is the friendly wholeheartedness that the Club thrives on that is for the common good of us all.

## Homeowners Guide to Stormwater Maintenance - Dry Well

### ***What is it?***

Roof runoff can be directed through the gutter downspout to an underground dry well to be infiltrated without taking up any surface yard space. Dry wells are also sometimes called sumped downspouts.

### ***How does it work?***

Dry wells reduce stormwater volume by allowing it to be infiltrated into the soil. The water is held in the underground storage facility and then can drain slowly into the surrounding soil. The runoff drains from the gutter into either a gravel filled pit or a prefabricated plastic or concrete tank. There may be a sump, or smaller chamber, located before the gravel pit or tank. This sump collects leaves and other debris to prevent clogging of the dry well.

### ***How does a Homeowner maintain it?***

#### After storms with larger than 1 inch of rain:

There is typically a screen where the downspout enters the dry well. Clean the screen by removing any leaves that could block the flow of water into the dry well. Inspect the sump for accumulation of sediment, trash, or any other material. Remove any material that is in the sump to prevent it from clogging the dry well.

#### Quarterly:

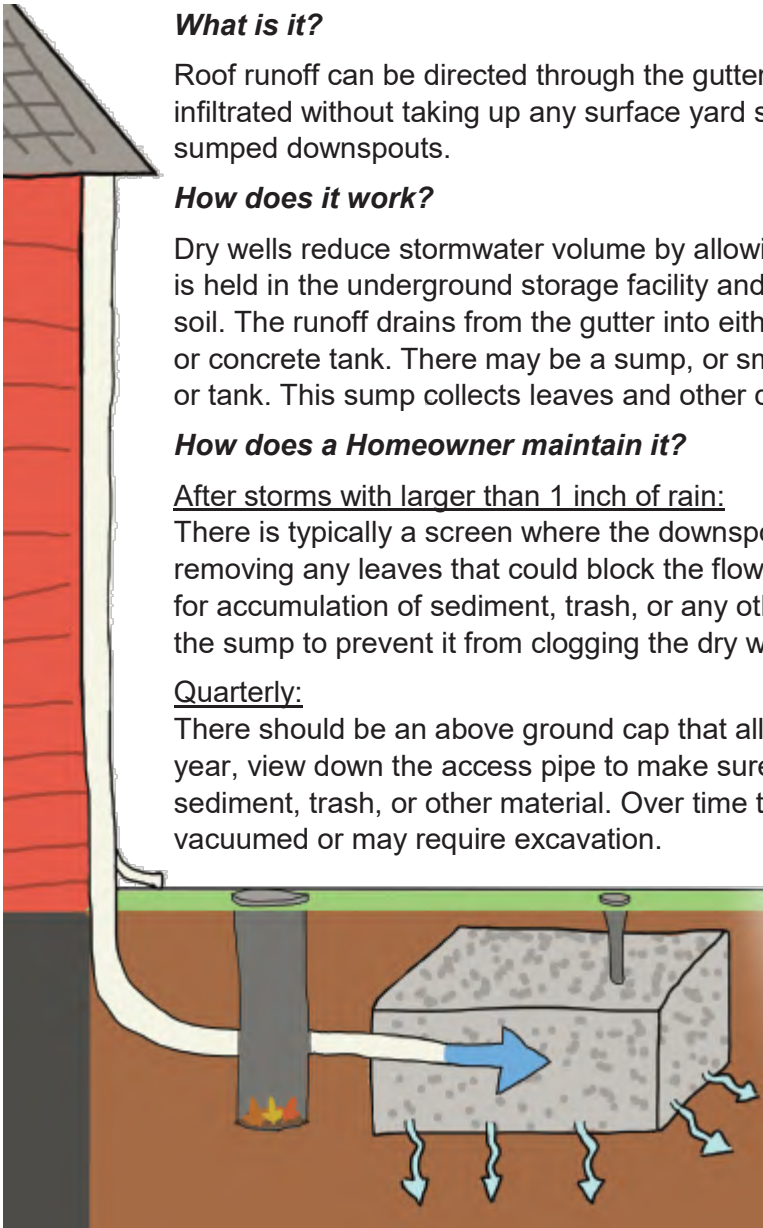
There should be an above ground cap that allows access to the dry well. Four times a year, view down the access pipe to make sure that the dry well is not accumulating sediment, trash, or other material. Over time the accumulation of sediment or trash may be vacuumed or may require excavation.

#### Annually:

Clean gutters to keep leaf debris out of the sump and dry well.

#### ***Additional Information:***

After large rain events, check the access pipe to ensure that the dry well is draining within 72 hours. If the drain times are more than 72 hours, the dry well may need to be cleaned out or replaced.



## Property Maintenance Code Violations

As the weather gets warmer, please remember to maintain exterior property areas. The majority of code violations are a result of overgrown grass and vegetation, accumulation of junk and debris, and unlicensed or junked vehicles. Borough Officials will continue to issue fines per the Quality of Life Ordinance for violations. Fines can range from \$25 to \$500 per day per violation.

**Deteriorating structures including accessory structures will continue to be enforced.**





# ATTACHMENT 2.4

COOPERATION WITH OTHER ORGANIZATIONS AND PUBLIC PARTICIPATION

# York County Stormwater Consortium BMP Reporting Tool

---

## *User's Guide*

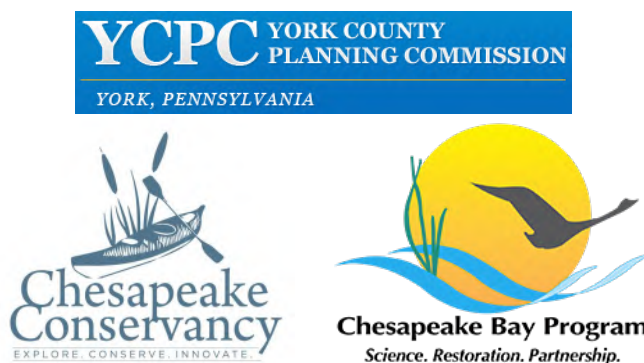
This tool is designed to help MS4-regulated municipalities in York County, Pennsylvania streamline their proposal and reporting process in regards to the Chesapeake Bay Pollution Reduction Plan.

Municipalities can:

- + Submit a new proposal to request funding for a BMP project under the CBPRP
- + Report on the progress of a project that was previously funded through the CBPRP

The steps within this process require no GIS experience. We will use the Tool to complete the forms required by the York County Planning Commission (YCPC), and submit the final proposal or report to the County. For New Proposals, we will walk through the process to estimate pollution reduction loads using another web tool called BayFAST.

The York County Stormwater Consortium BMP Reporting Tool was made possible thanks to a partnership between:



## Task 1: Getting Started

1. Go to <http://york.cicapps.org>
2. If you can't see the menu along the left side of the page (see image below), click "Menu" in top left
3. Click Register in the top left

1. Enter a Username
2. Enter a Password  
*Your password must contain at least one capital letter, one lower case letter, and one number.*
3. Confirm Password  
*Type your password again*
4. E-mail Address
5. First Name
6. Last Name
7. Organization/Affiliation
8. Click the button at the bottom that says Register

Account

**YCPC** YORK COUNTY PLANNING COMMISSION  
YORK, PENNSYLVANIA

Register

Login

Username or E-mail

Password

☒ Keep me signed in

Login

[Forgot your password?](#)

## Task 2: Begin your new BMP proposal or report

1. Click on My Projects
2. Click Add New Project

### Add new project

Do not use the browser "back" button or you will lose the information in your form. Instead, use the buttons provided below to move from one section to another.

Basic Information Sponsor Information Additional Information

### Basic Information Tab

1. Enter Project Name  
*For new proposals, enter a new name; for existing projects, use the name on Table 6 of the CBPRP*
2. Enter Project Status  
*Select New Proposal, or select the status that best describes your existing project; if needed, provide clarifying details in the description section.*
3. Project ID  
*This option is not available for New Proposals. For existing projects, list your Project ID number from Table 6 of the CBPRP*
4. Enter a Short Description
5. Enter a Project Type
6. Enter Start and End Dates
7. Click Next

### Sponsor Information Tab

1. Indicate Joint/Multi-municipality Project  
*This refers to partners for this specific project. Enter details of who you are working with in the notes section on the next page.*
2. Enter Sponsor Name
3. Enter Primary Sponsor Address  
*Enter street address, city, state, and zip code*
4. Enter Primary Contact Name
5. Enter Primary Contact Phone
6. Enter Primary Contact Email

Tip: The "Notes" section in the Additional Information page is your only opportunity in the YCSWC BMP Reporting Tool to add additional text to your proposal or report. Please use this space to provide any additional information or explanation you would like to share with the reviewers.

### Additional Information Tab

1. Enter Total Project Cost  
*Do not enter dollar signs or commas. The system will not automatically reject these symbols now, but they will cause errors later.*
2. Indicate Secured Funding  
*If you have received additional funding for this project, select "Yes," and list the source(s) and amount(s) in the notes below.*
3. Indicate Design Completed
4. Indicate Secondary Benefits  
*Describe in the notes below. For example, list if the project is within a public park, indicate whether the project is in conjunction with other infrastructure improvements, etc.*
5. Specify Ownership
6. Specify Permits Required  
*Describe in the notes*
7. Indicate if Publicly Accessible
8. Enter notes  
*If you answered "yes" to Joint/Multi-municipality Project, Secured Funding, or Secondary Benefits, explain in this section.*
9. Click Create Draft

### My Projects

Submitted

My Project

Delete Project

Details

Drafted

Task status key:

Complete

Incomplete

A new project at the waterfront

Delete Project

Details

Geography

Reductions

Review/Submit

New project

Delete Project

Details

Geography

Reductions

Review/Submit

+ Add New Project

### Navigation: My projects

To edit any of these sections, click the button, make your changes, and click update.  
To return to the My projects page, click My Projects on the menu on the left hand side.

Tip: There are four steps to submitting a proposal or report. Once each step is complete, the buttons will change from red to green.

### Task 3: Define your project's Geography

#### 1. Click the Geography Tab

Tip: Click + and – to zoom in and out. If you search for an address, you can click the x at the top of the box to close the address box.



1. Verify Current Project  
*No action is required—this will default to the project you are working on.*
2. Search for the closest address  
*Find your project location by either using the address bar to search for an address or place name. You can also use your mouse to navigate the map window. The photo imagery you see may not be up-to-date; that's okay.*
3. Click Draw Project Area  
*Use your mouse pointer to draw the actual footprint of your project—this includes the land area where all of the BMPs for this project will be constructed. This does not have to be exact. If you make a mistake, click the “Draw Footprint” button again to start over. Single click to start your drawing; double-click to complete your drawing.*
4. Click Generate Treatment Area  
*This may take a few moments. The tool will identify all of the land area that drains through your project's footprint.. If it takes more than a few minutes, you may need to try drawing your project footprint again.*
5. Click Adjust Treatment Area (Optional)  
*This step is optional. If for some reason the treatment area that was generated by the tool doesn't look quite right to you, use your knowledge of the site to correct the treatment area boundaries. Examples might be when green infrastructure like an existing grass swale is intercepting runoff across a parking lot, or when stormwater drains or drainage ditches are redirecting runoff. Click and drag the gray and white dots to change the treatment area. To finish editing, click the button that says, “Click here to save.”*
6. Click Calculate Land Use / Land Cover Values  
*The tool will calculate the land use/land cover data for all of the area within the project area and within the treatment area. This information will be used to calculate pollution load reductions in the next step.*
7. Click Save Data

Tip: What is the treatment area? The treatment area is all of the land area where stormwater runoff drains through and is affected by your project area. Try to see how placing your project in a different location changes the size of the treatment area. This is modeled based on topography, and is not perfect, which is why you have the option to adjust the treatment area.



### A Closer Look: Task 3, Step 5: Adjust Treatment Area

When do you adjust the treatment area? In this example, based on my personal experience and knowledge, I know a drainage ditch along the road redirects runoff away from my project area. So, I can adjust the watershed shape to exclude that area from my calculations.



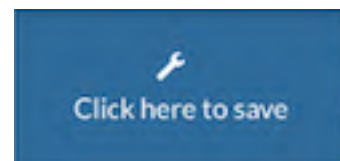
#### Before Adjusting Treatment Area

This image is what I see on my screen after I click Adjust Treatment Area. The Generate Treatment Area tool ran an analysis of topography surrounding my project area, and identifies all of the land area where runoff potentially drains through and is affected by my project. However, based on my personal knowledge and experience, I know that a drainage ditch on the right side of the image is redirecting flow away from my project area.



#### After Adjusting Treatment Area

Using my mouse, I click and drag the gray dots to change the border of my treatment area. Now, the treatment area does not include the drainage ditch along the road. When I'm satisfied with the new shape, I click the button that says "Click Here to Save." If I need to start over, I click save, then I repeat steps 4 and 5.



#### Task 4: Estimate pollution reductions using BayFAST

---

If this is a New Proposal, you will now need to estimate pollution reductions using another web-based tool called BayFAST. Please refer to the BayFAST User's Guide that accompanies this document. To report on existing projects, skip Task 4 and begin Task 5.

#### Task 5: Record Reductions in the YCSWC BMP Reporting Tool

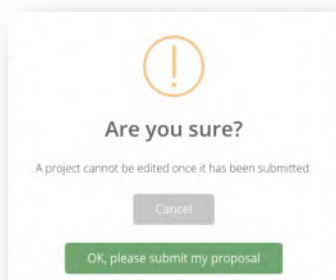
---

1. Return to the window in your browser with the YCSWC BMP Reporting Tool
2. Click on the Reductions button
3. Enter Total Nitrogen Reduction  
*For New Proposals: This is based on your calculation from the previous step.  
For reports on existing projects: Enter the reduction loads you reported to YCPC most recently (you may need to refer to your original CBPRP Proposal).*
4. Enter Total Phosphorus Reduction  
*For New Proposals: This is based on your calculation from the previous step.  
For reports on existing projects: Enter the reduction loads you reported to YCPC most recently (you may need to refer to your original CBPRP Proposal).*
5. Enter Total Sediment Reduction  
*For New Proposals: This is based on your calculation from the previous step.  
For reports on existing projects: Enter the reduction loads you reported to YCPC most recently (you may need to refer to your original CBPRP Proposal).*
6. Click Save results

#### Task 6: Review and Submit

---

1. Click the Review and Submit button  
*Need to correct any of this information? Click on the My Projects tab on the left, and click the Details, Geography, or Reductions buttons to make changes to your project information.*
2. Click Generate Report (Optional)  
*This will open a page in a second window containing a 1-page .pdf summary of your project that you can save or print. To return to the Web Tool, click back on the first window.*
3. Click Submit Project  
*This is the final step, and will submit your proposal or report to the York County Planning Commission for review. You cannot make any edits once you submit click submit.*
4. Click Okay, please submit my proposal









## 2020 Spring Grove Borough Community Clean Up Week “Keeping Our Waterways Clean!”

### Did you know the most common litter in streams is household trash?

- Plastic bags, bottles, food wrappers, and many other items can quickly be transported by wind and/or surface water runoff during storm events (storm water).
- Products such as cleaners, lawn fertilizers, and vehicle fluids are often inadvertently collected into storm drains. Organic material such as leaves, sticks, gravel and grass clippings also can be carried by storm water into the municipal system.
- These materials often make their way into nearby waterways and eventually the ocean.
- These are all forms of **WATER POLLUTION**, and pose a great risk to aquatic life, water quality, and even our own health and safety.

### During the week of June 22nd, join your neighbors and local businesses (while maintaining social distancing!) and help keep **Spring Grove Borough Clean!**

- Submit photos and/or a simple description of what you and your household or business cleaned up on The Borough's Facebook page. Use the hashtag #CleanSGB for a chance to be featured on our page.
- Please remember to dispose of waste in an appropriate manner. We encourage the use of reusable or bio-degradable containers and/or bags! Together we can keep our community clean!

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You can learn more about the impacts of litter on our waters and other ways to help here:  
<https://www.epa.gov/trash-free-waters>

Contact: [manager@springgroveboro.com](mailto:manager@springgroveboro.com) or 717-225-5791



# THE LIFESPAN OF COMMONLY DISPOSED PRODUCTS



**PIECE OF PAPER**  
2-4 WEEKS



**TRAFFIC TICKET**  
2-4 WEEKS



**BANANA PEEL**  
2-5 WEEKS



**ROLLED NEWSPAPER**  
2-6 WEEKS



**CANDY WRAPPER**  
1-3 MONTHS



**ROPE**  
3-14 MONTHS



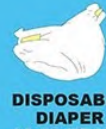
**COTTON RAG**  
1-5 MONTHS



**CIGARETTE BUTT**  
1-5 YEARS



**WOOL CLOTHING**  
1-5 YEARS



**DISPOSABLE DIAPER**  
10-20 YEARS



**DEGRADABLE PLASTIC BAG**  
10-20 YEARS



**PAINTED WOODEN STAKE**  
13 YEARS



**PLASTIC FILM CANNISTER**  
30-40 YEARS



**NYLON FABRIC**  
30-40 YEARS



**LEATHER**  
50 YEARS



**STEEL CAN**  
50 YEARS



**RUBBER BOOT SOLE**  
50-80 YEARS



**PLASTIC JUG**  
70 YEARS



**SODA CAN**  
200-500 YEARS



**PLASTIC SIX PACK COLLAR**  
450 YEARS



**GLASS BOTTLE**  
1 MILLION YEARS

# ATTACHMENT 3.1

OUTFALL RECONNAISSANCE INVENTORY/SAMPLE COLLECTION FIELD SHEETS

**Spring Grove Borough Outfall Inspections**

**Annual Inspections for Reporting Period**

**7/1/2019 - 6/30/2020**

**Inspections Conducted 6/17/2020-6/24/2020**

**Report Produced: 8/6/2020**

**Inspections Conducted By: ARRO Consulting**

## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF010

**Coordinates:** 39.8840555270001 N, -76.865699552 E

**Inspection Date:** 6/17/2020

**Land Use In Drainage Area:** Suburban\_Residential

**Dry Weather Present?:** Yes

**Previous Precipitation Date:** 6/12/2020 4:00:00 AM

**Previous Precipitation Amount:** 0.63

**Name of Inspector:** Collin Fox

**Outfall Type:** Closed Pipe

**Material:** CMP

**Shape:** Circular

**Number:** Single

**Diameter/Dimensions (in):** 18

**Submerged?:** Not Submerged

**Dry weather flow present at outfall during inspection?:** No

**Does the dry weather flow have color?:** No

**Does the dry weather flow have an odor?:** No

**Is there an observed change in the receiving waters as a result of the discharge?:** No

**Does the dry weather flow contain floating solids, scum, sheen, or other substances that result in deposits?:** No

**Were samples collected of the dry weather flow?:** No

**Is the dry weather flow an illicit discharge?:** No

**Responsible Official Name:** Collin Fox

**Phone Number:** 2255791

**Date:** 6/17/2020 4:00:00 PM

Field Photograph(s):





## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:**

**Coordinates:** 39.8834906290001 N, -76.864071284 E

**Inspection Date:** 6/17/2020

**Land Use In Drainage Area:** Commercial,Suburban\_Residential

**Dry Weather Present?:** Yes

**Previous Precipitation Date:** 6/12/2020 4:00:00 AM

**Previous Precipitation Amount:** 0.63

**Name of Inspector:** Collin Fox

**Outfall Type:** Closed Pipe

**Material:** RCP

**Shape:** Circular

**Number:** Single

**Diameter/Dimensions (in):** 22

**Submerged?:** Not Submerged

**Dry weather flow present at outfall during inspection?:** No

**Does the dry weather flow have color?:** No

**Does the dry weather flow have an odor?:** No

**Is there an observed change in the receiving waters as a result of the discharge?:** No

**Does the dry weather flow contain floating solids, scum, sheen, or other substances that result in deposits?:** No

**Were samples collected of the dry weather flow?:** No

**Is the dry weather flow an illicit discharge?:** No

**Responsible Official Name:** Collin Fox

**Phone Number:** 2255791

**Date:** 6/17/2020 4:00:00 PM

Field Photograph(s):

1



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF012

**Coordinates:** 39.883383005 N, -76.8640256859999 E

**Inspection Date:** 6/17/2020

**Land Use In Drainage Area:** Commercial,Suburban\_Residential

**Dry Weather Present?:** Yes

**Previous Precipitation Date:** 6/12/2020 4:00:00 AM

**Previous Precipitation Amount:** 0.63

**Name of Inspector:** Collin Fox

**Outfall Type:** Closed Pipe

**Material:** RCP

**Shape:** Circular

**Number:** Single

**Diameter/Dimensions (in):** 18

**Submerged?:** Not Submerged

**Dry weather flow present at outfall during inspection?:** No

**Does the dry weather flow have color?:** No

**Does the dry weather flow have an odor?:** No

**Is there an observed change in the receiving waters as a result of the discharge?:** No

**Does the dry weather flow contain floating solids, scum, sheen, or other substances that result in deposits?:** No

**Were samples collected of the dry weather flow?:** No

**Is the dry weather flow an illicit discharge?:** No

**Responsible Official Name:** Collin Fox

**Phone Number:** 2255791

**Date:** 6/17/2020 4:00:00 PM

Field Photograph(s):

*[Handwritten signature]*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF014

**Coordinates:** 39.8832696340001 N, -76.8638720289999 E

**Inspection Date:** 6/17/2020

**Land Use In Drainage Area:** Commercial,Urban\_Residential

**Dry Weather Present?:** Yes

**Previous Precipitation Date:** 6/12/2020 4:00:00 AM

**Previous Precipitation Amount:** 0.63

**Name of Inspector:** Anthony lewis

**Outfall Type:** Closed Pipe

**Material:** RCP

**Shape:** Circular

**Number:** Single

**Diameter/Dimensions (in):** 18

**Submerged?:** Not Submerged

**Dry weather flow present at outfall during inspection?:** No

**Does the dry weather flow have color?:** No

**Does the dry weather flow have an odor?:** No

**Is there an observed change in the receiving waters as a result of the discharge?:** No

**Does the dry weather flow contain floating solids, scum, sheen, or other substances that result in deposits?:** No

**Were samples collected of the dry weather flow?:** No

**Is the dry weather flow an illicit discharge?:** No

**Responsible Official Name:** anthony lewis

**Phone Number:** 717577893

**Date:** 6/17/2020 4:00:00 PM



Field Photograph(s):

*[Handwritten signature]*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** Of new

**Coordinates:** 39.883176817 N, -76.863677288 E

**Inspection Date:** 6/17/2020

**Land Use In Drainage Area:** Commercial,Urban\_Residential

**Dry Weather Present?:** Yes

**Previous Precipitation Date:** 6/12/2020 4:00:00 AM

**Previous Precipitation Amount:** 0.63

**Name of Inspector:** Collin Fox

**Outfall Type:** Closed Pipe

**Material:** RCP

**Shape:** Circular

**Number:** Single

**Diameter/Dimensions (in):** 24

**Submerged?:** Not Submerged

**Dry weather flow present at outfall during inspection?:** No

**Does the dry weather flow have color?:** No

**Does the dry weather flow have an odor?:** No

**Is there an observed change in the receiving waters as a result of the discharge?:** No

**Does the dry weather flow contain floating solids, scum, sheen, or other substances that result in deposits?:** No

**Were samples collected of the dry weather flow?:** No

**Is the dry weather flow an illicit discharge?:** No

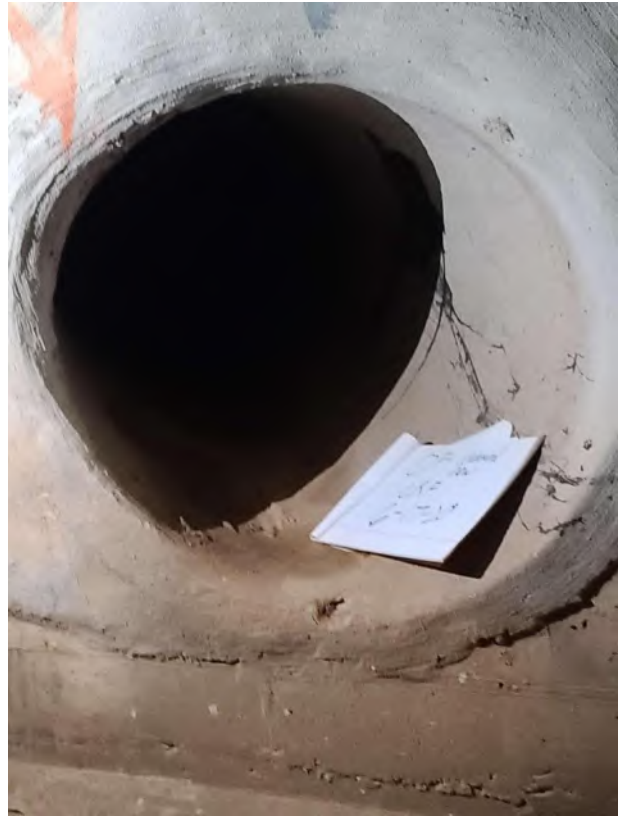
**Responsible Official Name:** Collin Fox

**Phone Number:** 2255791

**Date:** 6/17/2020 4:00:00 PM

*Field Photograph(s):*

*[Handwritten signature]*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** Of new

**Coordinates:** 39.8831298110001 N, -76.8635307329999 E

**Inspection Date:** 6/17/2020

**Land Use In Drainage Area:** Commercial,Suburban\_Residential

**Dry Weather Present?:** Yes

**Previous Precipitation Date:** 6/12/2020 4:00:00 AM

**Previous Precipitation Amount:** 0.63

**Name of Inspector:** Collin Fox

**Outfall Type:** Closed Pipe

**Material:** RCP

**Shape:** Circular

**Number:** Single

**Diameter/Dimensions (in):** 36

**Submerged?:** Not Submerged

**Dry weather flow present at outfall during inspection?:** No

**Does the dry weather flow have color?:** No

**Does the dry weather flow have an odor?:** No

**Is there an observed change in the receiving waters as a result of the discharge?:** No

**Does the dry weather flow contain floating solids, scum, sheen, or other substances that result in deposits?:** No

**Were samples collected of the dry weather flow?:** No

**Is the dry weather flow an illicit discharge?:** No

**Responsible Official Name:** Collin Fox

**Phone Number:** 2255791

**Date:** 6/17/2020 4:00:00 PM

Field Photograph(s):

*[Handwritten signature]*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF015

**Coordinates:** 39.8830233370001 N, -76.863261173 E

**Inspection Date:** 6/17/2020

**Land Use In Drainage Area:**

**Dry Weather Present?:** Yes

**Previous Precipitation Date:** 6/12/2020 4:00:00 AM

**Previous Precipitation Amount:** 0.63

**Name of Inspector:** Collin Fox

**Outfall Type:** Open Channel

**Material:** Concrete

**Shape:** Trapeziod

**Depth (in):** 12

**Top Width (in):** 45

**Bottom Width (in):** 24

**Dry weather flow present at outfall during inspection?:** No

**Does the dry weather flow have color?:** No

**Does the dry weather flow have an odor?:** No

**Is there an observed change in the receiving waters as a result of the discharge?:** No



**Does the dry weather flow contain floating solids, scum, sheen, or other substances that result in deposits?:** No

**Were samples collected of the dry weather flow?:** No

**Is the dry weather flow an illicit discharge?:** No

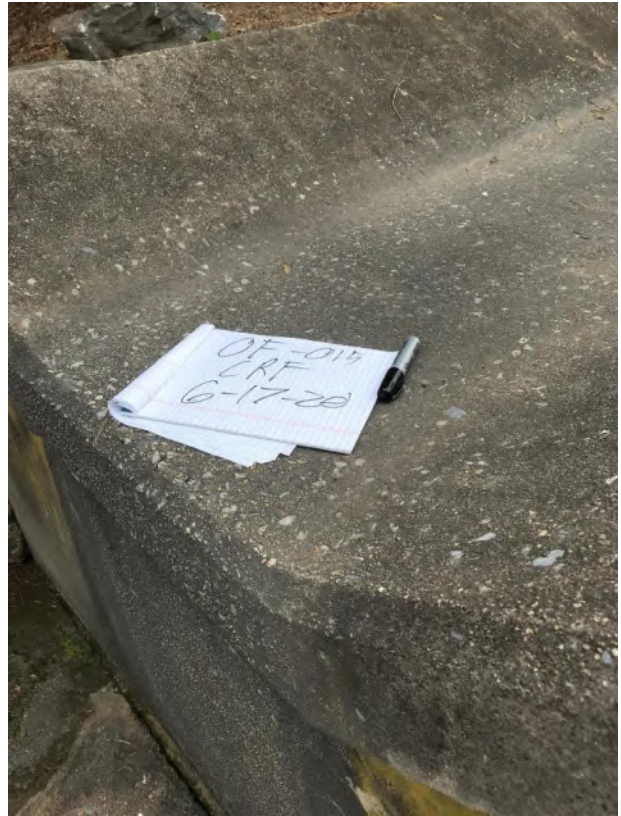
**Responsible Official Name:** Collin Fox

**Phone Number:** 2255791

**Date:** 6/17/2020 4:00:00 PM

Field Photograph(s):

1



## ATTACHMENT 3.2

MS4 MAP





# Spring Grove Borough Stormwater Conveyance System





# ATTACHMENT 3.3

ILLICIT DISCHARGE REPORTING FORM



# ILLICIT DISCHARGE REPORTING FORM

## Inspector Information

Name:	
Contact Phone Number:	Date and Time Discharge Discovered:

## Discharge Information

PID Identification Number: _____ COUNTY _____ SR _____ SEGMENT _____ OFFSET _____	
(1) Owner Name/Address:	
City/Boro/Twp:	Nearest Intersection/Landmark:
GPS location, if known:	Lat: _____ Long: _____

How Long since Last Rainfall: <input type="checkbox"/> Raining Now <input type="checkbox"/> 0-2 Days <input type="checkbox"/> 3 or more Days	Nature of Discharge or Flow: <input type="checkbox"/> Solid (Continuous) <input type="checkbox"/> Intermittent (Occasional) <input type="checkbox"/> Pulsing (Fluctuating) <input type="checkbox"/> Transitory (Prior Spill)
If possible, identify the source of the discharge* <input type="checkbox"/> Pipe Outfall <input type="checkbox"/> Gutter <input type="checkbox"/> Sanitary Wastewater <input type="checkbox"/> Ditch <input type="checkbox"/> Septic System <input type="checkbox"/> Spill <input type="checkbox"/> Storm Sewer <input type="checkbox"/> Other: _____ * Add descriptions of discharge/source to Field Photograph Log Sheet	Potential for Discharge to enter into: <input type="checkbox"/> Stream/Water Body <input type="checkbox"/> Wetland <input type="checkbox"/> Storm Drain <input type="checkbox"/> Other: _____
Was water flow observed? <input type="checkbox"/> Yes <input type="checkbox"/> No Direct Connection to pipe/inlet? <input type="checkbox"/> Yes <input type="checkbox"/> No	Was a photo taken? <input type="checkbox"/> Yes <input type="checkbox"/> No    If yes, attach photos.

(2) Describe Odor: <input type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Rotten Eggs (Sulphur) <input type="checkbox"/> Rancid/Sour Milk <input type="checkbox"/> Sewage <input type="checkbox"/> Gas/Petroleum <input type="checkbox"/> Cooking Oil <input type="checkbox"/> Other: _____	
(2) Describe Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque <input type="checkbox"/> Sheen <input type="checkbox"/> Gray	
(2) Describe Color: <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Brown <input type="checkbox"/> Green <input type="checkbox"/> Gray <input type="checkbox"/> White <input type="checkbox"/> Other: _____	
(2) Solids/Floatables: <input type="checkbox"/> Garbage <input type="checkbox"/> Sewage <input type="checkbox"/> Tissue <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Scum <input type="checkbox"/> Iron Sheen <input type="checkbox"/> Unknown	
Additional Information to assist in the Investigation (Vegetation Impacts?): _____	
Describe Upstream/Source Origin/Land Use: <input type="checkbox"/> Forest <input type="checkbox"/> Ag <input type="checkbox"/> Res <input type="checkbox"/> Farmstd <input type="checkbox"/> Com <input type="checkbox"/> Ind <input type="checkbox"/> Vac <input type="checkbox"/> Inst <input type="checkbox"/> Muni <input type="checkbox"/> Mng	

### Additional Investigation Information (to be completed by EETWP staff)

Outfall Location: \_\_\_\_\_ Within UA?: \_\_\_\_\_ County: \_\_\_\_\_

#### FIELD ANALYSIS:

Odor:	Solids/Floatables:	Flow:
Clarity:	Sheen/Scum:	Source Confirmed?
Color:	Condition of Vegetation:	Direct Connection?
Comments: (Immediate Environmental Concern?)		

DATE: \_\_\_\_\_ Inspector's Name: \_\_\_\_\_

Additional Comments:

## INSTRUCTIONS TO COMPLETE ILLICIT DISCHARGE (PID) REPORTING FORM

### WHAT IS AN ILLICIT DISCHARGE:

An illicit discharge is any discharge into the highway storm sewer system that is not composed entirely of stormwater. Examples:

- Dry weather discharges of wastewater into the storm sewer system from illegal dumping; spills and other non-stormwater pollution sources
- Discharges of pollutants, contaminants or illicit materials into storm drainage/sewer systems (oil, grease, solvents, metals, nutrients, toxics, viruses, bacteria)
- Improper antifreeze, oil disposal from vehicle maintenance, service stations
- Vehicle washing wastewaters
- Autobody/repair facility waste waters
- Plating shop waste water
- Manufacturers waste water
- Private service agencies waste water
- Wholesale/retail est. waste water
- Sanitary wastewater/connections
- Mobile rug cleaning waste dumping
- Laundry waste waters
- Disposal of auto/household toxics
- Vehicular/accidental spills
- Dairy barn waste waters
- On-lot disposal system- sewage effluent.

### WHAT IS NOT AN ILLICIT DISCHARGE:

The following non-stormwater discharges are not illicit discharges:

- Discharges from firefighting activities
- Potable water sources including dechlorinated waterline and fire hydrant flushings
- Irrigation drainage
- Lawn watering
- Water from individual residential car washing
- Dechlorinated swimming pool discharges
- Water from crawl space pumps
- Uncontaminated water from foundation or footing drains
- Routine external building wash down which does not use detergents or other compounds
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless spilled material has been removed) and where detergents are not use
- Air conditioning condensate
- Springs
- Uncontaminated groundwater

### (1.) Property Owner Information:

Determine property owners name, if available, and street address of the discharge source in the event that follow-up action or elimination is required. If unable to determine owner, write in "undetermined".

### (2.) Description of Discharge for source identification/verification.

**a. Odor:** Determine which odors apply.

**b. Clarity:** How clear is the discharge?

**c. Color:** Discharge color and colors in swale, pipe, ditch, etc.(Document if red/green deficient)

**d. Solids/Floatables:** Identify indicators of source.

Description of Solids/Floatables: • Iron vs. Oil Sheens:

Iron leaches from soils forming a breakable sheen on stagnant water surfaces when poked with a stick. Oil sheens will conform around and coat the surface of the stick.

## **Photographs and Analysis Results**



# ATTACHMENT 4.1

STORMWATER MANAGEMENT ORDINANCE

*Borough of Spring Grove, PA  
Tuesday, August 27, 2019*

## Chapter 339. Stormwater Management

[HISTORY: Adopted by the Borough Council of the Borough of Spring Grove 12-3-2012 by Ord. No. 6-2012. Amendments noted where applicable.]

### GENERAL REFERENCES

Building construction — See Ch. 175.

Floodplain management — See Ch. 213.

Sewers and sewage disposal — See Ch. 326.

Streets and sidewalks — See Ch. 344.

Subdivision and land development — See Ch. 350.

Zoning — See Ch. 400.


**Appendix A, Operation and Maintenance Agreement** 

**Appendix B, Disconnected Impervious Area** 


**Table 1, Runoff Curve Numbers** 

**Table 2, Rational Runoff Coefficients** 


**Table 3, Roughness Coefficients** 

**Stormwater Management Permit Application** 

**Attachment A, Sample Site Plans** 

**Attachment B, Stormwater Management Samples** 

**Attachment C, Stormwater Operation and Maintenance and Right-of-Way Agreement** 

**Attachment D, Sample Operation and Maintenance Plan for Equivalent DIA Regulated Activities** 

**Attachment E, Sample Inspection Form** 

## Article I. General Provisions

### § 339-1. Short title.

This chapter shall be known and may be cited as the "Spring Grove Borough Stormwater Management Ordinance."

### § 339-2. Statement of findings.

The Borough Council of Spring Grove Borough finds that:

- A. Inadequate management of accelerated runoff of stormwater resulting from development throughout a watershed increases flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to carry and control stormwater, undermines floodplain management and flood control efforts in downstream communities, reduces groundwater recharge, threatens public health and safety, and increases nonpoint source pollution of water resources.

- B. A comprehensive program of stormwater management, including reasonable regulation of development and activities causing accelerated runoff, is fundamental to the public health, safety, and welfare and the protection of people of the commonwealth, their resources, and the environment.
- C. Stormwater is an important water resource, which provides groundwater recharge for water supplies and base flow of streams, which also protects and maintains surface water quality.
- D. Federal and state regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a permit for stormwater discharges from their separate storm sewer systems under the National Pollutant Discharge Elimination System (NPDES).

## § 339-3. Purpose.

The purpose of this chapter is to promote health, safety, and welfare within the Borough and its watershed(s) by minimizing the harm and maximizing the benefits described in § 339-2 of this chapter, through provisions designed to:

- A. Meet legal water quality requirements under state law, including regulations at 25 Pa. Code 93 to protect, maintain, reclaim, and restore the existing and designated uses of the waters of this commonwealth.
- B. Preserve the natural drainage systems as much as possible.
- C. Manage stormwater runoff close to the source.
- D. Provide procedures and performance standards for stormwater planning and management.
- E. Maintain groundwater recharge to prevent degradation of surface and groundwater quality and to otherwise protect water resources.
- F. Prevent scour and erosion of stream banks and stream beds.
- G. Provide proper operation and maintenance of all SWM BMPs that are implemented within the Borough.
- H. Provide standards to meet NPDES permit requirements.

## § 339-4. Statutory authority.

- A. Primary authority. The Borough is empowered to regulate land use activities that affect stormwater impacts by the authority of the Pennsylvania Borough Code, Act of February 1, 1965, P.L. 1656 (Act 581), 8 Pa.C.S.A. § 101 et seq., and the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. § 680.1, et seq., as amended, the "Storm Water Management Act."
- B. Secondary authority. The Borough is also empowered to regulate land use activities that affect runoff by the authority of the Act of July 31, 1968, P.L. 805, No. 247, The Pennsylvania Municipalities Planning Code, as amended.<sup>[1]</sup>

[1] *Editor's Note: See 53 P.S. § 10101 et seq.*

## § 339-5. Applicability.

All regulated activities and all activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this chapter. Article **VIII**, Detection and Elimination of Illicit Discharges to the Municipal Separate Storm Sewer System, shall be applicable to all water entering the storm drain system of the Borough generated on any developed and undeveloped lands unless explicitly exempted by the Borough.

## § 339-6. Compatibility with other permit and ordinance requirements.

Permits and approvals issued pursuant to this chapter do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act or ordinance. If more stringent requirements concerning regulation of stormwater or erosion and sedimentation control are contained in another code, rule, act or ordinance, the more stringent regulations shall apply.

## § 339-7. Interpretation.

Unless otherwise expressly stated, the succeeding shall, for the purposes of this chapter, be interpreted in the following manner:

- A. Words used in the present tense also imply the future tense.
- B. Words used in the singular imply the plural, and vice versa.
- C. Words of masculine gender include feminine gender, and vice versa.
- D. The words and abbreviation "includes," "including," "shall include," "such as," and "e.g." are not limited to the specific example(s) given but are intended to extend the word's or words' meaning(s) to all other instances of like kind and character.
- E. The words "person," "applicant," or "developer" include, a partnership, corporation, or other legal entity, as well as an individual.
- F. The words "shall," "required," or "must" are mandatory; the words "may" and "should" are permissive.

## § 339-8. Erroneous permit.

Any permit or authorization issued or approved based on false, misleading or erroneous information provided by an applicant is void without the necessity of any proceedings for revocation. Any work undertaken or use established pursuant to such permit or other authorization is unlawful. No action may be taken by the Council, agency or employee of the Borough purporting to validate such a violation.

## Article II. Terminology

## § 339-9. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

### **ACCELERATED EROSION**

The removal of the surface of the land through the combined action of man's activities and natural processes at a rate greater than would occur because of the natural processes alone.

**ACT 167**

Act of October 4, 1978, P.L. 864, (Act 167), as amended, and known as the "Storm Water Management Act."

**AGRICULTURAL ACTIVITY**

Activities associated with agriculture, such as, but not limited to, agricultural cultivation, agricultural operations, and animal heavy use areas. This includes the work of producing crops, including tillage, land clearing, plowing, disking, harrowing, planting, harvesting crops or pasturing and raising of livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

**APPLICANT**

A landowner, developer, or other person who has filed an application to the Borough for approval to engage in any regulated activity at a project site in the Borough.

**BEST MANAGEMENT PRACTICE (BMP)**

Activities, facilities, designs, measures, or procedures used to manage stormwater impacts from regulated activities, to meet state water quality requirements, to promote groundwater recharge, and to otherwise meet the purposes of this chapter. Stormwater BMPs are commonly grouped into one of two broad categories or measures: "structural" or "nonstructural." In this chapter, nonstructural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, low impact design, bioretention, wet ponds, permeable paving, grassed swales, riparian or forested buffers, sand filters, detention basins, and manufactured devices. Structural stormwater BMPs are permanent appurtenances to the project site.

**BMP MANUAL**

Pennsylvania Stormwater Best Management Practices Manual, as amended and updated.

**BOROUGH**

Spring Grove Borough, York County, Pennsylvania.

**CLEAN WATER ACT**

The Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq., and any subsequent amendments thereto.

**CONSERVATION DISTRICT**

The York County Conservation District, which District is as defined in Section 3(c) of the Conservation District Law [3 P. S. § 851(c)] that has the authority under a delegation agreement executed with DEP to administer and enforce all or a portion of the regulations promulgated under 25 Pa. Code 102.

**CONSTRUCTION ACTIVITY**

Activities subject to NPDES construction permits. NPDES Stormwater Phase II permits will be required for construction projects resulting in land disturbance of one acre or more. Such activities include but are not limited to clearing and grubbing, grading, excavating and demolition.

**COUNCIL**

The Borough Council of Spring Grove Borough.

**COUNTY**



## York County Pennsylvania

**CULVERT**

A structure which carries surface water through an obstruction.

**DAM**

An impoundment structure regulated by the Pennsylvania DEP Chapter 105 regulations.

**DEP**

The Pennsylvania Department of Environmental Protection.

**DESIGN STORM**

The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence, e.g., a five-year storm, and duration, e.g., 24 hours, used in the design and evaluation of stormwater management systems. Also see "return period."

**DETENTION BASIN**

A structure designed to retard stormwater runoff by temporarily storing and releasing the runoff at a predetermined rate.

**DETENTION VOLUME**

The volume of runoff that is captured and released at a controlled rate.

**DEVELOPER**

Any person, partnership, association, corporation or other entity, or any responsible person therein or agent thereof, that undertakes any regulated activity.

**DEVELOPMENT SITE (SITE)**

See "project site."

**DISCONNECTED IMPERVIOUS AREA (DIA)**

An impervious or impermeable surface that is disconnected from any stormwater drainage or conveyance system and is redirected or directed to a pervious area, which allows for infiltration, filtration, and increased time of concentration as specified in **Appendix B, Disconnected Impervious Area**,<sup>[1]</sup> of this chapter.

**DISTURBED AREA**

An unstabilized land area where an earth disturbance activity is occurring or has occurred.

**DOWN-SLOPE PROPERTY LINE**

That portion of a property line of a lot or parcel of land being developed located such that overland or pipe flow from the development site would be directed toward it.

**DRAINAGE CONVEYANCE FACILITY**

A stormwater management facility designed to transmit stormwater runoff, including, but not limited to, streams, channels, swales, pipes, conduits, culverts and storm sewers.

**DRAINAGE EASEMENT**

A limited right of use granted in private land, allowing the use of private land for stormwater drainage and/or management purposes.

**E & S MANUAL**

Erosion and Sediment Pollution Control Manual, as amended and updated.

**EARTH DISTURBANCE ACTIVITY**

A construction or other human activity which disturbs the surface of the land, including, but not limited to: clearing and grubbing; grading; excavations; embankments; road maintenance; building construction; and the moving, depositing, stockpiling, or storing of soil, rock, or earth materials.

**EROSION**

The natural process by which the surface of the land is worn away by water, wind, or chemical action.

**EROSION AND SEDIMENT CONTROL PLAN**

A site specific plan consisting of both drawings and a narrative that identifies BMPs to minimize accelerated erosion and sedimentation before, during and after earth disturbance activity.

**EXISTING CONDITION**

The dominant land cover during the five-year period immediately preceding a proposed regulated activity.

**FEMA**

Federal Emergency Management Agency.

**FLOODPLAIN**

Any land area susceptible to inundation by water from any natural source as delineated by applicable FEMA maps and studies as being a special flood hazard area.

**FLOODWAY**

The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the one-hundred-year flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the one-hundred-year floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to 50 feet from the top of the bank of the stream.

**FOREST MANAGEMENT/TIMBER OPERATIONS**

Planning and activities necessary for the management of forest land. These include conducting a timber inventory, preparation of forest management plans, silvicultural treatment, cutting budgets, logging road design and construction, timber harvesting, site preparation, and reforestation.

**GROUNDWATER RECHARGE**

Replenishment of existing natural underground water supplies.

**HAZARDOUS MATERIALS/SUBSTANCES**

Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

**HYDROLOGIC SOIL GROUP (HSG)**

Infiltration rates of soils vary widely and are affected by subsurface permeability as well as surface intake rates. Soils are classified into four HSGs (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The NRCS defines the four groups and provides a list of most of the soils in the United States and their group classification. The soils in the area of the development site may be identified from a soil survey report that can be obtained from local NRCS offices or conservation district offices. Soils become less pervious as the HSG varies from A to D (NRCS 3,4).

**ILLICIT CONNECTIONS**

An illicit connection is defined as either of the following:

- A. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system and/or waters of the commonwealth, including, but not limited to, any conveyances which allow any nonstormwater discharge, including sewage, process wastewater, and wash water, to enter the storm drain system and any connections to

the storm drain system and/or waters of the commonwealth from indoor drains and sinks, regardless of whether said drain or connections had been previously allowed, permitted, or approved by an authorized enforcement agency; or

- B. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system and/or waters of the commonwealth which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

## **ILLEGAL DISCHARGE**

Any direct or indirect nonstormwater discharge to the storm drain system.

## **IMPERVIOUS SURFACE (IMPERVIOUS AREA)**

A surface that prevents the infiltration of water into the ground. Impervious surfaces and areas shall include, but not be limited to, roofs, additional indoor living spaces, patios, garages, storage sheds and similar structures, and any new streets and sidewalks. However, any surface or area designed, constructed and maintained to permit infiltration as specified herein shall be considered pervious, not impervious. For the purposes of this chapter, a surface or area shall not be considered impervious if such surface or area does not diminish the capacity for infiltration of stormwater for storms up to, and including, a two-year twenty-four-hour storm event.

## **INFILTRATION**

The entrance of surface water into the ground.

## **INFILTRATION STRUCTURES**

A structure designed to direct runoff into the ground (e.g., french drains, seepage pits, seepage trench).

## **IWRP**

The York County Integrated Water Resources Plan, which Plan includes Act 167 Plan elements and requirements.

## **KARST**

A type of topography or landscape characterized by surface depressions, sinkholes, rock pinnacles/uneven bedrock surface, underground drainage, and caves. Karst landscapes are formed on carbonate rocks, such as limestone or dolomite.

## **LAND DEVELOPMENT**

Includes any of the following activities:

- A. The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving:
  - (1) A group of two or more residential and/or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure; or
  - (2) The division or allocation of land or space between or among two or more existing or prospective occupants by means of or for the purpose of streets, common areas, leaseholds, condominiums, building groups, or other features.
- B. A subdivision of land.
- C. Development in accordance with Section 503(1.1) of the Pennsylvania Municipalities Planning Code.<sup>[2]</sup>

## **LAND DISTURBANCE**

Any activity involving grading, filling, digging or filling of ground, or stripping of vegetation, or any other activity that causes land to present the danger of erosion.

**MS4**

Municipal separate storm sewer system.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT**

A permit issued by EPA [or by DEP under authority delegated pursuant to 33 USC § 1342(b)] that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

**NONSTORMWATER DISCHARGE**

Any discharge to the storm drain system and/or waters of the commonwealth that is not composed entirely of stormwater.

**NPDES**

National Pollution Discharge Elimination System.

**NRCS**

USDA Natural Resources Conservation Service (previously SCS).

**O & M**

Operation and maintenance.

**O & M PLAN**

Operation and maintenance plan.

**PCSWMP**

Post-construction stormwater management plan.

**PEAK DISCHARGE**

The maximum rate of stormwater runoff from a specific storm event.

**PERCOLATION**

The downward movement, under the influence of gravity, of water under hydrostatic pressure through interstices of the soil or rock.

**PERSON**

An individual, partnership, public or private association or corporation, firm, trust, estate, Borough, governmental unit, public utility or any other legal entity whatsoever. Whenever used in any section prescribing or imposing a penalty, the term "person" shall include the members of a partnership, the officers, agents and servants of a corporation and the officers of a Borough.

**PERVIOUS AREA**

Any area not defined as impervious.

**POLLUTANT**

A contaminant or other alteration of the physical, chemical or biological properties of surface water which causes or has the potential to cause pollution as defined in Section 1 of the Clean Streams Law.

**PREMISES**

Any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalk and parking strips.

**PROJECT SITE**

The specific area of land where any regulated activities in the Borough are planned, conducted, or maintained.

**QUALIFIED PERSON**

Any person licensed by the State of Pennsylvania or otherwise qualified by law to perform the work required by this chapter.

**REGULATED ACTIVITIES**

Any earth disturbance activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff.

**REGULATED EARTH DISTURBANCE ACTIVITY**

Activity involving earth disturbance subject to regulation under 25 Pa. Code Chapter 92,<sup>[3]</sup> 25 Pa. Code Chapter 102, or the Clean Streams Law.

**RETENTION BASIN**

An impoundment in which stormwater is stored and not released during a storm event. Stored water may be released from the basin at some time after the end of a storm.

**RETENTION VOLUME/REMOVED RUNOFF**

The volume of runoff that is captured and not released directly into the surface waters of this commonwealth during or after a storm event.

**RETURN PERIOD**

The average interval, in years, within which a storm event of a given magnitude can be expected to occur one time. For example, the twenty-five-year return period rainfall would be expected to occur on average once every 25 years; or stated in another way, the probability of a twenty-five-year storm occurring in any one year is 0.04, i.e., a four-percent chance.

**RIPARIAN BUFFER**

A best management practice that is an area of permanent vegetation along surface waters. (Such areas serve as natural vegetative filters between upland landscapes and waterways.)

**RISER**

A vertical pipe extending from the bottom of a pond or other water impoundment that is used to control the discharge rate from the pond or impoundment for a specified design storm.

**ROOFTOP DETENTION**

Temporary control and gradual release of stormwater falling directly onto roof surface by incorporating control-flow roof drains into building design.

**RUNOFF**

Any part of precipitation that flows over the land.

**RUNOFF CHARACTERISTICS**

The surface components on any watershed which either individually or in any combination thereof, directly affect the rate, amount and direction of stormwater runoff. These may include, but are not limited to, vegetation, soils, slopes and any type of man-made landscape alterations.

**SCS**

Soil Conservation Service, U.S. Department of Agriculture.

**SEDIMENT**

Soils or other materials transported by surface water as a product of erosion.

**SEDIMENT BASIN**

A barrier, dam, retention or detention basin designed to retain sediment.

**SEEPAGE PIT/SEEPAGE TRENCH**

An area of excavated earth filled with loose stone or similar materials into which surface water is directed for infiltration into the ground.



**SEMIPERVIOUS SURFACE**

A surface which permits a limited amount of vertical transmission of water.

**SHEET FLOW**

Water flow with a relatively shallow and uniform depth.

**SOIL COVER COMPLEX METHOD**

A method of runoff computation in NRCS publication "Urban Hydrology for Small Watersheds", Technical Release No. 55.

**SPILLWAY**

A depression in the embankment of a pond or basin which is used to pass peak discharge greater than the maximum design storm controlled by the pond or basin.

**STORM DRAIN SYSTEM**

Publicly or privately owned facilities by which stormwater is collected and/or conveyed, including, but not limited to, any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

**STORM FREQUENCY**

The number of times that a given storm event occurs on average in a stated period of years.

**STORM SEWER**

A pipe or conduit, or a system of pipes or conduits, which intercepts and carries surface stormwater runoff, but excludes sewage, industrial wastes and similar discharges.

**STORMWATER**

Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

**STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES**

Is abbreviated as BMPs or SWM BMPs throughout this chapter.

**STORMWATER MANAGEMENT FACILITY**

Any structure, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff. Typical stormwater management facilities include, but are not limited to, detention and retention basins, open channels, storm sewers, pipes, and infiltration facilities.

**STORMWATER MANAGEMENT PLAN**

Parts and/or elements of the York County Integrated Water Resources Plan which incorporate the requirements of the Act of October 4, 1978, P.L. 864, (Act 167), as amended, and known as the "Storm Water Management Act."

**STORMWATER MANAGEMENT SITE PLAN**

The plan prepared by the developer or his representative indicating how stormwater runoff will be managed at the development site in accordance with this chapter. Stormwater management site plan will be designated as "SWM site plan" throughout this chapter. For all NPDES permitted sites, the stormwater management site plan shall include, and be consistent with, the erosion and sediment control plan as submitted to the York County Conservation District (YCCD) and/or DEP.

**STORMWATER POLLUTION PREVENTION PLAN**

A document which describes the best management practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

**SUBDIVISION**

The division or redivision of a lot, tract or parcel of land by any means into two or more lots, tracts or parcels or other divisions of land, including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than 10 acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

#### **SWALE**

A low-lying stretch of land which gathers and/or carries surface water runoff.

#### **SWM**

Stormwater management.

#### **USDA**

United States Department of Agriculture.

#### **WASTEWATER**

Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

#### **WATER OF THE COMMONWEALTH**

Any and all rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this commonwealth.

#### **WATERCOURSE**

A channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

#### **WATERSHED**

Region or area drained by a river, watercourse, or other surface water of this commonwealth.

#### **WETLAND**

Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

#### **YCCD**

York County Conservation District.

[1] *Editor's Note: Appendix B is included as an attachment to this chapter.*

[2] *Editor's Note: See 53 P.S. § 10503(1.1).*

[3] *Editor's Note: Former 25 Pa. Code Ch. 92 was repealed effective 10-9-2010. See now 25 Pa. Code Ch. 92a.*

## **Article III. Stormwater Management Standards**

### **§ 339-10. General requirements.**

A. For all regulated activities, unless preparation of an SWM site plan is specifically exempted in § 339-11:

- (1) Preparation and implementation of an approved SWM site plan is required.
- (2) No regulated activities shall commence until the Borough issues written approval of an SWM site plan which demonstrates compliance with the requirements of this chapter.

- B. SWM site plans approved by the Borough, in accordance with § **339-25**, shall be on site throughout the duration of the regulated activity.
- C. The Borough may, after consultation with DEP, approve measures for meeting the state water quality requirements other than those in this chapter, provided that they meet the minimum requirements of, and do not conflict with, state law, including, but not limited to, the Clean Streams Law. The Borough shall maintain a record of consultations with DEP pursuant to this subsection.
  - (1) DEP is not required to be consulted for waiver of the requirements within:
    - (a) Section **339-15**, Design criteria.
    - (b) Section **339-16**, Regulations governing stormwater management facilities.
    - (c) Section **339-17**, Calculation methodology.
    - (d) Section **339-18**, Carbonate geology.
    - (e) Section **339-19**, Erosion and sedimentation control requirements.
    - (f) Section **339-32**, Municipal Stormwater Maintenance Fund.
- D. For all regulated earth disturbance activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated earth disturbance activities, i.e., during construction, to meet the purposes and requirements of this chapter and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law. Various BMPs and their design standards are listed in the Erosion and Sediment Pollution Control Program Manual (E&S Manual) 2, No. 363-2134-008 (April 15, 2000), as amended and updated.
- E. For all regulated activities, implementation of the volume controls in § **339-12** is required, unless specifically exempted under § **339-10C**, or exempted by an approved modification request as specified in § **339-22B** of this chapter.
- F. Impervious areas:
  - (1) The measurement of impervious areas shall include all of the impervious areas in the total proposed development even if development is to take place in phases.
  - (2) For development taking place in phases, the entire development plan must be used in determining conformance with this chapter.
  - (3) For projects that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of this chapter; except that the volume controls in § **339-12** and the peak rate controls of § **339-13** do not need to be retrofitted to existing impervious areas that are not being altered by the proposed regulated activity.
- G. Stormwater flows onto adjacent property shall not be created, increased, decreased, relocated, or otherwise altered without written notification of the adjacent property owner(s). Such stormwater flows shall be subject to the requirements of this chapter.
- H. All regulated activities shall include such measures as necessary to:
  - (1) Protect health, safety, and property;
  - (2) Meet the water quality goals of this chapter, as stated in § **339-3**, Purpose, by implementing measures to:
    - (a) Minimize disturbance to floodplains, wetlands, wooded areas, and existing vegetation.
    - (b) Maintain or extend riparian buffers.

- (c) Avoid erosive flow conditions in natural flow pathways.
  - (d) Minimize thermal impacts to waters of this commonwealth.
  - (e) Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.
  - (f) Minimize soil disturbance and compaction. Topsoil, if removed, shall be replaced to a minimum depth equal to its depth prior to removal or four inches, whichever is greater. (Additional topsoil may be needed for vegetation other than sod.)
- (3) To the maximum extent practicable, incorporate the techniques for low impact development practices described in the Pennsylvania Stormwater Best Management Practices Manual (BMP Manual).
- I. The design of all facilities in areas of carbonate geology or karst topography shall include an evaluation of measures to minimize adverse effects, including hydrogeologic studies if required by the Borough.
  - J. Infiltration BMPs should be spread out, made as shallow as practicable, and located to maximize use of natural on-site infiltration features while still meeting the other requirements of this chapter.
  - K. All natural streams, channels, swales, drainage systems and/or areas of surface water concentration shall be maintained in their existing condition unless an alteration is approved by the Borough. All encroachment activities shall comply with the requirements of PA DEP 25 Pa. Code Chapter 105 (Water Obstructions and Encroachments), Rules and Regulations of PA DEP. Any approvals or permits issued do not relieve compliance as referenced in § 339-6, Compatibility with other permit and ordinance requirements.
  - L. All stormwater management facilities (excluding individual residential underground infiltration facilities) are considered structures and must comply with building setback requirements. The outside toe of slope of the embankment in a fill condition or the top of embankment in a cut condition shall be considered as the point that must meet the setback requirements. Individual residential underground infiltration facilities shall be a minimum of 10 feet from the property line. Discharge of controlled flows can be no closer to an adjacent property than two times the length of the required discharge rip-rap apron. This requirement applies to discharge aprons that do not outlet to a defined waterway or an existing storm sewer. Minimum distance is 10 feet.
  - M. All storage facilities should completely drain both the volume control and rate control capacities over a period of time not less than 24 hours and not more than 72 hours from the end of the design storm. However, any designed infiltration at such facilities is exempt from the minimum twenty-four-hour standard, i.e., may infiltrate in a shorter period of time, so long as none of the stormwater flowing into the infiltration facility is discharged directly into the surface waters of the commonwealth. (Inordinately rapid infiltration rates may indicate the presence of large fractures or other conditions for which an additional soil buffer may be required.)
  - N. The design storm volumes and precipitation intensities to be used in the analysis of discharge or runoff shall be obtained from the Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland. NOAA's Atlas 14 can be accessed at: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.
  - O. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this chapter and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Storm Water Management Act.
  - P. Various BMPs and their design standards are listed in the BMP Manual.

- Q. All work shall be in accordance with the Borough's construction and material specifications.
- R. The technical standards provided within this chapter are considered the baseline for the design and layout of an SWM site plan. Use of other alternative and innovative designs for controlling stormwater runoff may be permitted when approved by the Borough Engineer.

## § 339-11. Exemptions.

Any regulated activity that meets the following exemption criteria is exempt from the part(s) of this chapter as specified herein. However, the requirements of this chapter shall otherwise remain in effect. The criteria for exemption in this section apply to the total development proposed, including instances in which the development is proposed to take place in phases. The date of enactment of this chapter shall be the starting point from which future development and the respective proposed impervious surface computations shall be cumulatively considered and regulated. Exemption shall not relieve an applicant from implementing such measures as necessary to meet the intent of this chapter, or compliance with any NPDES Permit requirements.

- A. Regulated activities that create DIAs equal to or less than 1,000 square feet are exempt from the peak rate control and the SWM site plan preparation requirements of this chapter, and therefore, no formal application to the Borough is required.
- B. Regulated activities that create DIAs greater than 1,000 square feet and equal to or less than 5,000 square feet are exempt only from the peak rate control requirement of this chapter.
- C. Agricultural activity is exempt from the rate control and SWM site plan preparation requirements of this chapter provided the activities are performed according to the requirements of 25 Pa. Code 102. For regulated activities that meet this exemption criteria, no formal application to the Borough is required.
- D. Forest management and timber operations are exempt from the rate control and SWM site plan preparation requirements of this chapter, provided the activities are performed according to the requirements of 25 Pa. Code 102. For regulated activities that meet this exemption criteria, no formal application to the Borough is required.
- E. Domestic gardening and landscaping are exempt from specific approval and permitting under this chapter so long as those activities are associated with one, and only one, dwelling unit and the activities comply with all other applicable ordinances and statutes.
- F. Exemptions from certain provisions of this chapter shall not relieve the applicant from the requirements in § **339-10D** through **N** of this chapter.
- G. The Borough may deny or revoke any exemption pursuant to this section at any time for any project that the Borough determines poses a threat to public health, safety, property or the environment.
- H. The Borough may provide an exemption for regulated activities equal to or less than 1,000 square feet, where a fee in lieu of is provided in accordance with § **339-24**.

## § 339-12. Volume controls.

The low-impact development practices provided in the BMP Manual shall be utilized for all regulated activities to the maximum extent practicable. Water volume controls shall be implemented using the Design Storm Method in Subsection A or the Simplified Method in Subsection B below. For regulated activity areas equal or less than one acre that do not require hydrologic routing to design the stormwater facilities, this chapter establishes no preference for either methodology; therefore, the applicant may select either methodology on the basis of economic considerations, the intrinsic



limitations on applicability of the analytical procedures associated with each methodology, and other factors.

- A. The Design Storm Method (CG-1 in the BMP Manual) is applicable to any size of regulated activity. This method requires detailed modeling based on site conditions.
  - (1) Do not increase the post-development total runoff volume for all storms equal to or less than the two-year twenty-four-hour duration precipitation.
  - (2) For modeling purposes:
    - (a) Existing (predevelopment) nonforested pervious areas must be considered meadow.
    - (b) For computation of predevelopment runoff volume, 20% of existing impervious areas, when present, shall be considered meadow.
- B. The Simplified Method (CG-2 in the BMP Manual) provided below is independent of site conditions and should be used if the Design Storm Method is not followed. This method is not applicable to regulated activities greater than one acre or for projects that require design of stormwater storage facilities. For new impervious surfaces:
  - (1) Stormwater facilities shall capture at least the first two inches of runoff from all new impervious surfaces.
  - (2) At least the first one inch of runoff from new impervious surfaces shall be permanently removed from the runoff flow, i.e., it shall not be released into the surface waters of this commonwealth. Removal options for the first one inch of runoff include reuse, evaporation, transpiration, and infiltration.
  - (3) Wherever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first 0.5 inch of the permanently removed stormwater runoff shall be infiltrated.
  - (4) This method is exempt from the requirements of § 339-13, Rate controls.

## § 339-13. Rate controls.

- A. For computation of predevelopment peak discharge rates, 20% of the existing impervious area of a project site, when present, shall be considered meadow.
- B. Post-development discharge rates shall not exceed the predevelopment discharge rates for the one-, two-, five-, ten-, twenty-five-, fifty-, and one-hundred-year twenty-four-hour storms. If it is shown that the peak rates of discharge indicated by the post-development analysis are less than or equal to the peak rates of discharge indicated by the predevelopment analysis for one-, two-, five-, ten-, twenty-five-, fifty-, and one-hundred-year, twenty-four-hour storms, then the requirements of this section have been met. Otherwise, the applicant shall provide additional controls as necessary to satisfy the peak rate of discharge requirement.

## § 339-14. Stormwater management facilities for PennDOT and PTC roadways and associated facilities.

- A. For the purposes of the Act 167 stormwater management (plan) elements, contained within the York County Integrated Water Resources Plan, and this chapter, design policy pertaining to stormwater management facilities for Pennsylvania Department of Transportation (PennDOT) and Pennsylvania Turnpike Commission (PTC) roadways and associated facilities is provided in Section 13.7. (Antidegradation and Post Construction Stormwater Management Policy) of

PennDOT Publication No. 13M, Design Manual Part 2 (August 2009), as developed, updated, and amended in consultation with the Pennsylvania Department of Environmental Protection (DEP). As stated in DM-2.13.7.D (Act 167 and Municipal Ordinances), PennDOT and PTC roadways and associated facilities shall be consistent with Act 167 Plans. Dm-2.13.7.B (Policy on Antidegradation and Post Construction Stormwater Management) was developed as a cooperative effort between PennDOT and DEP. DM-2.13.7.C (Project Categories) discusses the anticipated impact on the quality, volume, and rate of stormwater runoff.

- B. Where standards in the Act 167 elements of the IWRP and this chapter are impractical, PennDOT or the PTC may request assistance from DEP, in consultation with the Borough and county, to develop an alternative strategy for meeting state water quality requirements and the goals and objectives of the Act 167 elements within the IWRP.
- C. For the purposes of the Act 167 elements in the IWRP and this chapter, road maintenance activities are regulated under 25 Pa. Code Chapter 102.

## § 339-15. Design criteria.

- A. Off-site areas. Off-site areas which drain through a proposed development site are not subject to release rate criteria when determining allowable peak runoff rates. However, on-site drainage facilities shall be designed to safely convey off-site flows through the development site.
- B. On-site areas. On-site areas proposed to remain undisturbed as part of the regulated activity, including previously developed areas, that are not within the drainage area of any proposed BMPs shall be considered as existing conditions, without considering any reductions in cover type.
- C. Downstream hydraulic capacity analysis. Any existing downstream hydraulic capacity analysis shall be conducted in accordance with this chapter.
  - (1) All downstream facilities impacted by the total site area of the regulated activity shall be studied to determine if the facility has adequate capacity to handle existing and proposed flows. An impacted downstream facility is one to which the runoff from the total site area of the regulated activity comprises more than 50% of the total flow to such a facility. The study shall end at a perennial stream. Downstream facilities include, but are not limited to, man-made or natural swales and open channels, pipes, inlets, culverts, bridges and roadways.
  - (2) If any private facility is found to be undersized, the applicant shall be responsible for updating the facility in coordination with the regulated activity.
  - (3) If any public facility is found to be undersized or inadequate, the applicant shall work with the Borough on upgrading the facility in coordination with the regulated activity.
- D. Regional detention alternatives. For certain areas within the study area, it may be more cost-effective to provide one control facility for more than one development site than to provide an individual control facility for each development site. The initiative and funding for any regional runoff control alternatives are the responsibility of prospective developers. The design of any regional control basins must incorporate reasonable development of the entire upstream watershed. The peak outflow of a regional basin would be determined on a case-by-case basis using the hydrologic model of the watershed consistent with protection of the downstream watershed areas. "Hydrologic model" refers to the calibrated model as developed for the stormwater management plan.
- E. Capacity improvements of local drainage networks. In certain instances local drainage conditions may dictate more stringent levels of runoff control than those based upon protection of the entire watershed. In these instances, if the developer could prove that it would be feasible to provide capacity improvements to relieve the capacity deficiency in the local drainage network, then the capacity improvements could be provided by the developer in lieu of runoff controls on the

development site. Any capacity improvements would be designed based upon development of all areas tributary to the proposed improvement and the capacity criteria specified in § 339-17. In addition, all new development upstream of a proposed capacity improvement shall be assumed to implement the applicable runoff controls consistent with this chapter except that all new development within the entire subarea(s) within which the proposed development site is located shall be assumed to implement the developer's proposed discharge control, if any.

- F. Capacity improvements may also be provided as necessary to implement any regional or subregional detention alternatives.
- G. Where the potential for groundwater and/or surface water contamination exists, based on the proposed use of the regulated activity, safeguards shall be incorporated into the site design.
- H. Roof drains and sump pumps shall discharge to infiltration or vegetative BMPs and to the maximum extent practicable satisfy the criteria for DIAs.

## § 339-16. Regulations governing stormwater management facilities.

- A. Any stormwater facility located on state highway rights-of-way shall be subject to approval by the Pennsylvania Department of Transportation (PennDOT).
- B. Any stormwater management facilities regulated by this chapter that would be located in or adjacent to waters of the commonwealth or wetlands shall be subject to approval by PA DEP through the joint permit application process, or, where deemed appropriate by PA DEP, the general permit process. When there is a question whether wetlands may be involved, it is the responsibility of the developer or his agent to show that the land in question cannot be classified as wetlands, otherwise approval to work in the area must be obtained from PA DEP.
- C. Any stormwater management facility located within the vicinity of a floodplain shall be subject to approval in accordance with PA DEP 25 Pa. Code Chapter 106 (Floodplain Management) of PA DEP's rules and regulations.
- D. All earthmoving activities must be reviewed and approved by the York County Conservation District prior to commencing work.
- E. The design of all stormwater management facilities shall incorporate good engineering principles and practices. The Borough shall reserve the right to disapprove any design that would result in the occupancy or continuation of adverse hydrologic or hydraulic conditions within the watershed.
- F. The existing points of concentrated drainage that discharge onto adjacent property shall not be altered without permission of the adjacent property owner(s) and shall be subject to any applicable discharge criteria specified in this chapter.
- G. Areas of existing diffused drainage discharge shall be subject to any applicable discharge criteria in the general direction of existing discharge, whether proposed to be concentrated or maintained as diffused drainage areas, except as otherwise provided by this chapter. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the developer must document that adequate downstream conveyance facilities exist to safely transport the concentrated discharge, or otherwise prove that no erosion, sedimentation, flooding or other harm will result from the concentrated discharge.
- H. Where a development site is traversed by watercourses, drainage easements shall be provided conforming to the line of such watercourses. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations that may adversely affect the flow of stormwater

within any portion of the easement. Also, maintaining of vegetation in a natural state within the easement shall be required, except as approved by the appropriate governing authority.

- I. When it can be shown that, due to topographic conditions, natural drainageways on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainageways. Work within natural drainageways shall be subject to approval by PA DEP.
- J. Roof drains must not be connected to streets, sanitary or storm sewers or roadside ditches to promote overland flow and infiltration/percolation of stormwater where advantageous to do so. When it is more advantageous to connect directly to streets or storm sewers, then it shall be permitted on a case by case basis by the Borough.
- K. Special requirements for areas falling within defined exceptional value and high quality subwatersheds. The temperature and quality of water and streams that have been declared as exceptional value and high quality is to be maintained as defined in Chapter **93**, Water Quality Standards, Title 25 of Pennsylvania Department of Environmental Protection Rules and Regulations. Temperature sensitive BMPs and stormwater conveyance systems are to be used and designed with storage pool areas and supply outflow channels and should be shaded with trees. This will require modification of berms for permanent ponds and the relaxation of restrictions on planting vegetation within the facilities, provided that capacity for volumes and rate control is maintained. At a minimum, the southern half on pond shorelines shall be planted with shade or canopy trees within 10 feet of the pond shoreline. In conjunction with this requirement, the maximum slope allowed on the berm area to be planted is 10 to 1. This will lessen the destabilization of berm soils due to root growth. A long-term maintenance schedule and management plan for the thermal control BMPs is to be established and recorded for all development sites within defined exceptional value and/or high quality subwatersheds.
  - (1) No watersheds within the Borough are listed as exceptional value and/or high quality watersheds.

## § 339-17. Calculation methodology.

- A. Stormwater runoff from all development sites shall be calculated using the Rational Method, Modified Rational Method, or a Soil Cover Complex methodology.
  - (1) Any stormwater runoff calculations involving drainage areas greater than 200 acres, including on- and off-site areas, shall use generally accepted calculation technique that is based on the NRCS Soil Cover Complex method. It is assumed that all methods will be selected by the design professional based on the individual limitations and suitability of each method for a particular site.
  - (2) The Borough may allow the use of the Rational Method or Modified Rational Method to estimate peak discharges from drainage areas that contain less than 200 acres.
  - (3) All calculations consistent with this chapter using the Soil Cover Complex method shall use the appropriate design rainfall depths. If a hydrologic computer model such as PSRM or HEC-RAS is used for stormwater runoff calculations, then the duration of rainfall shall be 24 hours. The SCS Rainfall Type II curve shall be used for the rainfall distribution.
  - (4) For the purposes of predevelopment flow rate determination, undeveloped land, including areas to be disturbed as part of the regulated activity, shall be considered as "meadow" in good condition, unless the natural ground cover generates a lower curve number or Rational C value (i.e., forest), as listed in Tables 1 and 2, respectively.
  - (5) All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times-of-concentration for overland flow and return periods. Times-of-

concentration for overland flow shall be calculated using the methodology presented in Chapter 3 of Urban Hydrology for Small Watersheds, NRCS, TR-55 (as amended or replaced from time to time by NRCS). Time-of-concentration for channel and pipe flow shall be computed using Manning's equation.

- (6) Runoff Curve Numbers (CN) for both existing and proposed conditions to be used in the Soil Cover Complex method shall be obtained from Table 1.
- (7) Runoff coefficients (c) for both existing and proposed conditions for use in the Rational Method shall be obtained from Table 2.
- (8) Where uniform flow is anticipated, the Manning equation shall be used for hydraulic computations such as the capacity of open channels, pipes, and storm sewers. Values for Manning's roughness coefficient (n) shall be consistent with Table 3.
- (9) The design of any stormwater detention facility intended to meet the performance standards of this chapter shall be verified by routing the design storm hydrograph through these facilities, using either manual methods or computerized routing. Routing shall be based upon the modified PULS method; other routing methodologies shall be subject to the approval of the Borough Engineer.
- (10) The stormwater collection system shall be designed using the peak discharge computed using the Rational Formula.

B. Design standards — water carrying facilities.

- (1) All storm sewer pipes, streets, and inlets (excluding detention and retention basin outfall structures) shall be designed for a ten-year storm event. Sole access structures (culverts and bridges) shall be designed to convey the twenty-five-year flood without overtopping the roadway.
  - (a) When a pipe or culvert is intended to convey the discharge from a stormwater management facility, its required capacity shall be computed by the rational method and compared to the peak outflow from the stormwater facility for the one-hundred-year storm. The greater flow shall govern the design of the pipe or culvert.
  - (b) When a pipe is part of a storm sewer system and crosses the roadway, it shall be designed as a storm sewer with the same design storm as the remainder of the drainage system.
  - (c) Greater design frequencies may be justified on individual projects.
  - (d) A one-hundred-year storm frequency may be required for design of the stormwater collection system to insure that the resultant stormwater runoff from the post-development storm is directed into the management facility.
- (2) In general, inlets shall be spaced such that, based upon the Rational Method,  $t_c$  = five min. and ten-year rainfall intensity, the area contributing to the inlet shall not produce a peak runoff of greater than 4 cfs. Also, inlets shall be spaced so that their efficiency, based upon efficiency curves published by the Pennsylvania Department of Transportation, is not less than 65%.
- (3) Inlets shall be placed on both sides of the street at low spots and at the upper side of street intersections to prevent stormwater from crossing an intersection. Other devices such as high efficiency grates or perforated pipe may be required if conditions warrant. All inlets at low points along the roadway shall have a 10 inches curb reveal and shall be equipped with pavement base drain extending 50 feet in either direction, parallel to the center line of the roadway.



- (4) In all cases where drainage is picked up by means of a headwall, the pipe shall be designed as a culvert. Inlet and outlet conditions shall be analyzed. The minimum diameter of culvert shall be 18 inches. The procedure contained in Hydraulic Engineer Circulars No. 5 and No. 13, as prepared by the U.S. Department of Transportation, Federal Highway Administration, Washington, D.C., shall be used for the design of culverts. All culverts shall include concrete headwalls and endwalls.
- (5) Guards shall be provided on all intake and outfall structures as well as outlet structures. The guard bars shall be 1/2 inch diameter galvanized bars on six inch centers attached to the structure with 3/8 inch diameter stainless steel anchors. Guards shall also be provided for any pipe opening, 18 inches in diameter or larger.
- (6) Manholes, inlets, headwalls, and endwalls shall conform to the requirements of the PennDOT Publication 408, as modified by the adopted Borough standards.
- (7) Proposed channels or swales must be able to convey the increased runoff associated with a proposed one-hundred-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the PA DEP Erosion and Sediment Pollution Control Program Manual.
- (8) Existing natural or man-made channels or swales must be able to convey proposed one-hundred-year return period runoff without creating any hazard to persons or property.
- (9) Stormwater runoff on roadways (i.e., gutter spread, lane encroachment, etc.) shall be controlled in accordance with PennDOT Publications 13M, "Design Manual, Part 2" and 584, "Drainage Manual."

C. Design standards - detention and retention basins.

- (1) Permanent detention and retention basins shall be designed to meet the following standards:
  - (a) The maximum permitted depth for detention or retention basins shall be six feet, measured from the bottom of the emergency spillway to the lowest point in the basin.
  - (b) The minimum top width of all basin embankments shall be eight feet.
  - (c) The maximum permitted side slopes for detention or retention basins shall be four horizontal to 1 vertical. In order to obtain a waiver for slopes steeper than 4:1, the plan must include a planting schedule to stabilize the embankments. The proposed vegetation shall be low maintenance varieties.
  - (d) Minimum bottom slope. All detention basins shall have a minimum bottom slope of 2% unless infiltration facilities are provided.
  - (e) Outlet control structures. Outlet control shall be accomplished utilizing (six-inch diameter or six-inch width maximum) perforations arranged vertically to provide for positive control of stormwater runoff. Outlet controls shall also provide for modification of the orifice to a smaller diameter through the use of removable plates.
  - (f) Discharge dispersion. Discharges from piping outlets of stormwater management facilities shall be provided with a concrete level spreader to convert point discharge back to simulated sheet flow. The length of the spreader shall be equal to 10 times the outlet pipe diameter (e.g., an eighteen-inch discharge pipe would require a fifteen-foot wide level spreader).
  - (g) Any stormwater management facility (i.e., detention basin) designed to store runoff and requiring a berm or earthen embankment required or regulated by this chapter shall be designed to provide an emergency spillway to handle flow up to and including the one-

hundred-year, twenty-four-hour design storm at post-development conditions, assuming the principal outlet structure to be clogged. The height of embankment must be set as to provide a minimum one foot of freeboard above the maximum elevation computed for the clogged orifice condition. Should any stormwater management facility require a dam safety permit under PA DEP 25 Pa. Code Chapter 105, the facility shall be designed in accordance with PA DEP 25 Pa. Code Chapter 105 and meet the regulations of PA DEP 25 Pa. Code Chapter 105 concerning dam safety which may be required to pass storms larger than one-hundred-year event.

- (h) A cutoff trench of impervious material shall be provided within all basin embankments.
- (i) Where a basin embankment is constructed using fill on an existing 15% or greater slope, the basin must be keyed into the existing grade.
- (j) Fencing. Any aboveground stormwater management detention/retention facility, that is designed to store at least a two foot depth of runoff, shall be subject to the following fencing requirements:
  - [1] Stormwater facility must be completely surrounded by a chain link fence of not less than four feet in height. Alternative fences and barriers may be permitted upon request to and approval by the Borough.
  - [2] All gates or doors opening through such enclosure shall be equipped with a self-closing and self-latching device for keeping the gate or door securely closed at all times, when not in actual use.
- (k) All outlet structures and emergency spillways shall include a satisfactory means of energy dissipation at its outlet to assure conveyance and flow without endangering the safety and integrity of the basin and the downstream drainage area.
- (l) A concentrated discharge of stormwater to an adjacent property shall be within a natural drainage way or watercourse, or an easement shall be required.
- (m) Plans for infiltration must show the locations of existing and proposed septic tank infiltration areas and wells. A minimum twenty-five foot separation from on lot disposal systems (OLDS) infiltration areas, including replacement areas, is desired and will be evaluated by the Borough on a case-by-case basis. However, the separation shall not be less than the PA DEP required 10 feet. Infiltration rates shall be based upon perc and probe tests conducted at the site of the proposed facility.

[1] *Editor's Note: Tables 1, 2 and 3 referenced in this section are included as attachments to this chapter.*

## § 339-18. Carbonate geology.

A. In areas of carbonate geology, a geologist shall certify to the following:

- (1) No stormwater management facility will be placed in, over, or immediately adjacent to the following features:
  - (a) Closer than 100 feet from sinkholes.
  - (b) Closer than 100 feet from closed depressions.
  - (c) Closer than 100 feet from caverns, intermittent lakes, or ephemeral streams.
  - (d) Closer than 50 feet from lineaments in carbonate areas.
  - (e) Closer than 50 feet from fracture traces.

- (f) Closer than 25 feet from bedrock pinnacles (surface or subsurface).
- (2) Stormwater resulting from regulated activities shall not be discharged into sinkholes.
- (3) If the developer can prove through analysis that the project site is an area underlain by carbonate geology, and such geologic conditions may result in sinkhole formations, then the project site is exempt from recharge requirements as described in § **339-12**, Volume control. However, the project site shall still be required to meet all other standards found in this chapter.
- (4) Whenever a stormwater management facility will be located in an area underlain by carbonate geology, a geological evaluation of the proposed location by a geologist shall be conducted to determine susceptibility to sinkhole formation. The evaluation may include the use of impermeable liners to reduce or eliminate the separation distances listed in the BMP Manual. Additionally, the evaluation shall at a minimum, address soil permeability, depth to bedrock, seasonally high groundwater table, susceptibility for sinkhole formation, suitability of stormwater management facilities, subgrade stability and maximum infiltration capacity in depth of water per unit area.
- (5) A detailed soils evaluation of the project site shall be performed to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified professional, and at a minimum, address soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability. The general process for designing the infiltration BMP shall be:
- (a) Site evaluation to determine general areas of suitability for infiltration practices.
- (b) Provide field test throughout the area proposed for development to determine appropriate percolation rate and/or hydraulic conductivity. At least one infiltration test must be included in each soil group and at least one infiltration test must be conducted for each five lots proposed for development. Infiltration tests must be taken at the location and depth of all proposed infiltration structures.
- (c) Design infiltration structure for required storm volume based on all available data.
- (6) Extreme caution shall be exercised where infiltration is proposed in geologically susceptible areas, such as strip mine or limestone areas. It is also extremely important that the design professional evaluate the possibility of groundwater contamination from the proposed infiltration/recharge facility and recommend a hydrogeologic justification study be performed if necessary. Whenever a basin will be located in an area underlain by limestone, a geological evaluation of the proposed location shall be conducted to determine susceptibility to sinkhole formations. The design of all facilities over carbonate formations shall include measures to prevent groundwater contamination and, where necessary, sinkhole formation. The infiltration requirement in the high quality/exceptional waters shall be subject to the Department's Chapter **93** and Antidegradation Regulations. A detailed hydrogeologic investigation may be required by the Borough and, where appropriate, the Borough may require the installation of an impermeable liner in detention basins.

## § 339-19. Erosion and sedimentation control requirements.

- A. As required in § **339-10D**, whenever the vegetation and topography are to be disturbed, such activity must be in conformance with 25 Pa. Code Chapter 105, Rules and Regulations, Part I, Subpart C, Protection of Natural Resources, Article **II**, Water Resources, 25 Pa. Code Chapter 102, Erosion Control.
- B. It is extremely important that strict erosion and sedimentation control measures be applied surrounding infiltration structures during installation to prevent the infiltrative surfaces from

becoming clogged. Additional erosion and sedimentation control design standards and criteria must be applied where infiltration BMPs are proposed shall include the following:

- (1) Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase, so as to maintain their maximum infiltration capacity.
- C. Fencing for sedimentation basins or traps must comply with § **339-17C(1)(j)**.
- D. The developer shall demonstrate that the post-development hydrograph flows during erosion and sedimentation control phase are less than or equal to the predevelopment hydrograph flows to assure the rate and volume of runoff leaving the site is controlled for the two-, five-, and ten-year frequency storms. All calculation methodology shall be in accordance with §§ **339-12** through **339-18**.

## Article IV. Stormwater Management (SWM) Site Plan Requirements

### § 339-20. Plan requirements.

Although not a requirement of this chapter, prior to proceeding with SWM site plan preparation and submission, the applicant is encouraged to request a preapplication meeting with the Borough, Borough's Engineer and a staff member of the York County Conservation District to discuss the plan concept and responsibility for submission of required documents and information. The following items shall be included in the SWM site plan:

- A. Appropriate sections of Chapter **350**, Subdivision and Land Development, of the Code of the Borough of Spring Grove and other applicable ordinances of the Borough regarding subdivision and land development plan preparation and applicable plan requirements shall be followed in preparing all SWM site plans, regardless of whether or not a SWM site plan involves a subdivision and/or land development plan. If the Borough has not adopted a Subdivision and Land Development Ordinance, the content of SWM site plans shall follow the plan preparation and applicable plan requirements of the York County Subdivision and Land Development Ordinance.
- B. The Borough shall not approve any SWM site plan that is deficient in meeting the requirements of this chapter. At its sole discretion, and in accordance with this article, when a SWM site plan is found to be deficient, the Borough may either disapprove the submission, or, in the case of minor deficiencies, the Borough may accept the submission of a revised SWM site plan as noted in § **339-23** of this chapter.
- C. Provisions for permanent access or maintenance easements for all physical SWM BMPs, such as ponds and infiltration structures, as necessary to implement the operation and maintenance (O&M) plan discussed in Subsection **E(9)** below.
- D. The following signature block for the Borough:  
  
"(Municipal official or designee), on this date (date of signature), has reviewed and hereby certifies that based upon representations made by the applicant; and relied upon by the Borough's Engineer the SWM site plan meets all design standards and criteria of the Borough Ordinance No. (number assigned to the Ordinance)."
- E. If not required by Chapter **350**, Subdivision and Land Development, or York County Subdivision and Land Development Ordinance, as specified in § **339-20A** of this chapter, the SWM site plan shall also provide the following information where applicable:

- (1) The overall stormwater management concept for the project, including any additional information required for a post-construction stormwater management plan (PCSWMP) as applicable.
- (2) A determination of site conditions in accordance with the BMP Manual. A detailed site evaluation shall be completed for projects proposed in areas of carbonate geology or karst topography, as well as for other environmentally sensitive areas, whether natural or man-made, including floodplains, streams, lakes, ponds, hydric soils, wetlands, brownfields and wellhead protection zones.
- (3) Stormwater runoff design computations, and documentation as specified in this chapter, or as otherwise necessary to demonstrate that the maximum practicable measures have been taken to meet the requirements of this chapter, including the recommendations and general requirements in § **339-10**.
- (4) Expected project time schedule.
- (5) A soil erosion and sediment control plan, where applicable, as prepared for, reviewed, and approved by the York County Conservation District.
- (6) The effect of the project in terms of runoff volumes, water quality, and peak flows on surrounding properties and aquatic features, and on any existing stormwater conveyance system that may be affected by the project.
- (7) Plan and profile drawings of all SWM BMPs, including drainage structures, pipes, open channels, and swales.
- (8) The SWM site plan shall show the locations of existing and proposed on-lot wastewater facilities and water supply wells.
- (9) The SWM site plan shall include an operation and maintenance (O&M) plan for all existing and proposed physical stormwater management facilities. This plan shall address long-term ownership and responsibilities for O&M as well as schedules and costs for O&M activities.
- (10) A description of permanent stormwater management techniques, including the construction specifications of the materials to be used for stormwater management facilities.
- (11) A notarized signature of the owner of the parcel for which the SWM site plan is proposed indicating that they are aware of, and will be responsible for, operation and maintenance of the facilities.
- (12) Existing and proposed land uses.
- (13) The location of the proposed regulated activity relative to streets, municipal boundaries, and other significant man-made features.
- (14) Significant physical features and associated boundary limits, including flood hazard areas, sinkholes, existing drainage courses, and areas of natural vegetation.
- (15) The location of existing and proposed utilities, stormwater facilities, sanitary sewers, and water lines on the parcel and within 50 feet of property lines.
- (16) Proposed changes to the land surface and vegetative cover, and the type and amount of existing and proposed impervious area.
- (17) Existing and proposed structures, buildings, streets, driveways, access drives, and parking areas.



- (18) Preferred contour intervals of two feet in moderately sloped areas, and contours at intervals of five feet for slopes in excess of 15%. Dependent upon site conditions, alternative contour intervals proposed by an applicant or his designee may be accepted by the Borough.
- (19) The name of the development, the name and address of the owner of the property, and the name and address of the individual or firm preparing the plan. Also to be included are the name, address, signature and seal of any registered surveyor (attesting the accuracy of the boundary survey), professional engineer, landscape architect, or professional geologist (for geomorphological assessments) contributing to and/or with a responsibility for any aspect of the plan where applicable.
- (20) Preferred graphic and written scale of one inch equals no more than 50 feet. For parcels of 20 acres or more, the preferred scale is one inch equals no more than 100 feet. Dependent upon site conditions, an alternative scale proposed by the applicant or his designee may be accepted by the Borough.
- (21) North point (arrow).
- (22) A map showing all existing man-made features beyond the subject parcel's boundary lines that will be affected by the proposed regulated activities.
- (23) Horizontal and vertical profiles of all open channels, including hydraulic capacity.
- (24) A note on the plan indicating the location, and responsibility for maintenance of, SWM facilities and/or easements that would be located on adjoining properties as a result of proposed regulated activities, and the location of such facilities and/or easements.
- (25) A hydrogeologic assessment of the effects of stormwater runoff on sinkholes, where present.
- (26) The effect of the proposed regulated activity in terms of runoff volumes and peak flows on adjacent properties and/or any existing municipal stormwater collection system that may receive runoff from the project site.
- (27) Drainage flow pathways.

## § 339-21. Plan submission.

- A. Three copies of the SWM site plan shall be submitted as follows:
  - (1) Two copies to the Borough.
  - (2) One copy to the York County Planning Commission when a SWM site plan accompanies a subdivision/land development plan application.
- B. Additional copies shall be submitted as requested by the Borough or DEP.
- C. The Borough may establish a fee schedule for the review of SWM plans, the amount of which shall be set by resolution of the Borough Council.

## § 339-22. Plan review and approval procedure.

- A. SWM site plans shall be reviewed by the Borough for consistency with the provisions of this chapter.
- B. Modification requests:

- (1) When reviewing a SWM site plan, whether or not the SWM site plan is included in a subdivision and/or land development plan application, the Borough's governing body may, after consulting with DEP as noted in § 339-10C of this chapter, grant a modification of the requirements of one or more provisions of this chapter if the literal enforcement will enact undue hardship because of peculiar conditions pertaining to the land in question, provided that such modification will not be contrary to the public interest and that the purpose and intent of this chapter is observed.
- (2) All requests for modifications from an applicant shall be in writing and shall accompany and be a part of the application for approval of a SWM site plan and/or a subdivision or land development plan as applicable. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of this chapter involved and the minimum modification necessary.
- (3) In granting of any modification, the Borough may attach such reasonable conditions and safeguards as it may deem necessary to implement the purposes of the Act 167 Plan and this chapter.
- (4) The governing body of the Borough shall keep a written record of all action on requests for modifications. The response of any consultation and/or review by DEP shall be included as an original report if available or otherwise documented in the required written record.

C. SWM site plan review and approval procedure:

- (1) If a SWM site plan does not involve a subdivision and/or land development, the review of the SWM site, recommendations, approval, approval with conditions, or disapproval, i.e., the review and decision period, shall occur within 45 days of submission to the Borough. However, the Borough, in its sole discretion, may extend the review and decision period another 45 days due to the nature of the application and/or site conditions. If an extension of another 45 days is imposed or granted by the Borough beyond the first forty-five-day review and decision period designated by this subsection, the Borough shall notify the applicant, in writing, and deliver such notice to said applicant within 15 days of the decision to extend the review and decision period by the Borough. If no extension is imposed or granted by the Borough beyond the first forty-five-day review and decision period, and no decision has been rendered by the Borough within that period, the SWM site plan shall be deemed approved. Similarly, if after a forty-five-day extension of the review and decision period has been imposed or granted by the Borough, and no decision has been rendered by the Borough within that period, the SWM site plan shall be deemed approved.
- (2) If a SWM site plan involves a subdivision and/or land development plan, the period of time from the submission to the Borough of the subdivision and/or land development plan application which includes the SWM plan and the approval, approval with conditions, or disapproval, i.e., review and decision period, shall be 90 days, in accordance with the procedure for approval of plats in § 508 of the Pennsylvania Municipalities Planning Code.<sup>[1]</sup>  
<sup>[1]</sup> *Editor's Note: See 53 P.S. § 10508.*
- (3) From the time an application for approval of a plat involving a subdivision or land development plan, whether preliminary or final, which includes a SWM site plan, is duly filed with the Borough, no change or amendment of this chapter or other governing ordinance or plan shall affect the decision on such application in accordance with the provisions of the governing ordinances or plans as they stood at the time the application was duly filed, as specified in § 508(4)(i) of the Pennsylvania Municipalities Planning Code.

- D. Decision notification procedure. In all cases, the decision of the Borough to approve or disapprove the SWM site plan shall be in writing and shall be delivered to the applicant no later than 15 days following the decision. If the SWM site plan is disapproved, the written decision by the Borough shall specify the defects in the application, describe the requirements which were not met, and shall cite the provisions of this chapter relied upon. If the SWM site plan is approved with

conditions, the notification to the applicant shall state the acceptable conditions for approval and the time limit for satisfying such conditions. The time limit for satisfying conditions of approval shall be the time limit prescribed for conditional approval of subdivision and land development plans as stated in the Chapter **350**, Subdivision and Land Development, or the York County Subdivision and Land Development Ordinance, where applicable.

## § 339-23. Revision of plans.

A revision to a previously submitted SWM site plan that involves a change in SWM BMPs, stormwater management facilities, or changes in analytical techniques, or that involves the relocation or redesign of SWM BMPs, or that is necessary because soil or other conditions are not as stated on the SWM site plan, as determined by the Borough, shall require a resubmission of the revised SWM site plan in accordance with this article, including applicable fees. For NPDES permitted sites, any revised SWM site plan shall also be resubmitted to the York County Conservation District for review. In the case of a SWM site plan which contains minor deficiencies, such as a missing label, omission of a required note or minor construction detail, as determined by the Borough, the Borough may accept a resubmission of such SWM site plan without the requirement of a review fee, or for a lesser fee as provided for in the Borough fee schedule.

## § 339-24. Resubmission of disapproved SWM site plans.

A disapproved SWM site plan may be resubmitted, with the revisions addressing the Borough's concerns as stated regarding the original submission, to the Borough in accordance with this article. The applicable review fee must accompany the submission of a revised SWM site plan, unless such fee is waived by the Borough. (See § **339-23**.)

## § 339-25. Authorization to construct and term of validity.

- A. SWM site plans independent of subdivision and land development plans. The Borough's approval of a SWM site plan, when such plan is submitted independent of a subdivision and/or land development plan, authorizes the regulated activities contained in the SWM site plan for a maximum term of validity of five years following the date of approval. The Borough may, in its sole discretion, specify a term of validity shorter than five years in the approval for any specific SWM site plan, particularly if the nature of the proposed SWM facilities require more frequent maintenance and/or short-term replacement of certain components. Terms of validity shall commence on the date the Borough signs the approval for an SWM site plan. If an approved SWM site plan is not completed according to § **339-26** within the term of validity, then the Borough may consider the SWM site plan disapproved and may revoke any and all permits. SWM site plans that are considered disapproved by the Borough may be resubmitted in accordance with § **339-24** of this chapter.
- B. SWM site plans included in a subdivision and/or land development plan. The Borough's approval of a SWM site plan, which is a part of a subdivision and/or land development plan, authorizes that plan and the regulated activities therein so that no subsequent change or amendment in this chapter or other governing ordinances or plans shall be applied to affect adversely the right of the applicant to commence and to complete any aspect of the approved development in accordance with the terms of such approval within five years from such approval, as specified in § 508(4)(ii) through (vii) of the Pennsylvania Municipalities Planning Code.

## § 339-26. As-built plans, completion certificate, and final inspection.

- A. The developer shall be responsible for providing as-built plans of all SWM BMPs included in the approved SWM site plan. The as-built plans and an explanation of any discrepancies with the construction plans shall be submitted to the Borough.
- B. The as-built submission shall include a certification of completion signed by a qualified person verifying that all permanent SWM BMPs have been constructed according to the approved plans and specifications. If any licensed qualified person materially contributed to the construction plans, then a licensed qualified person must sign the completion certificate.
- C. After receipt of the completion certification by the Borough, the Borough may conduct a final inspection to verify compliance with and accuracy of the as-built plans.
- D. The financial guarantee, as discussed under § 339-30, shall not be released by the Borough until the items of this section are completed.

## Article V. Construction Inspections

### § 339-27. Schedule of inspections.

- A. The Borough Engineer or his Borough assignee shall inspect phases of the installation of the permanent stormwater management facilities as deemed appropriate by the Borough Engineer. It is the responsibility of the permittee to notify the Borough Engineer 48 hours in advance of the beginning of construction of stormwater management facilities.
- B. During any stage of the work, if the Borough Engineer determines that the permanent stormwater management facilities are not being installed in accordance with the approved stormwater management site plan, the Borough may suspend or revoke any existing approvals issued under this chapter until installation is rectified and/or a revised stormwater management site plan is submitted and approved, as specified in this chapter.

## Article VI. Operation and Maintenance

### § 339-28. Responsibilities of developers and landowners.

- A. The Borough shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM site plan. The Borough may require dedication of such facilities as part of the requirements for approval of the SWM site plan. Such a requirement is not an indication that the Borough will accept the facilities. The Borough reserves the right to accept or reject the ownership, maintenance, and operating responsibility for any portion(s) of the stormwater management facilities and controls.
- B. Facilities, areas, or structures included in the SWM site plan and used as stormwater management BMPs shall be enumerated as permanent real estate appurtenances and recorded in the York County Recorder of Deeds Office as deed restrictions/protective covenants or easements that run with the land, as may be required by the Borough.
- C. The operation and maintenance (O&M) plan shall be recorded as a restrictive deed covenant that runs with the land.
- D. The Borough may take enforcement actions against an owner for any failure to satisfy the provisions of this article.
- E. No person shall modify, remove, fill, landscape, or alter any SWM BMPs, facilities, areas, or structures without the written approval of the Borough, with the exception of necessary

maintenance activities such as mowing.

## § 339-29. Operation and maintenance agreements.

- A. Prior to final approval of the SWM site plan, the property owner shall sign and record an operation and maintenance (O&M) agreement (see Appendix A<sup>[1]</sup>) covering all stormwater control facilities which are to be privately owned.
- (1) The owner, successor and assigns shall maintain all facilities in accordance with the approved maintenance schedule in the O&M plan.
  - (2) The owner shall convey to the Borough easements to assure access for periodic inspections by the Borough and maintenance, as necessary.
  - (3) The owner shall keep on file with the Borough the name, address, and telephone number of the person or company responsible for maintenance activities; in the event of a change, new information shall be submitted by the owner to the Borough within 10 working days of the change.
- [1] *Editor's Note: Appendix A is included as an attachment to this chapter.*
- B. The owner is responsible for operation and maintenance (O&M) of the SWM BMPs. If the owner fails to adhere to the O&M agreement, the Borough may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.
- C. The Borough is exempt from the requirement to sign and record an operation and maintenance agreement.

## § 339-30. Performance guarantee.

For SWM site plans that involve subdivision and land development, the applicant shall provide a financial guarantee to the Borough for the timely installation and proper construction of all stormwater management controls as required by the approved SWM site plan and this chapter in accordance with the provisions of §§ 509, 510, and 511 of the Pennsylvania Municipalities Planning Code.

## § 339-31. Maintenance guarantee.

For SWM site plans that involve the dedication of all or some of the required improvements following completion, the Borough may require the posting of financial security to secure structural integrity of said improvements as well as the functioning of said improvements in accordance with the design and specifications as depicted on the SWM site plan for a term not to exceed 18 months from the date of acceptance of dedication. Said financial security shall be of the same type as otherwise required in § 339-30 with regard to installation of such improvements, and the amount of the financial security shall not exceed 15% of the actual cost of installation of said improvements in accordance with the provisions of § 509 of the Pennsylvania Municipalities Planning Code.

## § 339-32. Municipal Stormwater Maintenance Fund.

- A. Persons installing stormwater storage facilities shall be required to pay a specified amount to the Municipal Stormwater Maintenance Fund to help defray costs of periodic inspections and maintenance expenses. The amount of the deposit shall be determined as follows:

- (1) If the storage facility is to be privately owned and maintained, the deposit shall cover the cost of periodic inspections performed by Borough for a period of 10 years, as estimated by the Borough Engineer. After that period of time, inspections expenses will be assessed by Borough on an as needed basis thereafter.
- (2) If the storage facility is to be owned and maintained by Borough, the deposit shall cover the estimated costs for maintenance and inspections for 10 years. The Borough Engineer will establish the estimated costs utilizing information submitted by the applicant.
- (3) The amount of the deposit to the fund shall be converted to present worth of the annual series values. The Borough Engineer shall determine the present worth equivalents which shall be subject to the approval of the governing body.
- (4) The general formula for calculating the annual inspection fee shall be as follows:
  - (a)  $I_{Ti} \times I_R \times N_i = I_{Ci}$ .
  - (b)  $I_{Ci} + I_{Cii} + \dots = I_C$ .
  - (c)  $0.25 (I_C) = A_C$ .
  - (d)  $I_C + A_C = \text{Annual inspection cost}$ .
  - (e) Where:
    - [1]  $I_{Ti}$  = Inspection time per SWM BMP (varies per BMP).
    - [2]  $I_R$  = Inspection rate (varies per year).
    - [3]  $N_i$  = Quantity of particular SWM BMP.
    - [4]  $I_{Ci}$  = Inspection cost for particular SWM BMP.
    - [5]  $I_C$  = Total inspection cost of all SWM BMPs.
    - [6]  $A_C$  = Administrative cost.

## Article VII. Fees and Expenses

### § 339-33. General.

- A. The developer shall be required to submit a subdivision/land development or building permit application prior to any stormwater management facilities construction. The fee for plan reviews, permit issuance, and inspections shall be established by resolution of the Borough Council to defray the following expenses:
  - (1) The review of the stormwater management/erosion and sedimentation control plan by the Borough Engineer.
  - (2) The site inspections.
  - (3) The inspection of stormwater management facilities and drainage improvements during construction.
  - (4) The final inspection upon completion of the stormwater management facilities and drainage improvements presented in the stormwater management/erosion and sedimentation control plan.



- (5) Any additional work required to enforce any permit provisions regulated by this chapter, correct violations, and assure proper completion of stipulated remedial actions.
- B. All fees shall be paid by the applicant at the time of application and shall be included in the required deposit for review of subdivision/land development plans.
- C. Any additional costs incurred by Borough in the administration of this chapter shall be charged to the applicant and shall be paid promptly by the applicant. Upon completion of the construction of the stormwater management facility and upon final approval thereof by the Borough Engineer, any monies in excess of the Borough's costs or expenses deposited by the applicant shall be refunded to the applicant.

## § 339-34. Stormwater facilities fee.

In addition to any other permit fees required by this article, all new construction and additions to present structures that create impervious surface, including parking lots, driveways, patios and walkways, except curbs and sidewalks within public rights-of-way, shall be assessed a fee in such amount as shall be from time to time established by the Borough Council by resolution. All fees collected pursuant to this subsection shall be deposited in an escrow account to be used for the construction, maintenance and improvement of stormwater facilities within the Borough.

## Article VIII. Detection and Elimination of Illicit Discharges and Connections to the Municipal Separate Storm Sewer System

### § 339-35. Ultimate responsibility.

- A. Minimum standards. The standards set forth herein and promulgated by this article are minimum standards; therefore, this chapter does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.
- B. Property owner inspection. SWM BMPs included in the approved SWM site plan shall be inspected by the landowner, or the owner's designee, including the Borough for dedicated and owned facilities, according to the following list of minimum frequencies:
  - (1) Annually.
  - (2) During or immediately after the cessation of a ten-year or greater storm.
  - (3) A report of all inspections conducted in a calendar year shall be submitted to the Borough annually on or before February 15 of the following calendar year.
  - (4) All inspection records shall be maintained by the landowner for no less than five years from when created and shall be made available to the Borough upon written request.
- C. Notification of spills or releases.
  - (1) Notwithstanding other requirements of law, as soon as any person responsible for a facility, property, or operation, or responsible for emergency response for a facility, property, or operation has information of any known or suspected release of materials which are resulting or may result in illicit discharges or pollutants discharging into stormwater, a stormwater facility, the storm drain system, or water of the Commonwealth of Pennsylvania, said person shall take all necessary steps to ensure the discovery, immediate containment, and cleanup of such release.

- (2) In the event of a release of hazardous materials, said person shall immediately notify appropriate emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of nonhazardous materials, said person shall notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to Borough within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial property, the owner or operator of such property shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

## § 339-36. Prohibition of illicit discharges.

- A. No person shall discharge or cause to be discharged in to storm drain, stormwater system or facility, or waters of this commonwealth any materials, including, but not limited to, pollutants or waters containing pollutants, that cause or contribute to a violation of applicable water quality standards. Any discharge in violation of this chapter shall be considered illicit discharges, except as exempted below.
- B. The commencement, conduct, allowance, or continuation of any illicit discharge to the storm drain system, a stormwater system or facility, or waters of this commonwealth is prohibited except as follows:
  - (1) Discharges from fire-fighting activities.
  - (2) Potable water sources including water line flushing.
  - (3) Irrigation drainage.
  - (4) Air-conditioning condensate.
  - (5) Springs.
  - (6) Water from crawl space pumps.
  - (7) Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used.
  - (8) Diverted stream flows.
  - (9) Groundwater infiltration to storm drains.
  - (10) Crawl space pumps.
  - (11) Flows from riparian habitats and wetlands.
  - (12) Uncontaminated water from foundations or from footing drains.
  - (13) Lawn watering.
  - (14) Dechlorinated swimming pool discharges (less than one PPM chlorine).
  - (15) Uncontaminated groundwater.
  - (16) Water from individual residential car washing.
  - (17) Routine external building wash down (which does not use detergents or other compounds).

- (18) Water discharged in well testing for potable water sources.
  - (19) Uncontaminated pumped groundwater.
  - (20) Discharges specified, in writing, by the Borough as being necessary to protect public health and safety.
  - (21) Dye testing is an allowable discharge, but requires a verbal notification to the Borough 48 hours prior to the time of the test.
  - (22) The prohibition shall not apply to any nonstormwater discharge permitted under an NPDES permit, written or regulatory waiver, or waste discharge order issued to the discharger and administered under the authority of DEP.
- C. In the event that the Borough or DEP determines that any of the discharges identified in § **339-36B** significantly contribute to pollution of the waters of this commonwealth, Borough or DEP will notify the responsible person(s) to cease the discharge.

## § 339-37. Prohibition of illicit connections.

The construction, use, maintenance or continued existence of illicit connections to the storm drain system or a stormwater facility, or waters of this commonwealth is prohibited.

- A. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- B. A person is considered to be in violation of this article if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

## Article IX. Enforcement and Penalties

### § 339-38. Right of entry.

- A. General. Upon presentation of proper credentials, the Borough may enter at reasonable times upon any property within the Borough to inspect the condition of the stormwater structures and all related facilities regulated by this chapter.
- B. Industrial activity and construction discharges. This section applies to all facilities that have stormwater discharges associated with industrial activity, including construction activity. Any person subject to an industrial or construction activity NPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Borough prior to the allowing of discharges to the MS4.
  - (1) Access to facilities.
    - (a) The Borough shall be permitted to enter and inspect facilities subject to regulation under this article as often as may be necessary to determine compliance with this article. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the Borough.
    - (b) Facility operators shall allow the Borough ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept

under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by state and federal law.

- (c) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the Borough and shall not be replaced. The costs of clearing such access shall be borne by the operator.
- (2) Borough rights.
  - (a) The Borough shall have the right to set up on any permitted facility such devices as are necessary, in the opinion of the Borough, to conduct monitoring and/or sampling of the facility's stormwater discharge.
  - (b) The Borough has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.
- C. No unreasonable delay. Unreasonable delays in allowing the Borough access to any stormwater structures and/or related facilities is a violation of a stormwater discharge permit and of this chapter. A person who is the owner/operator of a property, a facility with an NPDES permit to discharge stormwater, or any stormwater structure or facility commits an offense if the person unreasonably delays or denies the Borough reasonable access to the property and/or facility for the purpose of conducting any activity authorized or required by this chapter.

## § 339-39. Violations and nuisance.

- A. It shall be unlawful for a person to undertake any regulated activity except as provided in an approved SWM site plan, unless specifically exempted in § 339-11.
- B. It shall be unlawful to violate any section(s) of this chapter.
- C. In addition to the enforcement processes and penalties provided herein, any condition caused or permitted to exist in violation of any of the provisions of this chapter is declared and deemed a public nuisance. Where such condition constitutes a threat to public health, safety, welfare or the environment, it may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken as set forth in this chapter.

## § 339-40. Emergency suspension of MS4 access.

- A. Suspension in emergency situations. The Borough, without prior notice, may issue an order to suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health, safety or welfare of persons, or to the MS4 or waters of the Commonwealth of Pennsylvania. If the violator fails to comply with an order issued in an emergency, the Borough may take such steps as deemed necessary to prevent or minimize damage to the MS4 or waters of the Commonwealth of Pennsylvania, or to minimize danger to persons, including, without limitations, entering the property for the purpose of disconnecting and/or performing emergency maintenance or repairs to storm sewers. In the event the Borough must disconnect or perform emergency maintenance and/or repairs, the Borough may file and attach a municipal lien on the property which is causing illicit discharge.

- B. Reconnection prohibited. A person commits an offense if the person reconnects premises to the MS4 system once suspended pursuant to this section, without prior Borough written approval issued by an authorized representative of the Borough.

## § 339-41. Enforcement.

- A. Notice of violation. Whenever the Borough finds that a person has violated a prohibition or failed to meet a requirement of this chapter or a permit issued hereunder, the Borough shall issue a written notice of violation (NOV) to the property owner and/or operator. Such NOV shall set forth basis and nature of the violation(s), section(s) violated, and shall identify the property and shall require response from the recipient.
- B. Orders.
- (1) Where the Borough has identified a violation, it may order compliance by written order to the responsible person(s), including a property owner or operator. Such order may require, without limitation:
    - (a) The performance of monitoring, analyses, and reporting;
    - (b) The elimination of illicit connections or discharges;
    - (c) That violating discharges, practices, or operations shall cease and desist;
    - (d) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
    - (e) Payment of a fine to cover administrative and remediation costs; and
    - (f) The implementation of source control or treatment BMPs.
  - (2) If abatement of a violation and/or restoration of affected property is required, the order may set forth a deadline within which such action(s) must be completed.
  - (3) Failure to comply within the time specified shall subject such person to the penalty provisions of this chapter. All such penalties shall be deemed cumulative and does not prevent the Borough from pursuing any and all remedies. It shall be the responsibility of the owner of the real property on which any regulated activity is proposed to occur, is occurring, or has occurred, to comply with the terms and conditions of this chapter.
- C. Termination of discharge. Any person discharging to the MS4 in violation of this chapter may have their MS4 access terminated if such termination would abate a threat to public safety, health or the environment or would terminate an illicit discharge. The Borough will notify a violator of the proposed termination of its MS4 access.
- D. Appeals.
- (1) Any person receiving an order from the Borough may appeal to the Borough Council within 30 days from the date of the order. A hearing on the appeal before the Borough Council or its designee shall take place within 15 days from the date of receipt of the notice of appeal.
  - (2) Any person aggrieved by any decision of the Borough, relevant to the provisions of this chapter, may appeal to the York County Court of Common Pleas within 30 days of the Borough's decision.
- E. Borough action after appeal.

- (1) Cost of abatement of violation. If the violation has not been corrected pursuant to the requirements set forth in the order, or, in the event of an appeal, within 15 days of the hearing representative's decision upholding the decision of the Borough, then representatives of the Borough may enter upon the subject private property and may take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent, or person in possession of any premises to refuse to allow the Borough or designated contractor to enter upon the premises for the purposes set forth above.
- (2) Notice of cost of abatement. Within 30 days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may thereafter file a written protest objecting to the amount of the assessment within 30 days. If the amount due is not paid within a timely manner as determined by the decision of the Borough or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a municipal lien on the property for the amount of the assessment.
- (3) Payment of abatement costs. Any person violating any of the provisions of this article shall become liable to the Borough by reason of such violation. The liability shall be paid in not more than 12 equal payments. Interest at the rate of 12% per annum shall be assessed on the balance beginning on the 1st day following discovery of the violation.

## § 339-42. Suspension, revocation, and termination.

- A. Any approval or permit issued by the Borough pursuant to this chapter may be suspended, revoked, or terminated for:
  - (1) Noncompliance with or failure to implement any provision of the approved SWM site plan or O&M agreement.
  - (2) A violation of any provision of this chapter or any other applicable law, ordinance, rule, or regulation relating to the regulated activity.
  - (3) The creation of any condition or the commission of any act during the regulated activity which constitutes or creates a hazard, nuisance, pollution, or endangers the life or property of others.
  - (4) Actions that establish an inability or an unwillingness to comply with this chapter.
- B. A suspended approval shall be reinstated by the Borough in writing when:
  - (1) The Borough has inspected and approved the corrections to the violations that caused the suspension.
  - (2) The Borough is satisfied that the violation has been corrected.
- C. An approval that has been revoked or terminated by the Borough cannot be reinstated. The applicant may apply for a new approval under the provisions of this chapter.
- D. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, the Borough may provide a limited time period for the owner to correct the violation. In these cases, the Borough will provide the owner, or the owner's designee, with a written notice of the violation and the time period allowed for the owner to correct the violation. If the owner does not correct the violation within the allowed time period, the Borough may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this chapter.

## § 339-43. Remedies; violations and penalties.



- A. Civil penalties. Any person, partnership or corporation who or which has violated the provisions of this chapter shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Borough, pay a civil penalty of not more than \$1,000 per violation, per day. If the defendant neither pays nor timely appeals the civil penalty assessment, the Borough may enforce the penalty pursuant to applicable laws and rules of civil procedure. Each day that a violation continues shall constitute a separate violation, unless the Magisterial District Judge determining that there has been a violation and the extent to which a fine is appropriate. The York County Court of Common Pleas, upon petition, may grant an order of stay, upon cause shown, tolling the per diem judgment pending a final adjudication of the violation and judgment.
- B. Injunctive relief. It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this chapter. The Borough may institute injunctive, mandamus, or any other appropriate action or proceeding at law or in equity for the enforcement of this chapter and to restrain actions that would create further violation(s) or compelling action to terminate, abate, or remediate violation.
- C. Criminal prosecution. Any person that has violated or continues to violate this any section of this chapter may be subject to criminal prosecution to the fullest extent of the law, and may be subject to a criminal penalty of up to \$1,000 per violation per day and/or imprisonment for a period of time not to exceed 90 days.
- D. Attorneys' fees and costs. The Borough may recover all attorneys' fees, court costs and other expenses associated with enforcement of this chapter, either criminal or civil, including sampling and monitoring expenses or other costs of investigation.
- E. Remedies not exclusive. The remedies listed in this chapter are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the Borough to seek cumulative remedies.

## Article X. References

### § 339-44. Chapter references.

- A. Pennsylvania Department of Environmental Protection, No. 363-0300-002 (December 2006), as amended and updated, Pennsylvania Stormwater Best Management Practices Manual, Harrisburg, PA.
- B. Pennsylvania Department of Environmental Protection, No. 363-2134-008 (April 15, 2000), as amended and updated, Erosion and Sediment Pollution Control Program Manual, Harrisburg, PA.
- C. U.S. Department of Agriculture, National Resources Conservation Service (NRCS), National Engineering Handbook, Part 630: Hydrology, 1969-2001. Originally published as the National Engineering Handbook, Section 4: Hydrology. Available from the NRCS online at: <http://www.nrcs.usda.gov/>.
- D. U.S. Department of Agriculture, Natural Resources Conservation Service, 1986, Technical Release 55: Urban Hydrology for Small Watersheds, 2nd Edition. Washington, D.C.
- E. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Hydrometeorological Design Studies Center, 2004-2006, Precipitation-Frequency Atlas of the United States, Atlas 14, Volume 2, Version 3.0, Silver Spring, Maryland. Internet address: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.
- F. Act of July 31, 1968, P.L. 85, No. 247, The Pennsylvania Municipalities Planning Code, as amended.



# ATTACHMENT 5.1

BMP STANDARD OPERATION PROCEDURES

# Standard Operating Procedures for the Maintenance of Stormwater BMPs



Spring Grove, York County, Pennsylvania

ARRO Project Number:

10856.29

ARRO CONSULTING, INC.  
108 W AIRPORT ROAD  
LITITZ, PA 17543



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## **INTRODUCTION AND PURPOSE**

Polluted stormwater runoff has been identified by the U.S. Environmental Protection Agency (EPA) as one of the main causes of the nation's water quality problems. To help alleviate this situation, the EPA requires communities with Municipal Separate Storm Sewer Systems (MS4s) to obtain a general permit under the National Pollutant Discharge Elimination System (NPDES) program authorizing their stormwater discharges.

Under the NPDES permit for its MS4, Spring Grove Borough (Borough) is required to develop and implement Standard Operating Procedures (SOPs) for operation and maintenance procedures for best management practices (BMPs.)

The goal of this SOP is to ensure that all BMPs owned by the Borough are inspected and maintained properly according to their type in order to successfully treat stormwater before it enters the surface waters. Borough personnel are required to follow this manual when conducting operation and maintenance activities on BMPs.

### **BMPs**

Types of structural BMPs in the Borough may include the following: pervious pavement with infiltration beds, infiltration basins, subsurface infiltration beds, infiltration trenches, rain gardens/bioretention, vegetated swales, constructed wetlands, wet ponds/retention basins, and dry extended detention basins.

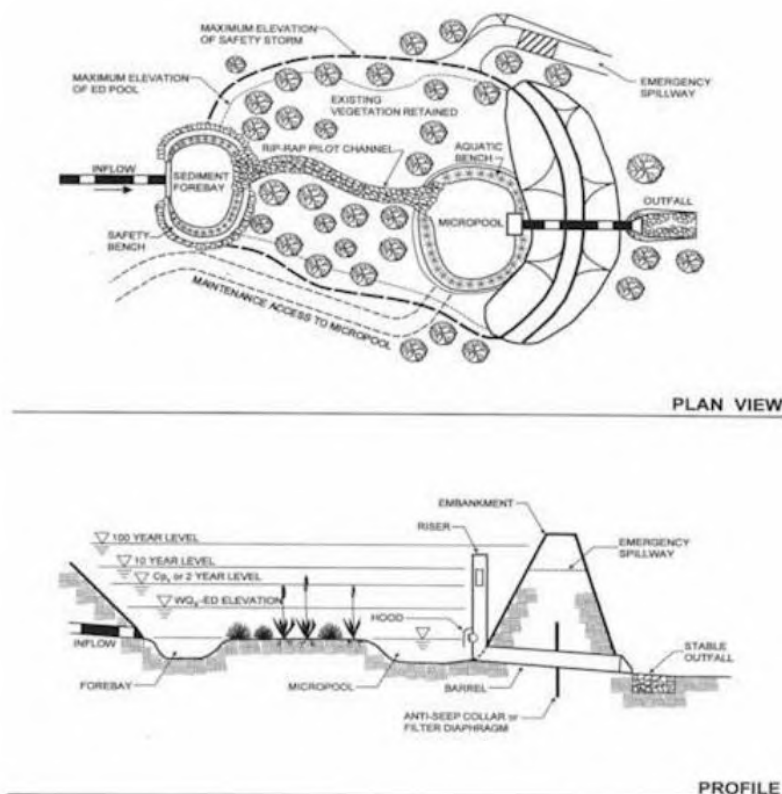
This document has two sections, the first describes the types of BMPs that comprised the existing BMPs described in the Pollutant Reduction Plan. The second are types of BMPs that are not within the municipal BMP inventory, however they are types of BMPs that the Pennsylvania Department of Environmental Protection



## BMP TYPES THAT ARE WITHIN THE MUNICIPALITY

### Dry Extended Detention Basins

A dry extended detention basin is an earthen structure constructed either by impoundment of a natural depression or excavation of existing soil, that provides temporary storage of runoff and functions hydraulically to attenuate stormwater runoff peaks. The dry detention basin, as constructed in countless locations since the mid-1970's and representing the primary BMP measure until now, has served to control the peak rate of runoff, although some water quality benefit accrued by settlement of the larger particulate fraction of suspended solids. This extended version is intended to enhance this mechanism in order to maximize water quality benefits. The basin outlet structure must be designed to detain runoff from the stormwater quality design storm for extended periods. Some volume reduction is also achieved in a dry basin through initial saturation of the soil mantle (even when compacted) and some evaporation takes place during detention. The net volume reduction for design storms is minimal, especially if the precedent soil moisture is assumed as in other volume reduction BMPs.



## **Variations**

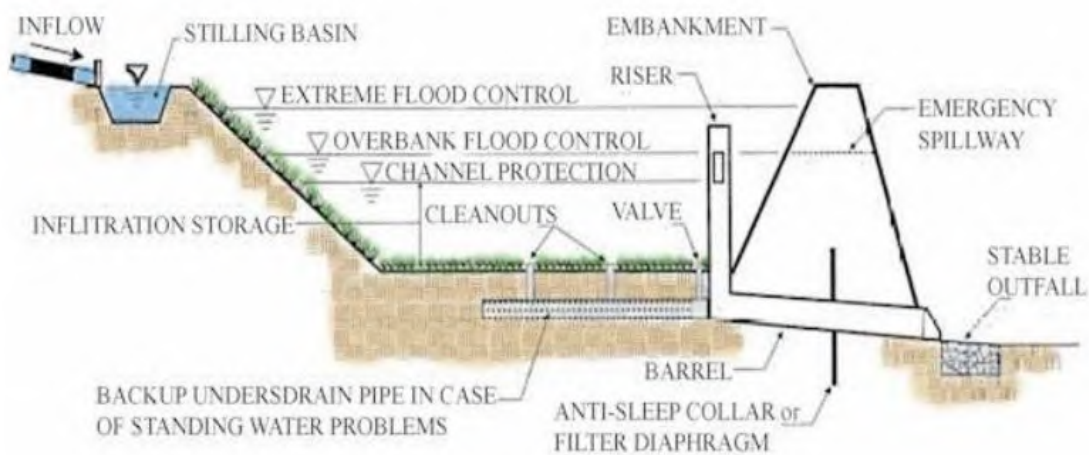
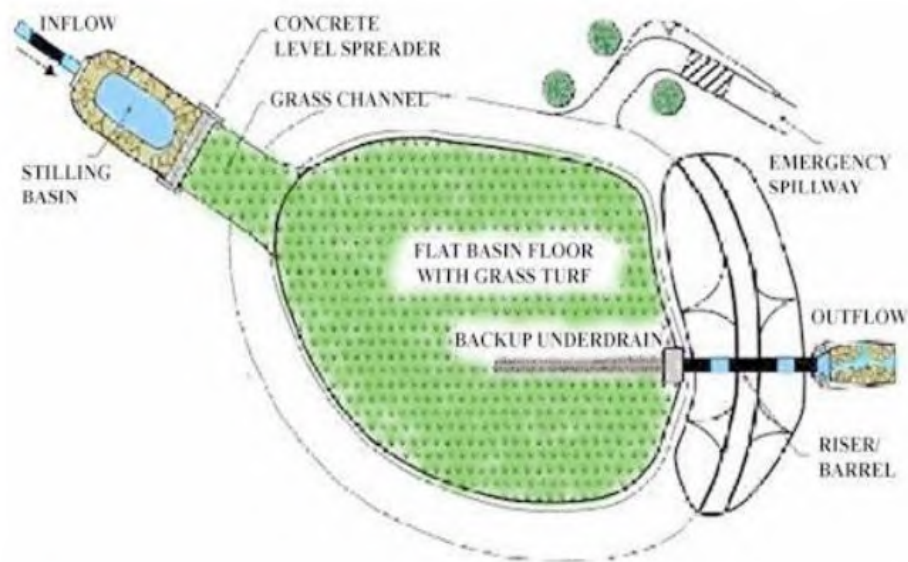
Sub-surface extended detention Extended detention storage can also be provided in a variety of sub-surface structural elements, such as underground vaults, tanks, large pipes or other structural media placed in an aggregate filled bed in the soil mantle. All such systems are designed to provide runoff peak rate mitigation as their primary function, but some pollutant removal may be included. Regular maintenance is needed since the structure must be drained within a design period and cleaned to assure detention capacity for subsequent rainfall events. These facilities are usually intended for space-limited applications and are not intended to provide significant water quality treatment.

## **Maintenance and Inspection Required**

- All basin structures expected to receive and/or trap debris and sediment should be inspected for clogging and excessive debris and sediment accumulation at least 4 times per year, as well as after every storm greater than 1 inch.
  - Structures include basin bottoms, trash racks, outlet structures, riprap or gabion structures, and inlets.
- Sediment removal should be conducted when the basin is completely dry. Sediment should be disposed of properly and once sediment is removed, disturbed areas need to be immediately stabilized and revegetated.
- Mowing and/or trimming of vegetation should be performed as necessary to sustain the system, but all detritus should be removed from the basin.
  - Vegetated areas should be inspected annually for erosion.
  - Vegetated areas should be inspected annually for unwanted growth of exotic/invasive species.
  - Vegetative cover should be maintained at a minimum of 95%. If vegetative cover has been reduced by 10%, vegetation should be reestablished.

## Infiltration Basins

An Infiltration Basin is a shallow impoundment that stores and infiltrates runoff over a level, uncompacted, (preferably undisturbed area) with relatively permeable soils.



## **Maintenance and Inspection Required**

- Catch Basins and Inlets (upgradient of infiltration basin) should be inspected and cleaned at least two times per year and after runoff events.
- The vegetation along the surface of the Infiltration basin should be maintained in good condition, and any bare spots revegetated as soon as possible.
- Vehicles should not be parked or driven on an Infiltration Basin, and care should be taken to avoid excessive compaction by mowers.
- Inspect the basin after runoff events and make sure that runoff drains down within 72 hours.
- Inspect for accumulation of sediment, damage to outlet control structures, erosion control measures, signs of water contamination/spills, and slope stability in the berms
- Mow only as appropriate for vegetative cover species.
- Remove accumulated sediment from basin as required. Restore original cross section and infiltration rate. Properly dispose of sediment.

## Subsurface Infiltration Beds

Subsurface Infiltration Beds provide temporary storage and infiltration of stormwater runoff by placing storage media of varying types beneath the proposed surface grade. Vegetation will help to increase the amount of evapotranspiration taking place.



### Maintenance and Inspection Required

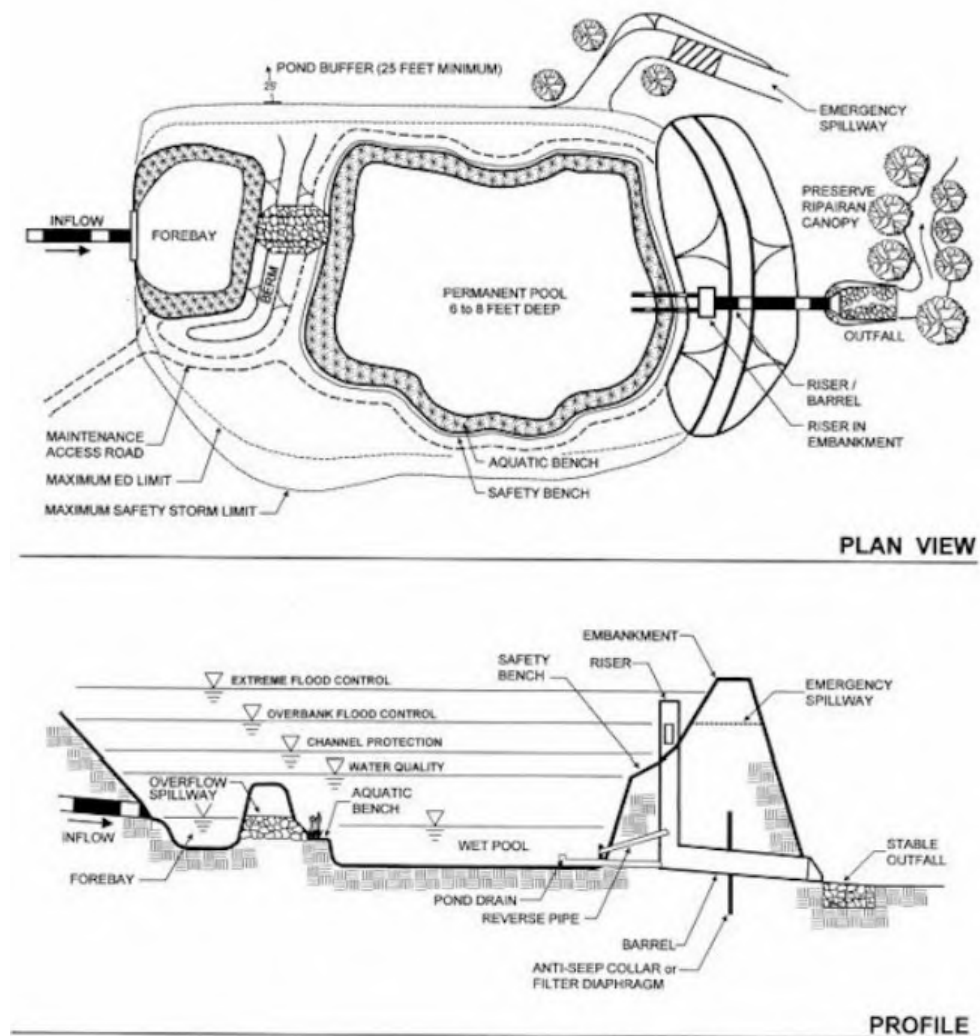
- All Catch Basins and Inlets should be inspected and cleaned at least 2 times per year.
- The overlying vegetation of Subsurface Infiltration features should be maintained in good condition, and any bare spots revegetated as soon as possible.
- Vehicular access on Subsurface Infiltration areas should be prohibited, and care should be taken to avoid excessive compaction by mowers. If access is needed, use of permeable, turf reinforcement should be considered.



## Wet Ponds/Retention Basins



Wet Ponds/Retention Basins are stormwater basins that include a substantial permanent pool for water quality treatment and additional capacity above the permanent pool for temporary runoff storage.



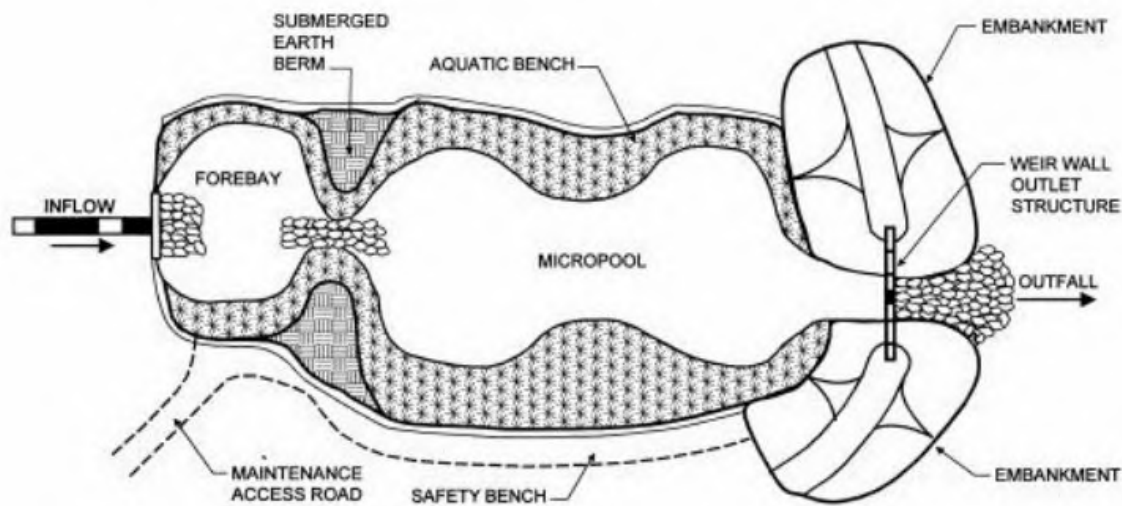


## Variations

Wet Ponds primarily accomplish water quality improvement through displacement of the permanent pool and are generally only effective for small inflow volumes.

Wet Detention Ponds are similar to Wet Ponds but use extended detention as another mechanism for water quality and peak rate control.

Pocket Wet Ponds are smaller WPs that serve drainage areas between approximately 5 and 10 acres and are constructed near the water table to help maintain the permanent pool. They often include extended detention as well.



## Maintenance and Inspection Required

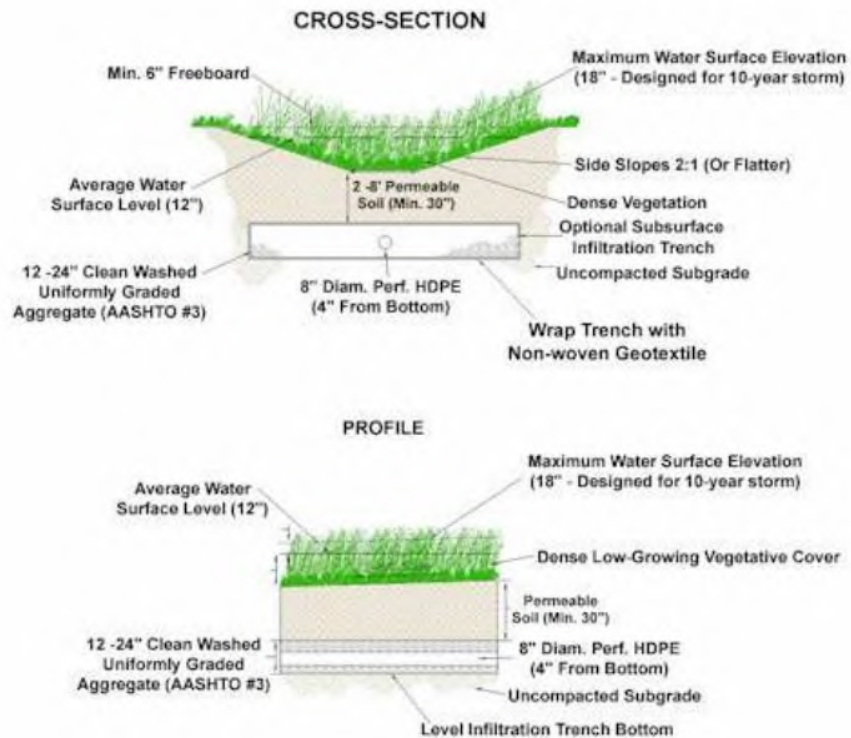
During the first growing season, or until established, vegetation should be inspected every 2 to 3 weeks.

- Wet Pond and buffer vegetation may need support (watering, weeding, mulching, replanting, etc.) during the first 3 years.
  - Undesirable species should be carefully removed and desirable replacements planted if necessary.
- Wet ponds should be inspected at least 4 times per year and after major storms (> 2 inches of rainfall in 24 hours) or rapid ice breakup.
  - Inspections should assess the vegetation, erosion, flow channelization, bank stability, inlet/outlet conditions, embankment, and sediment/debris accumulation. The pond drain should also be inspected 4 times per year.
- Vegetation should maintain at least an 85% cover of the emergent vegetation zone and buffer area.

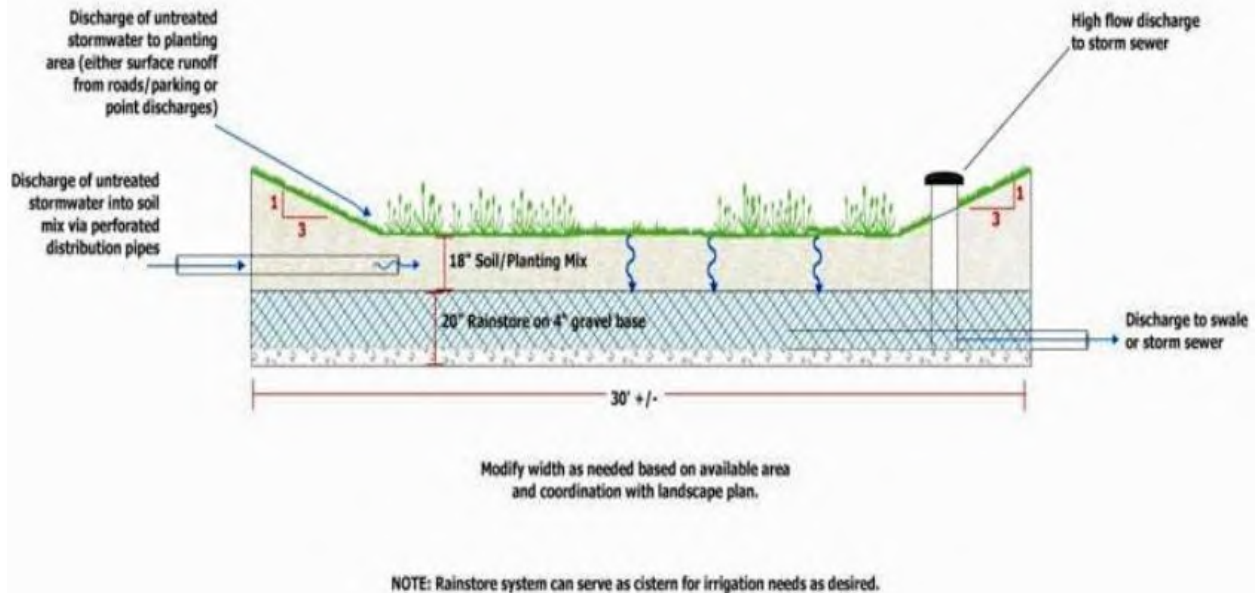
- Annual harvesting of vegetation may increase the nutrient removal. Care should be taken to avoid disturbance, especially of bottom sediments, during harvesting. The potential disturbance from harvesting may outweigh its benefits.
- Sediment should be removed from the forebay before it occupies 50% of the forebay, typically every 5 to 10 years.

## Vegetated Swales

A Vegetated Swale is a broad, shallow, trapezoidal or parabolic channel, densely planted with a variety of trees, shrubs, and/or grasses. It is designed to attenuate and in some cases infiltrate runoff volume from adjacent impervious surfaces, allowing some pollutants to settle out in the process. In steeper slope situations, check dams may be used to further enhance attenuation and infiltration opportunities.



## Variations



### Vegetated Swale with Infiltration Trench

This option includes a 12 to 24 inch aggregate bed or trench, wrapped in a nonwoven geotextile (See BMP 6.4.4 Infiltration Trench for further design guidelines). This addition of an aggregate bed or trench substantially increases volume control and water quality performance although costs also are increased.

### Grass Swale

Grass swales are essentially conventional drainage ditches. They typically have milder side and longitudinal slopes than their vegetated counterparts. Grass swales are usually less expensive than swales with longer and denser vegetation. However, they provide far less infiltration and pollutant removal opportunities. Grass swales are to be used only as pretreatment for other structural BMPs. Design of grass swales is often rate-based. Grassed swales, where appropriate, are preferred over catch basins and pipes because of their ability to reduce the rate of flow across a site.



## Wet Swales

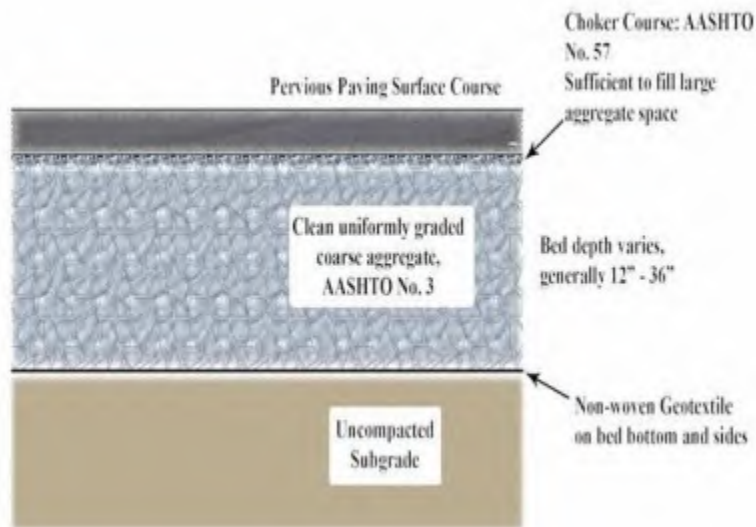
Wet swales are essentially linear wetland cells. Their design often incorporates shallow, permanent pools or marshy conditions that can sustain wetland vegetation, which in turn provides potentially high pollutant removal.



## Maintenance and Inspection Required

- Maintenance activities to be done annually and within 48 hours after every major storm event (> 1 inch rainfall depth)
  - Inspect and correct erosion problems, damage to vegetation, and sediment and debris accumulation (address when > 3 inches at any spot or covering vegetation)
  - Inspect vegetation on side slopes for erosion and formation of rills or gullies, correct as needed.
  - Inspect for pools of standing water; dewater and discharge to an approved location and restore to design grade.
  - Mow and trim vegetation to ensure safety, aesthetics, proper swale operation, or to suppress weeds and invasive vegetation; dispose of cuttings in a local composting facility; mow only when swale is dry to avoid rutting.
  - Inspect for litter; remove prior to mowing.
  - Inspect for uniformity in cross-section and longitudinal slope, correct as needed.
  - Inspect swale inlet (curb cuts, pipes, etc.) and outlet for signs of erosion or blockage, correct as needed.
- Maintenance activities to be done as needed
  - Plant alternative grass species in the event of unsuccessful establishment.
  - Reseed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming.
  - Rototill and replant swale if draw down time is more than 48 hours.
  - Inspect and correct check dams when signs of altered water flow (channelization, obstructions, erosion, etc.) are identified.
  - Water during dry periods, fertilize, and apply pesticide only when absolutely necessary.
- Winter maintenance considerations
  - Inspect swale immediately after the spring melt, remove residuals (e.g. sand) and replace damaged vegetation without disturbing remaining vegetation.
  - If roadside or parking lot runoff is directed to the swale, mulching and/or soil aeration/manipulation may be required in the spring to restore soil structure and moisture capacity and to reduce the impacts of deicing agents.
  - Use nontoxic, organic deicing agents, applied either as blended, magnesium chloride-based liquid products, or as pretreated salt.
  - Use salt-tolerant vegetation in swales.

## Pervious Pavement with Infiltration Beds



Pervious pavement consists of a permeable surface course underlain by a uniformly-graded stone bed which provides temporary storage for peak rate control and promotes infiltration. The surface course may consist of porous asphalt, porous concrete, or various porous structural pavers laid on uncompacted soil.

### Variations

#### Pervious Bituminous Asphalt



Pervious asphalt pavement is standard bituminous asphalt in which the fines have been screened and reduced, allowing water to pass through small voids. Pervious asphalt is placed directly on the stone subbase in a single 3 ½ inch lift that is lightly rolled to a finish depth of 2 ½ inches. Because pervious asphalt is standard asphalt with reduced fines, it is similar in appearance to standard asphalt. Recent



research in open-graded mixes for highway application has led to additional improvements in pervious asphalt through the use of additives and higher-grade binders. Pervious asphalt is suitable for use in any climate where standard asphalt is appropriate.



Pervious Concrete Pervious Portland Cement Concrete, or pervious concrete, was developed by the Florida Concrete Association and has seen the most widespread application in Florida and southern areas. Like pervious asphalt, pervious concrete is produced by substantially reducing the number of fines in the mix in order to establish voids for drainage. In northern and mid-Atlantic climates such as Pennsylvania, pervious concrete should always be underlain by a stone subbase designed for stormwater management and should never be placed directly onto a soil subbase. While pervious asphalt is very similar in appearance to standard asphalt, pervious concrete has a coarser appearance than its conventional counterpart. Care must be taken during placement to avoid working the surface and creating an impervious layer. Pervious concrete has been proven to be an effective stormwater management BMP. Additional information pertaining to pervious concrete, including specifications, is available from the Florida Concrete Association and the National Ready Mix Association.

Pervious Paver Blocks Pervious Paver Blocks consist of interlocking units (often concrete) that provide some portion of surface area that may be filled with a pervious material such as gravel. These units are often very attractive and are especially well suited to plazas, patios, small parking areas, etc. A number of manufactured products are available, including (but not limited to): • Turfstone; UNI Eco-stone; Checkerblock; EcoPaver As products are always being developed, the designer is encouraged to evaluate the benefits of various products with



respect to the specific application. Many paver products recommend compaction of the soil and do not include a drainage/storage area, and therefore, they do not provide optimal stormwater management benefits. A system with a compacted subgrade will not provide significant infiltration.



Reinforced Turf and Gravel Filled Grids Reinforced Turf consists of interlocking structural units that contain voids or areas for turf grass growth and are suitable for traffic loads and parking. Reinforced turf units may consist of concrete or plastic and are underlain by a stone and/or sand drainage system for stormwater management. There are also products available that provide a fully permeable surface through the use of plastic rings/grids filled with gravel. Reinforced Turf applications are excellent for Fire Access Roads, overflow parking, occasional use parking (such as at religious facilities and athletic facilities). Reinforced turf is also an excellent application to reduce the required standard pavement width of paths and driveways that must occasionally provide for emergency vehicle access. While both plastic and concrete units perform well for stormwater management and traffic needs, plastic units tend to provide better turf establishment and longevity, largely because the plastic will not absorb water and diminish soil moisture conditions. A number of products (e.g. Grasspave, Geoblock, GravelPave, Grassy Pave, Geoweb) are available and the designer is encouraged to evaluate and select a product suitable to the design in question.

### **Maintenance and Inspection Required**

- Prevent Clogging of Pavement Surface with Sediment
  - Vacuum pavement 2 or 3 times per year.
    - Pavement washing systems or compressed air units are not recommended.
  - Maintain planted areas adjacent to pavement.
  - Immediately clean any soil deposited on pavement.
  - Do not allow construction staging, soil/mulch storage, etc. on unprotected pavement surface.
  - Clean inlets draining to the subsurface bed twice per year.
- Winter maintenance

- Do not use abrasives such as sand or cinders on or adjacent to the pervious pavement.
  - Set snow plow blade slightly higher than usual.
- Repairs
  - Potholes in the pervious pavement are unlikely.
  - For damaged areas of less than 50 square feet, a sunken area could be patched by any means suitable with standard pavement, with the loss of porosity of that area being insignificant. The sunken area can also be filled with pervious mix.
  - If an area greater than 50 sq. ft. is in need of repair, approval of patch type should be sought from either the engineer or owner. Under no circumstance should the pavement surface ever be seal coated. Any required repair of drainage structures should be done promptly to ensure continued proper functioning of the system.

## OTHER BMPS THAT MAY BE BUILT IN THE BOROUGH FOR PA DEP CREDIT

### Infiltration Trenches

An Infiltration Trench is a “leaky” pipe in a stone filled trench with a level bottom. An Infiltration Trench may be used as part of a larger storm sewer system, such as a relatively flat section of storm sewer, or it may serve as a portion of a stormwater system for a small area, such as a portion of a roof or a single catch basin. In all cases, an Infiltration Trench should be designed with a positive overflow.



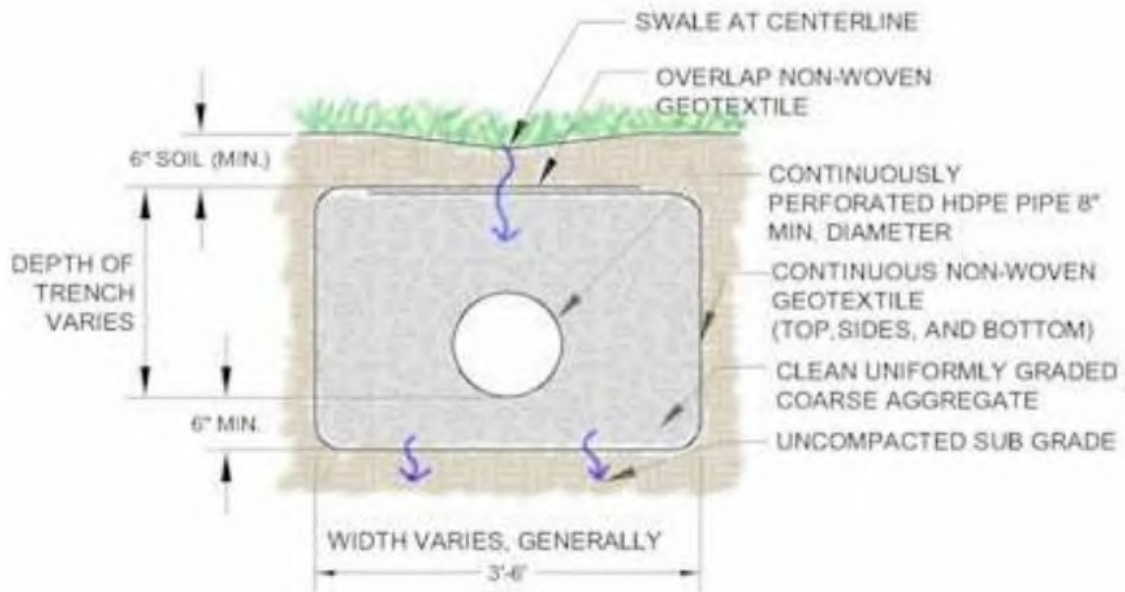
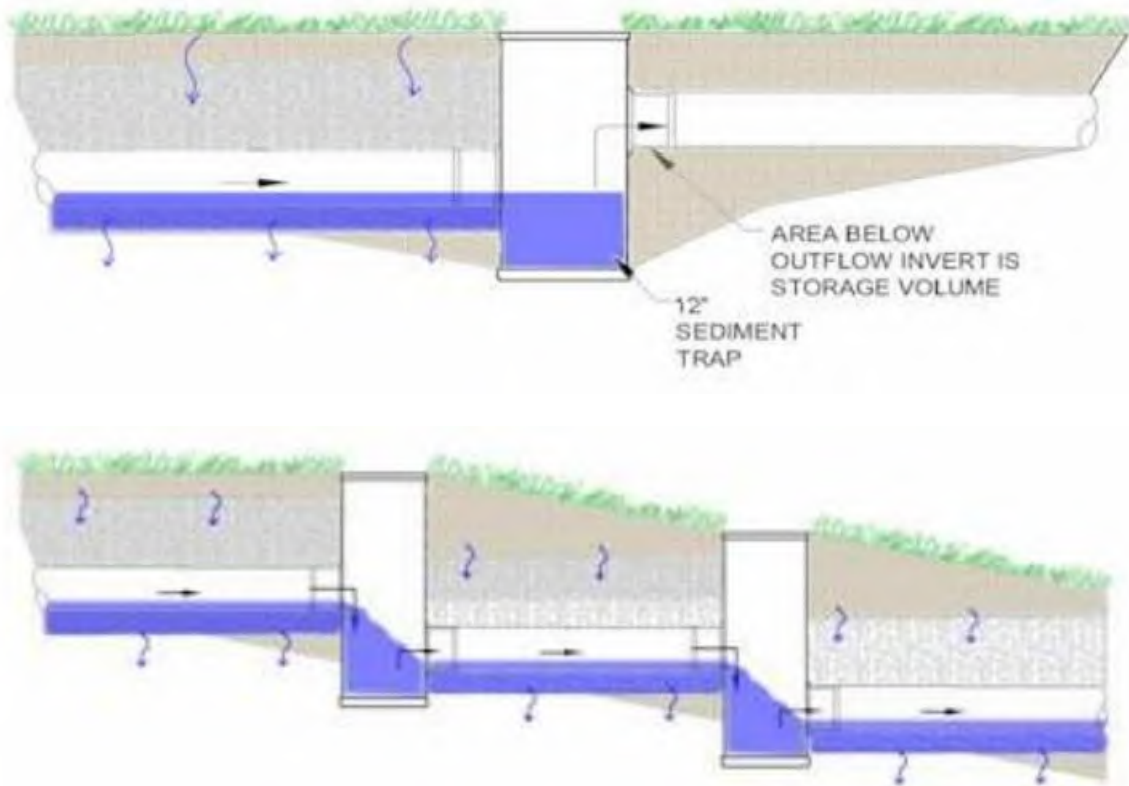


Figure 6.4-1



## Variations

Infiltration Trenches generally have a vegetated (grassed) or gravel surface. Infiltration Trenches also may be located alongside or adjacent to roadways or impervious paved areas with proper design. The subsurface drainage direction should be to the downhill side (away from subbase of pavement), or

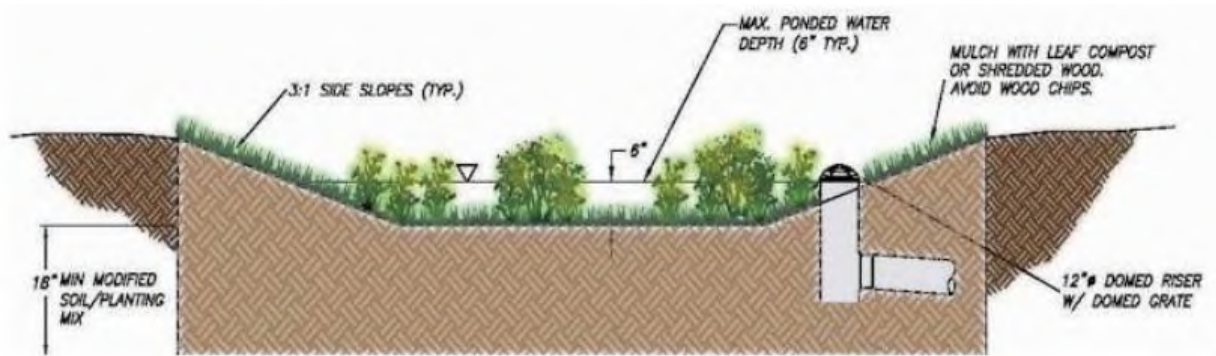
located lower than the impervious subbase layer. Proper measures should be taken to prevent water infiltrating into the subbase of impervious pavement. Infiltration Trenches may also be located down a mild slope by “stepping” the sections between control structures as shown in the figure below. A level or nearly level bottom is recommended for even distribution.

### **Maintenance and Inspection Required**

- Catch Basins and Inlets should be inspected and cleaned at least 2 times per year.
- The vegetation along the surface of the Infiltration Trench should be maintained in good condition, and any bare spots revegetated as soon as possible.
- Vehicles should not be parked or driven on a vegetated Infiltration Trench, and care should be taken to avoid excessive compaction by mowers.



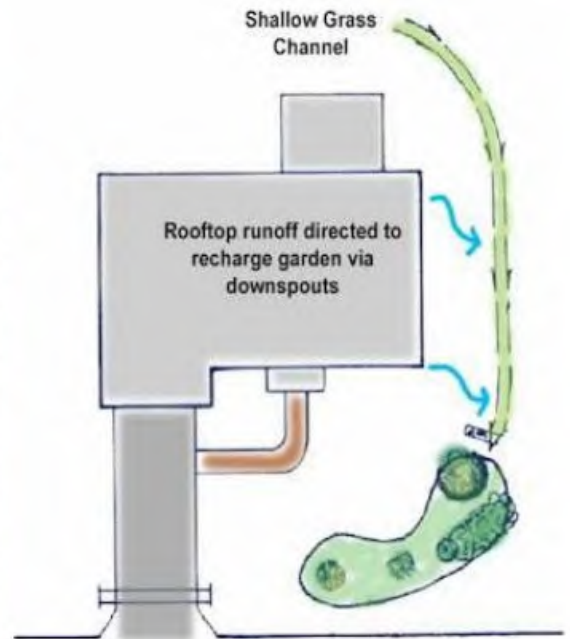
## Rain Gardens/Bioretention



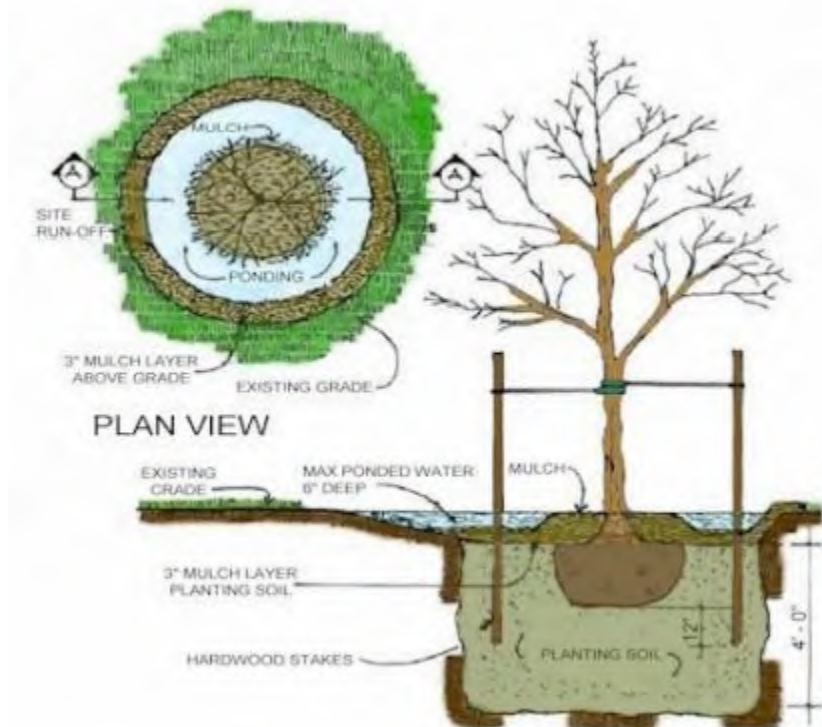
A Rain Garden (also called Bioretention) is an excavated shallow surface depression planted with specially selected native vegetation to treat and capture runoff.

## Example Applications

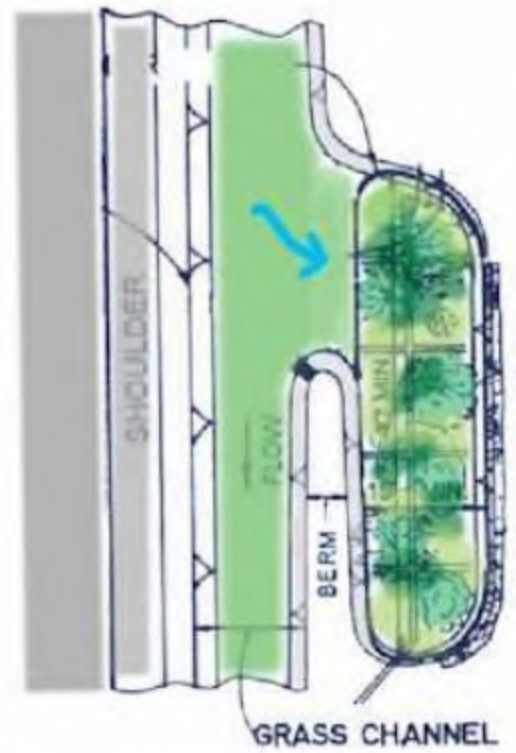
- Residential On-lot



- Tree and Shrub Pits



- Roads and Highways



- Parking Lot Island Bioretention



## **Maintenance and Inspection Required**

- While vegetation is being established, pruning and weeding may be required.
- Detritus may also need to be removed every year. Perennial plantings may be cut down at the end of the growing season.
- Mulch should be re-spread when erosion is evident and be replenished as needed. Once every 2 to 3 years the entire area may require mulch replacement.
- Bioretention areas should be inspected at least two times per year for sediment buildup, erosion, vegetative concerns, etc.
- During periods of extended drought, bioretention areas may require watering.
- Trees and shrubs should be inspected twice per year to evaluate health.



## Constructed Wetlands

Constructed Wetlands are shallow marsh systems planted with emergent vegetation that are designed to treat stormwater runoff.

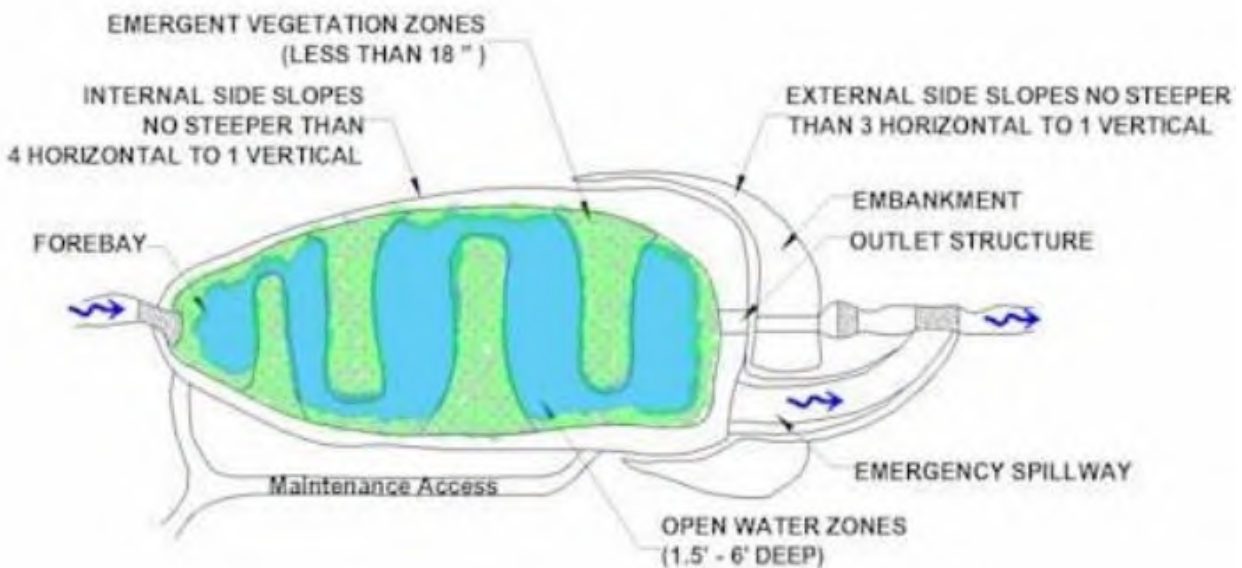
### Variations

- Shallow Wetlands are large surface area CWs that primarily accomplish water quality improvement through displacement of the permanent pool.
- Extended Detention Shallow Wetlands are similar to Shallow Wetlands but use extended detention as another mechanism for water quality and peak rate control.
- Pocket Wetlands are smaller CWs that serve drainage areas between approximately 5 and 10 acres and are constructed near the water table.
- Pond/Wetland systems are a combination of a wet pond and a constructed wetland.

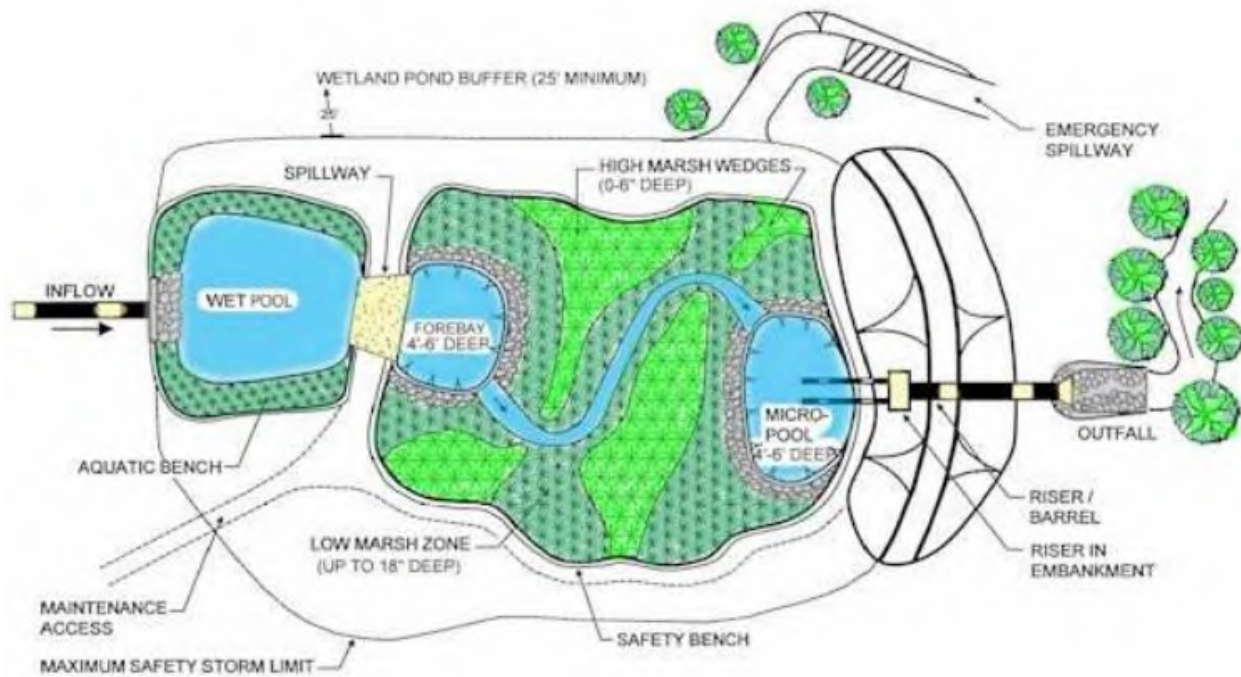


### Applications

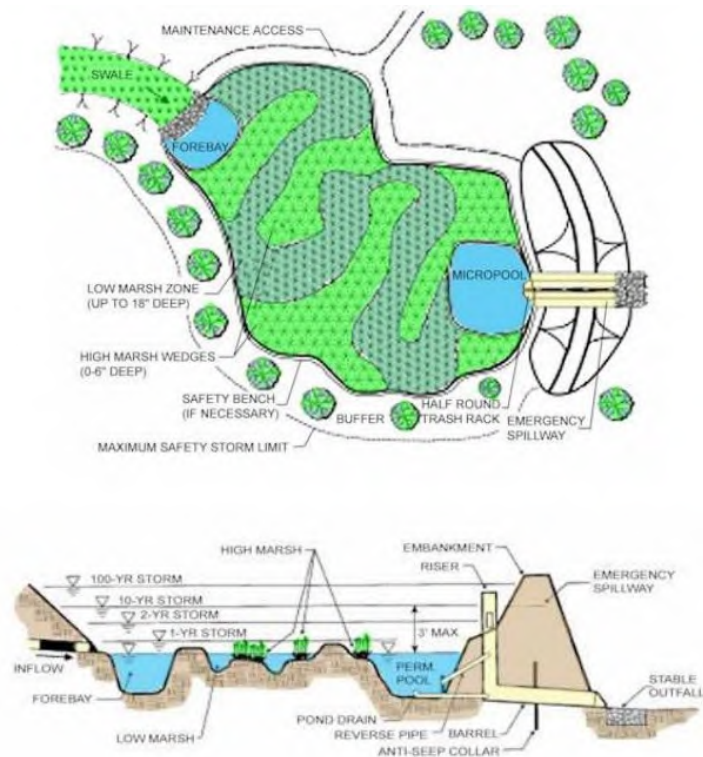
Alternating bands of deeper water and shallow marsh.



## Wet Pond/Wetland System



## Pocket Wetland





## **Maintenance and Inspection Required**

- During the first growing season, vegetation should be inspected every 2 to 3 weeks.
- During the first 2 years, constructed wetlands should be inspected at least 4 times per year and after major storms (> 2 inches of rainfall in 24 hours).
  - Inspections should assess the vegetation, erosion, flow channelization, bank stability, inlet/outlet conditions, and sediment/debris accumulation.
- Wetland and buffer vegetation may require support – watering, weeding, mulching, replanting, etc. during the first 3 years. Undesirable species should be removed and desirable replacements planted if necessary.
- Once established, they should be inspected at least semiannually and after major storms as well as rapid ice breakup.
- Vegetation should maintain at least an 85% cover of the emergent vegetation zone in the summer so that there is adequate regrowth before winter.
- Annual harvesting of vegetation may increase the nutrient removal. Care should be taken to avoid disturbance, especially of bottom sediments, during harvesting. The potential disturbance from harvesting may outweigh its benefits.
- Sediment should be removed from the forebay before it occupies 50% of the forebay, typically every 3 to 7 years.

## REFERENCES

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"Guidance for Preparing Standard Operating Procedures." *Guidance for Preparing Standard Operating Procedures*, United States Environmental Protection Agency, 6 July 2016, [www.epa.gov/quality/guidance-preparing-standard-operating-procedures](http://www.epa.gov/quality/guidance-preparing-standard-operating-procedures)  
<https://www.epa.gov/quality/guidance-preparing-standard-operating-procedures>

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"UNITED STATES DEPARTMENT OF LABOR." *Occupational Safety and Health Administration*, United States Department of Labor, 2013, [www.osha.gov/Publications/OSHA3646.html](http://www.osha.gov/Publications/OSHA3646.html).

"Pennsylvania Stormwater Best Management Practices Manual – Chapter 6: Structural BMPs." *DEP Department of Environmental Protection*, Pennsylvania Department of Environmental Protection, 2006, <http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=7922&DocName=CHAPTER%206%20-%20STRUCTURAL%20BMPS.PDF%20%20%3Cspan%20style%3D%22color%3Agreen%3B%22%3E%3C%2Fspan%3E%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E%3C%2Fspan%3E>

# ATTACHMENT 5.2

BMP INSPECTIONS REPORT

# **Structural BMP (Best Management Practice) Inspections**

**Annual Inspections for Reporting Period**

**7/1/2019 - 6/30/2020**

**Inspections Conducted on 6/17/2020 - 6/24/2020**

**Report Produced: 7/2/2020**

**Inspections Conducted By: ARRO Consulting**

## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP016004

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** Yes

**Describe Maintenance:** Fix the rip rap, south east corner

**Maintenance Complete?:** Yes

**BMP Inspection Status:** Inspection Failed - Maintenance Necessary

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP016002

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

*Field Photograph(s):*





## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMPOP006001

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Private

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMPOP005002

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Private

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed after Maintenance Conducted

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP016001

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP001J001P

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Private

**Inspection Date:** 6/23/2020

**Maintenance Needed?:** Yes

**Describe Maintenance:** Cleaning of inlets.

**Maintenance Complete?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP017001

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Private

**Inspection Date:** 6/23/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMPOP005001

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP011001P

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Private

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMPOL005P001P

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Private

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP016005

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP004001

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/23/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP016003

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/23/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP006001

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):** BMP017002P

**Structure/Feature Location:** Spring Grove Borough, Pennsylvania

**Responsible Party:** Spring Grove Borough

**Inspection Date:** 6/17/2020

**Maintenance Needed?:** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

# ATTACHMENT 6.1

TRAINING DOCUMENTATION AND SIGN IN SHEET



# Annual Stormwater Pollution Prevention Planning Training for Borough Staff



Prepared May 2020 by





# Training Outline

- ▶ Training Purpose
- ▶ Spring Grove's Stormwater Permit and Program
- ▶ Minimum Control Measures (MCMs) and Training Requirements
  - ▶ Education
  - ▶ Involvement
  - ▶ Illicit Discharge Detection and Elimination
  - ▶ Construction/Post-Construction Stormwater Management
  - ▶ Good Housekeeping Procedures
  - ▶ Questions/Comments





# The Purpose of Employee Training on Stormwater (MS4)

- ▶ Fulfill the requirements of Spring Grove's small municipal separate storm sewer systems (MS4s) permit.
- ▶ Educate Staff on specifications of permit requirements related to employee activities.
- ▶ Enable Staff to carry out daily functions while simultaneously protecting our waterways.
- ▶ Prepare Staff to effectively and efficiently respond to incidents that could potentially harm our environment, including but not limited to waterways.
- ▶ Provide Staff a forum to contribute thoughts and/or questions related to Stormwater Management.



# Spring Grove's Stormwater (MS4) Program

- ▶ The EPA's National Pollutant Discharge Elimination System (NPDES) general permit covers small municipal separate storm sewer systems (MS4s) in certain portions of the State of Pennsylvania
  - ▶ [For More Info - https://www.epa.gov/npdes/npdes-permit-basics](https://www.epa.gov/npdes/npdes-permit-basics)
- ▶ Spring Grove is categorized as an MS4 designated by the Pennsylvania Department of Environmental Protection (PA DEP) under the Clean Water Act (CWA) and associated regulations.
- ▶ Spring Grove is a PAG-13 General Permit holder
- ▶ MS4 owners and operators covered under this general permit must manage, implement, and enforce management programs for controlling all stormwater discharges
- ▶ [Link to PA DEP's NPDES General Permit Requirements](#)





# Spring Grove's Stormwater (MS4) Program (Continued)

- ▶ 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.



# GIS Access

- ▶ Spring Grove Borough manages its Stormwater data via ArcGIS Online
- ▶ Link to The Borough's ArcGIS Online Account
  - ▶ <https://bsgpa.maps.arcgis.com/home/index.html>
  - ▶ SGB Stormwater Management Dashboard
    - ▶ <https://arcg.is/1KD4OW>
  - ▶ You will need credentials supplied by The Borough Manager to access The Borough's GIS Data.
  - ▶ Staff has the ability to view GIS data for The Borough through a web browser (desktop or mobile).
  - ▶ Survey 123 Download and Use Instructions
    - ▶ <https://www.youtube.com/watch?v=jfaSLJ6BYr4&list=PLGZUzt4E4O2L7h2PdpL7st93nURZAW58d>
    - ▶ Utilized for inspections and maintenance
    - ▶ Available in a web browser



# Minimum Control Measures (MCMs)



MCM #1- PUBLIC  
OUTREACH AND  
EDUCATION



MCM #2 - PUBLIC  
INVOLVEMENT AND  
PARTICIPATION



MCM#3 - ILLICIT  
DISCHARGE DETECTION  
AND ELIMINATION  
(IDDE)



MCM#4 -  
CONSTRUCTION SITE  
STORMWATER RUNOFF  
CONTROL



MCM#5 - POST  
CONSTRUCTION  
STORMWATER  
MANAGEMENT



MCM#6 - POLLUTION  
PREVENTION AND  
GOOD HOUSEKEEPING



# MCM Descriptions

- ▶ MCM 1
  - ▶ Permittees are required to implement and maintain a public education and outreach program, and distribute education materials to the community and employees to help reduce the discharge of pollutants caused by stormwater runoff.
- ▶ MCM 2
  - ▶ Permittees are required to create and foster opportunities for public participation in the MS4 management program for controlling stormwater discharges. Recommended activities include adopt-a-stream programs, public surveys, storm drain stenciling, stream cleanups, tree plantings, and Earth Day events.
- ▶ MCM 3
  - ▶ Permittees are required to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4 in accordance with 40 CFR § 122.34(b)(3). A permittee will satisfy this MCM by field screening outfalls, inspecting the MS4 to identify sources of illicit discharges, eliminating illegal connections or illicit discharges, and enforcing penalties where appropriate. The illicit discharge program must also address illegal dumping and spills.



# MCM Descriptions(continued)

## ▶ MCM 4

- ▶ Permittees are required to maintain an ordinance to require the implementation of E&S control BMPs, including sanctions for non-compliance, that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) by September 30, 2022. The permittee may not issue a building or other permit or final approval to those without valid NPDES permit coverage under 25 Pa. Code Chapter 102. DEP or the applicable county conservation district must be notified within 5 days of any permit applications involving an earth disturbing activity involving one acre or more, in accordance with Pa. Code § 102.42.

## ▶ MCM 5

- ▶ Permittees are required to maintain an ordinance to require implementation of PCSM BMPs, including sanctions for non-compliance, that is consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) by September 30, 2022. Use of low impact development (LID) should be expanded and encouraged, as well as ensuring adequate O&M of all PCSM BMPs.

## ▶ MCM 6

- ▶ Permittees are required to develop and implement an operation and maintenance program that includes a training component to prevent and reduce pollutant runoff from municipal operations in accordance with 40 CFR § 122.34(b)(6). A permittee will satisfy this MCM by developing, implementing, and maintaining procedures for pollution prevention and good housekeeping on permittee owned or operated properties and / or roads.



# MCM 1 - Education and Outreach

- ▶ Annual Employee Training Program (THIS IS IT!)
- ▶ Target Audience Group
  - ▶ Staff is a Target Audience
- ▶ Educational Materials
- ▶ Public Form for Complaints Regarding Water Quality or Illicit Discharge





# What is Stormwater?

- ▶ Stormwater is rainwater or melted snow that runs off streets, lawns and other sites. When stormwater is absorbed into soil, it is filtered and ultimately replenishes aquifers or flows into streams and rivers.
- ▶ In developed areas, impervious surfaces such as pavement and roofs prevent precipitation from naturally soaking into the ground. Instead, water runs rapidly into storm drains, sewer systems and drainage ditches and can cause
  - ▶ Downstream flooding
  - ▶ Stream bank erosion
  - ▶ Increased turbidity (muddiness created by stirred up sediment) from erosion
  - ▶ Habitat destruction
  - ▶ Combined storm and sanitary sewer system overflows
  - ▶ Infrastructure damage
  - ▶ Contaminated streams, rivers and coastal water





# Sanitary Sewer vs. Storm

- The Sanitary Sewer receives water from interior plumbing such as toilets, sinks and showers and goes to a treatment plant for processing.
- The Storm Sewer receives stormwater from the street, parking lots, roofs, yards and sidewalks. This water goes **DIRECTLY TO THE NEAREST STREAM, WITHOUT ANY TREATMENT.**





# Typical Stormwater Pollutants

- ▶ Petroleum
  - ▶ Oil, Grease, Leaking Vehicles
- ▶ Cooking greases/oils (homes, restaurants)
- ▶ Sediment (soil)
- ▶ Trash/garbage
- ▶ Engine coolants/antifreeze (glycols)
- ▶ Heavy metals from vehicle break parts and tires
- ▶ Fertilizers and pesticides (residential, industrial, agriculture uses)
- ▶ Fecal Bacteria
  - ▶ Pet Waste, Human Waste from sewer breaks
- ▶ Detergents from outdoor car washing, mop wash water dumped outdoors, etc.
- ▶ Liquids from uncovered dumpsters
  - ▶ printing inks, food, etc



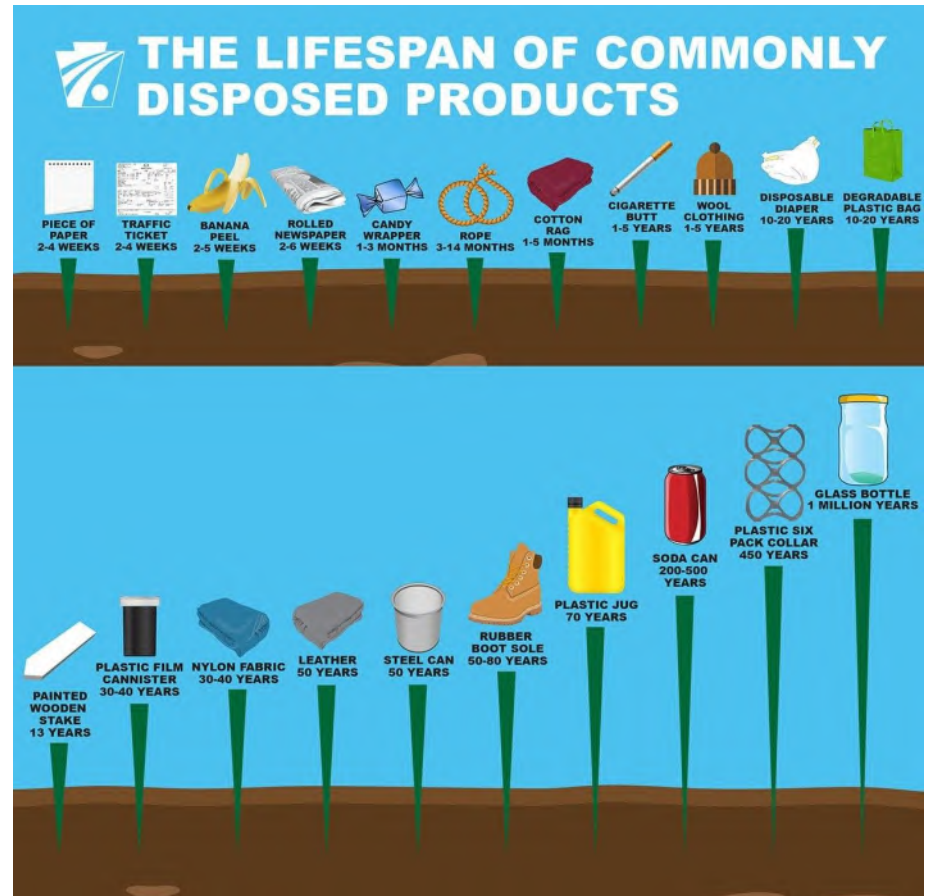


# MCM 2 - Involvement and Participation

- ▶ Involvement of Target Audience Groups in Stormwater related events that promote active participation and further the education of Spring Grove's Stormwater program.
  - ▶ Adopt-A-Stream
  - ▶ Public Surveys
  - ▶ Storm Drain Stenciling
  - ▶ Rain Barrel Workshops
  - ▶ Social Media Driven Events
  - ▶ Stream Cleanups
  - ▶ Tree Plantings
  - ▶ Earth Day Events

# Spring Grove Borough Community Cleanup Week

- ▶ Did you know the most common litter in streams is household trash?
- ▶ Plastic bags, bottles, food wrappers, and many other items can quickly be transported by wind and/or surface water runoff during storm events (storm water).
- ▶ Products such as cleaners, lawn fertilizers, and vehicle fluids are often inadvertently collected into storm drains. Organic material such as leaves, sticks, gravel and grass clippings also can be carried by storm water into the municipal system.
- ▶ These materials often make their way into nearby waterways and eventually the ocean.
- ▶ These are all forms of water pollution, and pose a great risk to aquatic life, water quality, and even our own health and safety.
- ▶ During the **Community Cleanup Week**, join your neighbors and local businesses (while maintaining social distancing!) and help keep Spring Grove Borough Clean!
- ▶ Submit photos and/or a simple description of what you and your household or business cleaned up on The Borough's Facebook page. Use the hashtag #CleanSGB for a chance to be featured on our page.
- ▶ Please remember to dispose of waste in an appropriate manner. We encourage the use of reusable or bio-degradable containers and/or bags! Together we can keep our community clean!
- ▶ You can learn more about the impacts of litter on our waters and other ways to help here:
  - ▶ <https://www.epa.gov/trash-free-waters>
- ▶ Contact: [manager@springgroveboro.com](mailto:manager@springgroveboro.com) or 717-225-5791





# MCM 3 - Illicit Discharge Detection and Elimination

- ▶ §339-38 of the Borough's Stormwater Management Ordinance allows Borough personnel to obtain access to private property for stormwater related activities. §339-36 prohibits illicit discharges into the Borough's stormwater system
- ▶ [Public Illicit Discharge Form](#)
  - ▶ Borough Staff is notified immediately if an Illicit Discharge is reported
  - ▶ Public can also call Borough Office to report an illicit discharge
- ▶ Standard operating procedures for illicit discharge elimination and detection
  - ▶ [ARRO has developed a Survey123-based form to complete outfall inspections](#)
  - ▶ [Paper Copies can also be downloaded here](#)





# MCM 3 -

## Illicit Discharge Detection and Elimination (continued)

- ▶ Dry Weather Screening Procedures
  - ▶ Dry weather screening is a field test method for inspecting stormwater drainage areas to help locate and identify illicit discharges to a municipal stormwater system. Field testing or screening is designed primarily for assessing flowing discharges from a stormwater conveyance system.
- ▶ The Borough has developed a Standard Operating Procedure (SOP) for Dry Weather Screenings
  - ▶ Hard copies will be available for staff at each facility, as well as digitally through Borough Administration.
  - ▶ Anyone performing dry weather screens must be properly trained in the **(I) Site Procedures, (II) Monitoring Procedures and (III) Illicit Discharge Elimination Procedures** outlined in Spring Grove Borough's Dry Weather Screening Protocols.
  - ▶ The Borough **MUST** Maintain complete records of IDDE program investigations and make available to PA DEP during field reviews of the permittee's MS4 program.



# Dry Weather Screening Protocols

- ▶ 20% of Borough outfalls must be screened each year, for a total of 100% inspected at the end of the 5-year term
  - ▶ Each outfall with observed dry weather flow (discharge occurring more than 72 hours after a rainfall event) must be inspected every year, even if the flow was runoff or groundwater
- ▶ Inspect, document, and photograph outfall conditions using PA DEP's MS4 Outfall Field Screening Report, or the Survey123 Staff Outfall Inspection Form
  - ▶ This form can later be exported to DEP's format and filed according to the annual MS4 reporting cycle

# Dry Weather Screening Form (Survey123)

Outfall Inspection (Staff)

▼ Background Information

Permittee Name

NPDES Permit Number

Date of Inspection

Monday, June 1, 2020

Outfall ID

Land Use(s) in Drainage Area (Select all that apply)

☐ Commercial

☐ Industrial

☐ Open\_Space

☐ Urban\_Residential

☐ Suburban\_Residential

☐ Other

Latitude

Longitude

Dry Weather Inspection?

☐ Yes

☐ No

Outfall Inspection (Staff)

Date of Previous Precipitation

Date

Amount of Previous Precipitation (in)

Inspector Name(s)

Were Photographs Taken?

☐ Yes

☐ No

▼ Outfall Description

Outfall Type

☐ Closed Pipe

☐ Open Channel

Dry weather flow present at outfall during inspection?

☐ Yes

☐ No

▼ Responsible Official Certification

Responsible Official Name

Telephone Number

Date



# If an Illicit Discharge is Found ...

- ▶ Complete the screening form for the outfall and be sure to photograph and accurately describe the nature of the flow
- ▶ A sample of the flow should be collected and tested for the following parameters:
  - ▶ Conductivity
  - ▶ Temperature
  - ▶ Ammonia-Nitrogen
  - ▶ pH
  - ▶ Chlorine
  - ▶ Copper
  - ▶ Detergents
  - ▶ Color
  - ▶ Oil Sheen
  - ▶ Odor
  - ▶ Trash, Sewage, and Surface Scum
- ▶ All attempts should be made to identify the source of the illicit discharge by inspecting upstream stormwater infrastructure. Referencing the MS4 map can aid in narrowing down the search area.



# MCM 4 - Construction Site Stormwater Runoff Control

- ▶ The Borough has an ordinance that requires the implementation and maintenance of Erosion and Sediment Control BMPs, including sanctions for non-compliance as applicable.
- ▶ Appropriate staff should review the Chapter 339 Stormwater Management Ordinance and other associated document for more information.
  - ▶ <https://ecode360.com/30595386>



# MCM 5 - Post-Construction Stormwater Management

- ▶ The Borough has an ordinance that requires the implementation and maintenance of post-construction stormwater management for new development and redevelopment projects, including sanctions for non-compliance.
- ▶ Appropriate staff should review the Chapter 339 Stormwater Management Ordinance and other associated document for more information.
  - ▶ <https://ecode360.com/30595386>
- ▶ The Borough is required to conduct annual inspections for structural BMPs
- ▶ The Borough is required to conduct regular maintenance activities associated with publicly owned BMPs. This may include the following:
  - ▶ Mowing
  - ▶ Plant Composition and Health
  - ▶ Trash and Debris Accumulation
  - ▶ Sedimentation and Erosion
  - ▶ Dewatering
  - ▶ Overall Functionality based on Design and Intent
- ▶ The Borough has developed a Standard Operating Procedure (SOP) for Publicly Owned BMPs
  - ▶ Hard copies will be available for staff at each facility, as well as digitally through Borough Administration.
  - ▶ An Inspection and Maintenance Form has been provided in the SOP, as well as within the [Borough's Survey123 account](#).





# BMP Inspection Considerations

- ▶ Utilize BMP Inspection Survey123 form to document BMP conditions annually
- ▶ What to look for when inspecting stormwater BMPs:
  - ▶ Accumulation of sediment, litter, grease
  - ▶ Standing water
  - ▶ Erosion; animal holes
  - ▶ Overgrown vegetation
  - ▶ Poor vegetation establishment
  - ▶ Obstructed inlet/outlet
  - ▶ Structural damage





# BMP Maintenance Considerations

- ▶ All BMPs are different and require individualized maintenance, but generally, the following maintenance needs can be expected:
  - ▶ Clean upstream inlets and outlets to ensure they are free of sediment and debris buildup
  - ▶ Replant vegetation if bare spots or poor establishment is observed
  - ▶ Identify and promptly correct erosion or slope stability problems
  - ▶ Discharge standing water to an approved location (except in the case of wet ponds and wetlands)
  - ▶ Properly dispose of litter prior to mowing
- ▶ More specific maintenance guidelines can be referenced in the BMPs SOP



# MCM 6 -

## Pollution Prevention Plan and Good Housekeeping Procedures

- ▶ The Borough is required to develop and implement an operation and maintenance program that includes a training component to prevent and reduce pollutant runoff from municipal operations.
- ▶ Provide annual training aimed to eliminate the discharge of pollutants during municipal operations.
  - ▶ Spill Prevention and Response
  - ▶ Waste Disposal
  - ▶ Routine Visual Inspections to Detect and Correct Potential Discharges At Properties Owned or Operated By The Permittee
- ▶ Develop, implement, and maintain a good housekeeping plan for Borough-owned or operated properties where the following occurs.
  - ▶ Vehicle or Heavy Equipment Maintenance
  - ▶ Handling of:
    - ▶ Deicers, fertilizers, pesticides, road maintenance materials, or hazardous materials.



# MCM 6 - Pollution Prevention Plan and Good Housekeeping Procedures

- ▶ Facilities Owned by Spring Grove Borough
  - ▶ Public Works Shop
  - ▶ Wastewater Treatment Plant
  - ▶ Municipal Building
  - ▶ Red Lion Bus Property
  - ▶ Community Center
  - ▶ Regional Parks and Recreation Center



# Potential Sources of Pollution at Your Facility

- ▶ Material Loading and Unloading
  - ▶ - Ex. Bulk chemicals, hypochlorite, petroleum products, etc.
- ▶ Outdoor storage of materials & equipment
  - ▶ - Ex. soil, mulch, petroleum and machinery storage
- ▶ Dust or Particulate Generating Processes
  - ▶ - Gravel parking lots or roads
- ▶ Illicit Connections
  - ▶ - Ex. Plumbing mistakes/cross connections where interior drains discharge to storm sewer
- ▶ Improper Waste Management
  - ▶ - Ex. Uncovered dumpsters



# Review of Standard Operating Procedures (SOPs)



1. Municipal Vehicle Operations
2. Municipal Vehicle Maintenance
3. Municipal Vehicle Fueling
4. Municipal Equipment Washing
5. Sodium Hypochlorite
6. Paint
7. Herbicides
8. Lawn Fertilizers
9. Petroleum Products
10. Street Sweeping Debris
11. Calcium Chloride
12. Salt Storage Shed
13. Brine
14. Generators
15. Flammable Liquids
16. Municipal Lawn Care
17. Batteries
18. Household Cleaners
19. Safe T Sorb
20. Aqua Phalt





# 1. MUNICIPAL VEHICLE OPERATION

- ▶ Vehicle inspection
  - ▶ All Borough vehicles should be inspected prior to operation to ensure that all components are functioning properly
- ▶ Vehicle operation
  - ▶ All Borough vehicles are to be operated in a safe and legal manner
  - ▶ Vehicles should not be driven off of roadways, if possible
  - ▶ If driving must be done off of a roadway, any dirt carried back onto the roadway must be immediately cleaned up using a shovel and broom, or by a street sweeper if possible



## 2. MUNICIPAL VEHICLE MAINTENANCE

- ▶ Public works building
  - ▶ All maintenance on Borough vehicles is performed at either a municipal facility with adequate spill prevention and countermeasure capabilities or at a private garage if maintenance cannot be performed at any municipal facility.
- ▶ Maintenance activities to prevent stormwater contamination
  - ▶ Periodically check vehicles for leaks
    - ▶ Use drip pans to collect leaking fluids and utilize dry cleanup methods whenever possible
  - ▶ Avoid hosing down work areas and do not wash areas containing spillage or contaminants with water
  - ▶ Keep waste streams separate and label and track the recycling/disposal of waste material
  - ▶ Do not pour liquid waste into floor drains, sinks, inlets, or other storm drain or sewer connections
  - ▶ Drain oil filters before recycling
  - ▶ Hazardous waste materials such as gasoline, mineral spirits and solvents are to be properly labeled, stored and disposed of in accordance with federal, state and county regulations
  - ▶ Non-hazardous substances that are contaminated with hazardous substances are also considered a hazardous waste.



### 3. MUNICIPAL VEHICLE FUELING

- ▶ Safe fueling practices
  - ▶ When fueling vehicles, Borough personnel are to observe proper safety techniques and constantly monitor all fueling operations to prevent or react to spillage:
    - ▶ Do not leave a fueling operation unattended.
    - ▶ Shut off engine and ensure that the fuel is the proper type for the equipment.
    - ▶ Discourage “topping off” of vehicle fuel tanks through training and signage.



## 4. MUNICIPAL EQUIPMENT WASHING

- ▶ If a commercial car wash is not used, vehicles should be washed at a municipal facility with adequate containment and drainage that does not discharge to a storm sewer system
- ▶ The wash water is to be directed into drainage that does not discharge to a storm sewer system and not directed outdoors.
- ▶ Utilize phosphate-free biodegradable detergents whenever possible and consider using detergent-based or water-based cleaning systems in place of organic solvent degreasers



## 5. SODIUM HYPOCHLORITE (BLEACH)

- ▶ Use the following precautions when working with Sodium Hypochlorite and associated materials:
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of material needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Store separate from other chemicals
  - ▶ Provide secondary containment



## 6. PAINT

- ▶ Proper handling and disposal techniques
  - ▶ Wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain water or solvent based paints
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of material needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Store separate from other chemicals
  - ▶ Provide secondary containment





## 7. Herbicides

- ▶ Proper handling and disposal techniques
  - ▶ Wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain herbicides
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of product needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Dumping materials into drains or onto the ground is prohibited
  - ▶ Store separate from other chemicals
  - ▶ Provide secondary containment



## 8. LAWN FERTILIZERS

- ▶ Proper handling and disposal techniques
  - ▶ Wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain lawn fertilizers
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of product needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Dumping materials into drains or onto the ground is prohibited
  - ▶ Store separate from other chemicals
  - ▶ Provide secondary containment



## 9. PETROLEUM PRODUCTS

- ▶ Proper handling and disposal techniques
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of product needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Dumping materials into drains or onto the ground is prohibited
  - ▶ All equipment that uses these products should have absorption pads underneath them in case of a fuel or oil leak.
  - ▶ Provide secondary containment



## 10. STREET SWEEPING DEBRIS

- ▶ Street sweeping materials should be disposed of at a sanitary landfill
  - ▶ If the debris have a color or odor associated with them, they are considered hazardous waste and must be disposed of at a proper permitted facility
- ▶ The Pennsylvania Department of Environmental Protection (PA DEP) states the following recommendations for recycling of street sweeping materials:
  - ▶ Reuse as antiskid
  - ▶ Remix within a new salt mixture for winter application on roads
  - ▶ Reuse as the subgrade beneath a paved municipal road or parking lot
  - ▶ Reuse for filling potholes
  - ▶ Reuse as repair material along roads within the municipally or for privately owned roads within the public right- of-way
  - ▶ Reuse in other fill



# 11. CALCIUM CHLORIDE (ROAD SALT)

- ▶ Proper handling and disposal techniques
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of materials needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Dumping materials into drains or onto the ground is prohibited
  - ▶ Store separate from other chemicals
  - ▶ Provide secondary containment



## 12. SALT STORAGE SHED

- ▶ PA DEP and SPC Water Resource Center recommend the following proper handling and disposal procedures
  - ▶ Locate away from water sources
  - ▶ Locate on an impervious surface
  - ▶ Maintain adequate drainage controls to prevent runoff
  - ▶ Locate all salt and de-icing areas outside the 100-year floodplain, areas of localized flooding, and away from stormwater facilities
  - ▶ After loading materials, clean up any spills that occurred
  - ▶ Cover all salt and de-icing material storage piles with tarps, hard shelters, or within dikes/berms





# 13. BRINE

- ▶ Proper handling and disposal procedures
  - ▶ Keep containers closed, except when removing or adding material
  - ▶ Use only the amount of materials needed for the task
  - ▶ Clean up spills as soon as possible
  - ▶ Dispose of waste material in approved cans
  - ▶ Dumping materials into drains or onto the ground is prohibited
  - ▶ Store separate from other chemicals
  - ▶ Provide secondary containment
- ▶ A 23% brine solution may be stored outside; however, if the temperature drops below 0° F, it may freeze. A circulator pump should be installed to reduce the risk of freezing



# 14. GENERATORS

- ▶ Proper handling and disposal procedures for petroleum products, used to power generators
  - ▶ Keep containers closed, except when removing or adding material
  - ▶ Use only the amount of petroleum product needed for the task
  - ▶ Clean up spills as soon as possible
  - ▶ Dispose of waste material in approved cans
  - ▶ Dumping materials into drains or onto the ground is prohibited.
  - ▶ Provide secondary containment.



# 15. FLAMMABLE LIQUIDS

- ▶ Proper handling and disposal procedures
  - ▶ Wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain flammable liquids
  - ▶ Keep containers closed, except when removing or adding material
  - ▶ Use only the amount of product needed for the task
  - ▶ Spills should be addressed immediately
  - ▶ Dispose of waste material in approved waste cans
  - ▶ Dumping materials into drains or onto the ground is prohibited
  - ▶ Store chemicals separate from each other
  - ▶ Provide secondary containment



# 16. MUNICIPAL LAWN CARE

- ▶ Lawn care vehicle inspection
  - ▶ All Borough lawn vehicles should be inspected prior to operation to ensure that all components are functioning properly
- ▶ Lawn care vehicle operation
  - ▶ All Borough lawn care vehicles are to be operated in a safe and legal manner
  - ▶ Vehicles should not be driven off of roadways, if possible
  - ▶ If driving must be done off of a roadway, any dirt carried back onto the roadway must be immediately cleaned up using a shovel and broom, or by a street sweeper if possible
- ▶ Disposal of debris
  - ▶ Lawn Debris should be collected in the proper containers and disposed of via compost piles. Composting requires three basic ingredients (EPA, 2018):
    - ▶ Browns- This includes materials such as dead leaves, branches, and twigs
    - ▶ Greens- This includes materials such as grass clippings, vegetable waste, fruit scraps, and coffee grounds
    - ▶ Water- Having the right amount of water, greens, and browns is important for compost development
  - ▶ Items that will be used for compost from lawn care activities are cardboard, yard trimmings (untreated with chemical pesticides), grass clippings, hay and straw, leaves, sawdust, and wood chips.



# 17. BATTERIES

- ▶ Proper handling and disposal procedures
  - ▶ Wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling batteries
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of batteries needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Store separately from other chemicals
  - ▶ Provide secondary containment



# 18. HOUSEHOLD CLEANERS

- ▶ Household cleaners may contain ammonia, bleach, aerosol, corrosive substances, and other harmful chemicals
- ▶ Proper handling and disposal procedures
  - ▶ Wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying household cleaners
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of household cleaner needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Do not dump excess materials into drains or onto the ground
  - ▶ Separate from other chemicals
  - ▶ Provide secondary containment





## 19. SAFE T SORB

- ▶ Safe T Sorb is a highly absorbent granule substance that is used for oil, mixtures of soluble oils, acids, paints, inks, water and other liquid spills
- ▶ Proper handling and disposal procedures
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of product needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Do not dump excess materials into drains or onto the ground
  - ▶ Separate from other chemicals
  - ▶ Provide secondary containment



## 20. AQUA PHALT

- ▶ Aqua Phalt is used to repair cracks or holes on concrete and asphalt surfaces
- ▶ Proper handling and disposal procedures
  - ▶ Keep containers closed, except when removing or adding material (OSHA, 2013)
  - ▶ Use only the amount of product needed for the task (OSHA, 2013)
  - ▶ Clean up spills as soon as possible (OSHA, 2013)
  - ▶ Dispose of waste material in approved cans (OSHA, 2013)
  - ▶ Separate from other chemicals.
  - ▶ Provide secondary containment
  - ▶ The contents of open bags of Aqua Phalt should be moved to plastic containers which are sealed, kept inside, and away from storm drains



# GENERAL SOP: LIQUID spills

- ▶ In the event of an accident involving contaminants, make all attempts to prevent the spilled material from entering the storm sewer system or nearby waterways. This could include diking, damming, absorbing, or removing the material from the affected area. Appropriate spill containment and recovery equipment should be equipped on all vehicles that have the potential for a significant fluid spill. A spill containment kit should include liquid absorbent materials such as absorbent pads, and/or sand.
- ▶ In the event of a spill:
  - ▶ Absorbent materials should be sprinkled around and over the spill and then immediately swept up and placed in a trash bag and disposed of in the Borough's municipal trash.
  - ▶ Dispose of all recovered material properly and in accordance with all applicable state and federal waste disposal regulations.
  - ▶ For any spill from vehicles or equipment that requires more than one (1) bag of liquid absorbent material to absorb, or that threatens to enter the storm sewer system, the police department and fire department should be immediately contacted to provide assistance.
  - ▶ If a major spill occurs and enters a floor drain, notify the Borough's wastewater treatment facility.
  - ▶ The police and fire departments will notify other entities as necessary if the spill has entered the storm sewer system such as the EPA, or PA DEP and downstream water users/intakes.



# GENERAL SOP: SOLID spills

- ▶ Spills should be immediately addressed as this will mitigate the potential for runoff to enter the Borough's MS4. Hazardous material cleanup debris should be disposed in proper containers. Do not allow debris to enter drains that are connected to Borough's stormwater system.
- ▶ In the event of a spill:
  - ▶ Substances should be swept up immediately and should be disposed of in a Borough owned trash bag.
  - ▶ Dispose of all recovered material properly and in accordance with all applicable state and federal waste disposal regulations.
  - ▶ For a major spill, where materials threaten to enter the storm sewer system, the Borough Police Department and Fire Department should be immediately contacted to provide assistance.
  - ▶ If a major spill occurs and enters a floor drain, notify the Borough's Wastewater Treatment Facility.
  - ▶ The Police and Fire Departments will notify other entities as necessary if the spill has entered the storm sewer system such as the EPA, or PA DEP and downstream water users/intakes.



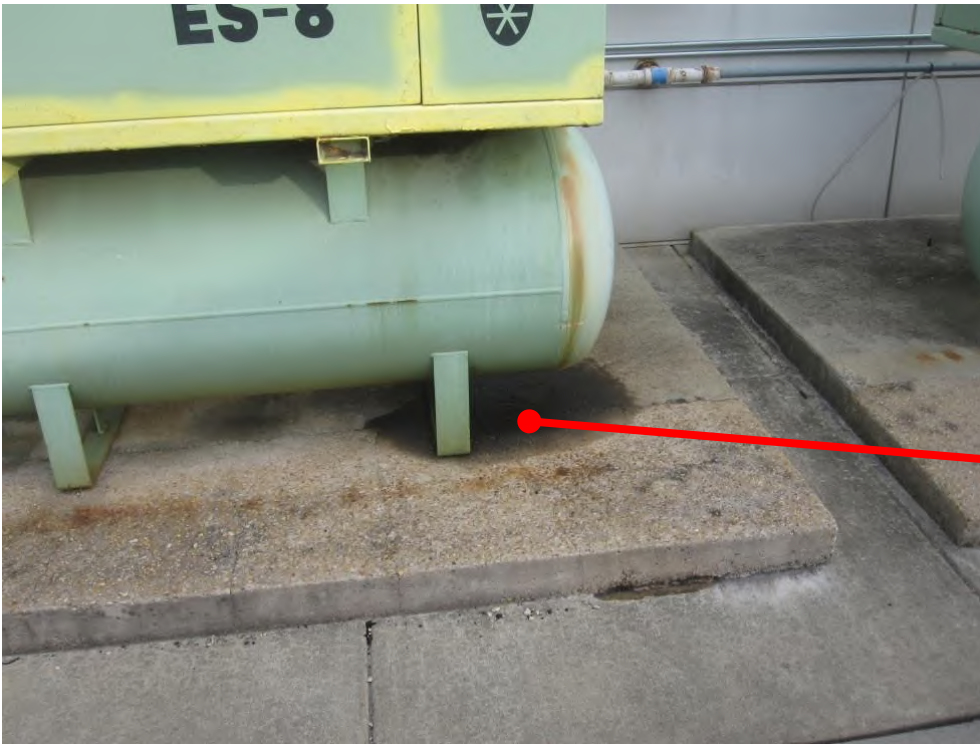
# Common Incidents

- ▶ Forklift + distracted driver + 55 gallon drum = STORMWATER POLLUTION

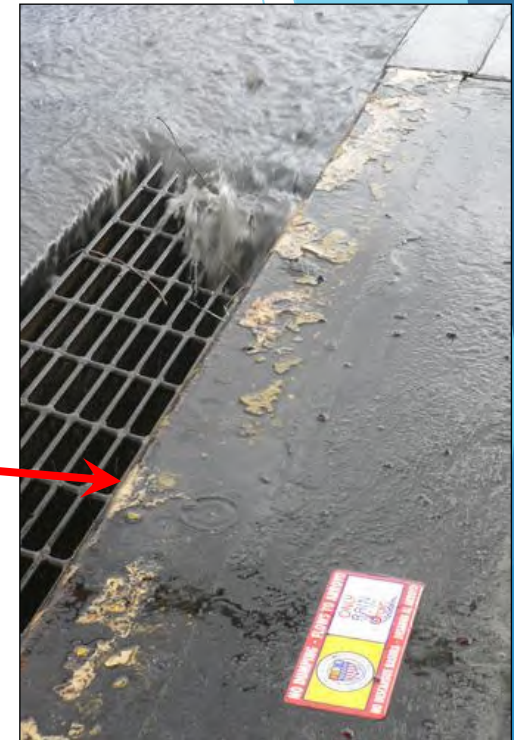


- Spilled liquid chemical from ruptured drum is a potential source of pollution to the local stream.
- It is important that all materials and equipment are stored properly to prevent accidents such as the one shown here.

# Oil Leaking from Outdoor Compressor



Oil leaking from outdoor compressor



Storm sewer inlet

► Rain will wash the oil into the storm sewer and into local streams.





# Spill Response and Notification

- ▶ Major and Minor Spills
- ▶ All spills, indoor or outdoor, must be reported even if they are not yours.





# Spill Response and Notification

- ▶ **Minor** spills are considered to be those of **less than 5-gallons** which pose no significant harm to human health or the environment and have not entered the storm sewer system, stormwater pond, water body or the groundwater table.
- ▶ You are responsible for cleaning up these spills.



# Minor Spills

- ▶ Stop the source of the spill!
  - ▶ Roll drums upright (hole pointing up)
  - ▶ Turn off process
  - ▶ Shut pipe valves
- ▶ Contain spills using booms, pads, absorbent material in the on-site spill kits.
- ▶ Divert runoff from spills away from storm drain inlets using booms, pads or absorbent materials.
- ▶ Patch leaks - temporary patch until a permanent solution is applied
- ▶ Collect contaminated materials in a trash bag and discard appropriately.
- ▶ Do not leave absorbent powders on ground. They must be swept up.
- ▶ Contact a supervisor and/or Borough Manager for assistance with spill documentation and notification procedures if you cause or find a **minor** spill.



# Major Spills

- ▶ A major spill is **considered an emergency.**
- ▶ It is a spill that cannot be safely contained by staff or cleaned up and/or has made its way into the storm sewer system, stormwater pond, waterbody or groundwater table or is a threat to human health.
- ▶ If you cause or find a **major** spill and cannot find a SWPPP team member, dial **911** for the Fire Department's HAZMAT Unit immediately.
- ▶ You must remain on-site until assistance arrives.
- ▶ Your supervisor will assist you with proper documentation and spill notification procedures.



Questions?



Spring Grove Borough

Annual Staff Stormwater (MS4) Training

**SIGN IN SHEET**

Presentation Date: 6-17-20

Presentation Time: 11:00AM

Instructor Name and Title: Collin Fox

**Attendees (First and Last Name)**

1. Andrew N. Shaffer - Manager
2. Anthony E Lewis JR
3. Scott E Zeigler
4. Robert B Staub Jr
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_



# ATTACHMENT 6.2

GOOD HOUSEKEEPING OPERATION & MAINTENANCE PROGRAM

# Spring Grove Borough

## Good Housekeeping Operation & Maintenance Program

(O&M Program)

The Municipal Pollution Prevention/Good Housekeeping Plan (MS4 PPGHP)

August 2019

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## SECTION 1 BACKGROUND & INTRODUCTION

The Good Housekeeping Operation and Maintenance Program (O&M Program) was developed to outline operational management and maintenance practices, policies, procedures, and protocols (or Best Management Practices (“BMPs”)) for reducing and/or preventing pollutants associated with municipal facilities and activities from entering receiving waters as outlined and/or required by the National Pollutant Discharge Elimination System (NPDES) and an issued NPDES Small Municipal Separate Storm Sewer System (MS4) Permit (including PAG-13).

Compliance is a broad word with respect to an issued MS4 Permit and corresponding applicable laws and regulations such as Title 40 (“40 CFR”) and 25 Pa. Code, which provide the basis of the permit. There are two primary categories for consideration for an MS4 Permit—documentation and program effectiveness. A program is built to effectively prevent or reduce pollutants from entering receiving waters via stormwater runoff or non-stormwater discharges to meet the requirements of an MS4 Permit. Documentation provides the specifics of the program; along with evidence the permitted entity is addressing not only the requirements of the MS4 Permit, but also the applicable laws and regulations.

The O&M Program specifically addresses the regulatory requirements outlined for municipal good housekeeping practices for operations and maintenance of facilities and activities, and is more commonly known as Minimum Control Measure Number Six (“MCM #6”) in an issued MS4 Permit. An important aspect of the O&M Program is the training component as required by 40 CFR Part 122.34(b) (6) (i).

The O&M Program addresses, but is not limited to:

- Municipal operations.
- Stormwater collection and conveyance system.
- Facilities, activities, and land uses that have the potential to generate stormwater runoff.
- Facilities, activities, and land uses that may contribute pollutants via stormwater runoff or non-stormwater discharges to receiving waters.
- Pollution prevention and good housekeeping control measures for reducing or eliminating the discharge of pollutants from municipal facilities and activities through Best Management Practices (BMPs) including, but not limited to:
  - Practices and procedures.
  - Maintenance and inspection activities.
  - Assessing goals and effectiveness.
  - Training and education.

Section 4 of the O&M Program is the Operational Plan of the program. This section provides the specifics of activities, policies, procedures, and so on. The O&M Program as described in the contents section effectively becomes the MS4 Pollution Prevention/Good Housekeeping Plan (“MS4 PPGHP”) for MCM #6 of an issued MS4 Permit.

## **1.1 OBJECTIVES**

The O&M Program has four main objectives:

1. Identify and document all municipal facilities and activities that may contribute pollutants to receiving waters via the regulated MS4 through stormwater runoff or a non-stormwater discharge.
2. Implement, maintain, and document all practices, controls, procedures, and so on for a group of selected BMPs aimed at reducing or preventing pollutants that may result from municipal facilities or activities.
3. Implement, maintain, and document an employee and contractor training program to improve the knowledge of employees and contractors for reducing or preventing pollutants that may result from municipal facilities or activities.
4. Identify and document all other activities, policies, and so on with a focus on pollution prevention and good housekeeping for municipal operations.

## **1.2 APPLICABLE REGULATIONS**

Congress established the Federal Water Pollution Control Act in 1948. This law provides the foundation of current water quality and water pollution control regulations. In 1972, Congress passed an amendment to the original act known as the Clean Water Act (“CWA”). Section 301 of the CWA prohibits discharges to waters of the U.S. except with a permit. Also, the CWA authorized the NPDES in Section 402. The

U.S. Environmental Protection Agency (“EPA”) developed the NPDES through promulgation of regulations found in 40 CFR. The Commonwealth of Pennsylvania issues NPDES permits through an approved program following requirements that meet or exceed 40 CFR §123.

In 1987, Congress passed another amendment to the original Federal Water Pollution Control Act. The amendment is more commonly known as the Water Quality Act. This act specifically labeled stormwater as a “problem.”

25 Pa. Code Chapter 92a incorporates 40 CFR into Pennsylvania code. Chapter 92a is more commonly known as the NPDES Permitting, Monitoring, and Compliance regulations. Additional chapters in 25 Pa. Code that affect municipal operations governed by an MS4 Permit include Chapter 93 (Water Quality Standards and Criteria), Chapter 96 (Water Quality Protection Requirements), and Chapter 105 (Waterway Management). Chapter 96 also outlines requirements associated with an issued Total Maximum Daily Load (“TMDL”).

## **1.3 O&M PROGRAM MODIFICATIONS AND REVIEWS**

From time-to-time, the language in the O&M Program or a reference for the program may be executed. Such modifications are noted. Changes to the issued NPDES permit number will be noted.

The program, along with its components, will be reviewed at the end of each calendar year. Components to be reviewed include, but are not limited to, the BMP Implementation and Maintenance Schedule and selected BMPs. Modifications or revisions to the O&M Program may occur during the annual reviews. Primary purposes of the review include:

- Ensuring selected BMPs and program information match actual municipal facilities and

activities.

- Qualitatively measure effectiveness and goals of the overall program.
- Qualitatively measure effectiveness and goals of individual components of the program.
- Outline new goals for the program or components of the program.

The annual review will be noted with an Activity Record. Annual Reports will further reflect modifications to the O&M Program.

#### **1.4 EFFECTIVE PERMIT**

The O&M Program is developed to address the requirements of MCM #6 in an issued NPDES MS4 permit for the municipality. Permit # PAG133749 was issued to Spring Grove Borough.



## SECTION 2 PURPOSE & RESPONSIBILITIES

Spring Grove Borough is a permitted entity under the Commonwealth of Pennsylvania Department of Environmental Protection National Pollutant Discharge Elimination System (NPDES) Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) Permit (“MS4 Permit”).

Permitted entities are required to develop, implement, and maintain a written operation and maintenance program (“O&M Program”) per Minimum Control Measure No. 6 (“MCM #6”) as outlined in the MS4 Permit, and further described in applicable federal regulations. The ultimate purpose of the O&M Program is preventing or reducing polluted runoff from municipal operations and activities. The LIMC Municipal Operation and Maintenance Good Housekeeping Guidance & BMP Manual was used for the development of the O&M Program.

### 2.1 O&M PROGRAM OVERVIEW

The O&M Program lists procedures and practices (BMPs) to minimize pollution to receiving waters via stormwater runoff or non-stormwater discharges through direct discharge or the municipally owned and operated stormwater conveyance system in the regulated area. The O&M Program describes the facilities, activities, and land uses that have the potential to generate stormwater runoff along with polluting the runoff. Procedures and practices include, but are not limited to documentation, inspections, monitoring, and training.

Development and implementation of an O&M Program based on the guidance within the LIMC Municipal Operation and Maintenance Good Housekeeping Guidance & BMP Manual and other relevant sources will aid a municipality in achieving compliance with the three BMPs under MCM #6 in Appendix A of the issued MS4 Permit (PAG-13) and applicable regulations such as follows:

- PAG-13/MCM #6 BMP #1: Identify and document all facilities and activities that are owned or operated by the permittee and have the potential for generating stormwater runoff to the regulated small MS4.
- PAG-13/MCM #6 BMP #2: Develop, implement, and maintain a written operation and maintenance (O&M) program for all municipal operations and facilities that could contribute to the discharge of pollutants from the regulated small MS4s, etc.
  - The LIMC Municipal Operation and Maintenance Good Housekeeping Guidance & BMP Manual provides an O&M Program template and guidance for the development of an O&M Program.
  - Analytical Monitoring is contemplated in the O&M Program to measure effectiveness of the program.
  - MEASURABLE GOAL: Development of the O&M Program and items listed above by March 2013 will help achieve this goal for LIMC municipalities.
- PAG-13/MCM #6 BMP #3: Develop and implement an employee training program

### **2.1.1 DOCUMENTATION**

All documentation relative to good housekeeping and pollution prevention referenced in the O&M Program or as applicable will be centralized into one location. Persons responsible for the implementation and maintenance of the O&M Program and corresponding activities and procedures of the BMPs outlined in the program are as follows:

\_\_\_\_\_  
Andrew N. Shaffer  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Each person listed is qualified to manage and/or administer the activities and procedures outlined in the O&M Program.

The responsible persons assume the following duties:

- Ensuring compliance with MCM #6 of the MS4 Permit and applicable laws and regulations as it pertains to pollution prevention and good housekeeping for municipal operations.
- Implementing elements of the MS4 PPGHP
- Inspections
- Documentation
- Correlating activities and procedures with other MS4 Permit requirements
- Administer the O&M Program of the MS4 PPGHP

### **2.1.2 INSPECTIONS**

Inspections will be conducted of municipal facilities and activities. Inspection protocols are further described in Section 4 of the O&M Program. Descriptions will include the frequency of regular inspections for individual BMPs implemented. Certain rain events will warrant inspections of certain BMPs outside of the normal regular inspection frequency. A defined rain event that will warrant an inspection of particular BMPs is as follows:

DEFINED RAIN EVENT: Greater than 3.1 in. in a 24-hour period of time.

For any continuous rain event greater than 24 hours in duration, all BMPs identified for rain event inspections will be inspected after the event has finished. As warranted, Borough personnel may inspect applicable BMPs prior to a significant and forecasted rain event.

### **2.1.3 MONITORING AND ANALYTICAL TESTING**

General monitoring is a continuous activity, and further described in Section 4 of the O&M Program. Analytical monitoring will be conducted periodically or as warranted. Such monitoring may include field testing by qualified municipal employees or a qualified laboratory. Monitoring may be conducted to help determine the effectiveness of the program. Actual analytical monitoring protocols are further described in Section 4 of the O&M Program.

From time to time, analytical testing will be required of samples will be required. The following laboratories or similar type entity will conduct testing of samples:

#### **2.1.4 TRAINING**

Training of employees and relevant contractors will be conducted for both general pollution prevention knowledge and implemented BMPs as it pertains to MCM #6 and good housekeeping. More information regarding employee and contractor training is found in Section 4.3 of the O&M Program.

## **2.2 BMP SELECTION**

A primary purpose of the O&M Program is to document the selection, implementation, and maintenance of BMPs to meet the requirements of MCM #6 in an issued MS4 Permit and applicable federal and state regulations and laws.

The process for selecting, implementing, and maintaining BMPs is as follows:

- An inventory of municipal facilities and activities will be completed per Section 3 of the O&M Program
- BMPs corresponding to the inventory will be selected per Section 4 of the O&M Program.
  - BMPs will be identified as either existing or proposed.
  - A schedule of inspections, maintenance, and implementation of proposed BMPs (if applicable) will be completed and maintained per Section 4 of the O&M Program.
- Implemented BMPs will be reviewed periodically as further described in Section 4 of the O&M Program.

All BMPs are assigned measurable goals, along with possible measurements of effectiveness if applicable. Such goals and measurements are further described in Section 4.

## **SECTION 3 DESCRIPTION OF MUNICIPALITY**

Understanding the boundaries, features, and facilities of a municipality aids with establishing a comprehensive and effective program. This section describes not only the geographic features of the municipality for consideration, but also the facilities and activities of the municipality.

### **3.1 GEOGRAPHIC BOUNDARIES**

Geographic boundaries of Spring Grove Borough include the following:

EAST: Hanover Road

NORTH: Near Monocacy Trail

WEST: West Jackson Street

SOUTH: Near Rockery Road

### **3.2 MUNICIPAL INVENTORY**

The municipality owns or operates facilities and conducts certain activities. These facilities and activities, along with certain land uses, either have the potential to generate stormwater runoff or contribute pollutants to stormwater runoff. Certain facilities and activities may contribute pollutants directly through contact with stormwater runoff or non-stormwater discharges.

A primary facility of the municipality is the municipal yard. A number of facilities and activities are located or conducted within the boundaries of the yard.

Certain municipal facilities and activities require separate NPDES Permits. The Municipal Inventory List may indicate as such.

### **3.3 STORMWATER COLLECTION AND CONVEYANCE SYSTEM**

Certain structural and natural components within the municipality collect and convey stormwater to receiving waters. Such components include pipes, curbs, ditches, basins, and inlets that are municipally owned. A goal of the municipality is to prevent or reduce polluted stormwater in the entire collection and conveyance system. However, the issued MS4 Permit provides focus to an established regulated area.

The stormwater collection and conveyance system in the regulated area drains to the following waters:

Codorus Creek and UNT to Codorus Creek

BMPs addressing components of the collection and conveyance system are further described in Section 4, along with the practices aimed at reducing or preventing polluted discharges from municipal facilities and activities from entering the regulated MS4 and/or collection and conveyance system.

## **SECTION 4 OPERATIONAL PLAN**

The Operational Plan outlines the specific practices, controls, procedures, and so on aimed at reducing or eliminating the discharge of pollutants from streets, roads, municipal facilities, municipal activities, storage areas, and any other municipally owned facility or activity as identified in Section 3 and the corresponding Municipal Inventory List. The Operational Plan also addresses training and education of municipal employees and contractors for the specific practices, controls, procedures, and so on identified.

### **4.1 BEST MANAGEMENT PRACTICES (BMPs)**

A set of BMPs have been selected. They are primarily source-control measures related by the goal to reduce or prevent the discharge of pollutants.

The BMP Selection Matrix and corresponding Fact Sheets of selected BMPs will be reviewed annually by the Borough at the end of each calendar year. Effectiveness, established milestones/ goals, and practices will be reviewed. An Activity Record will be completed and logged for this action. Along with this action, the BMP Implementation and Maintenance Schedule will be reviewed and updated to note any changes in the annual review.

#### **4.1.1 WASTE DISPOSAL PLAN**

Along with the selection of BMP GH-7, Waste Handling and Disposal, the Waste Disposal Plan addressing collection and disposal of waste removed from the regulated MS4 and as a result of municipal activities will be created. The Plan will address disposal of wastes such as dredge spoil, accumulated sediments, trash, hazardous wastes (including household), used motor oil, and other debris.

#### **4.1.2 SPILL RESPONSE AND CONTROL PLAN**

Along with the selection of BMP GH-10, Spill Prevention and Control, the Spill Response and Control Plan addressing spills that may pollute stormwater runoff or contribute pollutants directly to receiving waters via the regulated MS4 will be created. The plan will outline such items as spill control materials and responsibilities.

### **4.2 PROGRAM GOALS**

Goals have been identified and established for the facilitation of the O&M Program. Milestones associated with the goals can be found on the BMP Implementation and Maintenance Schedule as well. Goals may be modified, changed, or added during annual reviews. Initial goals associated with the program or components of the program are as follows:

- Promote greater awareness among Borough Staff regarding actions that promote pollution prevention and water quality improvement.
- Eliminate all pollutants emanating from the Borough Campus that would have otherwise been introduced into surface waters.
- Reduce the amount of pollutants from other Borough-owned sites through better institutional controls (i.e. BMPs).

### **4.3 TRAINING AND EDUCATION**

An annual training plan will be developed by Borough Staff at the beginning of each calendar year. The topics of focus in the training plan are based on selected BMPs or any items relative to stormwater and water quality deemed necessary.. Training is provided to municipal employees and contractors by the following methods, but not limited to:

- Formal or informal
- “Tail-gate” training
- On-site
- Classroom or similar

Training is conducted by appropriate and qualified persons, including those persons listed as responsible persons in Section 2.

Training Records will be completed and logged documenting training completed, and will include information such as the date of training, location of training, instructor(s)/presenter(s), and topics reviewed. Training Records can be found in the annual reports. Records will be completed for training activities outlined in the Annual Training Plan and for non-planned activities.



#### **4.4 INSPECTIONS**

Inspections of facilities and activities as outlined in selected BMPs will be conducted by responsible persons listed in Section 2. Inspections will be conducted on a regular basis, as set forth by the BMP Fact Sheets for a particular facility or activity.

Inspections will typically involve the following actions:

- Compare the observed facility or activity against the BMP Fact Sheet.
- Note any necessary maintenance or repairs.
- Note if a spill, leak or discharge was observed.
- Address any concerns identified during observation.
- Determine if any follow-up activities are required (e.g., training or spill control).

Monitoring will be conducted in conjunction with inspections to ensure that the O&M Program is effective per Section 4.7.

#### **4.5 BMP IMPLEMENTATION AND MAINTENANCE ACTIVITIES**

Any activities associated with implementing or maintaining a BMP for a municipal operation or facility will be documented on an Activity Record.

Activities include repairs to a facility or activity, street sweeping, waste transport, modifying a facility or activity to reflect a BMP, illicit connection investigation, and so on.

#### **4.6 EVENTS**

Significant events are recorded on Event Records. Events that are recorded include major rain events and illicit discharges.

#### **4.7 MEASURING EFFECTIVENESS**

The BMP Selection Matrix provides for the development of measuring the effectiveness of the BMPs. The primary measurement of effectiveness is ensuring proper execution of practices and protocols outlined in the O&M Program (specifically within the BMP Fact Sheets), documentation thereof, and the review of materials reflecting BMP implementation and maintenance.

#### **4.7.1 GENERAL MONITORING**

General monitoring entails frequent observations of municipal activities and facilities outside the normal inspection schedule. Municipal employees and contractors will observe potential polluting conditions (e.g., leaks and discharges) during normal operations.

#### **4.7.2 FIELD MONITORING**

Field monitoring entails documented observations of municipal facilities and activities. A Monitoring Report will be completed for field monitoring, and subsequently entered on the summary log. Field monitoring may include sample acquisition by qualified municipal employees or contractors with a field test kit.

The Pollutant Guidance Table provides guidelines for field observations and testing of samples, and also contains applicable analytical guidelines. There is no overarching frequency established for field monitoring. Field monitoring will be conducted as needed or as identified as a measurement of effectiveness for selected BMPs.

#### **4.7.3 ANALYTICAL MONITORING**

From time to time, analytical monitoring and testing will be conducted to measure the quality of waters within the municipality and within the regulated area to ensure selected practices and protocols for good housekeeping are effective. Analytical monitoring may also include sample acquisition at other locations in the regulated area of the MS4, such as the municipal yard or at an inlet. Monitoring Reports and a corresponding log outline analytical monitoring activities.

Analytical monitoring will be conducted by a laboratory listed in Section 2. Sample acquisition may be completed by qualified municipal personnel, contractors, or the laboratory. The monitoring report will note the person acquiring the sample, along with proper chain of custody forms and other relevant information to ensure quality control.

There is no overarching frequency identified for analytical monitoring. Analytical monitoring will be conducted as needed, and for potential pollutants as deemed appropriate to test for, or as identified as a measurement of effectiveness for selected BMPs.

### **4.8 ANNUAL REPORTS**

All activities and items associated with the O&M Program including modifications, training endeavors, goals, etc. will be summarized in Annual Reports.

## **SECTION 5 BEST MANAGEMENT PRACTICES (BMPS)**

This section contains a general set of BMP Fact Sheets for municipal operations. The Borough's operations are not limited to the BMPs contained within this document; however, the Borough does not need to select and implement those that are not applicable. Most BMPs found within the manual are considered source control BMPs.

### **5.1 INTRODUCTION**

The BMP Fact Sheets contained within this manual offer recommended protocols for a particular municipal activity or facility. Along with those standards, guidance for documentation and inspections is also provided. A BMP Fact Sheet includes only baseline guidance, and can be tailored to meet individual Borough needs, capacities, and abilities. These elements are considered non-structural BMPs with focus on education and source control of potential pollutants.

When warranted, the Fact Sheets may need to be updated, modified, or removed. At the same time, additional BMP Facts Sheets may be added. Listed protocols are designed to help provide MS4 NPDES Permit compliance guidance to the Maximum Extent Practicable (MEP).

### **5.2 SELF-ASSESSMENT FOR SELECTING BMPs**

As indicated, the selection of BMPs should consider common sense and practicality when looking ahead to implementation. Through the Municipal Inventory List and the Municipal Facility Detail Sheets, the Borough has assessed current facilities and programs (e.g., wash facility, leaf collection, salt storage, etc.). This self-assessment factored both the practices and corresponding requirements of a BMP in conjunction with available resources and capabilities.