

# MS4 ANNUAL REPORT

Spring Grove Borough,  
York County, PA

July 1, 2021 through June 30, 2022

*SEPTEMBER 2022*

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Prepared by:



ARRO Consulting, Inc.

108 West Airport Road

Lititz, PA 1754



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

FOR THE PERIOD July 1, 2021 TO JUNE 30, 2022

GENERAL INFORMATION					
Permittee Name:	Borough of Spring Grove		NPDES Permit No.:	PAG133749	
Mailing Address:	1 Campus Avenue		Effective Date:	05/01/2018	
City, State, Zip:	Spring Grove, PA, 17362		Expiration Date:	03/15/2023	
MS4 Contact Person:	Kim Hackett		Renewal Due Date:	N/A	
Title:	Manager		Municipality:	Spring Grove	
Phone:	717-225-5791		County:	York	
Email:	Manager@SpringGroveBoro.com				
Co-Permittees (if applicable): N/A					
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?
Ebaughs Creek	CWF	No	N/A	No	N/A
Trib 06813 To Ebaughs Creek	CWF	No	N/A	No	N/A
Trib 06814 To Ebaughs Creek	CWF	No	N/A	No	N/A
Leibs Creek	HQ-CWF	No	N/A	No	N/A
South Branch Muddy Creek	HQ-CWF	No	N/A	No	N/A
Muddy Creek	TSF	No	N/A	No	N/A
Susquehanna River	WWF	Yes	SOURCE UNKNOWN - POLYCHLORINATED BIPHENYLS (PCBS)	No	N/A

### 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	Kim Hackett	717-225-5791
#2 Public Involvement/Participation	Borough of Spring Grove	Kim Hackett	717-225-5791
#3 Illicit Discharge Detection and Elimination (IDD&E)	Borough of Spring Grove	Kim Hackett	717-225-5791
#4 Construction Site Storm Water Runoff Control	Borough of Spring Grove	Kim Hackett	717-225-5791
#5 Post-Construction Storm Water Management in New Development and Redevelopment	Borough of Spring Grove	Kim Hackett	717-225-5791
#6 Pollution Prevention / Good Housekeeping	Borough of Spring Grove	Kim Hackett	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: 04/18/2022 Were updates made? ☒ Yes ☐ No

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

1. The Borough will produce and distribute educational material relating to stormwater for children and businesses.
2. The Borough will develop an interactive web map to educate residents about stormwater and their local watershed.

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:

The Borough will develop and distribute educational materials to schools.

The Borough will republich and advertise the Borough's stormwater survey to gage how public education has increased.

#### 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: 04/18/2022 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: 04/18/2022

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 Borough website links to brochures for each target audience, a stormwater survey, illicit discharge detection/reporting information, and links to the Borough's stormwater reports.

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, a member 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 and provides physical copies in the Borough office.

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

The Borough will host a public meeting where a MS4 program update will be given to the public in attendance. The Borough will conduct or advertise through a partnership a 2023 Earth Day even or a similar public participation event involving pollution prevention or a MS4-related concept.

**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. Boro Bits Newsletter
2. The Borough Website

**MCM #1 Comments:**

Attachment 1.1: Stormwater Management Program

Attachment 1.2: Educational Materials

Attachment 1.3: MS4 Goals and 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: 04/18/2022

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:

A new stormwater ordinance compliant with PADEP's 2022 requirement was drafted and presented to the municipal solicitor in August 2022. The ordinance was presented at a Borough Council meeting on 08/15/22. The ordinance was approved for advertisement and was advertised in the local newspaper thereafter. The ordinance was also advertised to the public in print at the municipal office as well as on the municipal website. The ordinance was adopted at a Borough Council meeting on 09/19/2022.

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

Ordinance / SOP / Plan Name	Date of Public Notice	Date of Public Hearing	Date Enacted or Submitted to DEP
Ord. No. 2022-4	08/31/2022	09/19/2022	09/19/2022

**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 where stormwater is a regular topic of discussion. All residents and members of the target audience groups are invited to speak and weigh in on the progress of the MS4 program during the meetings. At the 02/21/2022, 03/21/2022, 04/18/2022, 05/16/2022, and 06/20/2022 meetings ARRO provided a detailed update on the Borough stormwater program.

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 Commission 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.

The Borough held a Town Cleanup Day from 05/06/2022-05/07/2022 at two locations in the Borough. The Borough also advertised the York County Solid Waste Authority Household Hazardous Waste Collection Event on 05/07/2022 to collect materials that are corrosive, flammable, reactive or toxic, to keep them from entering the watershed.

**MCM #2 Comments:**

Attachment 2.1: Meeting Minutes

Attachment 2.2: Public Event Information

Attachment 2.3: Stormwater Ordinance Documents

**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: 04/18/2022

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): 11/21/2021

3.	Total No. of Outfalls in MS4:	17	Total No. of Outfalls Mapped:	17
4.	Total No. of Observation Points:	6	Total No. of Observation Points Mapped:	6
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?			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      If Yes, select: <input type="checkbox"/> Existing Outfall(s) Identified <input type="checkbox"/> 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): 11/15/2021

**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? 6
2. Indicate the percentage of all outfalls screened in the past five years. 100 %
3. Indicate the percent of outfalls screened during the reporting period that revealed dry weather flows: 17 %
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: Ord. No. 2022-4 was adopted at a public meeting on 09/19/2022.
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? IDD&E related information was distributed to public employees, businesses, and the general public during the reporting period. The following information is available to the public at public meetings and through the Borough office: 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. The Borough website also includes information on reporting an illicit discharge.

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 2.3: Stormwater Ordinance Documents

Attachment 3.1: Outfall Inspections

Attachment 3.2: MS4 Map

**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: Ord. No. 2022-4 was adopted at a public meeting on 09/19/2022.

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: 1

**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: 4

**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: 0

**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:

Information regarding E&S controls is discussed with contractors at all preconstruction meetings.

**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: 1

**MCM #4 Comments:**

Attachment 2.3: Stormwater Ordinance Documents



**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: Ord. No. 2022-4 was adopted at a public meeting on 09/19/2022.
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: Ord. No. 2022-4 was adopted at a public meeting on 09/19/2022.
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.  
  
Spring Grove Borough inspected PCSM facilities during the reporting period and one facility was found to have maintenance issues. In the event private BMPs require maintenance, the municipality will contact the responsible party requesting remediation. The Borough will provide an update regarding remediation in next year's annual report.

*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	Private	39°53'29"	76°51'55"	2014	Annual visual screening; minimum O&M defined in the BMP SOP 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 BMP SOP Manual	-
3	Wet Pond Retention Basin	7.11	Private	39°53'40"	76°51'38"	2014	Annual visual screening; minimum O&M defined in the BMP SOP Manual	-
4	Infiltration Basin	3.47	Private	39°53'29"	76°51'30"	2014	Annual visual screening; minimum O&M defined in the BMP SOP Manual	-
5	Vegetated Swale	3.47	Private	39°53'25"	76°51'31"	2014	Annual visual screening; minimum O&M defined in the BMP SOP Manual	-
6	Subsurface Infiltration Bed	1.53	Private	39°52'46"	76°51'48"	2010	Annual visual screening; minimum O&M defined in the BMP SOP Manual	PAG2006710025 R
7	Infiltration Basin	0.17	Private	39°52'30"	76°51'43"	2008	Annual visual screening; minimum O&M defined	-

							in the BMP SOP Manual	
8	Pervious Pavement Infiltration Bed	0.11	Private	39°52'23"	76°51'39"	2015	Annual visual screening; minimum O&M defined in the BMP SOP Manual	-
9	Subsurface Storage Facility	0.15	Private	39°52'28"	76°51'58"	2015	Annual visual screening; minimum O&M defined in the BMP SOP Manual	-
10	Dry Detention Basin	100.3 0	Spring Grove Borough	39°53'17"	76°51'37"	1990	Annual visual screening; minimum O&M defined in the BMP SOP 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 2.3: Stormwater Ordinance Documents  
Attachment 5.1: BMP Inspections

**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? 04/18/2022
3. When was it last updated? 05/04/2021

**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: 04/18/2022

**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: 04/18/2022 Date of latest training: 04/18/2022

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:

Rebecca Stauffer, Robert Whyland, Peter Lomardi, Phillip Klocek, Kristina Morton, Kevin March, Darrell Ledford, Kim Hackett, Becky Magnani, Scott Miller, and Beverly Hilt.

**MCM #6 Comments:**

Attachment 6.1: Training Documents

Attachment 6.2: Standard Operating Procedures

**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)	09/29/2017	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			

☐ Joint Plan (if checked, list the name of the MS4 group or names of all entities participating in the joint plan below)

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	11.53	241.35
<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: 09/30/2023

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.

5. Summary of progress achieved during reporting period.

The Borough has constructed and completed the stream restoration project described in its approved Pollutant Reducyion Plan (PRP). The Borough continues to fulfill the maintenance outlines in the projet's design plan, as well as the required inspections under the Borough's stormwater ordinance in place at the time of project implementations.

6. Anticipated activities for next reporting period.

The Borough will continue to fulfill the required maintenance outlines in the project's design plan, as well as the required inspections under the Borough's stormwater ordinance in palce at the time of project implementation.

**PRP/TMDL Plan Comments:**

### 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)
11	Campus Ave Stream Restoration	N/A	-	1250	LF	39°54'04"	76°51'59"	2019	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1318.43
						° ' "	° ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						° ' "	° ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						° ' "	° ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						° ' "	° ' "		<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?
						° ' "	° ' "				<input type="checkbox"/>
						° ' "	° ' "				<input type="checkbox"/>
						° ' "	° ' "				<input type="checkbox"/>
						° ' "	° ' "				<input type="checkbox"/>
						° ' "	° ' "				<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 HAMMAN

Name of Responsible Official

717-560-6083

Telephone No.

[Signature]  
Signature

9/26/22  
Date

# ATTACHMENTS

Attachment 1.1 – Stormwater Management Program

Attachment 1.2 – Educational Materials

Attachment 1.3 – MS4 Goals and Accomplishments

Attachment 2.1 – Meeting Minutes

Attachment 2.2 – Public Event Information

Attachment 2.3 – Stormwater Ordinance Documents

Attachment 3.1 – Outfall Inspections

Attachment 3.2 - MS4 Map

Attachment 5.1 – BMP Inspections

Attachment 6.1 - Training Documents

Attachment 6.2 – Standard Operating Procedures

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, which were identified from the Pennsylvania Department of Environmental Protection (PADEP) 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.

Listed below are the Borough's PEOP objectives and goals. PEOP 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 PEOP objective and provide a method to measure improvements in the TAG's understanding. Annual MS4 reporting of the PEOP to include the following:



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

- 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 PEOP 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 PEOP 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	%
Apartment	A	134.65	23.12
Commercial	C	51.56	8.85
Institutional	E	55.49	9.53
Farm	F	26.40	4.53
Industrial	I	70.48	12.10
Residential	R	243.77	41.86
		582.34	

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

Land use information derived from 2020 York County parcel data.

## TARGET AUDIENCE GROUP 1:

- 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, law maintenance, power washing, storage of materials (trash, recyclables, etc.) and vehicle and



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

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:**

- **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:**

- **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.

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

- **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.



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

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.)

### **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.





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## **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 may be held virtually due to extreme or other circumstances, 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:
  - 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.



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- Participation by the public in programs and activities related to the MS4 permit are achieved by:
  - Providing a MS4 based discussion at an advertised public meeting.
  - Based on the findings of the PEO plans and goals, the Borough will assess other participation options for reaching each TAG.
  - Based on the findings of the PEO 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 PADEP'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.



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### 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. One could also report illicit discharges by calling the Borough office at 717-225-5791.**

Outfall drainage areas were analyzed and compared in Geographic Information Systems (GIS) to determine priority area classification. Layers used in the analysis include aerial imagery, land cover raster data, and stormwater conveyance system data.

- **High Priority Areas** - have a high potential for illicit discharge due to large drainage area size, large conveyance size, high impervious cover, and/or urban land use.
- **Low Priority Areas** - have a low potential for illicit discharge due to small drainage area size, small conveyance size, low impervious cover, and/or more rural land use.
- **Medium Priority Areas** - fall somewhere in between with a balance of high and low priority area characteristics.

Outfall ID	Priority Area	Reasoning
OF002	High	Small conveyance (8 inlets) along state road downstream of Glatfelter (industrial)
OF003	High	Medium conveyance (18 inlets) downstream of Glatfelter (industrial) and residential areas
OF004	Medium	Small conveyance (2 inlets) collecting runoff from Red Lion Bus property (completely
OF005	High	Large conveyance (32 inlets) in residential area. Long open channel has high potential to catch
OF006	Low	Small conveyance (2 inlets) along rail trail
OF008	Medium	Medium conveyance (14 inlets) in residential area and also crossing state road
OF009	Low	Small conveyance (1 inlet) in residential area
OF010	Low	Small conveyance (3 inlets) in residential area
OF011	Medium	Small conveyance (6 inlets) in commercial area along state roads
OF012	Medium	Small conveyance (3 inlets) in commercial area along state roads
OF013	Medium	Small conveyance (2 inlets) in commercial area along state roads
OF014	High	Medium conveyance (> 12 inlets, Jackson Twp inlets not completely mapped) along state roads
OF015	High	Medium conveyance (13 inlets) along state road in residential area. Long open channel has
OF016	High	Very large conveyance (122 inlets) covering almost all of northern residential area and
OF017	Medium	Medium conveyance (16 inlets) collecting from apartment complexes and local roads

#### SCHEDULE OF DRY WEATHER OUTFALL SCREENINGS

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



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## 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.

### 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 PADEP Outfall Reconnaissance Inventory / Sample Collection Field Sheet, or similar PADEP 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 PADEP 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 PADEP Outfall Reconnaissance Inventory / Sample Collection Field Sheet, or similar PADEP required field collection data sheet, including the inspector's signature and initials.



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5.	Print the outfall inspection photograph, staple the photograph to the PADEP Outfall Reconnaissance Inventory / Sample Collection Field Sheet, or similar PADEP 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.	PADEP Outfall Reconnaissance Inventory / Sample Collection Field Sheets, or similar PADEP required field collection data sheets should be filed according to the annual MS4 reporting cycle.

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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 PADEP Field Collection Data Sheets
3. Armored thermometer, centigrade
4. pH Meter



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5. Octa-Slide Comparator
6. Conductivity Meter
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 southeastern 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.

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



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

- 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.

#### 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.

#### PARAMETER 2: TEMPERATURE

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.





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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.

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

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.

### **PARAMETER 4: PH**

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.

### **PARAMETER 5: CHLORINE**

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.

### **PARAMETER 6: COPPER**

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.

### **PARAMETER 7: DETERGENTS**

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.





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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



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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

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

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.

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



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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 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.



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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.

**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.

**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\\_manualwithappendices.pdf](https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.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



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Outfall Field Screening Report <http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=2740>. 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 =  $3.1 \times \text{wetted width (ft)} \times \text{flow depth (ft)}^{1.5}$

**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 stopwatch, 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:

- Area = Wetted width (ft) x flow depth (ft)
- Velocity = Length of ping pong ball run (ft) / Time (sec)
- Discharge = Area x 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.



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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.

### **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 has 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



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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 found on the municipal website or through the municipal office.)*





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## **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* Publication Number EPA 841-F-07-006, December 2007 at [https://www.epa.gov/sites/default/files/2015-10/documents/2008\\_01\\_02\\_nps\\_lid\\_costs07uments\\_reducingstormwatercosts-2.pdf](https://www.epa.gov/sites/default/files/2015-10/documents/2008_01_02_nps_lid_costs07uments_reducingstormwatercosts-2.pdf). The Pennsylvania Standards for Residential Site Development, Pennsylvania Housing Research/Resource Center, The Pennsylvania State University, April 2007 at [https://www.dot.state.pa.us/Public/Bureaus/PlanningResearch/MRO/PA\\_Standards\\_for\\_Residential\\_Site\\_Design\\_\(2007\).pdf](https://www.dot.state.pa.us/Public/Bureaus/PlanningResearch/MRO/PA_Standards_for_Residential_Site_Design_(2007).pdf). 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.





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**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

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.)*



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

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**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:**

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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:

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:

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:

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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## MUNICIPAL FACILITY LIST:

### Municipal Buildings

1 CAMPUS AVENUE SPRING GROVE, PA 17362

*Municipal Office*

210 E RAILROAD STREET SPRING GROVE, PA 17362

*Public Works Building*

205 E RAILROAD STREET SPRING GROVE, PA 17362

*Wastewater Treatment Plant*

### Municipal Parks and Recreation

E CONSTITUTION AVE SPRING GROVE, PA 17362

*Rail Trail Parking Lot and BMP*

210 E Railroad St, Spring Grove, PA 17362

*Spring Grove Borough Park*

### Municipal Roadways

### Other



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**ADDITIONAL GUIDANCE:**

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According to PADEP, 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).

**Example Record Sheet:**

<b>Date of Training / Presenter</b>	<b>Training Topics Covered</b>	<b>Names of Attendees</b>
06.08.2021/Andrew Tuleya	MS4 Good Housekeeping Topics MS4 Stormwater General Education	Scott Miller Scott Zeigler Bob Staub Andrew Tuleya Hayden Folfas



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(MS4 SWMP)**

## SPRING GROVE BOROUGH, GOOD HOUSEKEEPING PLAN ACTIVITY LOG

The Borough is required to maintain a good housekeeping plan specific to pollution prevention regarding the Borough's municipal separate storm sewer system (MS4) "Stormwater" General Permit issued by PADEP. Please utilize this form to document stormwater related activities including the following activities as applicable.

- ▶ **BMP Maintenance**
  - ▶ Mowing, Inlet/Outlet Cleaning, Clearing Trash/Debris, Infrastructure Repair/Replacement, Route and Post-Rain/Snow Screenings.
- ▶ Inlet Cleaning (Number of inlets cleaned, quantity of debris collected)
- ▶ Street Sweeping (Miles swept, quantity of debris collected)
- ▶ Inlet Vacuuming/Cleaning (Number of drains cleaned, quantity of debris collected)
- ▶ Documented Spills
- ▶ Pesticide Application
- ▶ Fertilizer Application
- ▶ Snow/Ice Removal Applications
- ▶ Public Complaints specific to Stormwater
- ▶ Annual/Routine Training Sessions
- ▶ Tree Planting
- ▶ Other Routine or Non-Regular Maintenance



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

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**ACTIVITY LOG**

Date

Name

Department

Facility/Location



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

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Activity/Activities Conducted

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

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**General Comments**





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

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**WE WANT TO HEAR FROM YOU**

Please return this completed document via hard copy or e-mail to the municipal office, OR send directly to [Andrew.tuleya@arroconsulting.com](mailto:Andrew.tuleya@arroconsulting.com)

**THANK YOU FOR PARTICIPATING IN THE BOROUGH'S STORMWATER PROGRAM!**

If you have any stormwater related questions, please contact:

Andrew Tuleya – ARRO Consulting MS4 Coordinator

717-793-1121

[Andrew.tuleya@arroconsulting.com](mailto:Andrew.tuleya@arroconsulting.com)

# ATTACHMENT 1.2

## EDUCATIONAL MATERIALS

## Stormwater Program in the Spring Grove Borough

The Borough of Spring Grove operates a Municipal Separate Storm Sewer System (MS4) that discharges stormwater into local, state, and federal waterways. This is separate from our sewer system and consists of rainwater, and snow and ice melt. The Borough has been issued a National Pollutant Discharge Elimination System (NPDES) permit to operate this system. We are required to continually update this Stormwater Management Program to reduce the discharge of pollutants, protect water quality, and to satisfy the requirements of the Clean Water Act all the way to the Chesapeake Bay.



The federal government mandates deliverables that must be met for our MS4 permit. Two of the elements include public education and participation. Borough residents will continue to see articles in Boro Bits, and information on our website and Facebook page. Community events will also be held to provide hands-on education for our residents. For more information regarding MS4, please visit the Borough's website at [www.springgroveborough.com/ms4](http://www.springgroveborough.com/ms4)

As a resident of the Borough, you can play a vital role in protecting our waterways. Pollutants include, but are not limited to, chemicals, household products, engine oil, anti-freeze, yard debris, and animal waste that should not enter our storm water system. If you witness this action, please contact the Borough Office or submit a report on the website under the MS4 page.

## Notary Services Available

Contact Becky Magnani at the Borough Office for Notary Services including fees! 717-225-5791 ext 2.

## York Area Police Department

**The York Area Regional Police Department** is utilizing CRIMEWATCH and Facebook to assist the department and community with information sharing, crime prevention and mapping. Visit our website, <https://york.crimewatchpa.com/yorkarearegionalpd>, and **Facebook**, <https://business.facebook.com/yorkregionalPD/>

### COMMUNITY

The Officers and Staff of YARPD are all members of this community and we have therefore shared the difficulties, challenges and unprecedented illnesses experienced throughout 2020 and into 2021. To those affected by COVID-19, our thoughts are with you, your families, and your friends. To the medical community and all First Responders, we thank you for your dedicated service. To everyone in our community who showed support for their local Police, we will always be grateful.

### CRIMES OF OPPORTUNITY

We are all itching to get out of our homes and offices in an attempt at getting back to "Normal." The Officers have noticed that our local criminals and juveniles without supervision, have already started to get back outside during the overnight hours. We have had a significant increase in Thefts from Vehicles and Vehicle Thefts over the past few months. The YAPD officers have been very successful in making several arrests related to these crimes but we would like to offer some advice to help reduce these crimes in the future. As the weather improves, more criminal opportunists will be headed outside. Many of the thefts were from unlocked vehicles, and many of the stolen items should never have been left inside. Never leave these items in your vehicle: Firearms, laptops, purses, wallets, vehicle and home keys, garage door openers (easy access to your home) and anything of value left in plain sight. Please, always lock your doors.

### CAMERA REGISTRY

Turn Your Camera into a Crime Fighting Tool. Help us in preventing and solving crime using your security camera. It is simple, if an incident occurs near your device, we can identify and quickly request footage that may assist in an investigation. It is free, it's safe, and secure- at no time will the police have access to your camera without your permission. If your device is within the York Area Regional coverage area, please follow our link on CRIMEWATCH.

### CONGRATULATIONS OFFICERS

The Police Department welcomes Cadet Tyler W. Vanwyk to the department. He will be graduating from the H.A.C.C Police Academy on 15 March 2021. We will also be celebrating the retirement of Officer James A. Varner. He will be completing his 25<sup>th</sup> year on 1 April 2021. We recently honored 2020 Officer of the Year, Officer Joshua J. Crimmel. He had an incredible year and was chosen to receive this award by the Officers of YAPD.



# Boro Bits

25  
YEAR  
ANNIVERSARY

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

Volume 26 Issue 105

April 1, 2021

## 5<sup>th</sup> Annual Smoke in the Grove BBQ Competition

Mark your calendars on July 30th and 31st for the 5<sup>th</sup> Annual Smoke in the Grove, presented by Kennie's Markets. This is a great event full of food, drink and fun for local residents and the premiere MidAtlantic State BBQ Competition. The competition includes more than 80 teams of professionals and amateurs from Pennsylvania and around the country. They are competing for over \$20,000 in cash prizes and a chance to compete in the annual Jack Daniels World Championship Invitational and The American Royal. Smithfield Foods sponsors \$3k towards this prize money.

This festival features BBQ and other great food as well as live music, beer and adult slushies. We expect a record attendance which is organized by the Borough of Spring Grove, the Spring Grove Chamber of Commerce and the Spring Grove Regional Parks and Recreation Center. Proceeds from this event will be dedicated to creating a vibrant business community and visitor friendly destination in downtown Spring Grove. 100% of the proceeds are reinvested locally.

The event schedule and other important information can be found on the website [www.smokeinthegrove.com](http://www.smokeinthegrove.com)



## New Borough Notification System

ARRO, the Borough engineering company, has designed a Public Notification System that we implemented in late February. The system consists of e-mail and/or text message alerts for issues like snow emergencies, road closures, trash collection, local government meetings, and other special events.

We would encourage all Borough residents with an active e-mail address and/or cell phone to sign-up for this service at [www.springgroveboro.com](http://www.springgroveboro.com). You can select one or both forms of communication. It is a quick and easy way to stay informed about your community.

We are also investigating a telephone alert system for those residents that do not have e-mail or cell. We will keep you updated on the progress of this feature thru Boro Bits or you can call the Borough Office at 717-225-5791



## Main Street Improvement Project

Our Main Street Improvement Project is in high gear. Contractors are working to keep this project moving forward. At this point, they have saw-cut the west side of main street in preparation for excavation. Next they will return to finish the east side by installing 15 lights, 18 trees, and pouring stamped concrete. They will then return to the west side to complete the project.

ARRO Engineering will be on site, as needed, to inspect the quality at various steps along the construction process. Main street will look very nice once this project is complete.

## Street Sweeping

Street sweeping has resumed so please make sure that you remove your vehicle from Main Street 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.



## Municipal Map and Directory

The Borough has created a 2021 Municipal Map and Directory. We think it is a great way to learn about the Borough of Spring Grove, both present and past. We sincerely hope that you will find it useful as a ready reference for local businesses and organizations, government contacts, emergency services, and the Borough map.



# Boro <sup>25</sup> Bits

YEAR ANNIVERSARY

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

Volume 26 Issue 109

April 29, 2022

## Common Residential Ordinance Situations

I would like to take this opportunity to discuss some common Borough Code Ordinances that affect residents on a regular basis. The hope is that we can make the permitting and the inspection process more efficient and effective for both residents and the Borough office.

**Rental Inspections**— The Borough performs bi-annual rental apartment safety inspections to help improve the quality of life for tenants and landlords. We are currently midway thru the 2022 inspections. For the most part, this is a safety check to make sure that the apartments are as safe as possible. By mid May we will be 90+% done of the inspections. If you are a tenant and have not received an inspection your landlord probably hasn't registered your apartment in our system. This registration is the legal permit to operate an apartment business in the Borough. Please contact the Borough office if you would like to discuss your specific situation.

**Residential Building Permit**— Most municipalities require a permit to build any type of structure as required by the Department of Labor and Industry UCC Construction Regulations. Examples of projects that require a building permit would include, but not be limited to projects like new home construction, home additions, any structural alterations to existing building, major electrical or plumbing changes, decks attached to house or >30" high measured 36" out, new driveway, solar panels, new central air system, some swimming pools.

**Residential Zoning Permit**- this type of permit applies to less stringent applications that do not require a structural changes like fences, roof shingles, roof sheathing with exact same replacement, small sheds, siding, windows with no structural alternations, sidewalk, replace driveway, replace central air unit, deck not attached to house < 30" high measured 36" out.

**Other Miscellaneous Permits**— signs, street excavating, demolition, dumpster.

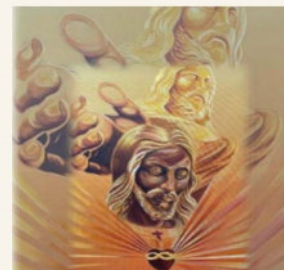
 **BECK**  
**FUNERAL HOME**  
& CREMATION SERVICE, INC.  
[www.beckfunerals.com](http://www.beckfunerals.com)

## Street Sweeping

Our public works crew will be street sweeping again this year on the 1st and 3rd Thursday of each month. Please follow the street signs and move your vehicles so we can keep our streets clean.

## Dunkin Donuts

Dunkin Donuts is moving ahead rapidly with their new restaurant on West Hanover Street. They expect to open in early June and are currently waiting for signs, inside equipment and the Highway Occupancy Permit from PennDot



**SACRED HEART  
CATHOLIC CHURCH**



## 6<sup>th</sup> Annual Smoke in the Grove BBQ Competition and Music Festival

Mark your calendars on July 29th and 30th for the 6<sup>th</sup> Annual **SMOKE IN THE GROVE**, presented by Kennie's Markets. Kennies has shown tremendous support for **SMOKE IN THE GROVE** over the years. This is a great event full of food, drink and fun for local residents and the premiere MidAtlantic State BBQ Competition. The competition includes more than 80 teams of professionals and amateurs from Pennsylvania and around the country. They are competing for over \$20,000 in cash prizes and a chance to compete in the annual Jack Daniels World Championship Invitational and The American Royal. Smithfield Foods sponsors \$3,000 towards this prize money.

This festival features BBQ and other great food as well as live music, beer and adult slushies. We expect a record attendance which is organized by the Borough of Spring Grove, the Spring Grove Chamber of Commerce and the Spring Grove Regional Parks and Recreation Center. Proceeds from this event will be dedicated to creating a vibrant business community and visitor friendly destination in downtown Spring Grove. 100% of the proceeds are reinvested locally and we are seeking both residents and businesses to sponsor this event.

The event schedule and other information can be found at [www.smokeinthegrove.com](http://www.smokeinthegrove.com)

Please join us for this summer tradition!!

## MS4 Stormwater Program

Stormwater management has become a "big deal" in the state of Pennsylvania. Environmental Engineers believe that The Chesapeake Bay is being polluted from all the stormwater run-off from counties bordering the Susquehanna River. Pennsylvania is making an ever-increasing effort to manage the quality of stormwater run-off into the Susquehanna River. There are environmental engineers that believe that stormwater will become a regulated utility in Pennsylvania in the coming years. Pennsylvania calls its Stormwater Management program MS4.

MS4 consists of the following six Mandatory Control Measures (MCM) as well as a major project every five years:

MCM 1– Education of residents, businesses, and Borough Staff

MCM 2– Involvement/ Participation of the above via public surveys, adopt-a-stream, tree planting, outlet monitoring, rain barrel workshops, stream clean-ups, and Earth Day Events etc.

MCM 3– Detection-Outfall inspections, GIS mapping of Borough, reporting of illicit discharges, other Borough staff duties. Residents that witness an illicit discharge can call the Borough office at 717-225-5791 ext 5

MCM 4– Construction Site Management- York County Conservation district monitoring, zoning and permitting within the Borough

MCM 5– Post Construction Site- activities like monitoring basins, stream restorations, cleaning stormwater system, etc.

MCM 6– Borough Facilities Management– Internal pollution prevention



Pollution Reduction Plan (PRP)– every 5 years the Borough is expected to undertake a project to remove at least 10% of our stormwater pollution. The first project of this kind was in 2017 and the Borough restored the stream near Campus Avenue. This was funded in large part by our state. Starting in 2023, we will be expected to initiate our second MS4 project. At this point, we are patiently waiting to see the exact requirements set-forth by the state. The Borough Office will seek grant money to pay for this project.

## Spring Grove Regional Parks and Recreation Center



### Food Truck Event for All Ages

Friday April 8th from 4pm—7pm

Little Creek Community Park/ Golf Course  
Special Guest DJ Chris Wagman

Help Support Windy Hill on the Campus and Spring Grove  
Regional Parks and Recreation Center

For more information visit:  
[windyhillonthecampus.org](http://windyhillonthecampus.org) and [www.sgrprc.com](http://www.sgrprc.com)

### Easter Egg Hunt

Saturday April 9, 2022

Free Event

9:00am Farmers Field Park– Paradise Township  
10:00am Little Creek Community Park– Jackson Township  
11:00am Spring Grove Community Park– Spring Grove Borough



## MS4– Stormwater Management

The State of Pennsylvania has a comprehensive stormwater run-off program called MS4 that is designed to reduce the pollution entering the Chesapeake Bay. Scientists believe that the main culprits are stormwater run-off from Pennsylvania, New Jersey, Delaware and Maryland. Our society is creating increasing levels of pollutants to the Bay in the form of construction sediment, road waste, organic waste, agricultural fertilizers and herbicides, and general chemical pollutants. Pennsylvania's MS4 program is the legislation used to enforce the federal mandates from the EPA.

The Borough of Spring Grove maintains an MS4 permit that requires a great deal of work and expense to the Borough over a 5 year period. Every year we have a checklist of inspections and reports that must be completed and every 5 years we have a project that is designed to reduce the pollutants entering the waterways leading to the Chesapeake. Historically we have been able to get grants to pay for much of the expenses but the possibility exists that future projects could cost the borough a significant amount of money.

The project for the 5 year period 2017-2022 was a creek restoration located off of Campus Avenue and extending to the traffic circle. The next 5 year period 2023-2027, will require a new project. It will be based on the updated state requirements which we expect some time in 2022. We will pick a project that affords the most effective pollutant removal per dollar spent. We will hope to get grants to pay for much of the project.

In the meantime, the residents and business owners in Spring Grove can help in the effort to reduce pollution. Ideally, stormwater should be pure water. Any foreign components are considered pollutants. Individuals can try to prevent the following from entering our stormwater system:

Household Chemicals– fertilizers, weed killer, motor oil, gasoline, laundry detergent, paint, etc.  
Organic matter- like yard waste, dog waste, dirt, mulch, etc.  
Industrial leaks– any kind of industrial chemical

Please contact the Borough Office with any questions or concerns at 717-225-5791 ext 5

## Stormwater Program in the Spring Grove Borough



MS4 is the Pennsylvania State environmental regulations that address stormwater runoff. This is particularly important for eastern PA as we are one of the biggest polluters of the Chesapeake Bay. Many environmentalists believe that the Bay is being heavily polluted by stormwater runoff from the steadily increasing construction of buildings, roads, and increasing traffic. In addition, farms contribute with fertilizers, chemicals and farm animal waste. We must do our part as good citizens by eliminating the drainage of chemicals, fertilizers, yard waste, pet waste, soil, car wash soap, engine oil, etc. into our stormwater system. Please do your best to prevent introducing any foreign material into your storm water system.

## Guidelines for Trash Pick-up from Republic Services

We seem to have some difficulties with garbage pick-up on a weekly basis so, I thought I would publish the guidelines presented by Republic Services. I hope this information helps.

### Trash Service (once per week)

Trash limit is up to (4) 32 gallon tied bags or personal containers under 50 pounds per container or yard bundles not to exceed 4 feet in length and 2 inches in diameter. Items cannot be placed on the curb more than 12 hours in advance.

**Non-Acceptable Items:** Abrasives, ashes, animal carcasses or waste, barrels unless rinsed and/or empty with both ends cut off, batteries, bulbs, ballasts, boxes or any size, no vehicles, contaminated solids, corrosive waste, electronics (TV, computers, computer parts, cell phones, etc.), empty tanks— gas, oil, fuel unless rinsed and/or cut in half, flammable waste, fluorescent, light tubes (large quantities), foundry sand, hazardous waste, liquids, medical waste, wet paint, radioactive waste, reactive waste, septic waste, sludge, used oils- motor, hydraulic, mineral, cutting, etc.

**Preparation:** All trash must be contained in a tied bag including personal trash containers set at the curbside. This helps prevent loose trash from blowing once dumped into the truck or if the trash can blows over due to high winds. You cannot use a cardboard box as a trash container.

### Recycling Service (once per week)

Must use Borough provided bins for recycling or personal containers **clearly marked for recycling**. There is no limit on how much you can recycle.

**Acceptable Items:** aluminum or steel cans, plastic bottle or jugs (#1,2 or 5), newspaper (clean, dry and no food contact), Glass bottles or jars, cardboard (dry, flat, not food contact), Cartons (juice or milk), large boxes must be flat and bundled

**Non-Acceptable Items:** solid waste, anything contaminated with food or waste debris, Styrofoam, broken glass, plastic bags, garden hoses, paper, clothing, diapers, medical waste, scrap metal.

**Preparation:** materials must be rinsed clean of all food and waste debris and dry. Remove Styrofoam from all boxes, Materials must be loose in recycling bin. Do not put recyclables in plastic bag.

### Bulk Services (once per week)

**Acceptable Items:** Carpet 48" max length rolled and tied, furniture, mattresses, box springs, lawn mowers, grill, car tires (no rim), toilets, sinks, shower stalls, indoor bathtubs, interior doors, general household items including dishwashers, dryers, hot water heaters, microwaves, stoves, freezers, refrigerators.

**Not Acceptable items:** yard waste, bags or boxes of household trash, cardboard boxes, tractors, boats, vehicle parts including truck caps, motors, batteries, gas tanks, concrete items including lawn and garden ornaments, railroad. Landscaping ties, pianos, electronics including TV's, computers and accessories, commercial vending equipment, household hazardous waste, building or flooring materials, hot tubs/Jacuzzi's, riding mowers, outside structures including fencing, gazebos, & swing sets.

**Preparation:** glass must be taped or wrapped, Liquids must be drained, freon does not need to be removed, All items over 8 feet must be broken down and bundled, no items over 8 feet and/or exceeding 75 lbs. without prior permission from Republic Services. Mattresses and box springs with bedbugs or that are badly stained must be wrapped for pick-up. Any questions call Republic Customer Service at 800-210-9675.



## What is Stormwater?

Stormwater is the water produced from when rain, snow, sleet, etc. fall to earth. This stormwater can either seep into the ground or collect to potentially become a flood.

To protect the people of Spring Grove Borough from flooding and water quality, the Borough has a series of drains, pipes, and water quality improving Best Management Practices (BMPs) called a Municipal Separate Storm Sewer System (MS4). The MS4 directly drains to our lakes, streams, rivers, and ponds so it plays a very important part in keeping our waters clean.

Did you know that every waterway in Spring Grove, including Codorus Creek, eventually flows to other impaired waterways like the Chesapeake Bay? Any contaminants released into our watersheds are contributing to the degradation of many already in danger waterways. Spring Grove is doing its part to protect local waterways by helping to keep the water clean before it reaches our streams. You can help too, by following the advice in this pamphlet and by participating in local stormwater events.

## Spring Grove Borough Stormwater Resources

For more information regarding stormwater events, public meetings, and other public participation opportunities, please visit the Borough website (listed below). The Stormwater Management subpage also contains links to the Borough's annual stormwater reports, ordinances, educational information, and a list of helpful resources on a variety of stormwater-related topics.

### Spring Grove Borough Office

1 Campus Avenue

Spring Grove, PA 17362

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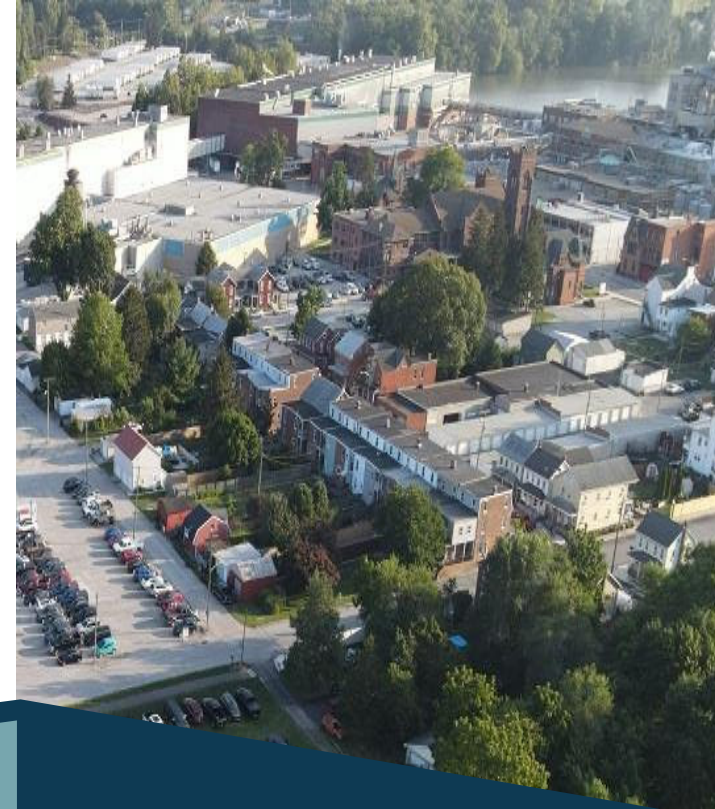
(717) 225-5791

—

[springgroveborough.com/contact-us](http://springgroveborough.com/contact-us)

—

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



## What is Stormwater?

For Local Businesses



**ARRO**

## What is a BMP?

You may have noticed man-made ponds, basins, and channels around the Borough or on your property. Stormwater is collected and directed to these structures by a network of pipes and inlets. These structures are called Best Management Practices, or BMPs. These structures help remove pollutants from stormwater runoff prior to entering our natural waterways

Borough staff will inspect these structures annually to ensure they are functioning as designed. If you have a BMP on your property which is not properly maintained, you may receive a notice from the Borough to repair the structure.

### Common maintenance issues include:

- Clogged inlets/outlets
- Trash and debris
- Dead grass/vegetation
- Structure erosion
- Sediment and organic waste build up



## How can local businesses help reduce stormwater pollution?

Much of the area in Spring Grove Borough is urbanized, with significant areas of impervious surfaces like your business or parking lot which is a large contributor to stormwater pollution. This means that if everyone joins in, we can make big changes to the quality of our stormwater!

- Inspect/Maintain BMPs on their property
- Clean Stormwater inlets, outlets, swales on property
- Ensure private on lot sewer systems are maintained
- Collect waste from property (grass clippings, leaves, sediment) so it does not go into the stormwater system.
- Limit the use of pesticides, fertilizers, and deicers
- Store materials, especially those that contain potential pollutants, indoors or under a cover (overhead, tarp)



## What is an Illicit Discharge?

Federal regulations define an illicit discharge as "...any discharge to an MS4 that is not composed entirely of stormwater." This can include cleaning products, lawn products, trash, and organic debris.

We ask the public to not contaminate our stormwater system with items such as these.

### How can an Illicit Discharge be Reported?

The Borough has illicit discharge reporting information on the Borough's Stormwater (MS4) page. If you witness an illicit discharge, please call The Borough's phone number (717-225-5791).

### Additional Resources

#### Municipal Website

<https://springgroveborough.com/ms4/>

#### County Website

<https://www.yorkccd.org/watersheds/stormwater>

#### Pennsylvania DEP/EPA

<https://www.dep.pa.gov/Business/Water/Pages/default.aspx>

#### US EPA

<https://www.epa.gov/npdes/npdes-stormwater-program>



## What is Stormwater?

Stormwater is the water produced from when rain, snow, sleet, etc. seeps into the ground or is collected on surfaces. Often, the stormwater will make its way to our streams and creeks.

To protect Spring Grove Borough from flooding and to keep our streams healthy for fish and other wildlife, the Borough has many drains, pipes, and basins which make up the storm sewer system. The storm sewer system directly drains into our lakes, streams, rivers, and ponds.

Did you know that every waterway in Spring Grove, including Codorus Creek, eventually flows south to the Chesapeake Bay?

You can help too, by following the advice in this pamphlet and by participating in local stormwater events. More information on these events can be found on the back of this pamphlet.



## Environmental Protection Agency Stormwater Resources

For stormwater information and activities, like puzzles and videos, please visit the Environmental Protection Agency (EPA) website below.

<https://www.epa.gov/nps/resources-students-and-educators-about-nonpoint-source-nps-pollution>

Tell your parents to visit the Borough website to learn more about stormwater.



**Spring Grove Borough Office**  
**1 Campus Avenue**  
**Spring Grove, PA 17362**

—  
**(717) 225-5791**  
—

**[springgroveborough.com/contact-us](http://springgroveborough.com/contact-us)**  
—

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

## What is Stormwater?

For Kids and Schools



**ARRO**

## Why should we care about stormwater?

Keeping our streams clean is very important. Everything that lives in and around our streams, like fish and other wildlife, needs clean water to live healthy lives.



Many of our rivers, streams, and lakes have trash or other man-made pollutants that hurt the health of the waterway and the creatures that need it to live.

Anything that is left outside can make its way into our streams. This means that, while leaving a small piece of trash might look like it is not a big deal, trash and other harmful debris left outside add up to equal sick fish and animals.



## What can I do to help?

Taking care of waterways is everyone's job!

Clean up after your dog!

Make sure you pick up dog waste.

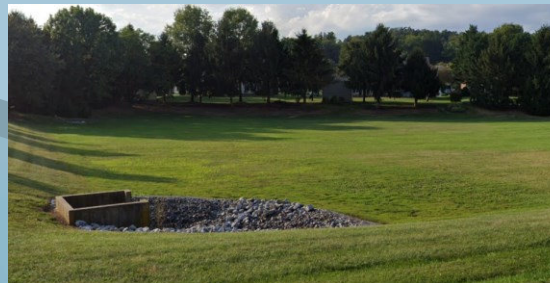


Pick up your trash!

Rain has to travel to get to our streams. As it goes, it can pick up whatever is in its path. If trash is left lying around, the rain will pick it up and carry it right into our streams. To keep our water clean, please pick up after yourself!

-Don't put anything down storm drains.

-Stay out of stormwater ponds, culverts, etc. This is VERY important for safety.



## Keep our streams healthy!

The rain that falls onto your house often finds its way into creeks and streams. It's very important that the water stays as clean as before it flows into larger waterways.

You can help keep our water clean by making your home and neighborhood as friendly to water as possible!

To protect your neighborhood from damaging floods and high water, storm drains and other pipes were built to carry water away from homes and deliver it to the streams and creeks. You probably have seen these drains around; they look like metal boxes with bars on the side of the road, just like the picture below!

Because rain travels through the inlets so much, it is very important that the inlets stay clean. If someone puts trash into the drain, the rain will carry it right to the stream, so keep our drains clean!





[Republic Services – Guidelines for Trash Pick Up](#)

[Council Meeting Agenda  
September 19, 2022](#)

[Emergency Action Plan – Mill Dam](#)



### 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

### Public Events

**Get Involved With York County Watershed Week 2022! September 17-September 25**

**Saturday July 9, 2022 – 21st Annual Codorus Creek Clean Up**

**Other Storm Water / MS4 Related Links**

## ATTACHMENT 1.3

### MS4 GOALS AND ACCOMPLISHMENTS

# MS4 Goals & Accomplishments

*2018-2023 Reporting Period*

Borough of  
**Spring Grove**  
Pennsylvania



Spring Grove Borough, York County, Pennsylvania

ARRO Project No.: 00010856.29

PREPARED BY:



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

## 2018-2019

## MCM 1

### 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 1

### 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 2

### 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 1

#### 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

The Borough developed an educational pamphlet targeted at municipal staff discussing stormwater related topics including illicit discharge detection and elimination procedures, good housekeeping protocols, and the public's role in stormwater protection. These educational materials have been linked and/or attached to the 2020-2021 Annual MS4 Report.

#### 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

The Borough distributed a public educational survey online and in printed format aimed at all target audience groups. A copy of this survey has been linked and/or attached to the 2020-2021 Annual MS4 Report.

## 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

The Borough developed two separate educational pamphlets targeted at residential and commercial builders/developers. The pamphlets are available at the Borough office and distributed along with building and zoning permit packages. These educational materials have been linked and/or attached to the 2020-2021 Annual MS4 Report.

## MCM 2

### Goal 1

**The Borough will develop a stormwater survey for the public to test their knowledge of stormwater.**

### Accomplishments

The Borough developed a stormwater survey which can be found through the Borough website (<https://springgroveborough.com/>). The Borough had 60 participants in the survey.

## 2021-2022

## MCM 1

### Goal 1

**The Borough will produce and distribute educational material relating to stormwater for businesses and children.**

### Accomplishments

The Borough developed an educational pamphlet targeted at business owners and children discussing stormwater related topics including illicit discharge detection and elimination procedures, good housekeeping protocols, and the public's role in stormwater protection. This pamphlet can be found on the Borough website and in the Borough office. These educational materials have been linked and/or attached to the 2021-2022 Annual MS4 Report.

### Goal 2

**The Borough will develop an interactive web map to educate residents about stormwater and their local watershed.**

### Accomplishments

The Borough has developed an interactive watershed map that will be available on the Borough website and through this link:

<https://arro.maps.arcgis.com/apps/dashboards/81ca1f7bfc0e4687be22ab24870d86f0>

## MCM 2

### Goal 1

**The Borough will host at least one (1) in-person stormwater related event.**

#### Accomplishments

The Borough held a Hazardous Waste Disposal Event during the reporting period.

### Goal 2

**The Borough will host a public meeting to request and receive input and comments from the target audience groups of the Borough of Spring Grove.**

#### Accomplishments

The Borough held public meetings in February, March, April, May, and June of 2022 where the public was informed of the Borough's stormwater permit and requirements. The public was given an opportunity to provide comment during the meeting.

## 2022-2023

## MCM 1

### Goal 1

**The Borough will develop and distribute educational materials to schools.**

#### Accomplishments

N/A

### Goal 2

**The Borough will republish and advertise the Borough's stormwater survey to gauge if public education has increased.**

#### Accomplishments

N/A

### Goal 2

**The Borough will host a public meeting where a MS4 program update will be given to the public in attendance.**

#### Accomplishments

N/A

### Goal 3

**The Borough will conduct or advertise through a partnership a 2023 Earth Day event or a similar public participation event involving pollution prevention or a MS4-related concept.**

#### Accomplishments

N/A

# ATTACHMENT 2.1

## MEETING MINUTES

**MINUTES OF SPRING GROVE BOROUGH  
COUNCIL MEETING  
February 21, 2022**

The Spring Grove Borough Council met for Regular Session on Monday, February 21<sup>st</sup>, 2022. President Rebecca Stauffer called the meeting to order at 7:00pm.

**BOROUGH COUNCIL PRESENT**

Rebecca J. Stauffer  
Robert Whyland  
Peter Lombardi  
Phillip Klocek  
Kristina Morton  
Kevin March  
Darrell Ledford

**ALSO PRESENT:**

Beverly Hilt, Mayor  
Kim Hackett, Borough Manager  
Becky Magnani, Adm. Asst/Recording Secretary  
Scott Miller, Director of Community Development

**ALSO ABSENT:**

**BOROUGH COUNCIL ABSENT:**

**Invocation and Pledge to the Flag**

**Public Comment/Visitors**

Officer Sheaffer, York County Regional Police  
Jorge Caraballo, Zachary West, and Ellie Arnold from Spring Grove High School

Manager Hackett and President Stauffer thanked the students from Spring Grove High School for recording and producing the video for the Christmas Tree Lighting in December 2021.

**Meeting Minutes**

Robert Whyland questioned why a roll call was included in the meeting minutes. Manager Hackett responded that she included it as it was part of the meeting. Per discussion, as long as the Borough Council Present section is correct, roll call does not need to be included in the minutes. Council would like to continue to see meeting minutes by the Friday following the meeting. A motion was made to accept the minutes by Robert Whyland with Kristina Morton providing a second. The motion carried unanimously.

To aid in recording meeting minutes, borough staff will look into getting a microphone to record audio.

**Treasurer's Report**

Expenses totaling \$337,142.10 – a motion was made to approve by Peter Lombardi with a second made by Kristina Morton; the motion carried unanimously.

## **Administrative Reports**

### President

#### Mayor

Mayor Hilt discussed reports from Friendship Hose Company and Spring Grove Ambulance. Spring Grove Ambulance is proud to announce a free EMT class. Mayor Hilt also reported that Officer Brandy Goodling (originally from South Western Regional Police) was announced as Officer of the Year from York Area Regional Police.

#### York County Regional Police

Officer Cory Sheaffer gave a brief overview of the "Officer of the Day" event for Landon B. who is fighting stage 3 cancer. Officer Landon was able to detain and hand cuff a robbery suspect after a brief chase.

## **Borough Staff Reports**

### **Scott Miller, Director of Community Development**

January was a very good month in terms of income generated from zoning permits and codes violations. Ryan Homes has sold 12 homes so far in the past few months including the model home. In January, we received about \$20,000 in permit fees for 4 of those houses and we have 4-5 more waiting to be paid. They will most likely be paid in February. Each house represents about \$5,000 in permit fees. Ryan Homes expects to keep selling home through the summer months. In addition, we have ramped up our enforcement of parking violations. Kevin and Bob have been diligent at monitoring Main and other streets for violations including the 2 hour parking limits on Main Street from Constitution to Church Street. They have also alerted me to several code violation issues in the Borough. We have sent several unpaid quality of life fines and unpaid parking tickets to the District Magistrate for prosecution. In general, I would say that we are improving at codes enforcement in the Borough for blatant violations.

### **Kim Hackett, Borough Manager**

Municipal required forms have been completed and sent to DCED. The County Annual Municipal Recycling Report is in progress as well as the AG-385 form. The Borough will be receiving \$4,241.10 for our 904 Municipal Recycling Performance Grant. The Liquid Fuels Report has also been submitted and we will be notified of our allocation in March. SEK has begun preliminary work on the 2021 Audit and will be on site in early March. The Jefferson Codorus Authority audit work is performed in April/May. The exploratory meeting for our FEMA application occurred early this month and I am scheduled for our second call this week. I expect to submit all expenses and move forward with the reimbursement process. After this week's call I will have a better idea of the timeline. The annual rental registration process is progressing extremely well. Both Scott and Collin (ARRO) have worked diligently to communicate with owners and secure payment. In 2022, we will be performing onsite inspections of all the rental units. Training will begin on February 28th and we will begin inspections soon after. Owners can utilize our online system to indicate their preferred dates and times. A large number have already selected their times.

Council member Robert Whyland requested that meeting minutes reflect that all annual reports have been filed for 2021.

## Engineering Report

Engineer Warfel introduced his colleague and sidekick, Collin Fox. Collin is a scientist and has been working in the borough office with staff in various roles including zoning, MS4, and GIS. Engineer Warfel gave a detailed overview of the following borough projects as follows: *{Items in black are updates relative to previous monthly reports. Items in grey are reference information}*

### Main Street Improvements

- The fence has been installed on top of the retaining wall on the church property at the intersection of Main Street and West Jackson Street.
- The Borough is working with Met Ed to get the existing street lights removed from the west side of Main Street.
- Some of the street light pole bases are being replaced after the Borough met with the subcontractor two weeks ago.
- PennDOT was verifying the project items last week.
- PennDOT will be working through the funding and the final costs of the project to make sure all of the funding is used before the cost to the Borough is finalized.
- PennDOT is planning to close out the project soon.

### MS4/Stormwater

- MS4 –
  - ARRO Provided a memo to Borough staff (manager and community development director) outlining MS4 responsibilities for 2021-2022 reporting year.
    - One major change to this year's program is that the Borough will be responsible for completing Outfall Inspections and BMP inspections. ARRO had provided oversight on these tasks and will meet with Borough staff before and after inspections are to be conducted.
    - ARRO has provided information for Borough staff regarding a potential PA DEP in person inspection/audit of the Borough's MS4 permit. The Borough has not been notified by PA DEP, however many municipalities in the region have been audited since the summer. It is expected that PA DEP will continue to conduct audits at municipalities with MS4 permits. ARRO has provided Borough staff with information on how to prepare for an audit, what a typical audit consists of, and which properties the Borough should anticipate a site visit at by PA DEP.
  - MCM 1 – Public Education and Outreach
    - ARRO will provide the Borough staff with stormwater related information for the public for the next quarterly newsletter.
    - ARRO developed an interactive map for the Borough's Stormwater page that will obtain credit for annual public education.
  - MCM 2 – Public Participation and Involvement
  - MCM 3 – Illicit Discharge Detection and Elimination
    - No illicit discharges reported from the public.
  - MCM 4 (Construction Stormwater)
  - MCM 5 – Post-Construction Stormwater Management
  - MCM 6 – Good Housekeeping
    - ARRO updated the Borough's good housekeeping plan by adding standard operating procedures for the operation and maintenance of the stream restoration project (PRP).
    - ARRO evaluated the current state of the stream restoration project. Required maintenance will be documented and passed along to Borough staff for Spring 2022.



## Development Plan Reviews

Detailed development plan reviews were included in the council packet.

### North Loop Interceptor

- ARRO received a draft agreement from the Railroad on August 6<sup>th</sup>. It has been reviewed along with the Borough Manager and Solicitor and corrections/revisions were sent on August 26<sup>th</sup>.
- The Railroad returned the agreement on December 16<sup>th</sup>. ARRO submitted requests for corrections (or clarifications) on January 17<sup>th</sup> and has not received any response to date.
- As the concerns with the agreement do not impact the proposed design, ARRO is proceeding with the design of the remaining interceptor replacement.
- Design drawings are effectively complete and ARRO has met with Borough staff to review and discuss the need for construction easements.
- ARRO is preparing the Water Quality Management permit application package for PA DEP, which is required for construction of sewer interceptors.
- The total anticipated project cost is \$484,318; Borough was awarded a grant in the amount of \$411,669.
- The improvements will include approximately 2,600 LF of new 12-inch sewer main, as well as 17 manholes from the existing manhole, MH-93 south of Spring Valley Drive, to MH-72 between York Avenue and the Borough Park. These improvements will provide an increase in conveyance capacity of 63% to at least 1.25 MGD of flow from the North Loop collection system.

### GIS

- ARRO continues to provide as-needed GIS support to Borough office staff and public works/maintenance staff.
- 218 Registered Users to date for Public Notification System.
- ARRO met with Scott Miller and Kim Hackett to review the Borough's GIS system and specifically the following tools
  - Rental Property Program Manager
  - Code Enforcement Manager
  - Public Permit and Complaint Manager
- ARRO instructed Borough Staff on how to view permits submitted through the Borough website, how to track internal progress when considering permits, how to indicate that a permit has been approved, and went over e-mail notification workflows.
- ARRO updated the rental property registration form as requested by Borough Staff to conform with 2022 inspection dates and procedures.
- Note: The Borough was able to have over 60% of landlords submit 2022 registrations within the first 30 days (not including paper registrations that were sent in around the end of January and were not processed), a significant improvement from when we first rolled this out in Nov 2020 (delayed from Jan 2020 due to COVID). We will continue to educate landlords on using the system.
- Borough Staff (i.e. Scott Miller) are now using the notification system effectively on their own.

### Borough Park - Phase 3

- Final plans, project manual and an opinion of probable construction cost and a tentative schedule will be submitted to the Borough by Friday the 18<sup>th</sup> for submission to DCNR for authorization to advertise.

- Project was anticipated to be advertised for bid in late January/early February (2022), bids opened March 15 (2022) for a May 2022 construction start. Construction completion anticipated by July 2022.
- Current funding totals approximately \$468,000.
- Project consists of a Concession/Restroom building, a Toddler Playground, Concrete Common Area, and Bituminous Path.

### Code Enforcement

- The Borough has set the 31<sup>st</sup> of January as the due date for rental registrations. Most landlords have submitted the required fees and forms by the due date.
- ARRO has sent reminder emails to Landlords/property managers that are unregistered and continues to maintain the lists of unregistered landlords.
- ARRO contacted landlords that have not submitted 2022 Rental Housing Registrations to the Borough as of Feb 1, 2022.
- ARRO has planned 2022 rental property inspections with the Borough and will be assisting the Borough with completing these inspections.
- ARRO has planned 2022 rental property inspections with the Borough and will be assisting the Borough with completing these inspections.
- January 2021 - EXTERIOR CODE ENFORCEMENT
  - Initial Code Enforcement Inspections Performed - January 2022: 7
  - Code Enforcement Re-Inspections Performed - January 2022: 0
  - Properties Issued Code Violations - January 2022: 7
  - Quality of Life Tickets Issued - January 2022: 1
- DECEMBER 2021 - RENTAL PROPERTY MANAGEMENT
  - Rental Property Registrations (2022) Submitted - As of January 2022: 77
  - Rental Property Annual Registration Fee Paid - As of January 2022: 65
  - Tenant Surveys Submitted - As of January 2022: 0

### Solicitor

Comcast Franchise Renewal - Solicitor Ruth briefly reviewed the Franchise Renewal from Cohen Law Group. Robert Whyland made a motion to accept the proposal with a second from Peter Lombardi. Discussion from council members ensued – Robert Whyland is not in favor of the agreement. All in favor of accepting the agreement – none; all opposed. The motion does not pass.

### Zoning & Codes Enforcement

See above

### Recreation

Reports and Financial Statement from December 2021 were included with the council packet.

### Committee Reports

None at this time.

### New Business

Council to consider approval of a shared representation to the Spring Grove Regional Parks and Recreation Center by Rebecca Stauffer and Kristina Morton – Peter Lombardi made a motion to approve with Phillip Kloczek providing a second; the motion passed unanimously.

Council to consider approval for Borough Manager and Director of Community Development to begin the rezoning process to extend the Village District north and west of Jackson Street north to 1<sup>st</sup> Ave., around the VFW property, and back to Jackson St. encompassing the VFW, Post Office, Sacred Heart Church/parsonage, and the 3 residences along Main Street – Peter Lombardi made a motion to approve with Kristina Morton providing a second; the motion passed unanimously.

Borough Street improvement plan – The Highways Committee (Robert Whyland and Peter Lombardi) will meet and form a 5/10/15/20 year plan for the borough. Peter Ruth will send a map.

Review of Emergency Management Plan for Borough – Manager Hackett, Mayor Hilt, Rebecca Stauffer, and Kristina attended the county meeting. Mayor Hilt would like to get help from Phil Smith to update the plan.

Correspondence and other business

Non-Uniformed Pension Plan Financial Statements 2021

Ribbon Cutting 50 N. East Street - February 25<sup>th</sup> at 3:30 pm; please rsvp

SGRPRC Board contact list and meeting schedule 2022

Emergency Management Plan information for Council members

The meeting adjourned at 9:18pm and the next meeting is scheduled for February 28<sup>th</sup> at 6:30pm at the Borough building.

On Monday, February 28<sup>th</sup> at 6:32pm, the meeting reconvened.

Council members present: President Rebecca Stauffer, Peter Lombardi, Robert Whyland, Kristina Morton (via Zoom), and Darrell Ledford. Council members Kevin March and Phillip Klocek were absent. Mayor Beverly Hilt was present. Borough staff present: Manager Kim Hackett, Director of Community Development Scott Miller, and Administrative Assistant Becky Magnani. Kate King from Spring Grove Parks & Recreation joined via Zoom as well as Lori Yeich who is the Recreation and Conservation Manager from DCNR.

Lori (and Kate) provided an overview of grant funding for the open space.

A motion was made to revise the present agenda to include an action item to authorize putting Phase III of current park project out to bid. Robert Whyland made a motion to approve with Kristina Morton providing a second; the motion passed unanimously.

A motion was made to authorize putting out the bid for Phase III of the Community Park. Robert Whyland made a motion to approve with Peter Lombardi providing a second. Rebecca Stauffer opposed but the motion passed.

At 7:44pm a motion to adjourn was made by Peter Lombardi with Kristina Morton providing a second. The motion passed unanimously.

Respectfully Submitted,

*Becky Magnani*

Recording Secretary

**MINUTES OF SPRING GROVE BOROUGH  
COUNCIL MEETING  
March 21, 2022**

The Spring Grove Borough Council met for Regular Session on Monday, March. 21<sup>st</sup>, 2022. President Rebecca Stauffer called the meeting to order at 7:15pm.

**BOROUGH COUNCIL PRESENT**

Rebecca J. Stauffer  
Robert Whyland  
Peter Lombardi  
Phillip Klocek  
Kristina Morton  
Kevin March  
Darrell Ledford

**ALSO PRESENT:**

Beverly Hilt, Mayor  
Kim Hackett, Borough Manager  
Becky Magnani, Adm. Asst/Recording Secretary  
Scott Miller, Director of Community Development  
  
Peter Ruth, Solicitor  
Matthew Warfel, Engineer, ARRO  
Collin Fox, Scientist, ARRO

**BOROUGH COUNCIL ABSENT:**

**ALSO ABSENT:**

**Invocation and Pledge to the Flag**

**Public Comment/Visitors**

Officer Good, York County Regional Police  
Brent Auchey, Spring Grove Fire Department  
Matthew Coyne, Friendship Hose Company

Officer Good reported that he had no action items for council.

Brent Auchey and Matthew Coyne reported that the bingo fundraiser on Thursday evenings continue to be held. The demolition of the house has been completed and the bell tower is coming along well. The department is looking for active firefighters and social members.

**Meeting Minutes**

A motion was made to approve the minutes from February 21, 2022 by Peter Lombardi with Kristina Morton providing a second. The motion carried unanimously.

**Treasurer's Report**

Expenses totaling \$196,148.33 – a motion was made to approve by Peter Lombardi with a second made by Robert Whyland; the motion carried unanimously.

## Administrative Reports

### President

President Stauffer thanked everyone for attending the Roth's Church project and encouraged members to contact school board members if they had questions or comments. President Stauffer also remarked that the grand opening at 50 N. East Street was a success and appreciated the efforts of borough staff.

### Mayor

Mayor Hilt reported that the accounts for Spring Grove Ambulance have been reconciled for the last two years.

### Borough Staff Reports

Scott Miller, Director of Community Development

Presented information regarding the 6.7 acres of open space.

Kim Hackett, Borough Manager

The recycling grant of \$4,200 was received. The special event for the grand opening at 50 N. East Street was a success including special guests Representative Seth Grove and Senator Kristin Phillips-Hill.

## Engineering Report

### Main Street Improvements

- PennDOT is working through the funding and the final costs of the project to make sure all the funding is used before the cost to the Borough is finalized.
- PennDOT is planning to close out the project soon.
- PennDOT has asked to revise the TIF forms for the ADA ramps to match the inspection forms. The inspection forms are calling out the incorrect type of ramps which are creating false errors. We are working with PennDOT and JVI to resolve.

### **MS4/Stormwater**

- MS4 –
  - MCM 1 – Public Education and Outreach
    - ARRO updated the Borough's public education and outreach plan for the 2021-2022 draft report.
  - MCM 2 – Public Participation and Involvement
    - ARRO and the Borough planned a stormwater update to be conducted at an April 2022 council meeting.
    - ARRO and the Borough discussed the feasibility of program credit for a public event in the Borough hosted by YCPC.
    - ARRO identified potential collaborative meetings in conjunction with the York County Stormwater Consortium.
  - MCM 3 – Illicit Discharge Detection and Elimination
    - No illicit discharges reported from the public.
  - MCM 5 – Post-Construction Stormwater Management
    - ARRO and the Borough drafted letters to be sent to property owners with stormwater management facilities requesting annual maintenance records for 2022. Letters were sent to property owners. The Borough will compile submitted maintenance records and follow up with property owners that do not respond to the Borough's letters.

**North Loop Interceptor**

- ARRO has received a final copy of the agreement with the railroad and will be recommending approval from Council {New Business}.
- Design drawings are effectively complete and ARRO has met with Borough staff to review and discuss the need for construction easements.
- ARRO has submitted the Water Quality Management permit application package for PA DEP, which is required for construction of sewer interceptors.
- ARRO has submitted the application for the NPDES permit for erosion and soil control during construction.

**WWTP Operations:**

- ARRO continues to provide operations consulting assistance to the WWTP operator.

**Chapter 94 Report:**

- ARRO submitted the 2021 Chapter 94 Report to PA DEP and it has been received and approved.
- Engineer Warfel distributed graphs illustrating 5-Year Measured and Projected Hydraulic Loads and 5-Year Measured and Projected Organic Loads and discussed the need to plan for continued improvements.

**GIS**

- ARRO continues to provide as-needed GIS support to Borough office staff and public works/maintenance staff.
- 229 Registered Users to date for Public Notification System.
- ARRO provided a training session for Scott Miller on how to use the Rental Property Management Dashboard to identify properties to be inspected, dates of inspections, and where the program displays addresses of properties that submitted registrations for 2021 but not for the year 2022.
- ARRO updated the failed rental property inspection report and letter format as requested by code enforcement staff.
- ARRO backed up the Borough's rental property and code enforcement databases.
- Borough Staff (i.e. Scott Miller) are now using the notification system effectively on their own

**Borough Park - Phase 3**

- The project was advertised on PennBid the week of March 7<sup>th</sup>. A pre-bid meeting is scheduled for March 31<sup>st</sup> with a bid opening on April 11.

**Code Enforcement**

- On February 28<sup>th</sup>, Andrew Shaffer trained Scott Miller and Collin Fox on the process of rental inspections. During the training, 31 rental property inspections were completed. Scott Miller will be completing the majority of the rental inspections, with Collin Fox being available by phone for technical support or in person support.
- The Borough has set the 31<sup>st</sup> of January as the due date for rental registrations. Most landlords have submitted the required fees and forms by the due date.
- ARRO has sent reminder emails to Landlords/property managers that are unregistered and continues to maintain the lists of unregistered landlords.
- Scott Miller and ARRO continue to contact landlords that have not submitted 2022 Rental Housing Registrations to the Borough as of March 1, 2022.
- February 2022 - EXTERIOR CODE ENFORCEMENT
  - Initial Code Enforcement Inspections Performed - February 2022: 6
  - Code Enforcement Re-Inspections Performed - February 2022: 0
  - Properties Issued Code Violations - February 2022: 6
  - Quality of Life Tickets Issued - February 2022: 1
- February 2022 - RENTAL PROPERTY MANAGEMENT
  - Rental Property Registrations (2022) Submitted - As of February 2022: 16

- Rental Property Annual Registration Fee Paid - As of February 2022: 20
- Tenant Surveys Submitted - As of February 2022: 0

**Solicitor**

The agreement for the North Loop Genessee & Wyoming Railroad will be discussed under New Business.

**Zoning & Codes Enforcement**

See above

**Recreation**

Spring Grove Regional Parks and Recreation Center Board Minutes and Financial Report from February 2022 were included in the packet. The spring event guide has been published and the Roth's Church Road project is ongoing.

**Committee Reports**

None at this time.

**New Business**

Council to consider approval of Genessee & Wyoming Railroad Occupancy License Agreement and authorize Council President Rebecca Stauffer to execute – Peter Lombardi made a motion to approve with Philip Klocek providing a second; the motion carried unanimously.

Council to consider approval of DCNR grant application for open space property on E. College Avenue. Robert Whyland made a motion to approve with Kristina Morton providing a second; the motion carried unanimously.

A motion was made to revise the agenda to include a motion to ratify the agreement between Spring Grove Area School District and Spring Grove Borough for the acquisition of the E. College open space to be contingent upon receipt of DCNR grant in a minimum amount of \$129,400; costs to the Borough not to exceed \$1000. Peter Lombardi made a motion to approve with Darrell Ledford providing a second. The motion passed unanimously.

A motion was made to ratify the agreement (as stated above) by Kristina Morton and seconded by Peter Lombardi. Robert Whyland requested a Roll Call Vote. Council members voted as follows:

Rebecca J. Stauffer - Yea

Robert Whyland - Yea

Peter Lombardi - Yea

Phillip Klocek - Yea

Kristina Morton - Yea

Kevin March - Yea

Darrell Ledford – Yea



The motion carried unanimously.

**Old Business**

Emergency Management Plan update and NIMS training – Mayor Hilt reports that she, Rebecca Stauffer (via Zoom), and Kristina Morton (via Zoom) attended the EMA training with Manager Hackett. The EMA should be reviewed upon the election of new officers. The intergovernmental cooperation agreement should be changed.

**Correspondence and other business**

Polli Equities notice of lease renewal – Manager Hackett reports that this will be leased to the bus company for another year.

Spring Grove Regional Parks and Recreation – the Spring Guide is included with the packet and available on SGRPR website. The food truck event is coming up.

Mandated Reporting training – Kristina Morton remarked that council members are not mandated reporters, however the training is free.

The meeting adjourned at 9:00pm and the next meeting is scheduled for April 18<sup>th</sup> at 7:00pm at the Borough building.

Respectfully Submitted,

*Becky Magnani*  
Recording Secretary

**MINUTES OF SPRING GROVE BOROUGH  
COUNCIL MEETING  
April 18, 2022**

The Spring Grove Borough Council met for Regular Session on Monday, April 18<sup>th</sup>, 2022. Vice-President Peter Lombardi called the meeting to order at 7:00pm.

**BOROUGH COUNCIL PRESENT**

Robert Whyland  
Peter Lombardi  
Phillip Klocek  
Kristina Morton  
Kevin March  
Darrell Ledford

**BOROUGH COUNCIL ABSENT:**

Rebecca J. Stauffer

**ALSO PRESENT:**

Beverly Hilt, Mayor  
Kim Hackett, Borough Manager  
Becky Magnani, Adm. Asst/Recording Secretary  
Scott Miller, Director of Community Development  
  
Peter Ruth, Solicitor  
Matthew Warfel, Engineer, ARRO  
Collin Fox, Scientist, ARRO

**ALSO ABSENT:**

**Invocation and Pledge to the Flag**

**Public Comment/Visitors**

Officer Hempfing, York County Regional Police  
Brent Auchey, Friendship Hose Company  
Garrett Strouse, Friendship Hose Company

Officer Hempfing reported that he had no action items for council and reviewed the police blotter for Spring Grove Borough.

Brent Auchey and Garrett Strouse reported that the bingo fundraiser on Thursday evenings continue to be held and the sugar cookie sale will happen later this month. Garrett also reviewed the fire calls in the Borough and surrounding areas.

**Meeting Minutes**

Administrative Assistant Magnani advised that meeting minutes were updated to reflect spelling corrections on two words as well as indicating that Kristina Morton and Rebecca Stauffer attended a meeting via Zoom. Robert Whyland requested that the agreement referenced under New Business for the motion to ratify the agreement between Spring Grove Borough and Spring Grove Area School District be attached to the minutes. A motion was made to approve the minutes with the above revisions from March 21, 2022

by Robert Whyland with Kristina Morton providing a second. The motion carried unanimously.

### **Treasurer's Report**

Expenses totaling \$360,923.77 – a motion was made to approve by Robert Whyland with a second made by Phillip Kloczek; the motion carried unanimously.

### **Administrative Reports**

#### President

Vice President Lombardi had no action items for council.

#### Mayor

Mayor Hilt reported that Jackie Heffner was able to hire an office assistant and that the ambulance club appreciated the quarterly donation.

#### Borough Staff Reports

- JCJSA updates: audit performed April 11 – 12 at the Borough office; JCJSA bills moved from monthly to quarterly; Manager Hackett is working with the Authority on the Bond refinance; the wastewater operator will perform sewer inspections for the new housing development; Manager Hackett and Administrative Assistant Magnani are managing the delinquent accounts and shut off notices.
- Rental Inspections: ongoing and utilizing public works staff for inspections; the inspections are 2/3 completed and most of the fees have been collected (well ahead of 2021).
- Financial report: Spring Grove audit fieldwork is completed and the auditors are waiting on final close out figures for the Main Street project; ARPA funding report will be submitted by the end of April.
- Ryan Homes: submitted 23 applications to date and figures for tapping fees, stormwater assessment fees, and permit revenue were reviewed.

### **Engineering Report**

#### Main Street Improvements

- PennDOT has completed an initial summary of funding and the final costs of the project.
- PennDOT is planning to close out the project soon.

#### **MS4/Stormwater**

- MS4 –
  - Scientist Fox provided a presentation on MS4 (Municipal Separate Storm Sewer System)
  - MCM 1 – Public Education and Outreach
    - ARRO updated the Borough's public education and outreach plan for the 2021-2022 draft report.
    - ARRO has created documentation to assist the Borough in picking and working alongside potential stormwater partners.
  - MCM 2 – Public Participation and Involvement

- Scientist Fox provided a presentation on MS4 (Municipal Separate Storm Sewer System)
- MCM 3 – Illicit Discharge Detection and Elimination
  - No illicit discharges reported from the public.
  - ARRO has updated the MS4 mapping documents.
- MCM 5 – Post-Construction Stormwater Management
  - ARRO and the Borough drafted letters to be sent to property owners with stormwater management facilities requesting annual maintenance records for 2022. Letters were sent to property owners. The Borough will compile submitted maintenance records and follow up with property owners that do not respond to the Borough's letters.
  - ARRO has reviewed the Borough of Spring Grove Stormwater Ordinance for compliance with 2022 requirements.

#### North Loop Interceptor

- ARRO is working with the Borough to secure construction easements for the project.

#### WWTP Operations:

- ARRO continues to provide operations consulting assistance to the WWTP operator.

#### GIS

- ARRO continues to provide as-needed GIS support to Borough office staff and public works/maintenance staff.
- 232 Registered Users to date for Public Notification System.
- ARRO updated/corrected rental registrations that were incorrectly entered into the program.
- ARRO updated the failed rental property inspection report and letter format as requested by code enforcement staff.
- ARRO backed up the Borough's rental property and code enforcement databases.
- Borough Staff (i.e. Scott Miller) are now using the notification system effectively on their own.

#### Borough Park - Phase 3

- The project was advertised on [PennBid](#) the week of March 7<sup>th</sup>. A pre-bid meeting is scheduled for March 31<sup>st</sup> with a bid opening on April 11.
- Two bids received; Shiloh Paving & Excavating (\$496,060.00) and Kinsley Construction (\$577,981.00)
- ARRO has prepared a letter to the Borough recommending Intent to Award to the apparent low bidder, Shiloh Paving and Excavation. To be discussed under New Business.

### Code Enforcement

- Scott Miller, with assistance from ARRO, has completed 57 rental inspections in the month of March.
- Scott Miller, with assistance from ARRO, is working to remove rental properties from the program in cases where they are no longer rental properties (i.e., properties being sold to tenants)
- March 2022 - EXTERIOR CODE ENFORCEMENT
  - Initial Code Enforcement Inspections Performed - March 2022: 6
  - Code Enforcement Re-Inspections Performed - March 2022: 0
  - Properties Issued Code Violations - March 2022: 8
  - Quality of Life Tickets Issued - March 2022: 2
- March 2022 - RENTAL PROPERTY MANAGEMENT
  - Rental Property Registrations (2022) Submitted - As of March 2022: 2
  - Rental Property Annual Registration Fee Paid - As of March 2022: 2
  - Tenant Surveys Submitted - As of March 2022: 0

### Solicitor

Council to consider motion to authorize the advertisement of Ordinance 1-2022:

**AN ORDINANCE OF SPRING GROVE BOROUGH, YORK COUNTY, PENNSYLVANIA, AMENDING AN INTERMUNICIPAL COOPERATION AGREEMENT WITH THE JEFFERSON CODORUS JOINT SEWER AUTHORITY TO INCLUDE THE INSPECTION OF NEWLY INSTALLED OR REPAIRED LATERAL PLUMBING CONNECTIONS UNDER THE DUTIES OF THE AUTHORITY'S SHARED EMPLOYEE**

Robert Whyland made a motion to approve with Phillip Klocek providing a second; the motion passed unanimously.

### Zoning & Codes Enforcement

See above

### Recreation

Spring Grove Regional Parks and Recreation – the food truck event and Easter egg hunt were held last weekend.

### Committee Reports

None at this time.

### New Business

Park development at 65 S Main Street concept review. Council to consider approval of a land lease with the Friendship Hose Fire Company. No action taken.

Consider approval of \$2,750 expenditure from the Community Development Fund for site concept plan which will allow Borough staff to seek grant funding for the Pocket Park at 65 S Main Street – to be tabled until after the lease agreement.

Council to consider motion to award bid for Community Park Phase 3 to lowest and acceptable contractor subject to receipt of insurance and bonding: Shiloh Paving & Excavation. Phillip

Klocek made a motion to approve with Kristina Morton providing a second. The motion passed unanimously.

**Old Business**

Discussion of Smoke in the Grove event

**Correspondence and other business**

Donation acknowledgement from Windy Hill on the Campus

Rail Trail donation letter and construction update

Spring Grove Clean Up day

The meeting adjourned at 9:14pm and the next meeting is scheduled for May16<sup>th</sup> at 7:00pm at the Borough building.

Respectfully Submitted,

*Becky Magnani*

Recording Secretary

**MINUTES OF SPRING GROVE BOROUGH  
COUNCIL MEETING  
May 16, 2022**

The Spring Grove Borough Council met for Regular Session on Monday, May 16<sup>th</sup>, 2022. President Rebecca Stauffer called the meeting to order at 7:02pm.

**BOROUGH COUNCIL PRESENT**

Rebecca J. Stauffer  
Robert Whyland  
Peter Lombardi  
Phillip Klocek  
Kristina Morton  
Kevin March  
Darrell Ledford

**ALSO PRESENT:**

Kim Hackett, Borough Manager  
Becky Magnani, Adm. Asst/Recording Secretary  
Scott Miller, Director of Community Development  
  
Peter Ruth, Solicitor  
Matthew Warfel, Engineer, ARRO  
Collin Fox, Scientist, ARRO

**BOROUGH COUNCIL ABSENT:**

**ALSO ABSENT:**

Beverly Hilt, Mayor

**Invocation and Pledge to the Flag**

**Public Comment/Visitors**

Officer Hoshauer, York County Regional Police  
Brent Auchey, Friendship Hose Company  
Matthew Coyne, Friendship Hose Company

Officer Hoshauer reported that he had no action items for council.

Brent Auchey and Matthew Coyne reported that Friendship Hose Company received 14 calls in April, 3 were in Spring Grove Borough.

**Meeting Minutes**

A motion was made to approve the minutes by Peter Lombardi with Kristina Morton providing a second. The motion carried unanimously.

**Treasurer's Report**

Expenses totaling \$425,341.95 – a motion was made to approve by Peter Lombardi with a second made by Phillip Klocek; the motion carried unanimously.

**Administrative Reports**

President

President Stauffer heard good feedback from the community clean up day. The Borough staff were appreciative of the donation from Republic Services.

**Engineering Report****Main Street Improvements**

- PennDOT has completed an initial summary of funding and the final costs of the project.
- PennDOT is planning to close out the project soon.

**MS4/Stormwater**

- MS4 –
  - ARRO continues to update the draft MS4 Annual Report.
  - MCM 1 – Public Education and Outreach
    - ARRO has updated and delivered printed MS4 Educational materials to the municipal office
  - MCM 2 – Public Participation and Involvement
    - Scientist Fox provided a presentation on MS4 (Municipal Separate Storm Sewer System) in April
  - MCM 3 – Illicit Discharge Detection and Elimination
    - No illicit discharges reported from the public.
    - ARRO has updated and reviewed the MS4 mapping documents.
    - ARRO has scheduled outfall inspections with Scott Miller for May 20<sup>th</sup>.
  - MCM 5 – Post-Construction Stormwater Management
    - ARRO and the Borough drafted letters to be sent to property owners with stormwater management facilities requesting annual maintenance records for 2022. Letters were sent to property owners. The Borough will compile submitted maintenance records and follow up with property owners that do not respond to the Borough's letters.

**North Loop Interceptor**

- ARRO is working with the Borough to secure construction easements for the project.

**WWTP Operations:**

- ARRO continues to provide operations consulting assistance to the WWTP operator.

**Borough Park - Phase 3**

- ARRO has sent for owner signature the contract agreement with Shiloh Paving & Excavating, Inc. Upon execution, an issuance to the Contractor a Notice to Proceed will be provided.
- Construction completion anticipated by September 2022.



**Code Enforcement**

- Scott Miller, with assistance on high volume days from ARRO, has completed 91 rental inspections in the month of April.
- Scott Miller, with assistance from ARRO, is working to remove rental properties from the program in cases where they are no longer rental properties (i.e., properties being sold to tenants)
- ARRO has begun discussions to upgrade the Spring Grove system to a Cloud based system to increase the ease of updates to the system and allow access from any computer.
- April 2022 - EXTERIOR CODE ENFORCEMENT
  - Initial Code Enforcement Inspections Performed - April 2022: 1
  - Code Enforcement Re-Inspections Performed - April 2022: 0
  - Properties Issued Code Violations - April 2022: 1
  - Quality of Life Tickets Issued - April 2022: 0
- April 2022 - RENTAL PROPERTY MANAGEMENT
  - Rental Property Registrations (2022) Submitted - As of April 2022: 0
  - Rental Property Annual Registration Fee Paid - As of April 2022: 0
  - Tenant Surveys Submitted - As of April 2022: 0

**GIS**

- ARRO continues to provide as-needed GIS support to Borough office staff and public works/maintenance staff.
- 235 Registered Users to date for Public Notification System.
- ARRO coordinated with YCPC regarding the County's live parcel layer in GIS. Earlier in 2022 ARRO imported the County's live parcel layer into the Borough's GIS system. This will reduce time spent by ARRO by negating the need to manually update the County's parcel data, previously done on a quarterly basis. The County has experienced issues migrating their data to a new cloud platform resulting in routine interruptions to the live parcel layer being utilized by the Borough. The County is hopeful this issue will be resolved in the near future and ARRO has downloaded a Q2 2022 physical layer as a backup.

**Solicitor**

Review of construction easements for the North Loop Interceptor – Council approval for President Stauffer to execute the construction easement for the Robin L & Debra L Mauck property at 203 E. Second Avenue. Robert Whyland made a motion to approve with Kristina Morton providing a second; the motion carried unanimously.

Review of Cannabis Legislation project – no action taken.

**Zoning & Codes Enforcement**

See above

**Recreation**

Spring Grove Regional Parks and Recreation – the intergovernmental agreement will need to be reviewed in the upcoming months.

**Committee Reports**

None at this time.

**New Business**

Council to consider the approval of sending a land lease for a Pocket Park for a portion of 65 S Main Street with the Friendship Hose Company for their review and consideration. Peter Lombardi made a motion to approve with Darrell Ledford providing a second; the motion carried with one nay by Robert Whyland.

Consider approval of \$2,750 expenditure from the Community Development fund for the site concept plan which will allow Borough Staff to seek grant funding contingent upon Friendship Hose Company's execution of the land lease. Peter Lombardi made a motion to approve with Kevin March providing a second. President Rebecca Stauffer requested a roll call vote.

Rebecca J. Stauffer - Yea

Robert Whyland - Nay

Peter Lombardi - Yea

Phillip Klocek - Nay

Kristina Morton - Nay

Kevin March - Yea

Darrell Ledford – Yea

The motion carried.

Council to consider approval of Ordinance 2-2022 to include inspections of lateral plumbing connections by Spring Grove Borough Wastewater Operator. Robert Whyland made the motion to approve with Peter Lombardi providing a second. The motion passed unanimously.

Council discussed possible purchase of 20 S. Water Street and also the authorization of an appraisal to determine the value of the property. The property would need to be subdivided first in order for the Borough to purchase the parcel. No action was taken.

**Old Business**

Update on Roth's Church Road project and the School Board Decision – the school board did pass the project and is moving forward.

**Correspondence and other business**

York County Trail Towns presentation from the Chamber of Commerce meeting was included in the council packet.

Rail Trail Construction update – it appears that they will be done on or ahead of schedule. There will be a dedication on Thursday, June 2<sup>nd</sup>.

Acknowledgement letter of thanks was received from from Glatfelter Memorial Library.

The meeting adjourned at 8:35pm and the next meeting is scheduled for June 20<sup>th</sup> at 7:00pm at the Borough building.

Respectfully Submitted,

Becky Magnani  
Recording Secretary

**MINUTES OF SPRING GROVE BOROUGH  
COUNCIL MEETING  
June 20, 2022**

The Spring Grove Borough Council met for Regular Session on Monday, June 20th, 2022. President Rebecca Stauffer called the meeting to order at 7:00pm.

**BOROUGH COUNCIL PRESENT**

Rebecca J. Stauffer  
Robert Whyland  
Peter Lombardi  
Phillip Klocek  
Kristina Morton – remote  
Kevin March  
Darrell Ledford

**ALSO PRESENT:**

Beverly Hilt, Mayor  
Kim Hackett, Borough Manager  
Scott Miller, Director of Community Development  
  
Peter Ruth, Solicitor  
Collin Fox, Scientist, ARRO

**BOROUGH COUNCIL ABSENT:**

**ALSO ABSENT:**

Becky Magnani, Adm. Asst/Recording Secretary  
Matthew Warfel, Engineer, ARRO

**Invocation and Pledge to the Flag**

**Public Comment/Visitors**

Lieutenant Tobin Zech, York County Regional Police Department  
Brent Auchey, Friendship Hose Company  
Garrett Strouse, Friendship Hose Company

Robert Whyland opened discussion regarding the clarification and recording of meeting motions. Attorney Peter Ruth will clarify the motions prior to Council approval moving forward.

**Meeting Minutes**

A motion was made to approve the May 16, 2022, meeting minutes as amended per Council discussion by Peter Lombardi with Phillip Klocek providing a second. The motion carried unanimously.

**Treasurer's Report**

Expenses totaling \$433,259.27 – a motion was made to approve by Phillip Klocek with a second made by Robert Whyland; the motion carried unanimously.

**Motion to add discussion item to agenda**

President Rebecca Stauffer asked to have a motion brought forward to amend the agenda under New Business to include the discussion of Administrative Assistant job title and description. Peter Lombardi made the motion to amend the agenda under New Business to include the discussion of the Administrative Assistant's job title and description. Darrell Ledford provided a second and the motion carried unanimously.

## **Administrative Reports**

### President

No report

### Mayor

Mayor Hilt opened the floor for the representatives from Friendship Hose Fire Company to present their report. Brent Auchey discussed the land lease for the Pocket Park and the presentation at their next executive meeting. Brent updated Council on the bell tower construction. He also detailed the trash issue with the rental property next to the Fire Department. Borough staff will contact the owners to resolve the situation as needed. Garrett Strouse reviewed the call and incident reports. 28 calls taken with 8 in the Borough last month.

Lte. Zech reviewed the activity report in the Borough since our last meeting. The criminal mischief suspects have been identified and the department is working on closing the case. Kristina Morton asked about the negative hours on the report and Lte. Zech clarified that these are hours the department will need to service the Borough. He also discussed the new Mounted Police Unit at York County Regional. The department is working with local trainers and businesses to secure facilities, funding, and other needs. There has been considerable interest by the officers. Currently a horse trailer (priced at \$55,000) is under negotiation and funds are being sought.

Executive session called at 7:36 pm to discuss security issues in the Borough and services. Session ended at 7:56 pm.

EMA plan continues to be evaluated. The next meeting is August and a new agreement will be drafted.

## **Engineering Report**

### **MS4/Stormwater**

- MS4 –
  - Collin Fox extended his gratitude to Robert Whyland and Scott Miller for meeting to discuss stormwater initiatives in the Borough on June 20.
  - ARRO continues to update the draft MS4 Annual Report
  - ARRO has reviewed the Borough of Spring Grove Stormwater Ordinance for compliance with 2022 requirements and is working to prepare the draft ordinance for review.
  - ARRO has performed BMP inspections with Scott Miller for May 20<sup>th</sup>.

- ARRO to draft violation letter(s) to owners of non-compliant BMPs.
- ARRO has updated the yearly Municipal Employee Training documentation and presentations.

#### Development Plan Reviews

- ARRO working with Scott Miller on Spring Forge plan reviews.

#### North Loop Interceptor

- ARRO is working with the Borough and Borough Solicitor to secure construction easements for the project.
- The DEP Water Quality Management Permit for construction of the interceptor has not yet been issued. In recent correspondence with PA DEP, they believe it will be issued by the end of the month (no concerns with the project; just timing on their end).
- ARRO is waiting to receive approval from the York County Conservation District for the erosion and sediment control and construction-phase stormwater work.
- ARRO is requesting approval from the Borough to advertise the project for bid in early July. ARRO will assist the Borough in managing the bid through PennBid.
- *Motion by Peter Lombardi for Council to authorize ARRO to advertise the North Loop project for bid in July. Phil Klocek second and carried unanimously.*

#### Borough Park - Phase 3

- ARRO has received the executed contract agreement from the Borough and a Notice to Proceed has been provided to the Contractor. Manager Hackett will discuss the Professional Service Agreement under New Business.

#### Code Enforcement

- ARRO has begun discussions to upgrade the Spring Grove system to a Cloud based system to increase the ease of updates to the system and allow access from any computer.
- Scott Miller, with assistance on high volume days from ARRO, has completed 91 rental inspections in the month of May.

#### GIS

- ARRO continues to provide as-needed GIS support to Borough office staff and public works/maintenance staff.
- 237 Registered Users to date for Public Notification System.
  - Approximately \$6,000.00 saved since switching from Nixel based system to the Borough's current system.

- The Borough's current balance for SMS notifications is \$30.00 (started with \$100.00 initially in 2021). ARRO suggest we replenish the account sometime in Q3/Q4 of 2022.

**Solicitor**

Attorney Ruth presented the Roadway Improvement Agreement for the improvements made by the Rail Trail Authority on Hosiery Alley. Council concerns included the lack of highway aid funds to maintain the roadway along with the use by residents along the alley as the surface is not installed for heavy traffic usage. Further action under New Business.

**Zoning & Codes Enforcement**

Director Miller reported that the Dunkin Donuts will open mid-July at this point. Council inquired as to the vacancies at Spring Forge Plaza and the Shipley property on Rt 116. Scott reported that the Shipley Property is under review by a company who owns other service/convenience stores.

**Recreation**

The summer guide and other program flyers are included in the packet. The Codorus event over the weekend was successful and Roths Church Road project continues to move forward.

Manager Hackett informed Council of a Strategic Planning call she and Director Miller participated in for the YMCA of the Roses.

**Committee Reports**

Kristina Morton reported that the Community Development committee met and created the Friends Flyer. Borough staff to post on social media, website, and distribute to local businesses. The Committee is investigating the possibility of holding parades again in the Borough and Kristina will be contacting the Lions Club president.

**New Business**

Council to approve Professional Services Agreement with ARRO Engineering for services for the Community Park Phase 3.

- Robert Whyland made a motion to approve the Professional Services Agreement with ARRO Engineering for services for the Community Park; Peter Lombardi made a second; the motion carried unanimously.

Council to consider approval of Roadway Improvement Agreement for Rail Trail surface at Hosiery Alley.

- Peter Lombardi made a motion to provide the Roadway Improvement Agreement to the Rail Trail Authority for their comment and approval; Kevin March seconded the motion; the motion carried unanimously.

Council to review and approve easements for the North Loop Interceptor

- Robert Whyland made a motion to approve the easement for Paul and Kim Godfrey and to authorize Council President Stauffer to execute the agreement; Darrell Ledford provided the second; the motion carried unanimously.
- Peter Lombardi made a motion to approve the easement for Steven Hogan and to authorize President Stauffer to execute the agreement; Phillip Klocek made a second; the motion carried unanimously.
- Phillip Klocek made a motion to approve the easement for Jackson Township and to authorize President Stauffer to execute the agreement; Peter Lombardi made a second; the motion carried unanimously.
- Robert Whyland made a motion to approve the easement for Glenn Lauchman and to authorize President Stauffer to execute the agreement; Darrell Ledford made a second; the motion carried unanimously.
- Kevin March made a motion to approve the easement for Robin and Deborah Mauck and to authorize President Stauffer to execute the agreement; Peter Lombardi made a second; the motion carried unanimously.

The easement agreement for Pixelle Specialty Solutions was modified by their attorney and presented to Attorney Ruth. The modified agreement is under review by our solicitor and will be presented at the July 18<sup>th</sup> meeting. The easement for Predix Properties will also be presented for approval at this same meeting.

Council to consider approval of handicap parking space for James and Connie Hamilton, residents of 56 N Water Street.

- A motion was made by Robert Whyland to approve one handicap parking space for James and Connie Hamilton; Phillip Klocek seconded; the motion carried unanimously.

Discussion regarding the recording of motions in meeting minutes and approval and execution of agreements by Council.

- The recording of motions is referenced in the beginning of the meetings. Robert Whyland made a motion that any agreement between the Borough and an individual or entity is presented to Council at a regular meeting and is reflected in the meeting minutes. Said agreement is to be approved by Council for signature and execution; Peter Lombardi made a second; the motion carried unanimously.

Council to discuss the Administrative Assistant job title and description

- Manager Hackett asked for a change in Rebecca Magnani's title to better reflect her duties and responsibilities. There are no changes in her compensation, however, the personnel committee will review the job requirements and update them accordingly. Her title will change to Administrative Services Manager.

### **Old Business**

Property on S Water Street owned by Darrell Sterner was brought to the attention of Council at the May 16 meeting, however, the discussion was not pursued due to the need to subdivide the parcel for a parking lot for Borough purchase and use. Scott



Miller and Mayor Hilt reviewed the lack of parking and need on Water Street, as well as other areas of the Borough. Director Miller is going to contact Mr. Sterner to discuss the value of the property as well as reach out to a local realtor for guidance on value. Information will be brought to Council at a future date.

The zoning map amendment process was reviewed by Attorney Ruth and the public will have the opportunity for comment at our July 18<sup>th</sup> meeting.

**Correspondence and other business**

Kristina Morton reviewed the Friends Flyer. Borough staff will continue to post and market the flyer.

The Real Estate Report and the SGRPRC guides and events were mentioned for review in packet.

A motion was made by Phillip Klocek to adjourn the meeting and Peter Lombardi made the second; the motion carried unanimously.

The meeting adjourned at 9:08 pm and the next meeting is scheduled for July 18<sup>th</sup> at 6:30 pm at the Borough building.

Respectfully Submitted,

Kim Hackett  
Borough Manager

ATTACHMENT 2.2  
PUBLIC EVENT INFORMATION



## York County Solid Waste Authority Will Hold A Free Household Hazardous Waste Collection Event

The York County Solid Waste Authority's FREE Household Hazardous Waste (HHW) Collection Event will be held on Saturday, May 7th from 9 a.m.- 1 p.m. The event will be held behind the Authority's Recycle Drop-Off Area located at 2685 Blackthorne Court, York.

Registration is required. Online registration is available for residents at <https://www.eventbrite.com/.../york-county-solid-waste...> until May 6th. Participants who bring a device containing mercury, such as a thermometer or thermostat, will receive a \$5 Lowe's gift card (one per household while supplies last).

While attending the event, all participants must remain in their vehicles and contain all collection materials in the trunk or bed of vehicle (not the back seat). Materials will be removed from vehicle trunk/bed by event staff. No smoking is permitted at any time during the event.

Household hazardous waste includes products from the home that are corrosive (drain cleaners or bleach), flammable (gasoline), reactive (chemistry kits) or toxic (pesticides). The HHW Collection Event benefits York County by identifying hazardous wastes found in the home and providing an opportunity to manage these materials in a safe and efficient manner. Visit <https://www.ycswa.com/accepted-not-accepted-hhw-event/> for a list of products that are and are not accepted at this event.

All York County homeowners or residential tenants are eligible to take advantage of this event. There is no fee to participate. Business and government entities are not eligible to participate. The program is made possible by funding generated from tipping fees collected at the York County Resource Recovery Center and a grant from the Pennsylvania Department of Environmental Protection. After collection, a licensed hazardous waste commercial hauler hired by the Authority will transport the material to permitted hazardous waste sites. These facilities will recycle the materials collected.

The Authority facilitates responsible solid waste management through an integrated strategy that emphasizes waste reduction, education, recycling and resource recovery. The Authority is the owner of the York County Resource Recovery Center, a Small Load Drop Off Facility, a Recyclable Materials Drop-off Center, Ash Recycling & Processing Facility, the now closed York County Sanitary Landfill which hosts the Hopewell Area Recreational Complex and an Education Center. Click [here](#) to visit the YCSWA website.

ATTACHMENT 2.3  
STORMWATER ORDINANCE  
DOCUMENTS

**STORMWATER MANAGEMENT ORDINANCE**

ORDINANCE NO. 2022-4

MUNICIPALITY OF

Spring Grove Borough

YORK COUNTY, PENNSYLVANIA

Adopted at a Public Meeting Held on

September 19, 2022

## Article I – General Provisions

Section 101.	Short Title
Section 102.	Statement of Findings
Section 103.	Purpose
Section 104.	Statutory Authority
Section 105.	Applicability
Section 106.	Repealer
Section 107.	Severability
Section 108.	Compatibility with Other Requirements
Section 109.	Erroneous Permit
Section 110.	Waivers

## Article II – Definitions

## Article III – Stormwater Management Standards

Section 301.	General Requirements
Section 302.	Exemptions and Modified Requirements
Section 303.	Water Quality and Runoff Volume Requirements
Section 304.	Infiltration Requirements
Section 305.	Stream Channel Protection Requirements
Section 306.	Rate Controls
Section 307.	Calculation Methodology
Section 308.	Other Requirements
Section 309.	Riparian Buffers
Section 310.	Permit Requirements by Other Government Entities

## Article IV – Stormwater Management Site Plan Requirements

Section 401.	Plan Requirements
Section 402.	Plan Submission
Section 403.	Plan Review
Section 404.	Modification of Plans
Section 405.	Resubmission of Disapproved SWM Site Plans
Section 406.	Authorization to Construct and Term of Validity
Section 407.	As-Built Plans, Completion Certificate and Final Inspection

## Article V – Operation and Maintenance

Section 501.	Responsibilities of Developers and Landowners
Section 502.	Operation and Maintenance Agreements
Section 503.	Financial Security

## Article VI – Fees and Expenses

Section 601. General

## Article VII – Prohibitions

Section 701. Prohibited Discharges and Connections

Section 702. Roof Drains and Sump Pumps

Section 703. Alteration of SWM BMPs

## Article VIII – Enforcement and Penalties

Section 801. Right-of-Entry

Section 802. Inspection

Section 803. Enforcement

Section 804. Suspension and Revocation

Section 805. Penalties

Section 806. Appeals

## Article IX – References

Appendix A – Simplified Approach to Stormwater Management for Small Projects

Appendix B – Runoff Coefficients and Curve Numbers

Appendix C – Operation and Maintenance Agreement

Appendix D – Conservation Design & Low Impact Development Site Design

## **ARTICLE I – GENERAL PROVISIONS**

### **Section 101. Short Title**

This Ordinance shall be known and may be cited as the “Spring Grove Borough Stormwater Management Ordinance.”

### **Section 102. Statement of Findings**

The Borough Council of Spring Grove Borough, York County, Pennsylvania, finds that:

- A. Inadequate management of accelerated runoff of stormwater resulting from development throughout a watershed increases runoff volumes, flows and velocities, contributes to erosion and sedimentation, overtakes the carrying capacity of streams and storm sewers, greatly increases the cost of public facilities to carry and control stormwater, undermines flood plain 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 (SWM), 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 that provides groundwater recharge for water supplies and supports the base flow of streams.
- D. The use of green infrastructure and low impact development (LID) are intended to address the root cause of water quality impairment by using systems and practices which use or mimic natural processes to: 1) infiltrate and recharge, 2) evapotranspire, and/or 3) harvest and use precipitation near where it falls to earth. Green infrastructure practices and LID contribute to the restoration or maintenance of pre-development hydrology.
- E. 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) program.

### **Section 103. Purpose**

The purpose of this Ordinance is to promote health, safety, and welfare within the Borough and its watershed by minimizing the harms and maximizing the benefits described in Section 102 of this Ordinance, 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 the Commonwealth.
- B. Preserve natural drainage systems.
- C. Manage stormwater runoff close to the source, reduce runoff volumes and mimic predevelopment hydrology.
- 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 streambeds.
- G. Provide proper operation and maintenance of all stormwater best management practices (BMPs) that are implemented within the Municipality.
- H. Provide standards to meet NPDES permit requirements.

#### **Section 104. Statutory Authority**

The Borough of Spring Grove is 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, and/or the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, The Stormwater Management Act. The Borough Code, 8 Pa.C.S.A Section 101 et seq.

#### **Section 105. Applicability**

- A. All regulated activities and all activities that may affect stormwater runoff, including land development and earth disturbance activity, are subject to regulation by this Ordinance.
- B. Duty of Persons Engaged in a Regulated Activity

Notwithstanding any provision(s) of this Ordinance, including exemptions, any Landowner or any person engaged in a Regulated Activity, including but not limited to the alteration or development of land, which may affect stormwater runoff characteristics, shall implement such measures as are reasonably necessary to prevent injury to health, safety, or other property. Such measures also shall include actions as are required to manage the rate, volume, direction, and quality of resulting stormwater runoff in a manner which otherwise adequately protects health, property, and water quality of Waters of the Commonwealth.

### C. Phased and Incremental Project Requirements

1. Any Regulated Activity (including but not limited to New Development, Redevelopment, or Earth Disturbance) that is to take place incrementally or in phases, or occurs in sequential projects on the same parcel or property, shall be subject to regulation by this Ordinance if the cumulative Proposed Impervious Surface or Earth Disturbance exceeds the corresponding threshold for exemption (as presented in Table 302.1 "Thresholds for Regulated Activities that are Exempt from the Provisions of this Ordinance as Listed Below").
2. The date of adoption of this Ordinance shall be the starting point from which to consider tracts as parent tracts relative to future subdivisions, and from which Impervious Surface and Earth Disturbance computations shall be cumulatively considered, unless such requirements have previously been adopted, then the earliest date of the applicable municipal ordinance adoption shall remain as the starting point.

For example:

If, after adoption of this Ordinance, an Applicant proposes construction of a two hundred (200) square foot shed, that project would be exempted from the requirements of this Ordinance as noted in Table 302.1. If, at a later date, an Applicant proposes to construct a nine hundred (900) square foot room addition on the same property, the Applicant would then be required to implement the stormwater management and plan submission requirements of this Ordinance for the cumulative total of one thousand one hundred (1,100) square feet of additional Impervious Surface added to the property since adoption of this Ordinance.

This Ordinance shall operate in coordination with those parallel requirements of federal, state, and local regulations. The requirements of this Ordinance shall be no less restrictive in meeting the requirements for environmentally-safe water quality and water patterns than the requirements of federal, state and other local regulations.

- D. All regulated conditions and activities require a Stormwater Management Permit as issued by the Borough or a Stormwater Management Exemption as issued by the Borough.

### Section 106. Repealer

Any other ordinance provision(s), regulation, or portion thereof, of the Borough of Spring Grove inconsistent with any of the provisions of this Ordinance is hereby repealed to the extent of the inconsistency only.

#### **Section 107. Severability**

In the event that a court of competent jurisdiction declares any word, sentence, phrase, section or provision of this Ordinance invalid, such decision shall not affect the validity of any of the remaining provisions of this Ordinance.

#### **Section 108. Compatibility with Other Requirements**

Approvals issued and actions taken under this Ordinance do not relieve the Applicant of the responsibility to secure required permits or approvals for activities regulated by any other code, law, regulation or ordinance.

#### **Section 109. 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 a board, agency or employee of the Borough of Spring Grove purporting to validate such a violation.

#### **Section 110. Waivers**

- A. If the Borough of Spring Grove determines that any requirement under this Ordinance cannot be achieved for a particular regulated activity, it may, after an evaluation of alternatives, approve measures other than those in this Ordinance, subject to paragraphs B and C below.
- B. Waivers or modifications of the requirements of this Ordinance may be approved by the Borough of Spring Grove if strict enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that the modifications will not be contrary to the public interest and that the purpose of the Ordinance is preserved. Cost or financial burden shall not be considered a hardship. Modification may be considered if an alternative standard or approach will provide equal or better achievement of the purpose of the Ordinance. A request for modifications shall be in writing and accompany the Stormwater Management Site Plan submission. The request shall provide the facts on which the request is based, the provision(s) of the Ordinance involved and the proposed modification.
- C. No waiver or modification of any regulated stormwater activity involving earth disturbance greater than or equal to one (1) acre may be granted by the Borough of Spring Grove unless that action is approved in advance by the Department of Environmental Protection (DEP) or the York County Conservation District.

## ARTICLE II – DEFINITIONS

For the purposes of this Ordinance, certain terms and words used herein shall be interpreted as follows:

- A. Words used in the present tense include the future tense; the singular number includes the plural, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.
- B. The word “includes” or “including” shall not limit the term to the specific example but is intended to extend its meaning to all other instances of like kind and character.
- C. The words “shall” and “must” are mandatory; the words “may” and “should” are permissive.

These definitions do not necessarily reflect the definitions contained in pertinent regulations or statutes, and are intended for this Ordinance only.

**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 agricultural cultivation, agricultural operation, 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 Municipality for approval to engage in any regulated activity at a project site in the Municipality.

**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 Ordinance. Stormwater BMPs are commonly grouped into one of two broad categories or measures: “structural” or “non-structural.” In this Ordinance, non-structural 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.

**Carbonate Geology (or carbonate rock formations)** – See Karst.

**Channel** – A natural or artificial open drainage feature that conveys, continuously or periodically, flowing water and through which stormwater flows. Channels include, but shall not be limited to, natural and man-made drainageways, swales, streams, ditches, canals, and pipes flowing partly full.

**CFS** – Cubic Feet per Second

**Clean Water Act** - The Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq., and any subsequent amendments thereto.

**CN** - Curve number.

**Conservation District** – A conservation district, 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.

**Conveyance** – A natural or manmade, existing or proposed Stormwater Management Facility, feature or channel used for the transportation or transmission of stormwater from one place to another. For the purposes of this Ordinance, Conveyance shall include pipes, drainage ditches, channels and swales (vegetated and other), gutters, stream channels, and like facilities or features.

**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 5-year storm) and duration (e.g., 24 hours) used in the design and evaluation of stormwater management systems. Also see Return Period.

**Detention (or To Detain)** – Capture and temporary storage of runoff in a Stormwater Management Facility for release at a controlled rate.

**Detention Basin** – An impoundment designed to collect and retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate. Detention basins are designed to drain completely shortly after any given rainfall event.

**Detention Volume** – The volume of runoff that is captured and released into the Waters of the Commonwealth 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 at a Site in the Municipality.

**Development Site (Site)** - See "Project Site."

**DEP** – The Pennsylvania Department of Environmental Protection.

**Diameter at Breast Height (DBH)** - The outside bark diameter of a tree at breast height which is defined as four and one half (4.5') feet (one and thirty-seven one-hundredths of a meter (1.37 m)) above the forest floor and/or ground on the uphill side of the tree.

**Disturbed Area** – An unstabilized land area where an earth disturbance activity is occurring or has occurred.

**Drainage Area** - That land area contributing runoff to a single point (including but not limited to the point/line of interest used for hydrologic and hydraulic calculations) and that is enclosed by a natural or man-made ridge line.

**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.

**E & S Manual** - Erosion and Sediment Pollution Control Manual, as amended and updated.

**Earth Disturbance (or 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.

**Easement** - A right of use granted by a Landowner to allow a grantee the use of the designated portion of land for a specified purpose, such as for stormwater management or other drainage purposes.

**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 plan required by the Conservation District or the Municipality to minimize accelerated erosion and sedimentation, and that must be prepared and approved per the applicable requirements.

**Existing Condition** – The dominant land cover during the five (5) year period immediately preceding a proposed regulated activity.

**FEMA** – Federal Emergency Management Agency.

**Flood** - A temporary condition of partial or complete inundation of land areas from the overflow of streams, rivers, and other Waters of the Commonwealth.

**Floodplain** – Any land area susceptible to inundation by water from any natural source or delineated by applicable FEMA maps and studies as being a special flood hazard area. Also includes areas that comprise Group 13 Soils, as listed in Appendix A of the Pennsylvania DEP Technical Manual for Sewage Enforcement Officers (as amended or replaced from time to time by DEP).

**Floodway** – The channel of the watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the 100-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 100-year floodway, it is presumed, absent evidence to the contrary, that the floodway extends from the stream to fifty (50) feet from the top of the bank of the stream.

**Forest Management/Timber Operations** – Planning and activities necessary for the management of forestland. 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.

**Freeboard** - A vertical distance between the design high-water elevation and the elevation of the top of a dam, levee, tank, basin, swale, or diversion berm. The space is required as a safety margin in a pond or basin.

**Green Infrastructure** – Systems and practices that use or mimic natural processes to infiltrate, evapotranspire, or reuse stormwater on the site where it is generated.

**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.

**HEC-1** - The U.S. Army Corps of Engineers, Hydrologic Engineering Center (HEC) hydrologic runoff model.

**HEC-HMS** - The U.S. Army Corps of Engineers, Hydrologic Engineering Center (HEC) - Hydrologic Modeling System (HMS).

**High Tunnel** – A structure which meets the following:

1. Is used for the production, processing, keeping, storing, sale or shelter of an agricultural commodity as defined in section 2 of the Act of December 19, 1974 (P.L. 973, No. 319), known as the “Pennsylvania Farmland and Forest Land Assessment Act of 1974,” or for the storage of agricultural equipment or supplies; and
2. Is constructed with all the following:
  - a. Has a metal, wood or plastic frame;
  - b. When covered, has a plastic, woven textile or other flexible covering; and
  - c. Has a floor made of soil, crushed stone, matting, pavers or a floating concrete slab.

**Hotspots** - Areas where prior or existing land use or activities can potentially generate highly contaminated runoff with concentrations of pollutants in excess of those typically found in stormwater.

**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<sup>1,2</sup>).

**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 (or areas) shall include, but not be limited to: roofs; additional indoor living spaces, patios, garages, storage sheds and similar structures; and any new streets or sidewalks. For the purposes of determining compliance with this Ordinance; decks, pools, and compacted soils or stone surfaces used for vehicle parking and movement shall be considered impervious.

**Infiltration** - Movement of surface water into the soil, where it is absorbed by plant roots, evaporated into the atmosphere, or percolated downward to recharge groundwater.

**Infiltration Facility** - A stormwater BMP designed to collect and discharge runoff into the subsurface in a manner that allows infiltration into underlying soils and groundwater (e.g., French drains, seepage pits, or seepage trenches, etc.).

**Intermittent Stream** - A defined channel in which surface water is absent during a portion of the year, in response to seasonal variations in precipitation or groundwater discharge.

**Invert** - The lowest surface, the floor or bottom of a culvert, pipe, drain, sewer, channel, basin, BMP, or orifice.

**Karst** – A type of topography or landscape characterized by surface depressions, sinkholes, rock pinnacles/uneven bedrock surface, underground drainage, and caves. Karst is formed on carbonate rocks, such as limestone or dolomite.

**Land Development (Development)** – Any of the following activities:

- A. The improvement of one (1) lot or two (2) or more contiguous lots, tracts, or parcels of land for any purpose involving:
  - 1. A group of two (2) or more residential 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, whether initially or cumulatively, between or among two (2) 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 (as amended).

**Landowner** - The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), a lessee if they are authorized under the lease to exercise the rights of the Landowner, or other person having a proprietary interest in the land.

**Licensed Professional** - A Pennsylvania Registered Professional Engineer, Registered Landscape Architect, Registered Professional Land Surveyor, or Registered Professional Geologist, or any person licensed by the Pennsylvania Department of State or qualified by law to perform the work required by the Ordinance within the Commonwealth of Pennsylvania.

**Limiting Zone** - A soil horizon or condition in the soil profile or underlying strata that includes one of the following:

- A. A seasonal high water table, whether perched or regional, determined by direct observation of the water table or indicated by other subsurface or soil conditions.
- B. A rock with open joints, fracture or solution channels, or masses of loose rock fragments, including gravel, with insufficient fine soil to fill the voids between the fragments.
- C. A rock formation, other stratum, or soil condition that is so slowly permeable that it effectively limits downward passage of water.

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

**Maintenance** - The action taken to restore or preserve the as-built functional design of any Stormwater Management Facility or system.

**MPC** - Act of July 31, 1968, P.L. 805, No. 247, 53 P.S. Section 10101, et seq., as amended, the Pennsylvania Municipalities Planning Code, Act 247.

**Municipal Engineer** - A professional engineer licensed as such in the Commonwealth of Pennsylvania, duly appointed as the engineer for the Municipality, planning agency, or joint planning commission.

**Municipality** – Spring Grove Borough, York County, Pennsylvania.

**Municipal Separate Storm Sewer (MS3)** — A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) which is all of the following:

- A. Owned or operated by a state, city, town, borough, township, county, district, association or other public body (created under state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater or other wastes;
- B. Designed or used for collecting or conveying stormwater;
- C. Not a combined sewer; and
- D. Not part of a publicly owned treatment works as defined at 40 CFR 122.2.

**Municipal Separate Storm Sewer System (MS4)** — All separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems pursuant to 40 CFR 122.26(b)(18) or designated as regulated under 40 CFR 122.26(a)(1)(v). For the purposes of determining compliance with this ordinance; all Municipal Separate Storm Sewers shall be considered part of an MS4.

**New Development** - Any Regulated Activity involving placement or construction of new Impervious Surface or grading over existing pervious land areas not classified as Redevelopment as defined in this Ordinance.

**Nonpoint Source Pollution** - Pollution that enters a water body from diffuse origins in the watershed and does not result from discernible, confined, or discrete Conveyances.

**Non-stormwater Discharges** - Water flowing in stormwater collection facilities, such as pipes or swales, which is not the result of a rainfall event or snowmelt.

**Nonstructural Best Management Practice (BMPs)** - See Best Management Practice (BMP).

**NOAA** - National Oceanic and Atmospheric Administration.

**NPDES** - National Pollutant Discharge Elimination System, the Federal government's system for issuance of permits under the Clean Water Act, which is delegated to DEP in Pennsylvania.

**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.

**Parent Tract** - The parcel of land from which a land development or subdivision originates, determined from the date of municipal adoption of this Ordinance.

**Peak Discharge** - The maximum rate of stormwater runoff from a specific storm event.

**PennDOT** - Pennsylvania Department of Transportation.

**Pennsylvania Stormwater Best Management Practices Manual (PA BMP Manual)** - Document Number 363-0300-002 (December 2006, and as subsequently amended).

**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 (or Pervious Surface)** - Any area not defined as impervious.

**Point Source** - Any discernible, confined, and discrete Conveyance including, but not limited to, any pipe, ditch, channel, tunnel, or conduit from which stormwater is or may be discharged, as defined in State regulations at 25 Pennsylvania Code § 92.1.

**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.

**Post-construction (Postdevelopment)** - Period after construction during which Disturbed Areas are stabilized, stormwater controls are in place and functioning, and all proposed improvements approved by the Municipality are completed.

**Predevelopment (Pre-construction)** -Ground cover conditions assumed to exist within the proposed Disturbed Area prior to commencement of the Regulated Activity for the purpose of calculating the Predevelopment water quality volume, infiltration volume, and peak flow rates as required in this Ordinance.

**Premises** - Any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalk and parking strips.

**Pretreatment** - Techniques employed in stormwater BMPs to provide storage or filtering, or other methods to trap or remove coarse materials and other pollutants before they enter the stormwater system, but may not necessarily be designed to meet the entire water quality volume requirements of this Ordinance.

**Project Site** – The specific area of land where any regulated activities in the Municipality are planned, conducted, or maintained.

**Proposed Impervious Surface** – All new additional and replacement Impervious Surfaces.

**Qualified Professional** – Any person licensed by the Pennsylvania Department of State or otherwise qualified by law to perform the work required by this Ordinance. (See also, Licensed Professional)

**Rainfall Intensity** - The depth of accumulated rainfall per unit of time.

**Recharge** - The replenishment of groundwater through the infiltration of rainfall, other surface waters, or land application of water or treated wastewater.

**Redevelopment** - Any Regulated Activity that involves demolition, removal, reconstruction, or replacement of existing Impervious Surface(s).

**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 92, 25 Pa. Code 102, or the Clean Streams Law.

**Regulated Impervious Surface** - Proposed impervious surface as part of a current proposed activity and all existing impervious surfaces installed after , 2022, as part of previous activity.

**Retention (or To Retain)** - The prevention of direct discharge of stormwater runoff into surface waters or water bodies during or after a storm event by permanent containment in a pond or

depression; examples include systems which discharge by percolation to groundwater, exfiltration, and/or evaporation processes and which generally have residence times of less than three (3) days.

**Retention Basin** - An impoundment that is designed to temporarily detain a certain amount of stormwater from a catchment area and which may be designed to permanently retain stormwater runoff from the catchment area; retention basins always contain water.

**Retention Volume/Removed Runoff** – The volume of runoff that is captured and not released directly into the surface Waters of the 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 25-year return period rainfall would be expected to occur on average once every 25 years; or stated in another way, the probability of a 25-year storm occurring in any one year is 0.04 (i.e., a 4% chance).

**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.

**Riparian** - Pertaining to anything connected with or immediately adjacent to the banks of a stream or other body of water.

**Riparian Buffer** – A permanent area of trees and shrubs located adjacent to streams, lakes, ponds and wetlands.

**Runoff** – Any part of precipitation that flows over the land.

**SALDO** - See Subdivision and Land Development Ordinance.

**SCS** - Soil Conservation Service, now known as the Natural Resources Conservation Service.

**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.

**Separate Storm Sewer System** – See Municipal Separate Storm Sewer and Municipal Separate Storm Sewer System.

**Sheet Flow** - A flow process associated with broad, shallow water movement on sloping ground surfaces that is not channelized or concentrated.

**Site** - Total area of land in the Municipality where any proposed Regulated Activity, as defined in this Ordinance, is planned, conducted, or maintained or that is otherwise impacted by the Regulated Activity.

**Soil Cover Complex Method** - A method of runoff computation developed by NRCS that is based on relating soil type and land use/cover to a runoff parameter called curve number (CN).

**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.

**State Water Quality Requirements** – The current regulatory requirements to protect, maintain, reclaim, and restore water quality under Title 25 of the Pennsylvania Code and the Clean Streams Law.

**Stormwater** – Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

**Storm Frequency** - (see Return Period).

**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 (SWM) 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 Ordinance. **Stormwater Management Site Plan** will be designated as **SWM Site Plan** throughout this Ordinance.

**Stream** - A natural watercourse.

**Subdivision** – As defined in The Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247.

**Subdivision and Land Development Ordinance** – the Subdivision and Land Development Ordinance of Spring Grove Borough, York County, PA, as amended. Also referred to as “SALDO”.

**Swale** - An artificial or natural waterway or low-lying stretch of land that gathers and conveys stormwater or runoff, and is generally vegetated for soil stabilization, stormwater pollutant removal, and infiltration.

**Top-of-bank** - Highest point of elevation of the bank of a stream or channel cross-section at which a rising water level just begins to flow out of the channel and into the floodplain.

**USDA** – The United States Department of Agriculture.

**Wastewater** - Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

**Waters 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 a 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.

**Water Table** - The upper most level of saturation of pore space or fractures by groundwater. Seasonal High Water Table refers to a water table that rises and falls with the seasons due either to natural or man-made causes.

**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.

**Woods** - Any land area of at least one-quarter (0.25) acre with a natural or naturalized ground cover (excluding manicured turf grass) and that has an average density of two (2) or more viable trees per one thousand five hundred (1,500) square feet with a DBH of six (6”) inches or greater. The land area to be considered Woods shall be measured from the outer drip lines of the outer trees.

**YCCD** - York County Conservation District.



## **ARTICLE III – STORMWATER MANAGEMENT STANDARDS**

### **Section 301. General Requirements**

- A. For all regulated activities, unless preparation of an SWM Site Plan is specifically exempted in Section 302:
  - 1. Preparation and implementation of an approved SWM Site Plan is required.
  - 2. No regulated activities shall commence until:
    - a) the Municipality issues written approval of an SWM Site Plan, which demonstrates compliance with the requirements of this Ordinance; and
    - b) The Applicant has received a letter of adequacy or approval for the Erosion and Sediment Control Plan review by the Municipality and the Conservation District (if required), and has received all other local, State and Federal permit approvals required for the project involving the Regulated Activity.
- B. Neither submission of an SWM Site Plan under the provisions herein nor compliance with the provisions of this Ordinance shall relieve any person from responsibility for damage to any person or property otherwise imposed by law.
- C. SWM Site Plans approved by the Municipality, in accordance with Section 406, shall be on site throughout the duration of the regulated activity.
- D. The Municipality may, after consultation with DEP, approve measures for meeting the state water quality requirements other than those in this Ordinance, provided that such alternative measures meet the minimum requirements of, and do not conflict with, state law including, but not limited to, the Clean Streams Law.
- E. For all regulated earth disturbance activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated earth disturbance activities (e.g., during construction) to meet the purposes and requirements of this Ordinance 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 Manual3), No. 363-2134-008, as amended and updated.
- 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 stages.

2. For development taking place in stages, the entire development plan shall be used in determining compliance with this Ordinance.
  3. For projects that add impervious area to a parcel, the total impervious area on the parcel is subject to the requirements of this Ordinance; except that the volume controls in Section 303 and the peak rate controls of Section 306 do not need to be retrofitted for existing impervious areas that are not being altered by the proposed regulated activity.
- G. Stormwater flows onto adjacent property shall not be created, increased, relocated, or otherwise altered without written notification to the adjacent property owner(s). Such stormwater flows shall be subject to the requirements of this Ordinance.
- 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 Ordinance by implementing measures to:
    - a. Minimize disturbance to floodplains, wetlands, and wooded areas.
    - b. Maintain or extend riparian buffers.
    - c. Avoid erosive flow conditions in natural flow pathways.
    - d. Minimize thermal impacts to Waters of the Commonwealth.
    - e. Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.
  3. Incorporate methods described in the *Pennsylvania Stormwater Best Management Practices Manual* (PA BMP Manual<sup>3</sup>). If methods other than green infrastructure and LID methods are proposed to achieve the volume and rate controls required under this Ordinance, the SWM Site Plan must include a detailed justification demonstrating that the use of LID and green infrastructure is not practicable.
- I. For areas underlain by Karst or carbonate geology that may be susceptible to the formation of sinkholes and other Karst features, the location, type, and design of infiltration BMPs shall be based on a Site evaluation conducted by a qualified Licensed Professional and based on the PA BMP Manual (as amended) or other design guidance acceptable to the Municipal Engineer.
- 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 Ordinance.

- K. Normally dry, open top, storage facilities should completely drain both the volume control and rate control capacities over a period of time not less than 24 and not more than 72 hours from the end of the design storm.
- L. The design of all BMPs and Conveyances shall incorporate sound engineering principles and practices in a manner that does not aggravate existing stormwater problems as identified by the Municipality. The Municipality reserves the right to disapprove any design that would result in construction in an area affected by existing stormwater problem(s) or continuation of an existing stormwater problem(s).
- M. The design storm volumes to be used in the analysis of peak rates of discharge should be obtained from the latest version of the Precipitation-Frequency Atlas of the United States, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Spring, Maryland.

NOAA's Atlas 14<sup>5</sup> can be accessed at: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.

- N. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Storm Water Management Act.
- O. Various BMPs and their design standards are listed in the BMP Manual<sup>4</sup>.
- P. Areas located outside of the Site (i.e., areas outside of the Regulated Activity) that drain through a proposed Site are not subject to water quality and volume control, infiltration, stream channel protection, or peak flow rate control requirements (as presented in Sections 303, 304, 305, and 306). Drainage facilities located on the Site shall be designed to safely convey flows from outside of the Site through the Site.
- Q. Existing wetlands, either on the Site or on an adjacent property, shall not be used to meet the minimum design requirements for stormwater management or stormwater runoff quality treatment. Stormwater discharges to existing wetlands shall not degrade the quality or hydrologic integrity of the wetland.
- R. Hotspots Runoff Controls -

Specific structural or pollution prevention practices may be required, as determined to be necessary by the Municipal Engineer, to pretreat runoff from Hotspots prior to infiltration. Following is a list of examples of Hotspots:

1. Vehicle salvage yards and recycling facilities;
2. Vehicle fueling stations;
3. Vehicle service and maintenance facilities;

4. Vehicle and equipment cleaning facilities;
5. Fleet storage areas (bus, truck, etc.);
6. Industrial sites based on Standard Industrial Classification Codes;
7. Marinas (service and maintenance areas);
8. Outdoor liquid container storage;
9. Outdoor loading/unloading facilities;
10. Public works storage areas;
11. Facilities that generate or store hazardous materials;
12. Commercial container nursery;
13. Contaminated sites/brownfields;
14. Other land uses and activities as designated by the Municipality.

S. Additional Water Quality Requirements -

The Municipality may require additional stormwater control measures for stormwater discharges to special management areas including, but not limited to:

1. Water bodies listed as “impaired” by DEP.
2. Any water body or watershed with an approved Total Maximum Daily Load (TMDL).
3. Areas of known existing flooding problems.
4. Critical areas with sensitive resources (e.g., State designated special protection waters, cold water fisheries, carbonate geology or other groundwater recharge areas that may be highly vulnerable to contamination, drainage areas to water supply reservoirs, etc.).

T. All Regulated Activities located within a Special Flood Hazard Area designated by the Federal Emergency Management Agency (FEMA) shall comply with Chapter 117 of the Spring Grove Borough Code of Ordinances, more specifically known as the “Spring Grove Borough Floodplain Management Ordinance” and shall be designed to maintain the flood carrying capacity of the floodway such that the base flood elevations are not increased, either upstream or downstream. The natural conveyance characteristics of the Site and the receiving floodplain shall be incorporated into the stormwater management practices proposed for the Site.

## **Section 302. Exemptions and modified requirements**

- A. General exemptions. Regulated activities that involve less than or equal to 1,000 square feet of proposed impervious surfaces and less than or equal to 5,000 square feet of earth disturbance or are listed in Subsection H are exempt from those (and only those) requirements of this chapter that are included in the sections and articles listed in Table 302.1. Exemptions are for the items noted in Table 302.1 only and shall not relieve the landowner from other applicable requirements of this chapter. Exemption shall not relieve the Applicant from implementing such measures as are necessary to protect health, safety, and welfare, property, and water quality.
- B. Agricultural activity is exempt from the SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
- C. Forest management and timber operations are exempt from the SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
- D. Exemptions from any provisions of this Ordinance shall not relieve the Applicant from the requirements in Sections 301.E. through M.
- E. The Municipality may deny or revoke any exemption or modified requirements pursuant to this Section at any time for any project that the Municipality believes may pose a threat to public health and safety or the environment.
- F. Requirements for Exempt Activities
  - 1. An exemption from any requirement of this Ordinance shall not relieve the Applicant from implementing all other applicable requirements of this Ordinance or from implementing such measures as are necessary to protect public health, safety, and welfare, property and water quality.
  - 2. An exemption shall not relieve the Applicant from complying with the requirements for State-designated special protection waters designated by DEP as high quality (HQ) or exceptional value (EV) waters, or any other current or future State or municipal water quality protection requirements.
  - 3. An exemption under this Ordinance shall not relieve the Applicant from complying with all other applicable municipal ordinances or regulations.

4. Any Applicant desiring exemption from design, plan submission, and plan processing requirements shall complete an application for exemption in the form available at the Municipality's office and pay any applicable filing fee.

**Table 302.1**  
**Thresholds for Regulated Activities Exempt from Chapter Provisions**

<b>Ordinance Article/Section</b>	<b>Activities Listed In § 302.H</b>	<b>&lt; 1,000 Square Feet of Proposed Impervious Surfaces AND &lt; 5,000 Square Feet of Proposed Earth Disturbance</b>	<b>&gt; 1,000 Square Feet of Proposed Impervious Surfaces OR &gt; 5,000 Square Feet of Proposed Earth Disturbance</b>
Article I	Not exempt	Not exempt	Not exempt
Article II	Not exempt	Not exempt	Not exempt
Sections 310 and 301.E	Not exempt	Not exempt	Not exempt
Sections 301, 303, 304, 305, 306, 307, and 308	Exempt	Exempt	Not exempt
Article IV	Exempt	Exempt	Not exempt
Article V	Exempt	Exempt	Not exempt
Article VI	Exempt	Exempt	Not exempt
Article VII	Not Exempt	Not Exempt	Not exempt
Article VIII	Not exempt	Not exempt	Not exempt
Other Erosion, Sediment and Pollution Control Requirements	Must comply with Title 25, Chapter 102 of the PA Code and other applicable State and municipal codes, including the Clean Streams Law.		

#### H. Exemptions for Specific Activities

The following specific Regulated Activities are exempt from the requirements of Sections 301, 303, 304, 305, 306, 307, and 308, and Article IV, Article V, and Article VI ) of this Ordinance (as shown in Table 302.1), unless otherwise noted below. All other conveyance and system design standards established by the Municipality in other codes or ordinances shall be required, and all other provisions of this Ordinance shall apply.

1. Emergency Exemption - Emergency maintenance work performed for the protection of public health, safety and welfare. This exemption is limited to repair of an existing Stormwater Management Facility; upgrades, additions or other improvements are not exempt. A written description of the scope and extent of any emergency work performed shall be submitted to the Municipality within two (2) business days of the commencement of the activity. A detailed plan shall be submitted no later than thirty (30) calendar days following commencement of the activity. If the Municipality finds that the work is not an emergency, then the work shall cease immediately and the requirements of this Ordinance shall be addressed as applicable.
2. Maintenance - Any maintenance to an existing Stormwater Management Facility, BMP or Conveyance made in accordance with plans and specifications approved by the Municipal Engineer or Municipality.
3. Existing Landscaping - Use of land for maintenance, replacement or enhancement of existing landscaping.
4. Gardening - Use of land for gardening for home consumption.
5. Agricultural Related Activities -
  - a. Agricultural Activities (as defined in Article II), when performed in accordance with the requirements of 25 PA Code Chapter 102.
  - b. High Tunnel if:
    - i. The High Tunnel or its flooring does not result in an impervious surface exceeding 25% of all structures located on the Landowner's total contiguous land area under common ownership; and
    - ii. The High Tunnel meets one of the following:
      1. The High Tunnel is located at least 100 feet from any perennial stream or watercourse, public road or neighboring property line
      2. The High Tunnel is located at least 35 feet from any perennial stream or watercourse, public road or neighboring property line and

located on land with a slope not greater than 7%

3. The High Tunnel is supported with a buffer or diversion system that does not directly drain into a stream or other watercourse by managing stormwater runoff in a manner consistent with the requirements of Pennsylvania Act 167.
  6. Forest Management - Forest management operations, which are consistent with a sound forest management plan as filed with the Municipality and which comply with the Pennsylvania Department of Environmental Protection's management practices contained in its publication "Soil Erosion and Sedimentation Control Guidelines for Forestry" (as amended or replaced by subsequent guidance). Such operations are required to have an Erosion and Sedimentation Control Plan, which meets the requirements of 25 PA Code Chapter 102 and meets the erosion and sediment control standards of Section 303 of this Ordinance.
  7. Maintenance of Existing Gravel and Paved Surfaces - Replacement of existing gravel and paved surfaces shall meet the erosion and sediment control requirements of 25 PA Code Chapter 102 and Section 301.E of this Ordinance, and is exempt from all other requirements of this Ordinance listed in Subsection 302.H above. Resurfacing of existing gravel and paved surfaces is also exempt from the requirements of this Ordinance listed above. Paving of existing gravel surfaces is exempt from the requirements of this Ordinance listed above. Construction of new or additional Impervious Surfaces shall comply with all requirements of this Ordinance as indicated in Table 302.1.
  8. Municipal Roadway Shoulder Improvements - Shoulder improvements conducted within the existing roadway cross-section of municipal owned roadways, unless an NPDES permit is required, in which case the proposed work must comply with all requirements of this Ordinance.
  9. In-Place Replacement of Residential Dwelling Unit - The replacement in the exact footprint of an existing one- or two-family dwelling unit.
  10. In-Place Replacement, Repair, or Maintenance of Residential Impervious Surfaces - The replacement of existing residential patios, decks, driveways, pools, garages, and/or sidewalks that are accessory to an existing one- or two-family dwelling unit in the exact footprint of the existing Impervious Surface.
- I. Modified Requirements for Small Projects
1. Regulated Activities that involve both of the following: 1) 1,000 to 2,500 square feet of Proposed Impervious Surfaces and 2) 1,000 to 5,000 square feet of proposed Earth Disturbance may apply the modified requirements presented in the "Simplified Approach to Stormwater Management for Small Projects" (Simplified Approach) (Appendix A) to comply with the requirements of Sections 301, 303, 304, 305, 306,



307, and 308, and Article IV, Article V, and Article VI of this Ordinance (as shown in Table 302.2). The Applicant shall first contact the Municipal Engineer: to confirm that the proposed project is eligible for use of the Simplified Approach and is not otherwise exempt from these Ordinance provisions; to determine what components of the proposed project are to be considered as Impervious Surfaces; and to determine if other known Site or local conditions exist that may preclude the use of any techniques included in the Simplified Approach. Appendix A includes instructions and procedures for preparation, submittal, review and approval of documents required when using the Simplified Approach and shall be adhered to by the Applicant. All other provisions of this Ordinance shall apply.”

**TABLE 302.2**

**Thresholds for Regulated Activities that are Eligible for “Modified” Requirements for the Provisions of this Ordinance that are Listed Below**

<b>Ordinance Article/Section</b>	<b>Activities Listed in Subsection 302.I</b>
Article I	All Provisions Apply
Article II	All Provisions Apply
Sections 310 and 301.E	All Provisions Apply
Sections 301, 303, 304, 305, 306, 307, and 308	Exempt if Modified Requirements of 302.I are Applied
Article IV	Exempt if Modified Requirements of 302.I are Applied
Article V	Exempt if Modified Requirements of 302.I are Applied
Article VI	Exempt if Modified Requirements of 302.I are Applied
Article VII	Exempt if Modified Requirements of 302.I are Applied
Article VIII	All Provisions Apply
Other Erosion, Sediment and Pollution Control Requirements	Must comply with Title 25, Chapter 102 of the PA Code and other applicable State and municipal codes, including the <u>Clean Streams Law</u>

**Table 302.2 Notes:**

- “Modified Requirements” - Regulated Activities listed within the Subsections of this Ordinance noted in Table 302.2 are eligible for exemption only from the indicated sections and subsections of this Ordinance and only if the modified requirements of 302.I are met to the satisfaction of the Municipality; all other provisions of this Ordinance apply.

**Section 303. Water Quality and Runoff Volume Requirements**

To control Post-construction stormwater impacts from Regulated Activities and meet State water quality requirements, BMPs shall be provided in the Site design that replicate Predevelopment stormwater infiltration and runoff conditions, such that Post-construction stormwater discharges do not degrade the physical, chemical, or biological characteristics of the receiving waters. The green infrastructure and Low Impact Development (LID) practices provided in the PA BMP Manual, as well as the guidance on green infrastructure LID and Conservation Design (CD) provided in Appendix B, shall be utilized for all regulated activities wherever possible. The Applicant shall comply with the following water quality and runoff volume requirements for all Regulated Activities, including all New Development and Redevelopment activities:

- A. The Post-construction total runoff volume shall not exceed the Predevelopment total runoff volume for all storms equal to or less than the two (2) year, twenty-four (24) hour duration precipitation (design storm) or a minimum of one and one-half (1.5”) inches of runoff from all Regulated Impervious Surfaces shall be managed, whichever volume to be managed is greater. The water quality and runoff volume to be managed shall consist of any runoff volume generated by the proposed Regulated Activity over and above the Predevelopment total runoff volume and shall be captured and permanently retained or infiltrated on the Site. Permanent retention options may include, but are not limited to, reuse, evaporation, transpiration, and infiltration.
- B. For modeling purposes, the Predevelopment ground cover conditions shall be determined using the corresponding ground cover assumptions presented in Subsection 307.D of this Ordinance.
- C. The design of the Stormwater Management Facility outlet shall provide for protection from clogging and unwanted sedimentation.
- D. BMPs that moderate the temperature of stormwater shall be used to protect the temperature of receiving waters.
- E. Water quality improvement shall be achieved in conjunction with achieving the infiltration requirements of Section 304. The infiltration volume required under Section 304 may be included as a component of the water quality volume. If the calculated water quality and runoff volume is greater than the volume infiltrated, then the difference between the two

(2) volumes shall be managed for water quality and runoff volume control through other techniques or practices but shall not be discharged from the Site.

- F. Runoff from the Disturbed Area shall be treated for water quality prior to entering existing waterways or water bodies. If a stormwater management practice does not provide water quality treatment, then water quality BMPs shall be utilized to provide pre-treatment prior to the runoff entering the stormwater management practice.
- G. The Municipality may require additional water quality and runoff control measures for stormwater discharging to special management areas such as those listed in Subsection 301.S.
- H. When the Regulated Activity contains or is divided by multiple drainage areas, the water quality and runoff volume shall be separately addressed for each drainage area.
- I. Weighted averaging of runoff coefficients shall not be used for manual computations or input data for water quality and runoff volume calculations.
- J. Areas located outside of the Site (i.e., areas outside of the Regulated Activity) may be excluded from the calculation of the water quality and runoff volume requirements.

#### **Section 304. Infiltration Requirements**

Providing for infiltration consistent with the natural hydrologic regime is required to compensate for the reduction in the recharge that occurs when the ground surface is disturbed or Impervious Surface is created or expanded. The Applicant shall achieve the following infiltration requirements:

- A. For Regulated Activities involving either New Development or Redevelopment, infiltration should be designed to accommodate the entire water quality and runoff volume required in Section 303. If the runoff volume required by Section 303 cannot be infiltrated, then alternative methods consistent with the PA BMP Manual (as amended) may be used to manage this volume with approval from the Municipal Engineer. If the requirements of any subsection of Section 304 cannot be physically accomplished, then the Applicant shall be responsible for demonstrating with data or calculations to the satisfaction of the Municipal Engineer why the required infiltration volume controls cannot be physically accomplished on the Site (e.g., shallow depth to bedrock or limiting zone, open voids, steep slopes, etc.) and what alternative volume can be infiltrated; however in all cases at least the first one-half (0.5) inch of runoff volume shall be infiltrated.
- B. A waiver from Section 304 shall be considered by the Municipality only if a minimum of at least one-half (0.5") inch infiltration requirement cannot be physically accomplished on the Site.
- C. If Site conditions preclude capture of runoff from portions of the Impervious Surfaces,

the infiltration volume for the remaining area shall be increased by an equivalent amount to offset the loss.

- D. When a project contains or is divided by multiple watersheds, the infiltration volume shall be separately addressed for each watershed.
- E. Existing Impervious Surfaces located in areas outside of the Site (i.e., outside of the Regulated Activity) may be excluded from the calculation of the required infiltration volume.
- F. A detailed soils evaluation of the Site shall be conducted by a qualified professional and at a minimum shall address soil permeability, depth to bedrock, and subgrade stability. The general process for designing the infiltration BMP shall be conducted by a qualified Licensed Professional and shall be consistent with the PA BMP Manual (as amended) (or other guidance acceptable to the Municipal Engineer) and in general shall:
  - 1. Analyze hydrologic soil groups as well as natural and man-made features within the Site to determine general areas of suitability for infiltration practices. In areas where development on fill material is under consideration, conduct geotechnical investigations of sub-grade stability; infiltration may not be ruled out without conducting these tests.
  - 2. Provide field tests such as double ring infiltrometer or other hydraulic conductivity tests (at the elevation of the proposed infiltration surface) to determine the appropriate hydraulic conductivity rate. Standard septic/sewage percolation tests are not acceptable for design purposes.
  - 3. Design the Infiltration Facility for the required retention (infiltration) volume based on field-determined infiltration capacity (and apply safety factor as per applicable design guidelines) at the elevation of the proposed infiltration surface.
  - 4. On-lot infiltration features are encouraged; however, it shall be demonstrated to the Municipal Engineer that the soils are conducive to infiltration on the identified lots.
- G. Infiltration BMPs shall be selected based on suitability of soils and Site conditions and shall be constructed on soils that have the following characteristics:
  - 1. A minimum depth of twenty-four (24") inches between the bottom of the BMP and the top of the Limiting Zone. Additional depth may be required in areas underlain by Karst or carbonate geology.
  - 2. An infiltration rate sufficient to accept the additional stormwater volume and drain completely as determined by field tests conducted by the Applicant.
  - 3. The Infiltration Facility shall completely drain the retention (infiltration) volume

within three (3) days (seventy-two (72) hours) from the end of the design storm.

H. All infiltration practices shall:

1. Be set back at least twenty-five (25') feet from all buildings and features with sub-grade elements (e.g., basements, foundation walls, etc.), unless otherwise approved by the Municipal Engineer;
2. For any infiltration practice that collects runoff from shared or multiple features and that is located within fifty (50') feet of a building or feature with sub-grade elements (e.g., basements, foundation walls, etc.), the bottom elevation shall be set below the elevation of the sub-grade element.

**Commented [PTR1]:** Should this be inches? Fifty feet would be a little difficult for some in the Borough so I understand shrinking it to inches but just wanted to be sure.

**Commented [PTR2]:** Should this be inches? Should be compatible with the H.1. above.

I. Infiltration Facilities shall, to the maximum extent practicable, be located to avoid introducing contaminants to groundwater:

1. When a Hotspot is located in the area draining to a proposed Infiltration Facility, an evaluation of the potential of groundwater contamination from the proposed Infiltration Facility shall be performed, including a hydrogeologic investigation (if necessary) by a qualified Licensed Professional to determine what, if any, pretreatment or additional design considerations are needed to protect groundwater quality.
2. When located within a "well head protection area" of a public water supply well, infiltration practices shall be in conformance with the applicable approved source water protection assessment or source water protection plan.
3. The Applicant shall provide appropriate safeguards against groundwater contamination for land uses that may cause groundwater contamination should there be a mishap or spill.

J. During Site construction, all infiltration practice components shall be protected from compaction due to heavy equipment operation or storage of fill or construction material. Infiltration areas shall also be protected from sedimentation. Areas that are accidentally compacted or graded shall be remediated to restore soil composition and porosity. Adequate documentation to this effect shall be submitted to the Municipal Engineer for review. All areas designated for infiltration shall not receive runoff until the contributory drainage area has achieved final stabilization.

K. Where sediment transport in the stormwater runoff is anticipated to reach the infiltration system, appropriate permanent measures to prevent or collect sediment shall be installed prior to discharge to the infiltration system.

L. Where roof drains are designed to discharge to infiltration practices, they shall have appropriate measures to prevent clogging by unwanted debris (for example, silt, leaves

and vegetation). Such measures shall include but are not limited to leaf traps, gutter guards and cleanouts.

- M. All infiltration practices shall have appropriate positive overflow controls.
- N. No sand, salt or other particulate matter may be applied to a porous surface material for winter ice conditions.
- O. The following procedures and materials shall be required during the construction of all subsurface facilities:
  - 1. Excavation for the Infiltration Facility shall be performed with equipment that will not compact the bottom of the seepage bed/trench or like facility.
  - 2. The bottom of the bed and/or trench shall be scarified prior to the placement of aggregate.
  - 3. Only clean aggregate with documented porosity, free of fines, shall be allowed.
  - 4. The tops, bottoms and sides of all seepage beds, trenches, or like facilities shall be covered with drainage fabric. Fabric shall be non-woven fabric acceptable to the Municipal Engineer.
  - 5. Stormwater shall be distributed throughout the entire seepage bed/trench or like facility and provisions for the collection of debris shall be provided in all facilities.

### **Section 305. Stream Channel Protection Requirements**

For Regulated Activities involving New Development with one (1) or more acres of Earth Disturbance, the Applicant shall comply with the following stream channel protection requirements to minimize stream channel erosion and associated water quality impacts to the receiving waters:

- A. The peak flow rate of the Post-construction two (2) year, twenty-four (24) hour design storm shall be reduced to the Predevelopment peak flow rate of the one (1) year, twenty-four (24) hour duration precipitation, using the SCS Type II distribution.
- B. To the maximum extent practicable, and unless otherwise approved by the Municipal Engineer, the Post-construction one (1) year, twenty-four (24) hour storm flow shall be detained for a minimum of twenty-four (24) hours and a maximum not to exceed seventy-two (72) hours from a point in time when the maximum volume of water from the one (1) year, twenty-four (24) hour storm is stored in a proposed BMP (i.e., when the maximum water surface elevation is achieved in the facility). Release of water can begin at the start of the storm (i.e., the invert of the orifice is at the invert of the proposed BMP).

- C. For modeling purposes, the Predevelopment ground cover conditions shall be determined using the corresponding ground cover assumptions presented in Subsection 307.D of this Ordinance.
- D. The minimum orifice size in the outlet structure to the BMP shall be three (3") inches in diameter unless otherwise approved by the Municipal Engineer, and a trash rack shall be installed to prevent clogging. For Sites with small drainage areas contributing to the BMP that do not provide enough runoff volume to allow a twenty-four (24) hour attenuation with the three (3)-inch orifice, the calculations shall be submitted showing this condition.
- E. When the calculated orifice size is below three (3") inches, gravel filters (or other methods) are recommended to discharge low-flow rates subject to the Municipal Engineer's satisfaction. When filters are utilized, maintenance provisions shall be provided to ensure filters meet the design function.
- F. All proposed Stormwater Management Facilities shall make use of measures to extend the flow path and increase the travel time of flows in the facility.
- G. When a Regulated Activity contains or is divided by multiple drainage areas, the peak flow rate control shall be separately addressed for each drainage area.

#### **Section 306. Rate Controls**

The Applicant shall comply with the following peak flow rate control requirements for all Regulated Activities including those that involve New Development and Redevelopment.

- A. Post-construction peak flow rates from any Regulated Activity shall not exceed the Predevelopment peak flow rates as shown for each of the design storms specified in Table 306.1.

**TABLE 306.1**  
**Peak Rate Control Standards**

(Peak Flow Rate of the Post-construction Design Storm  
Shall be Reduced to the Peak Flow Rate of the Corresponding Predevelopment  
Design Storm Shown in the Table)

POST-CONSTRUCTION DESIGN STORM FREQUENCY (24-Hour Duration)	PRE DEVELOPMENT DESIGN STORM	
	New Development Regulated Activities	Redevelopment Regulated Activities
2-Year	1-Year	2-Year
5-Year	5-Year	5-Year
10-Year	10-Year	10-Year
25-Year	25-Year	25-Year
50-Year	50-Year	50-Year
100-Year	100-Year	100-Year

- B. For modeling purposes, the Predevelopment ground cover conditions shall be determined using the corresponding ground cover assumptions presented in Subsection 307.D of this Ordinance.
- C. For Regulated Activities involving only Redevelopment, no peak flow rate controls are required when and only if the total Proposed Impervious Surface area is at least twenty percent (20%) less than the total existing Impervious Surface area to be disturbed by the Regulated Activity. In all cases where this requirement is not met, the Redevelopment Regulated Activity shall achieve the peak flow rate controls presented in Table 306.1, using the Redevelopment Ground Cover Assumptions presented in Subsection 307.D. This design criterion for Redevelopment is only permitted with approval of Municipal Engineer. It shall result in no measurable impact on downstream properties.
- D. Only the area of the proposed Regulated Activity shall be subject to the peak flow rate control standards of this Ordinance. Undisturbed areas for which the discharge point has not changed are not subject to the peak flow rate control standards.
- E. Areas located outside of the Site (i.e., areas outside of the Regulated Activity) that drain through a proposed Site are not subject to peak flow rate control requirements. Drainage facilities located on the Site shall be designed to safely convey flows from outside of the Site through the Site.
- F. When a Regulated Activity contains or is divided by multiple drainage areas, the peak flow rate controls shall be separately addressed for each drainage area.
- G. The effect of structural and non-structural stormwater management practices implemented as part of the overall Site design may be taken into consideration when calculating total storage volume and peak flow rates.



### Section 307. Calculation Methodology

- A. Stormwater runoff from all Regulated Activity Sites with a drainage area of greater than five (5) acres shall be calculated using a generally accepted calculation technique(s) that is based on the NRCS Soil Cover Complex Method. Table 307.1 summarizes acceptable computation methods. The method selected for use shall be based on the individual limitations and suitability of each method for a particular Site. The use of the Rational Method to estimate peak discharges for drainage areas greater than five (5) acres shall be permitted only upon approval by the Municipal Engineer.

TABLE 307.1  
ACCEPTABLE COMPUTATION METHODOLOGIES FOR  
SWM SITE PLAN

METHOD	DEVELOPED BY	APPLICABILITY
TR-20 (or commercial computer package based on TR-20)	USDA NRCS	Applicable where use of full hydrology computer model is desirable or necessary.
TR-55 (or commercial computer package based on TR-55)	USDA NRCS	Applicable for land development plans where limitations described in TR-55 are met.
HEC-1/HEC-HMS	US Army Corps of Engineers	Applicable where use of a full hydrologic computer model is desirable or necessary.
Rational Method (or commercial computer package based on Rational Method)	Emil Kuichling (1889)	For Sites up to five (5) acres, or as approved by the Municipality.
Other Methods	Varies	Other computation methodologies approved by the Municipality.

- B. All calculations using the Soil Cover Complex Method shall use the appropriate design rainfall depths for the various return period storms consistent with this Ordinance. Rainfall depths used shall be obtained from NOAA Atlas 14 values consistent with a partial duration series. When stormwater calculations are performed for routing procedures or infiltration, water quality and runoff volume functions, the duration of rainfall shall be twenty-four (24) hours.

- C. All calculations using the Rational Method shall use rainfall intensities consistent with appropriate times-of-concentration (duration) and storm events with rainfall intensities obtained from NOAA Atlas 14 partial duration series estimates, or the latest version of the PennDOT Drainage Manual (PDM Publication 584). Times-of-concentration shall be calculated based on the methodology recommended in the respective model used. Times of concentration for channel and pipe flow shall be computed using Manning's equation.
- D. The Applicant shall utilize the following ground cover assumptions for all Predevelopment water quality and runoff volume, infiltration volume and peak flow rate calculations:
1. For Regulated Activities involving New Development, the following ground cover assumptions shall be used:
    - a. For areas that are Woods (as defined in Article II of this Ordinance), Predevelopment calculations shall assume ground cover of "Woods in good condition".
    - b. For all other areas (including all Impervious Surfaces), Predevelopment calculations shall assume ground cover of "meadow".
  2. For Regulated Activities involving Redevelopment, the following ground cover assumptions shall be used:
    - a. For areas that are Woods (as defined in Article II of this Ordinance), Predevelopment calculations shall assume ground cover of "Woods in good condition".
    - b. For areas that are not Woods or not Impervious Surfaces, Predevelopment calculations shall assume ground cover of "meadow".
    - c. For areas that are Impervious Surfaces, Predevelopment calculations shall assume at least twenty percent (20%) of the existing Impervious Surface area to be disturbed as "meadow" ground cover.
  3. The Applicant shall determine which stormwater standards apply to the proposed Regulated Activity as follows:
    - a. Stormwater standards for New Development shall apply to all proposed Regulated Activities that involve only New Development activities as defined in this Ordinance.
    - b. Stormwater standards for Redevelopment shall apply to all proposed Regulated Activities that involve only Redevelopment activities as

defined in this Ordinance.

- c. At the discretion of the Municipal Engineer, Regulated Activities that involve a combination of both New Development and Redevelopment activities, as defined in this Ordinance, may either:
  - i. Apply the stormwater standards (Redevelopment or New Development) that are associated with the activity that involves the greatest amount of land area; or
  - ii. Apply the Redevelopment and New Development stormwater standards to the corresponding Redevelopment and New Development portions of the proposed Regulated Activity.
- E. Runoff curve numbers (CN) for both Predevelopment and proposed (Post-construction) conditions to be used in the Soil Cover Complex Method shall be obtained from Table C-1 in Appendix B of this Ordinance.
- F. Runoff coefficients (C) for both Predevelopment and proposed (Post-construction) conditions for use in the Rational Method shall be obtained from Table C-2 in Appendix B of this Ordinance.
- G. Weighted averaging of runoff coefficients shall not be used for manual computations or input data for water quality and runoff volume calculations.
- H. Hydraulic computations to determine the capacity of pipes, culverts, and storm sewers shall be consistent with methods and computations contained in the Federal Highway Administration Hydraulic Design Series Number 5 (Publication No. FHWA-NHI-01-020 HDS No. 5, as amended). Hydraulic computations to determine the capacity of open channels shall be consistent with methods and computations contained in the Federal Highway Administration Hydraulic Engineering Circular Number 15 (Publication No. FHWA-NHI-05-114 HEC 15, as amended). Values for Manning's roughness coefficient (n) shall be consistent with Table C-3 in Appendix B of the Ordinance.
- I. Runoff calculations shall include the following assumptions:
  - 1. Average antecedent moisture conditions (for the Soil Cover Complex Method only for example, TR-55, TR-20).
  - 2. A type II distribution storm (for the Soil Cover Complex Method only for example, TR-55, TR-20).

### **Section 308. Other Requirements**

- A. Any stormwater basin required or regulated by this Ordinance designed to store runoff and requiring a berm or earthen embankment shall be designed to provide an emergency spillway to safely convey flow up to and including the one hundred (100) year proposed

conditions. The height of embankment shall provide a minimum one (1.0) foot of Freeboard above the maximum pool elevation computed when the facility functions for the one hundred (100) year proposed conditions inflow. Should any BMP require a dam safety permit under PA Chapter 105 regulations, the facility shall be designed in accordance with and meet the regulations of PA Chapter 105 concerning dam safety. PA Chapter 105 may require the safe conveyance of storms larger than one hundred (100) year event.

- B. Any drainage Conveyance facility and/or channel not governed by PA Chapter 105 regulations shall be designed to convey, without damage to the drainage facility or roadway, runoff from the twenty-five (25) year storm event. Larger storm events (fifty (50) year and one hundred (100) year storms) shall also be safely conveyed in the direction of natural flow without creating additional damage to any drainage facilities, nearby structures, or roadways.
- C. Conveyance facilities to or exiting from stormwater management facilities (i.e., detention basins) shall be designed to convey the design flow to or from the facility.
- D. Roadway crossings or structures located within designated floodplain areas shall be able to convey runoff from a 100-year design storm consistent with Federal Emergency Management Agency National Flood Insurance Program - Floodplain Management Requirements.
- E. Any Stormwater Management Facility located within a PennDOT right-of-way shall comply with PennDOT minimum design standards and permit submission and approval requirements.
- F. Adequate erosion protection and energy dissipation shall be provided along all open channels and at all points of discharge. Design methods shall be consistent with the Federal Highway Administration Hydraulic Engineering Circular Number 11 (Publication No. FHWA-IP-89-016, as amended) and the DEP Erosion and Sediment Pollution Control Program Manual (Publication No. 363-2134-008, as amended), or other design guidance acceptable to the Municipal Engineer.

### **Section 309. Riparian Buffers**

- A. In order to protect and improve water quality, a Riparian Buffer Easement shall be created and recorded as part of any subdivision or land development that encompasses a Riparian Buffer. Riparian Buffer Easement Agreements shall be submitted to the Municipality's Solicitor for review and approval prior to recording.
- B. Except as required by Chapter 102, the Riparian Buffer Easement shall be measured to be the greater of the limit of the 100 year floodplain or a minimum of thirty five (35') feet from the top of the streambank (on each side).
- C. Minimum Management Requirements for Riparian Buffers.

1. Existing native vegetation shall be protected and maintained within the Riparian Buffer Easement.
  2. Whenever practicable invasive vegetation shall be actively removed and the Riparian Buffer Easement shall be planted with native trees, shrubs and other vegetation to create a diverse native plant community appropriate to the intended ecological context of the site.
- D. The Riparian Buffer Easement shall be enforceable by the Municipality and shall be recorded in the Office of the Recorder of Deeds in and for York County, Pennsylvania, so that it shall run with the land and shall limit the use of the property located therein. The easement shall allow for the continued private ownership and shall count toward the minimum lot area required by Zoning, unless otherwise specified in the municipal Zoning Ordinance.
- E. Any permitted use within the Riparian Buffer Easement shall be conducted in a manner that will maintain the extent of the existing 100-year floodplain, improve or maintain the stream stability, and preserve and protect the ecological function of the floodplain.
- F. The following conditions shall apply when public and/or private recreation trails are permitted within Riparian Buffers:
1. Trails shall be for non-motorized use only.
  2. Trails shall be designed to have the least impact on native plant species and other sensitive environmental features.
- G. Septic drainfields and sewage disposal systems shall not be permitted within the Riparian Buffer Easement and shall comply with setback requirements established under 25 Pa. Code Chapter 73.

### **Section 310. Permit Requirements by Other Governmental Entities**

The following permit or other regulatory requirements may apply to certain Regulated Activities and shall be met prior to (or as a condition of) final approval by the Municipality of the SWM Site Plan and prior to commencement of any Regulated Activities, as applicable:

- A. All Regulated Activities subject to permit or regulatory requirements by DEP under regulations at Title 25 Pennsylvania Code Chapter 102, or erosion and sediment control requirements of the Municipality.
- B. Work within natural drainage ways subject to permit by DEP under Title 25 Pennsylvania Code Chapter 105.
- C. Any BMP or Conveyance that would be located in or adjacent to surface Waters of the Commonwealth, including wetlands, subject to permit by DEP under Title 25 Pennsylvania Code Chapter 105.

- D. Any BMP or Conveyance that would be located on or discharge to a State highway right-of-way, or require access to or from a State highway and be subject to approval by PennDOT.
- E. Culverts, bridges, storm sewers, or any other facilities which must pass or convey flows from the tributary area and any facility which may constitute a dam subject to permit by DEP under Title 25 Pennsylvania Code Chapter 105.

### **Section 311. Water Quality and Runoff Volume Requirements**

To control Post-construction stormwater impacts from Regulated Activities and meet State water quality requirements, BMPs shall be provided in the Site design that replicate Predevelopment stormwater infiltration and runoff conditions, such that Post-construction stormwater discharges do not degrade the physical, chemical, or biological characteristics of the receiving waters. The green infrastructure and Low Impact Development (LID) practices provided in the PA BMP Manual, as well as the guidance on green infrastructure LID and Conservation Design (CD) provided in Appendix B, shall be utilized for all regulated activities wherever possible. The Applicant shall comply with the following water quality and runoff volume requirements for all Regulated Activities, including all New Development and Redevelopment activities:

- A. The Post-construction total runoff volume shall not exceed the Predevelopment total runoff volume for all storms equal to or less than the two (2) year, twenty-four (24) hour duration precipitation (design storm) or a minimum of one and one half (1.5") inches of runoff from all Regulated Impervious Surfaces shall be managed, whichever volume to be managed is greater. The water quality and runoff volume to be managed shall consist of any runoff volume generated by the proposed Regulated Activity over and above the Predevelopment total runoff volume and shall be captured and permanently retained or infiltrated on the Site. Permanent retention options may include, but are not limited to, reuse, evaporation, transpiration, and infiltration.
- B. For modeling purposes, the Predevelopment ground cover conditions shall be determined using the corresponding ground cover assumptions presented in Subsection 307.D of this Ordinance.
- C. The design of the Stormwater Management Facility outlet shall provide for protection from clogging and unwanted sedimentation.
- D. BMPs that moderate the temperature of stormwater shall be used to protect the temperature of receiving waters.
- E. Water quality improvement shall be achieved in conjunction with achieving the infiltration requirements of Section 303. The infiltration volume required under Section 303 may be included as a component of the water quality volume. If the calculated water quality and runoff volume is greater than the volume infiltrated, then the difference between the two (2) volumes shall be managed for water quality and runoff volume control through other techniques or practices but shall not be discharged from the Site.

- F. Runoff from the Disturbed Area shall be treated for water quality prior to entering existing waterways or water bodies. If a stormwater management practice does not provide water quality treatment, then water quality BMPs shall be utilized to provide pre-treatment prior to the runoff entering the stormwater management practice.
- G. The Municipality may require additional water quality and runoff control measures for stormwater discharging to special management areas such as those listed in Subsection 301.R.
- H. When the Regulated Activity contains or is divided by multiple drainage areas, the water quality and runoff volume shall be separately addressed for each drainage area.
- I. Weighted averaging of runoff coefficients shall not be used for manual computations or input data for water quality and runoff volume calculations.
- J. Areas located outside of the Site (i.e., areas outside of the Regulated Activity) may be excluded from the calculation of the water quality and runoff volume requirements.

## ARTICLE IV – STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS

### Section 401. Plan Requirements

The following items shall be included in the SWM Site Plan:

- A. Appropriate sections from the municipal’s Subdivision and Land Development Ordinance, and other applicable local ordinances, shall be followed in preparing the SWM Site Plans.
- B. The Municipality shall not approve any SWM Site Plan that is deficient in meeting the requirements of this Ordinance. At its sole discretion and in accordance with this Article, when a SWM Site Plan is found to be deficient, the Municipality may either disapprove the submission and require a resubmission, or in the case of minor deficiencies, the Municipality may accept submission of modifications.
- 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 paragraph E.9 below.
- D. The following signature blocks:
  1. “I, (Borough Official [Engineer]), on this date (Signature Date), has reviewed and hereby certifies that the SWM Site Plan meets all design standards and criteria of the Spring Grove Borough Stormwater Management Ordinance.”
  2. A statement, signed by all Landowners, acknowledging that the stormwater BMPs are fixtures that cannot be altered or removed without prior approval by the Borough.

“Acknowledgment of Permanence of BMPs:

I, the undersigned hereby represent that no person shall modify, remove, fill, landscape, or alter any Stormwater Management BMPs, facilities, areas, or structures without the written approval of Spring Grove Borough.

\_\_\_\_\_  
Date                      Landowner”

3. A statement, signed by all Landowners, referencing the Operation and Maintenance (O&M) Agreement and stating that the O&M Agreement is part of the stormwater management site plan.
4. The following signature block for the Qualified Professional preparing the Stormwater Management Plan:



“I \_\_\_\_\_, hereby certify that the Stormwater Management Site Plan meets all design standards and criteria of the Spring Grove Borough Stormwater Management Ordinance.

\_\_\_\_\_  
Date                      Qualified Professional Signature”

E. The SWM Site Plan shall provide the following information:

1. Maps or Plan Sheets

Map(s) or plan sheets of the Site shall be submitted on minimum twenty-four (24) inch by thirty-six (36) inch sheets and shall be prepared in a form that meets the requirements for recording at the York County Office of the Recorder of Deeds and the requirements of the Operation and Maintenance (O&M) Plan and O&M Agreement (Article VII). If the SALDO has additional or more stringent criteria than this Ordinance, then the SALDO criteria shall also apply. Unless otherwise approved by the Municipal Engineer, the contents of the maps or plan sheets shall include, but not be limited to:

- a. A listing of all regulatory approvals required for the proposed project and the status of the review and approval process for each. Final approval or adequacy letters must be submitted to the Municipality prior to (or as a condition of) the Municipality’s issuing final approval of the SWM Site Plan. Proof of application or documentation of required permit(s) or approvals for the programs listed below shall be part of the SWM Site Plan, if applicable:
  - i. NPDES Permit for Stormwater Discharges Associated with Construction Activities;
  - ii. DEP permits as needed:
    1. DEP Joint Permit Application,
    2. Chapter 105 (Dam Safety and Waterway Management),
    3. Chapter 106 (Floodplain Management);
- b. PennDOT Highway Occupancy Permit;
- c. Erosion and Sediment Control Plan letter of adequacy; and
- d. Any other permit under applicable State or Federal regulations.

2. A location map, with a scale of one (1) inch equals two thousand (2,000') feet or greater, showing the Site location relative to highways, municipal boundaries, or other identifiable landmarks.
3. The name of the project, tax parcel number(s), and the names, addresses and phone numbers of the owner of the property, the Applicant, and firm preparing the plan.
4. Signature and seal of the qualified Licensed Professional(s) responsible for preparation of the maps and plan sheets.
5. The date of SWM Site Plan submission and revision dates, as applicable.
6. A graphic and written scale of one (1) inch equals no more than fifty (50') feet.
7. A north arrow.
8. Legal property boundaries, including:
  - a. The total project property boundary and size with distances marked to the nearest foot and bearings to the nearest degree.
  - b. Boundaries, size and description of purpose of all existing easements and deed- restricted areas of the project property, with distances marked to the nearest foot and bearings to the nearest degree.
9. Existing natural resources and natural or man-made hydrologic features that are located within the Site or receiving discharge from, or that may otherwise be impacted by, the proposed Regulated Activity, including but not limited to:
  - a. All existing natural resources, hydrologic features and drainage patterns including natural waterways, water bodies, wetlands, streams (intermittent and perennial), ponds, lakes, vernal pools, etc., natural infiltration areas and patterns, areas of significant natural evapotranspiration, and other water features and aquatic resources.
  - b. Any existing man-made drainage features, BMPs, Conveyances, facilities, open channels, swales, drainage patterns, or other flood, stormwater or drainage control features.
  - c. For the Site, discharge points and locations of concentrated flows and their drainage areas.
  - d. For named waters, show names and their watershed boundaries within the Site.
  - e. Special management areas (as per Subsection 301.Q).
  - f. For the water bodies, streams and wetlands identified in Subsection

402.B.8.a, label or otherwise show the following attributes, if applicable:

- i. The Designated Use as determined by DEP (25 PA Code Chapter 93);
  - ii. Impairments listed on the DEP “Integrated List” (as updated) and the listed source and cause of impairment;
  - iii. Name, date, and target pollutant(s) for any approved Total Maximum Daily Load (TMDL); and
  - iv. Drainages to water supply reservoirs.
- g. Areas that are part of the Pennsylvania Natural Diversity Inventory (PNDI) and a list of potential impacts and clearances received (for Regulated Activities involving one (1) acre or more proposed Earth Disturbance).
- h. Woods, vegetated riparian buffers and other areas of natural vegetation.
- i. Topography using contours (with elevations based on established bench marks) at intervals of two (2') feet. In areas of slopes greater than fifteen (15%) [or other at option of Municipality] percent five (5') foot contour intervals may be used. The datum used and the location, elevation and datum of any bench marks used shall be shown.
- j. Areas classified by the Municipality as steep slopes.
- k. Soil names and boundaries, general type of soils with Hydrologic Soil Group noted, and in particular note areas most conducive to infiltration BMPs, such as groups A and B, etc., estimated permeabilities in inches per hour, and location and other results of all soil tests and borings.
- l. If present, areas with underlying carbonate geologic units, existing sinkholes, subsidence or other Karst features, and any associated groundwater recharge areas with increased vulnerability to contamination.
- m. Any contaminated surface or subsurface areas of the Site.
- n. Water supply wells -
- i. Location of existing well(s) on the project property and delineation of the(ir) recharge area(s) (if known), or a fifty (50) foot diameter assumed recharge area;
  - ii. Location of existing well(s) within fifty (50') feet beyond the boundary of the project property boundary (if public water supply is proposed for the

Regulated Activity); and

- o. Current FEMA one hundred (100) year floodplain boundaries, elevations, and Floodway boundaries for any Special Flood Hazard Areas on or within one hundred (100') inches of the property.

#### **Section 402. Plan Submission**

Five copies of the SWM Site Plan shall be submitted as follows:

1. One (1) physical and electronic copy to the Municipality.
2. One (1) physical and electronic copy to the municipal engineer.
3. One (1) copy to the York County Conservation District (when applicable).
4. One (1) copy to the York County Planning Commission/Office (when applicable).

#### **Section 403. Plan Review**

- A. SWM Site Plans shall be reviewed by the Municipality for consistency with the provisions of this Ordinance.
- B. The Municipality shall notify the Applicant in writing within 45 days whether the SWM Site Plan is approved or disapproved. If a project requires both a SWM Site Plan and a Subdivision and Land Development Plan, the notification shall occur within the time period allowed by the Municipalities Planning Code (90 days.), unless an extension for and approval of the SWM Site Plan, the Subdivision and Land Development Plan or both, has been granted by an Applicant. If a longer notification period is provided by other statute, regulation, or ordinance, the Applicant will be so notified by the Municipality.
- C. For any SWM Site Plan that proposes to use any BMPs other than green infrastructure and/or LID practices to achieve the volume and rate controls required under this Ordinance, the Municipality will not approve the SWM Site Plan unless it determines that green infrastructure and/or LID practices are not practicable.
- D. If the Municipality disapproves the SWM Site Plan, the Municipality will state the reasons for the disapproval, including citations to this Ordinance, in writing. The Municipality also may approve the SWM Site Plan with conditions and, if so, shall provide the acceptable conditions for approval in writing.

#### **Section 404. Modification of Plans**

A modification to a submitted SWM Site Plan that involves a change in SWM BMPs or 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 Municipality shall require a resubmission of the modified SWM Site Plan in accordance with this Article.

#### **Section 405. Resubmission of Disapproved SWM Site Plans**

A disapproved SWM Site Plan may be resubmitted, with the revisions addressing the Municipality's concerns, to the Municipality in accordance with this Article. The applicable review fee must accompany a resubmission of a disapproved SWM Site Plan.

#### **Section 406. Authorization to Construct and Term of Validity**

The Municipality's approval of an SWM Site Plan authorizes the regulated activities contained in the SWM Site Plan for a maximum term of validity of five (5) years following the date of approval. The Municipality may specify a term of validity shorter than five (5) years in the approval for any specific SWM Site Plan and such shorter term of validity shall be noted in writing to Applicant as a condition of plan approval; provided, however, that if not so noted, the term of validity shall be five (5) years. Terms of validity shall commence on the date the Municipality signs the approval for an SWM Site Plan. If an approved SWM Site Plan is not completed according to Section 407 within the term of validity, then the Municipality may consider the SWM Site Plan disapproved and may revoke any and all permits. SWM Site Plans that are considered disapproved by the Municipality shall be resubmitted in accordance with Section 405 of this Ordinance.

#### **Section 407. 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 Municipality.
- B. The as-built submission shall include a certification of completion signed by a qualified professional verifying that all permanent SWM BMPs have been constructed according to the approved plans and specifications. The latitude and longitude coordinates for all permanent SWM BMPs must also be submitted, at the central location of the BMPs. If any licensed qualified professionals contributed to the construction plans, then a licensed qualified professional must sign the completion certificate.
- C. After receipt of the completion certification by the Municipality, the Municipality may conduct a final inspection.

## **ARTICLE V – OPERATION AND MAINTENANCE**

### **Section 501. Responsibilities of Developers and Landowners**

- A. The Municipality shall make the final determination on the continuing maintenance responsibilities prior to final approval of the SWM Site Plan. The Municipality may, but shall not be required to accept, 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 Municipality will accept the facilities. The Municipality reserves the right to accept or reject the ownership and operating responsibility for any portion of the stormwater management controls.
- B. Facilities, areas, or structures used as SWM BMPs shall be enumerated as permanent real estate appurtenances and recorded as deed restrictions or conservation easements that run with the land.
- C. The O&M Plan and Stormwater Plan shall be recorded by the Applicant as a restrictive deed covenant that runs with the land.
- D. The Municipality may take enforcement actions against an owner for any failure to satisfy the provisions of this Article.

### **Section 502. 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) covering all stormwater control facilities which are to be privately owned.
  - 1. The Landowner, successor and assigns, shall maintain all facilities in accordance with the approved maintenance schedule in the O&M Agreement.
  - 2. The Landowner shall convey to the Municipality easements to assure access for periodic inspections by the Municipality and maintenance, as necessary.
  - 3. The Landowner, successors and assigns, shall keep on file with the Municipality the name, address, and telephone number of the person or company responsible for maintenance activities required by the O&M Agreement; in the event of a change, new information shall be submitted by the Landowner to the Municipality within ten (10) working days of the change.
- B. The Landowner is responsible for operation and maintenance (O&M) of the SWM BMPs. If the Landowner, successors and assigns, fail to adhere to the O&M Agreement, the Municipality may perform the services required and the Landowner shall reimburse the Municipality for the costs of such services so provided, plus an administrative fee of ten (10%) percent. The Municipality may seek to collect reimbursement of such costs, administrative fee and the costs of collection from the Landowner if such fees are not paid within thirty (30) days.

of the date of the invoice issued by the Municipality to Landowner for such fees. Further, the Municipality may file a lien against the property on which the services were provided.

### **Section 503. Financial Security**

- A. For SWM Site Plans that involve subdivision and land development or an NPDES permit, the Applicant shall provide financial security to the Municipality for the timely installation and proper construction of all stormwater management controls as required by the approved SWM Site Plan and this Ordinance in accordance with the provisions of Sections 509, 510, and 511 of the MPC.
- B. The amount of financial security to be posted for the completion of the required improvements shall be equal to 110% of the cost of completion
- C. The amount of financial security required shall be based upon an estimate of the cost of completion of the required improvements, submitted by an Applicant or developer and prepared by a professional engineer licensed as such in this Commonwealth and certified by such engineer to be a fair and reasonable estimate of such cost. The Municipality, upon the recommendation of the municipal engineer, may refuse to accept such estimate for good cause shown.
- D. For stormwater management site plans that are required to have an NPDES permit and a financial security to the Municipality is required, evidence of the NPDES permit's executed notice of termination shall be provided to the Municipality prior to the release of the financial security.

## **ARTICLE VI – FEES AND EXPENSES**

### **Section 601. General**

The Municipality may include all costs incurred in the review fee charged to an Applicant.

- A. The review fee may include, but not be limited to, costs for the following:
  - 1. Administrative/clerical processing;
  - 2. Review of the SWM Site Plan, agreements, covenants or restrictions required by the Ordinance by the Municipality, the Municipal Engineer and other Municipal Consultants, including the Municipal Solicitor;
  - 3. Coordination and meetings with the Applicant;
  - 4. The inspection of erosion and sediment control measures, BMPs, Conveyances and other related improvements during construction;
  - 5. Review of project communications, reports, and additional supporting information;
  - 6. Other Site inspections;
  - 7. The final inspection upon completion of the BMPs, Conveyances, and other stormwater management facilities and related improvements presented in the SWM Site Plan; and
  - 8. Review of final As-Built Plan submission and revised calculations, and inspections as needed
- B. The Applicant shall also reimburse all expenses incurred by the Municipality for any additional work or Municipal consultant fees required to enforce any permit provisions regulated by this Ordinance, correct violations, and ensure proper completion of remedial actions.



## **ARTICLE VII – PROHIBITIONS**

### **Section 701. Prohibited Discharges and Connections**

- A. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter a regulated small MS4 or to enter the surface Waters of the Commonwealth is prohibited.
- B. No person shall allow, or cause to allow, discharges into a regulated small MS4, or discharges into Waters of the Commonwealth, which are not composed entirely of stormwater, except (1) as provided in paragraph C below and (2) discharges authorized under a state or federal permit.
- C. The following discharges are authorized unless they are determined to be significant contributors to pollution a regulated small MS4 or to the Waters of the Commonwealth:
  - 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.
- D. In the event that the Municipality or DEP determines that any of the discharges identified in Subsection C significantly contribute pollutants to a regulated small MS4 or to the Waters of the Commonwealth, the Municipality or DEP will notify the responsible person(s) to cease the discharge.

### **Section 702. Roof Drains and Sump Pumps**

Roof drains and sump pumps shall discharge to infiltration or vegetative BMPs wherever feasible.

**Section 703. Alteration of SWM BMPs**

No person shall modify, remove, fill, landscape, or alter any SWM BMPs, facilities, areas, or structures that were installed as a requirement of this Ordinance without the written approval of the Municipality.

## **ARTICLE VIII – ENFORCEMENT AND PENALTIES**

### **Section 801. Right-of-Entry**

Upon presentation of proper credentials, the Municipality or its designated agent may enter at reasonable times upon any property within the Municipality to inspect the condition of the stormwater structures and facilities in regard to any aspect regulated by this Ordinance.

### **Section 802. Inspection**

The Landowner or his/her/its designee (including the Municipality for dedicated and owned facilities) shall inspect SWM BMPs, facilities and/or structures installed under this Ordinance according to the following frequencies, at a minimum, to ensure the BMPs, facilities and/or structures continue to function as intended:

1. Annually for the first five (5) years.
2. Once every three (3) years thereafter.
3. During or immediately after the cessation of a ten (10) year or greater storm.

Inspections should be conducted during or immediately following precipitation events. A written inspection report shall be created to document each inspection. The inspection report shall contain the date and time of the inspection, the individual(s) who completed the inspection, the location of the BMP, facility or structure inspected, observations on performance, and recommendations for improving performance, if applicable. Inspection reports shall be submitted to the Municipality within 30 days following completion of the inspection.

### **Section 803. Enforcement**

- 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 Section 302.
- B. It shall be unlawful to violate Section 703 of this Ordinance.
- C. Inspections regarding compliance with the SWM Site Plan are the responsibility of the Municipality.

### **Section 804. Suspension and Revocation**

- A. Any approval or permit issued by the Municipality pursuant to this Ordinance may be suspended or revoked for:
  1. Non-compliance 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 Ordinance 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.
- B. A suspended approval may be reinstated by the Municipality when:
1. The Municipality has inspected and approved the corrections to the violations that caused the suspension.
  2. The Municipality is satisfied that the violation has been corrected.
- C. An approval that has been revoked by the Municipality cannot be reinstated. The Applicant may apply for a new approval under the provisions of this Ordinance.
- D. If a violation causes no immediate danger to life, public health, or property, at its sole discretion, the Municipality may provide a limited time period for the owner to correct the violation. In these cases, the Municipality 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 Municipality may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this Ordinance.

#### **Section 805. Penalties**

- A. Any person who violates or permits a violation of this Ordinance shall, upon conviction in a summary proceeding brought before a Magisterial District Judge under the Pennsylvania Rules of Criminal Procedure, be guilty of a summary offense and shall be punishable by a fine of not more than \$1,000, plus all costs of prosecution, including, but not limited to, attorneys' fees, and in default of payment thereof, shall be imprisoned for a term not to exceed thirty (30) days. Each day that such violation continues or is permitted to continue shall constitute a separate offense, and each section of this Ordinance that is violated shall also constitute a separate offense. Penalties for each separate offense shall be cumulative.
- B. In addition, the Municipality may institute injunctive, mandamus, or any other appropriate action or proceeding at law or in equity for the enforcement of this Ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other appropriate forms of remedy or relief.

#### **Section 806. Appeals**

- A. Any person aggrieved by any action of the Municipality or its designee, relevant to the provisions of this Ordinance, may appeal to the Municipality within 30 days of that action.

- B. Any person aggrieved by any decision of the Municipality, relevant to the provisions of this Ordinance, may appeal to the County Court of Common Pleas in the county where the activity has taken place within 30 days of the Municipality's decision.

## ARTICLE IX – REFERENCES

1. 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/>.
2. U.S. Department of Agriculture, Natural Resources Conservation Service. 1986. *Technical Release 55: Urban Hydrology for Small Watersheds*, 2nd Edition. Washington, D.C.
3. Pennsylvania Department of Environmental Protection. No. 363-0300-002 (December 2006), as amended and updated. *Pennsylvania Stormwater Best Management Practices Manual*. Harrisburg, PA.
4. Pennsylvania Department of Environmental Protection. No. 363-2134-008 (March 31, 2012), as amended and updated. *Erosion and Sediment Pollution Control Program Manual*. Harrisburg, PA.
5. 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/>.

**DULY ENACTED AND ORDAINED** this \_\_\_\_ day of \_\_\_\_\_, 2022, by the Borough Council of Spring Grove Borough, York County, Pennsylvania, at a meeting duly assembled.

**ATTEST:** **SPRING GROVE BOROUGH**

\_\_\_\_\_  
, Secretary

**By:** \_\_\_\_\_  
, Council President

(SEAL)

Approved this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
, Mayor

# AGENDA

Borough of Spring Grove  
**Regular Meeting**  
September 19, 2022

Council Chambers  
1 Campus Avenue  
Spring Grove, PA

- I. Call to order
- II. Invocation and Pledge to the Flag
- III. Roll Call
- IV. Public Comments/Visitors
  - A. Alissa Barshinger – Glatfelter Memorial Library
  - B. Bronson Ritenour – Eagle Scout Presentation
  - C. Review of Smoke in the Grove 2022 financials by Andrew Shaffer
- V. Approval of Minutes
  - A. August 15, 2022
- VI. Treasurer's Report
  - A. Expenses totaling \$301,256.94
  - B. Cash flow report
  - C. Budget vs. Actual
- VII. Administrative and Staff Reports
  - A. President
  - B. Mayor
    - 1. Friendship Hose Company – Report to be submitted in October
    - 2. YCRPD – Activity Report and Meeting Minutes
    - 3. Spring Grove Ambulance
  - C. Engineer - ARRO – Collin Fox
    - 1. MS4
    - 2. Development Plan Reviews
    - 3. North Loop Interceptor
    - 4. GIS



- 5. Borough Park Project
- 6. Code Enforcement
- D. Solicitor
  - A. **Stormwater Management Ordinance**
- E. Zoning & Codes Enforcement
  - 1. Zoning Officer's Report – August 2022
  - 2. Code Enforcement Report - August 2022
- F. Recreation
  - 1. Spring Grove Regional Parks and Recreation Center Board Minutes – July 2022
  - 2. Spring Grove Regional Parks and Recreation Center Financial Report – July 2022
- G. Committee Reports

#### VIII. New Business

- A. Council to approve contract for inspection services with Commonwealth Code effective September 20, 2022.
- B. Council to consider approval of Act 57 resolution regarding delinquent taxes
- C. Council to consider approval of change order for Borough Park Project in the amount of \$11,431.92 for soil removal
- D. Council to consider approval of application for payment number 1 for Community Park in the amount of \$76,123.26 payable to Shiloh Paving & Excavating, Inc.
- E. Discussion of North Loop Interceptor bids and project options
- F. Council to consider approval of bid award for North Loop Interceptor in the amount of \$407,170 or \$617,225
- G. Council to consider approval of adding Scott Miller as an interim signatory on the following Borough banking accounts: ACNB, PSDLAF, and all Glatco Credit Union accounts
- H. Council to consider approval of a handicap parking space at 47 S. East Street
- I. Council to approve resignation of Kim Hackett
- J. Council to consider approval of retaining Kim Hackett on as needed part time basis under current salary and on Borough payroll
- K. Council to consider approval of new interim office hours as of September 26
- L. Council to consider approval of a part time administrative staff member for 15 – 20 hours per week
- M. Council to approve replacement of Borough Manager, Kim Hackett, as the FEMA contact
- N. Council to consider approval of Professional Services Agreement for ARRO engineering as needed during the months of October – December for management services

#### IX. Old Business

- A. Council discussion on how to proceed with insurance quote from Keller Brown
- B. Council to consider approval of Borough Ordinance 2022-4 to enact a revised and restated Stormwater Management Ordinance
- C. Council to approve land lease for 65 S Main Street and authorize execution by President

Rebecca Stauffer.

- X. Correspondence and other business
  - A. Borough of Spring Grove – date for Trick or Treat
  - B. Pumpkin Trail – Flyer and Information
  - C. Halloween parade update
- XI. Executive Session
  - A. Personnel business
  - B. Contract discussion
- XII. Adjournment to Council Meeting scheduled **October 17, 2022 6:00 p.m.**

CONFIRMATION

STOCK AND LEADER  
221 W PHILADELPHIA ST # 600  
YORK PA 17401--299

PO#:

<u>Account</u>	<u>AD#</u>	<u>Ordered By</u>	<u>Tax Amount</u>	<u>Total Amount</u>	<u>Payment Method</u>	<u>Payment Amount</u>	<u>Amount Due</u>
1429745	0005394240	Peter T. Ruth	\$0.00	\$191.00	Invoice	\$0.00	\$191.00

**Ad Order Notes:**

**Sales Rep:** ANPrice

**Order Taker:** ANPrice

**Order Created** 08/29/2022

Product	Placement	Class	# Ins	Start Date	End Date
YOR-Daily Record&Dispatch	YOR-Legals	Public Notices	1	08/31/2022	08/31/2022
YOR-ydr.com	YORW-Legals	Public Notices	1	08/31/2022	08/31/2022

**Text of Ad:** 08/29/2022

**NOTICE**

Notice is hereby given by the Borough Council of the Borough of Spring Grove, Pennsylvania that it plans to consider the adoption of the below-referenced Ordinance at its regular monthly meeting scheduled on September 19, 2022, at 7:00 p.m. at 1 Campus Avenue, Spring Grove, Pennsylvania 17362. The title and brief summary of the proposed Ordinance is as follows:

**AN ORDINANCE AMENDING CHAPTER 339 OF THE CODE OF ORDINANCES OF SPRING GROVE BOROUGH, YORK COUNTY, PENNSYLVANIA TO ENACT A REVISED AND RESTATED STORMWATER MANAGEMENT ORDINANCE**

A copy of the proposed Ordinance(s) may be examined by contacting the Borough Manager at the Borough Office located at 1 Campus Avenue, Spring Grove, Pennsylvania 17362, and the York Law Research Center, located at 45 N. George Street, York, PA during normal business hours. Any interested parties may submit comments at this Spring Grove Borough Council meeting.

Peter T. Ruth  
Solicitor

**MINUTES OF SPRING GROVE BOROUGH  
COUNCIL MEETING  
July 18, 2022**

The Spring Grove Borough Council met for Regular Session on Monday, July 18th, 2022. President Rebecca Stauffer called the meeting to order at 6:30 pm for community comments.

**BOROUGH COUNCIL PRESENT**

Rebecca J. Stauffer  
Robert Whyland  
Peter Lombardi  
Phillip Klocek  
Kristina Morton  
Kevin March  
Darrell Ledford

**ALSO PRESENT:**

Beverly Hilt, Mayor  
Kim Hackett, Borough Manager  
Scott Miller, Director of Community Development  
  
Peter Ruth, Solicitor  
Matt Warfel, Engineer, ARRO  
Collin Fox, Scientist, ARRO

**BOROUGH COUNCIL ABSENT:**

**ALSO ABSENT:**

Becky Magnani, Adm. Asst/Recording Secretary

**Invocation and Pledge to the Flag**

**Public Comment/Visitors**

Lieutenant Tobin Zech, York County Regional Police Department  
Brent Auchey, Friendship Hose Company  
Matt Coyne, Friendship Hose Company  
Bob Hinkle, VFW  
Tina Hinkle, VFW  
Heather-Marie Merrill, Sacred Heart Parish  
Father Michael Lefler, Sacred Heart Parish  
Larry Lentz, VFW  
Linda Legore, Resident  
Deacon Tom Bollinger, Sacred Heart Parish

**Meeting Minutes**

A motion was made to approve the June 20, 2022, meeting minutes by Phil Klocek with Kevin March providing a second. The motion carried unanimously.

**Treasurer's Report**

Expenses totaling \$307,181.38 – a motion was made to approve by Peter Lombardi with a second made by Kristina Morton; the motion carried unanimously. Manager Hackett provided a brief overview of significant expenses and income for the last month. Billing for sewer and refuse will be processed in the next two weeks. The Borough staff will be reviewing our accounts receivable list and collecting via the appropriate process for large balances.

**Administrative Reports**President

No report

Mayor

Mayor Hilt opened the floor for the representatives from Friendship Hose Fire Company to present their report. Brent Auchey confirmed that the land lease agreement has been accepted by the Executive Committee and membership but there are a few areas for discussion with the Borough. A meeting will be scheduled with Borough Manager, Director of Community Development, and Brent. The bell tower is progressing to schedule and the Department is very pleased with the design. Brent reported that inspections were completed at Friendship Hose, and they passed easily. Matt Coyne reviewed the submitted reports for last month's activity. E1 engine currently out for rehab work. Driver training is being completed upon return of the engine.

Lte. Zech reviewed the activity report in the Borough since our last meeting – 69 calls. The Department continues to investigate and confirm the suspects for the vandalism in the Borough Park and Trolley Trail. Lte. Zech reviewed a recent 911 call for the Trolley Trail which did not dispatch to York County Regional but was sent to York County Parks. Protocol has been revised to dispatch to the Police and not the County Park Rangers since the new Rail Trail and Trolley Trail are not under the Park system as of yet. Lte. Zech also confirmed that the Mayor and the Chief have followed up regarding a Council concern from last meeting's Executive Session. It was brought to Lte. Zech's attention by President Stauffer that youth in the Borough are loitering at the storm drain near Jim and Nenas. Lte. Zech acknowledged the need to investigate and monitor this situation.

The Mayor reviewed last month's calls made by Spring Grove Area Ambulance. 76- 911 calls received and responded to with no nonemergency calls. One issue with a call close to the station that was not received by the Ambulance. Council asked about length of Coroner contract – confirmed it is a year.

The EMS Intergovernmental contract has been prepared and will be reviewed by Attorney Ruth. The next meeting is August 22<sup>nd</sup> and the agreement will be brought for discussion and ratification.

## Engineering Report

Engineer Warfel confirmed that this meeting would be his last official attendance and the meetings will be attended by Collin Fox who has been working with the Borough for several years in other capacities. Council acknowledged Mr. Warfel's expertise and guidance. Engineer Warfel will continue to work with the Borough on projects and other needs.

### Main Street

- The pedestrian signal is not working, and the contractor has been contacted by PennDot to set up a meeting
- A final number for the project will be supplied to the Borough soon according to the latest email update

### MS4/Stormwater

- ARRO continues to update the draft MS4 Annual Report
- ARRO is providing a draft stormwater ordinance document based on the Model 2022 Ordinance. Council, staff, and public are to review the document. A copy is at the front office area for the public. Council will receive a copy of the ordinance once reviewed by Attorney Ruth at the next meeting and we will adopt in September. Changes include some definitions, dechlorinated pool water handling. Robert Whyland inquired as to residents with pools and how the ordinance would impact our permit. President Stauffer also expressed concern regarding the School District's pool water discharge but both ARRO and Manager Hackett confirmed this water does not discharge to the stormwater system. The water is processed through the sanitary sewer system.
- No illicit discharges have been reported and all but one BMP has passed inspections. Scott Miller is working on this BMP issue with Collin.

### Development Plan Reviews

- ARRO continues to work with Scott Miller on the Spring Forge and Dunkin Donuts reviews.

### North Loop Interceptor

- ARRO is working with Manager Hackett and Attorney Ruth to secure easements. All easements have been signed by residents and the final two will be approved by Council this evening.
- Bid documents will be advertised on July 18<sup>th</sup> and is being managed on PennBid. Depending on the bids received, the scope of work for the first phase of construction may be limited due to rising construction costs.
- Sludge costs were discussed as well as measures to reduce costs and the amount of sludge coming from the plant. Several options were reviewed including bioburning and the supernatant tank project. There has been an

approval by the State for small sewer grants which open in September through DCED. ARRO and Borough Staff to review the grant program.

#### Borough Park - Phase 3

- Construction begins on August 1<sup>st</sup> and will finish the end of October to the beginning of November. A pre-construction meeting will be held on the 22<sup>nd</sup>. Funds from DCNR will be drawn down this week as well. Kate King is requesting them. Park will be closed to ensure public safety.

#### Code Enforcement

- ARRO has begun discussions to upgrade the Spring Grove system to a Cloud based system to increase the ease of updates to the system and allow access from any computer.
- Scott Miller is executing all Code Enforcement work. His monthly report is included in the packet.
- Robert Whyland asked about Highland Avenue property and Scott discussed his progress with the resident.

#### GIS

- ARRO continues to provide as-needed GIS support to Borough office staff and public works/maintenance staff.
- This system will also transition to a Cloud base.

#### Solicitor

Attorney Ruth presented the Roadway Improvement Agreement for the improvements made by the Rail Trail Authority on Hosier Alley. Council concerns included the lack of highway aid funds to maintain the roadway along with the use by residents along the alley as the surface is not installed for heavy traffic usage. Further action under New Business.

#### Zoning & Codes Enforcement

Council inquired as to the status with Dunkin Donuts opening and Scott Miller confirmed that the permits have been issued but the owners are waiting for materials to complete the interior. Mayor Hilt asked about two of the violations in the report; Darrell Ledford asked about a neighbor's Maryland license which is a State not Borough issue. Kristina Morton asked for clarification on the reports with open and closing status. Director Miller reviewed his process.

#### Recreation

National Parks and Recreation month. YMCA settles on Roths Church Road the end of August. There is an update meeting on August 11<sup>th</sup> – Manager Hackett sent the meeting notice to all Council members. Director Kate King submitted a grant which has allowed SGRPRC to pay a staff bonus.

Attorney Ruth noted that the Rail Trail Agreement has been sent to the Authority and we are waiting for a response.

Council asked to have Public Works place barriers on the Rail Trail to stop cars from driving up onto new Trail from the Alley. Fences and gates will be installed once the contractor has the materials.

### **Committee Reports**

None provided however it was noted that the Personnel Committee does need to review Administrative Service Manager's job description. Manager Hackett will contact President Stauffer regarding meeting dates and times. Robert Whyland asked about how to arrange a Committee meeting and what is required for advertising. Attorney Ruth clarified that if you do not have quorum there is not need to advertise and reports can be brought back to Council.

### **New Business**

Council to approve Pixelle construction easement for North Loop Interceptor.

- Robert Whyland asked for clarification on the parcel location as to if we are discussing the parcel in the Borough and if this needs clarification for the easement which Attorney Ruth confirmed the parcel location is included as legally required for the easement.
- Attorney Ruth reviewed the changes requested by Pixelle's attorney for the easement.
- A motion was made to approve for execution by the Borough the temporary construction easement and ratification of permanent maintenance agreement of sanitary sewer facilities that is concerning the property of Pixelle Specialty Solutions, LLC on Hershey Road Codorus Township but specifically noting that improvements are only taking place in the Borough. Motion made by Kristina Morton; second by Robert Whyland and the motion carried unanimously.

Council to consider approval of Predix Property easement for North Loop Interceptor.

- Motion made to approve the temporary construction easement and ratification of permanent maintenance easement agreement for sanitary sewer for facilities at 327 Pine Avenue in the Borough of Spring Grove owned by Predix Property, LLC with a \$1.00 consideration. Motion made by Peter Lombardi; Robert Whyland seconded the motion; the motion carried unanimously.

Council member Kristina Morton presented the idea of holding a Halloween Parade in the Borough. It was organized in the past by the Lion's Club. The route will be sent to the Fire Department per Matt Coyne's request. Kristina contacted other municipalities and has information on permits and insurance coverage.

Council to review insurance proposal from Keller Brown Insurance Services and consider the acceptance of proposal to move our insurance coverage and authorize



President Stauffer and Borough Manager Hackett to execute the documents included in the packet.

- Robert Whyland made a motion to table the discussion for the August 15<sup>th</sup> meeting and Kristina Morton provided a second; the motion carried unanimously.

Collin Fox from ARRO reviewed the updated Stormwater Ordinance. Attorney Ruth will be reviewing the ordinance and sending comments on language. One of the changes is for small developments. We will add the advertisement of the Ordinance to the August agenda. Borough Manager Hackett to send the document to Council.

Council to consider approval of non-budgeted expenditure for spare blowers for Wastewater Treatment Plant utilizing ARPA funds.

- A motion was made by to approve the expenditure for the spare blowers by Kristina Morton with a second by Darrell Ledford; the motion carried unanimously.

### **Old Business**

Council to consider approval of zoning map amendment which extends the Village zoning from the corner of Jackson and Main St. to First Avenue including the VFW property and the Post Office.

- President Stauffer addressed public visitors for further comment, and none were made.
- A motion was to approve an ordinance for Spring Grove Borough, York County, PA, amending Chapter 400 of the code for Spring Grove Borough entitled "zoning to amend the official zoning map of Borough of Spring Grove changing the classification of certain parcels from Town Residential to Village". Robert Whyland made the motion; Peter Lombardi provided a second and the motion was carried unanimously.

### **Correspondence and other business**

President Stauffer reviewed the 2023 Budget Request Form and Manager Hackett discussed the timeline and process. President Stauffer reviewed the October budget meeting schedule as well.

The acknowledgement letter from Glatfelter Memorial Library was brought to Council attention by Rebecca Stauffer.

A motion was made by Phillip Klocek to adjourn the meeting and Peter Lombardi made the second; the motion carried unanimously.

The meeting adjourned at 8:28 pm and the next meeting is scheduled for August 15<sup>th</sup> at 7:00 pm at the Borough building.

Respectfully Submitted,

Kim Hackett  
Borough Manager

# ATTACHMENT 3.1

## OUTFALL INSPECTIONS

## **Outfall Inspections**

**Annual Inspections for Reporting Period  
7/1/2021 - 6/30/2022**

**Inspections Conducted on 7/1/2021 - 9/12/2022**

**Report Produced: 9/12/2022**

**Inspections Conducted By: ARRO Consulting**

## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF017

**Coordinates:** 39.880630119 N, -76.8620038029999 W

**Inspection Date:** 5/20/2022

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

**Dry Weather Present?** Yes

**Previous Precipitation Date:** 5/20/2022

**Previous Precipitation Amount:**

**Name of Inspector:** Scott Miller

**Outfall Type:** Closed Pipe

**Material:** HDPE

**Shape:** Circular

**Number:** Single

**Diameter/Dimensions (in):** 30

**Submerged?** Not Submerged

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

**Maintenance Needed?** No

*Field Photograph(s):*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF004

**Coordinates:** 39.8724294460001 N, -76.859986782 W

**Inspection Date:** 5/20/2022

**Land Use In Drainage Area:** Open\_Space, Urban\_Residential

**Dry Weather Present?** Yes

**Previous Precipitation Date:** 5/20/2022

**Previous Precipitation Amount:**

**Name of Inspector:** Scott Miller

**Outfall Type:** Closed Pipe

**Material:** Steel

**Shape:** Circular

**Number:** Single

**Diameter/Dimensions (in):** 8

**Submerged?** Not Submerged

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

**Maintenance Needed?** No

*Field Photograph(s):*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF015

**Coordinates:** 39.8830642980001 N, -76.8632380179999 W

**Inspection Date:** 6/20/2022

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

**Dry Weather Present?** Yes

**Previous Precipitation Date:**

**Previous Precipitation Amount:**

**Name of Inspector:** Scott and Collin

**Outfall Type:** Open Channel

**Material:** Concrete

**Shape:** Trapezoid

**Depth (in):** 24

**Top Width (in):** 36

**Bottom Width (in):** 18

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

**Maintenance Needed?** No

*Field Photograph(s):*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF016

**Coordinates:** 39.8825516580001 N, -76.862099292 W

**Inspection Date:** 6/20/2022

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

**Dry Weather Present?** Yes

**Previous Precipitation Date:**

**Previous Precipitation Amount:**

**Name of Inspector:** Scott and Collin

**Outfall Type:** Open Channel

**Material:** Earthen

**Shape:** Parabolic

**Depth (in):** 10

**Top Width (in):** 36

**Bottom Width (in):** 13

**Dry weather flow present at outfall during inspection?** Yes

**Description of Flow Rate:** Moderate

**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

**Maintenance Needed?** No



*Field Photograph(s):*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF010

**Coordinates:** 39.884077274 N, -76.86571078 W

**Inspection Date:** 6/20/2022

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

**Dry Weather Present?** Yes

**Previous Precipitation Date:**

**Previous Precipitation Amount:**

**Name of Inspector:** Scott and Collin

**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

**Maintenance Needed?** No

*Field Photograph(s):*



## **Outfall Inspection Summary**

**NPDES Number:**

**Outfall ID:** OF009

**Coordinates:** 39.884651911 N, -76.866767102 W

**Inspection Date:** 6/20/2022

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

**Dry Weather Present?** Yes

**Previous Precipitation Date:**

**Previous Precipitation Amount:**

**Name of Inspector:** Scott and Collin

**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

**Maintenance Needed?** No

*Field Photograph(s):*

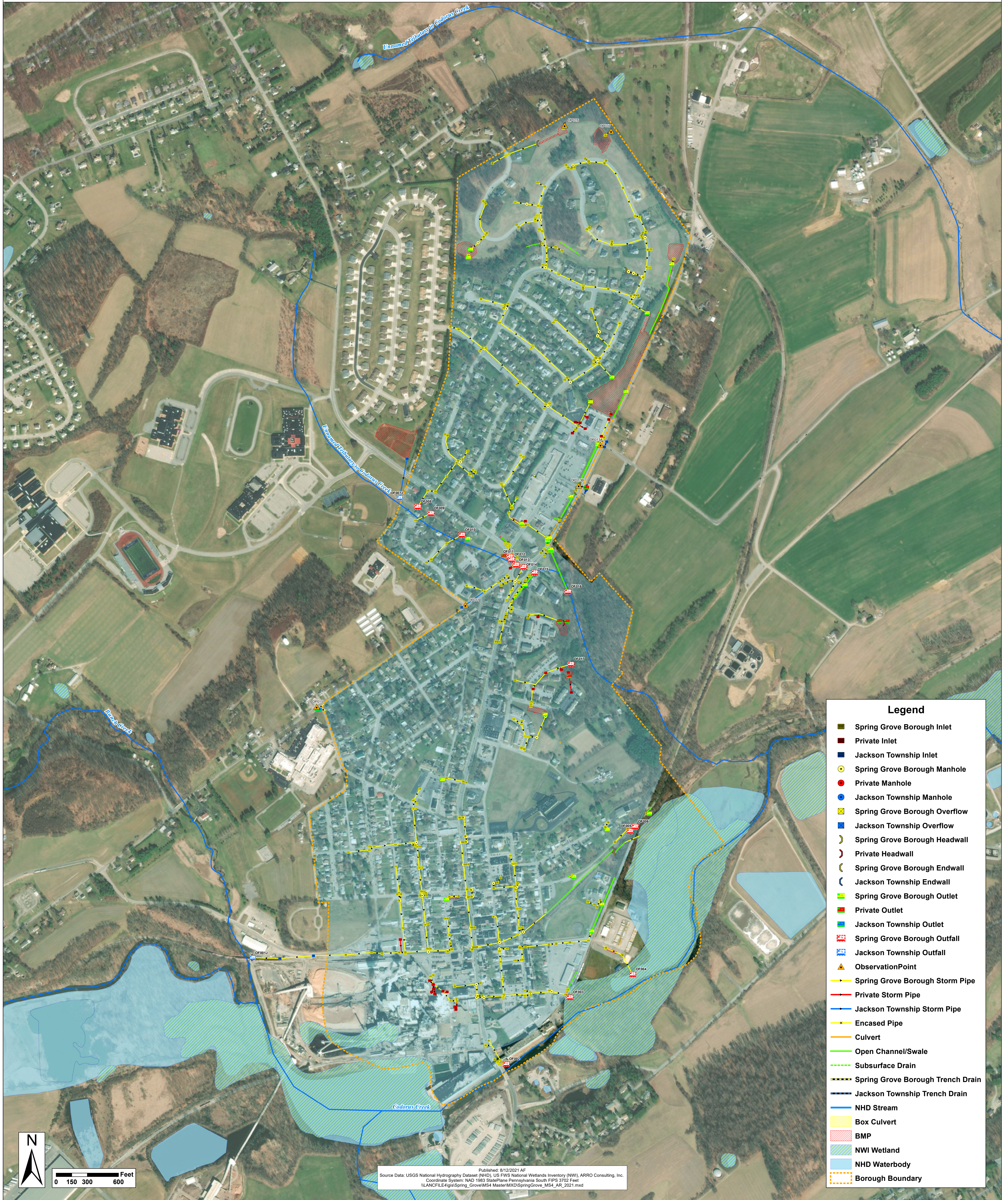
# ATTACHMENT 3.2

## MS4 MAP





# Spring Grove Borough Stormwater Conveyance System





# ATTACHMENT 5.1

## BMP INSPECTIONS

**Structural BMP (Best Management Practice) Inspections**

**Annual Inspections for Reporting Period  
7/1/2021 - 6/30/2022**

**Inspections Conducted on 7/1/2021 - 9/12/2022**

**Report Produced: 9/12/2022**

**Inspections Conducted By: Borough of Spring Grove and ARRO  
Consulting**

**Number of Inspections: 14**

**Number of Violations: 1**

## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Routine

**BMP ID:** BMP016004

**BMP Address:** 39.887793 N, -76.860365 W

**Responsible Party:** Spring Grove Borough

**BMP Type:** Detention Basin

**Inspection Date:** 9/9/2021

**Maintenance Needed?** Yes

**Describe Maintenance:** Grass clipping accumulation around outlet structure; minor erosion present; ponding is present but normal due to recent storm.

**BMP Inspection Status:** Inspection Failed - Maintenance Necessary

**Inspector Name:** Collin Fox and Scott Miller

**Comments:**

*Field Photograph(s):*





## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP016004

**BMP Address:** 39.887793 N, -76.860365 W

**Responsible Party:** Spring Grove Borough

**BMP Type:** Detention Basin

**Inspection Date:** 12/10/2021

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Collin Fox

**Comments:** Recommend inspection in early spring to assess need for reseeding.

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Routine

**BMP ID:** Campus Ave Stream Restoration

**BMP Address:** Campus Ave

**BMP Type:** Stream Restoration

**Inspection Date:** 12/30/2021

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:** Creek bank looks good

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP016003

**BMP Address:** 526 Monocacy Trail

**BMP Type:** Vegetated Swale

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*

## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP016004

**BMP Address:**

**Responsible Party:** Spring Grove Borough

**BMP Type:** Detention Basin

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP016005

**BMP Address:** 39.884415 N, -76.863828 W

**Responsible Party:** Private

**BMP Type:** Detention Basin

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP011001P

**BMP Address:** 39.883945 N, -76.864284 W

**Responsible Party:** Private

**BMP Type:** Dry Extended Detention Basin

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP016001

**BMP Address:** 39.891684 N, -76.865432 W

**Responsible Party:** Private

**BMP Type:** Detention Basin

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*





## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMPOP005002

**BMP Address:** 39.894787 N, -76.862108 W

**Responsible Party:** Private

**BMP Type:** Detention Basin

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*





## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMPOP006001

**BMP Address:** 39.894528 N, -76.860616 W

**Responsible Party:** Private

**BMP Type:** Detention Basin

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP017001

**BMP Address:** 39.879458 N, -76.863276 W

**Responsible Party:** Spring Grove Borough

**BMP Type:** Subsurface Infiltration Bed

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*

## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP001J001P

**BMP Address:** 39.874568 N, -76.866157 W

**Responsible Party:** Private

**BMP Type:** Subsurface Storage

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*

## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP006001

**BMP Address:** 39.874991 N, -76.862029 W

**Responsible Party:** Spring Grove Borough

**BMP Type:** Infiltration Basin

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*



## **Structural BMP Inspection Summary**

**Permit Number (if applicable):**

**Inspection Type:** Annual

**BMP ID:** BMP004001

**BMP Address:** 39.873100 N, -76.860815 W

**Responsible Party:** Spring Grove Borough

**BMP Type:** Pervious Pavement Infiltration Bed

**Inspection Date:** 5/20/2022

**Maintenance Needed?** No

**BMP Inspection Status:** Inspection Passed - No Maintenance Necessary

**Inspector Name:** Scott Miller

**Comments:**

*Field Photograph(s):*

ATTACHMENT 6.1  
TRAINING DOCUMENTS

# Spring Grove Ms4 training

April 18, 2022

Presented by: Collin Fox

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Kimberly A. Hackett

Danell A. helpful

Kevin E. Turner

~~Scott Anderson~~

Wally M. Wood

John W. Wood

Bruce R. Hilt



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## MEMORANDUM

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TO: Spring Grove Borough  
FROM: Andrew Tuleya, ARRO Consulting  
RE: Borough Facility Audit  
DATE: 09/18/2021

---

Spring Grove Borough and ARRO Consulting (ARRO) conducted a facility audit for the year of 2021-2022 as part of the MCM 6 Good Housekeeping Plan. The Borough will address any maintenance required by the facility audit.

Facility List:

1 CAMPUS AVENUE SPRING GROVE, PA 17362  
*Municipal Office*

210 E RAILROAD STREET SPRING GROVE, PA 17362  
*Public Works Building*

205 E RAILROAD STREET SPRING GROVE, PA 17362  
*Wastewater Treatment Plant*

E CONSTITUTION AVE SPRING GROVE, PA 17362  
*Rail Trail Parking Lot and BMP*

210 E Railroad St, Spring Grove, PA 17362  
*Spring Grove Borough Park*

Facility Audit Photos:







# Annual Stormwater Pollution Prevention Planning Training for Borough Staff



Prepared March 2022 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.

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## 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](#)

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## 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.

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## 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=jf6SLu08Yr4&list=PLG73nc4E40ZL7h2Ppl7x93uRZA9W5d6>
    - ▶ Utilized for inspections and maintenance
    - ▶ Available in a web browser

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# 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.



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# 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.



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## 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](#)

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## 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

Source: <https://www.epa.gov/press/ingepa/epa-facility-stormwater-management>





## 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- Please visit the town's website to participate in the 2021 stormwater public survey.
  - ▶ Storm Drain Stenciling
  - ▶ Rain Barrel Workshops
  - ▶ Social Media Driven Events
  - ▶ Stream Cleanups
  - ▶ Tree Plantings
  - ▶ Earth Day Events

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## 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](#)

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## 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.

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## 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

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# Outfall Screening Status

Examples:

This Outfall would FAIL inspections



-Due to trash and debris blocking the exit of the outfall

This Outfall would PASS inspections



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## 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

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

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## 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.

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## 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>

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## 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](#).

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## 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 Inspection Considerations

Examples:

This BMP would PASS inspections



This BMP would FAIL inspections



-Needed repairs to fix the rip rap on south east corner of the BMP

## 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

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## 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.

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## 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

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## Facility Conditions

-This is a well kept facility



## Facility Conditions

-This is a poorly kept facility



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## 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

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## Activities to Document for Annual MS4 Report

- |  |  |
|--|--|
| ▶ BMP Maintenance <ul style="list-style-type: none"><li>▶ Mowing</li><li>▶ Inlet/Outlet Cleaning</li><li>▶ Clearing Trash/Debris/Vegetation</li><li>▶ Infrastructure Repair/Replacement</li><li>▶ Revegetation</li></ul> | ▶ Pesticide Application                    |
| ▶ Inlet Cleaning <ul style="list-style-type: none"><li>▶ Number of Inlets Cleaned</li><li>▶ Amount of Debris Collected</li></ul>   | ▶ Fertilizer Application                   |
| ▶ Street Sweeping <ul style="list-style-type: none"><li>▶ Miles Swept</li><li>▶ Amount of Debris Collected</li></ul>   | ▶ Snow/Ice Removal Applications            |
| ▶ Storm Drain Vacuuming/Cleaning   | ▶ Public Complaints specific to Stormwater |
| ▶ Documented Spills  | ▶ Annual Training Sessions                 |
|  | ▶ Tree Planting                            |
|  | ▶ Costs Associated with Activities!        |

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## 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.

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## Spill Response and Notification

- Major and Minor Spills
- All spills, indoor or outdoor, must be reported even if they are not yours.



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## 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.

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## 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.**

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## 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.

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## THANK YOU FOR YOUR TIME!

- ▶ Questions? Comments?
- ▶ Please sign the sign in sheet if you have not already done so.
- ▶ If you have any questions, please contact me via e-mail Andrew.Tuleya@arroconsulting.com

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# ATTACHMENT 6.2

## STANDARD OPERATING PROCEDURES

# Standard Operating Procedures for Municipal Vehicle Operation



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all vehicles owned by the Borough are operated in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when operating any Borough-owned vehicles.

## **MUNICIPAL VEHICLE OPERATIONS**

The Borough owns a fleet of vehicles for Borough staff, Public Works, and construction use.

### **MUNICIPAL VEHICLE OPERATION PROCEDURES**

#### **VEHICLE INSPECTION**

All Borough vehicles should be inspected prior to operation to ensure that all components are functioning properly.

- The area underneath of where the vehicles are parked should be checked to see if there is any staining or other signs of leaking fluids.
- Any vehicles with signs of fluid leakage should be immediately scheduled for maintenance to repair those leaks.
- A fluid catch pan must immediately be placed under the portion of the vehicle where the leak is occurring.
- Any vehicles leaking fluids should not be parked over or near a floor drain.
- Vehicles that are leaking fluids must not be operated until the leaks are repaired.

#### **VEHICLE OPERATION**

All Borough vehicles, including contractor vehicles, are to be operated in a safe and legal manner that reduces the likelihood of accidents, and which reduces the potential for pollution to enter the municipal storm sewer system through a discharge incident. This includes obeying all road and traffic rules, and being alert at all times.

- Vehicles should not be driven off of roadways if possible.
- If driving must be done off of a roadway, any dirt that the vehicle carries back onto the roadway must be immediately cleaned up using a shovel and broom, or by a street sweeper if possible.

## **SPILLS FROM VEHICLES**

In the event of an accident involving vehicle fluids or cargo, 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:

- Dispose of all recovered material properly and in accordance with all applicable state and federal waste disposal regulations.
- 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.
- 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 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.

## **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

## **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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“Safety, Health, and Environmental Manual: Safety and Health Requirements.” *EPA Environmental Protection Agency*, Environmental Protection Agency, 2004,  
[www.epa.gov/sites/production/files/2015-09/documents/safety\\_health\\_508.pdf](http://www.epa.gov/sites/production/files/2015-09/documents/safety_health_508.pdf).

# Standard Operating Procedures for Municipal Vehicle Maintenance



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all vehicles owned by the Borough are maintained in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting maintenance on any Borough-owned vehicles.

## **MUNICIPAL VEHICLE MAINTENANCE**

The Borough owns a fleet of vehicles for Borough staff, Public Works, and construction use.

## **MUNICIPAL VEHICLE MAINTENANCE PROCEDURES**

### **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 stored outside for leaks and put leaking vehicles coming in for service under cover and immediately place drip pans under them.
- Use the drip pans to collect leaking fluids and utilize them while you unclip hoses, unscrew filters, or remove other parts.
- After the vehicle is moved, utilize dry cleanup methods whenever possible. Suitable materials such as paper towels, rags, absorbent pads and sand are to be maintained on site for the cleanup and disposal of oils, chemicals, or other hazardous materials.
- Use absorbent materials to clean up any spilled fluids on the floor. Immediately clean up absorbent materials, place into a trash bag and dispose of them in the municipal trash.
- Avoid hosing down work areas and do not wash areas containing spillage or contaminants with water so that the runoff does not enter the storm sewer system.
- Utilize non-hazardous cleaners and solvents whenever possible and maintain an organized inventory of materials.
- Routinely inspect vehicle storage and maintenance areas to determine the effectiveness of the pollution prevention/operation and maintenance program.

- Maintain inspection records and promptly correct any deficiencies.
- Training will be conducted to educate employees and contractors on proper waste control and disposal procedures.

Waste materials from maintenance activities such as soils, greases, lubricants, anti-freeze, greasy rags, oil filters, air filters, batteries, tires and degreasers are to be placed in appropriately labeled containers and stored inside municipal facilities for proper disposal and recycling.

- Keep waste streams separate (i.e. waste oil and solvents).
- Label and track the recycling and disposal of waste material.
- Promptly transfer used fluids to the proper container. Do not pour liquid waste into floor drains, sinks, outdoor storm drain inlets, or other storm drain or sewer connections.
- Used oils are to be recycled.
- Drain oil filters before disposal or recycling. Place oil filters in a funnel over the waste oil burner to drain excess oil before disposal, and then crush and dispose of the oil filters in accordance with federal and state regulations.
- Used anti-freeze is to be disposed of in the container dedicated for this material within the appropriate municipal facility to be recycled.

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.

In general, it is not permitted to store chemicals outside of a municipal facility. If chemical containers must be stored in the open, they must be kept in an enclosed structure that will prevent them from being exposed to any precipitation.

### **SPILL FROM VEHICLES**

In the event of an accident involving vehicle fluids or cargo, 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 contaminant 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 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.

### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

"Guidelines for the Development and Implementation of Environmental Emergency Response Plans." *Resources*, Pennsylvania Department of Environmental Protection, 2019, [www.dep.pa.gov/Business/Water/Waterways/Pages/Resources.aspx](http://www.dep.pa.gov/Business/Water/Waterways/Pages/Resources.aspx)

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<https://www.epa.gov/quality/guidance-preparing-standard-operating-procedures>

"UNITED STATES DEPARTMENT OF LABOR." *Occupational Safety and Health Administration*, OSHA, 2019, [www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_id=10420&p\\_table=STANDARDS](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=10420&p_table=STANDARDS).

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# Standard Operating Procedures for Municipal Vehicle Fueling



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

ARRO CONSULTING, INC.  
108 W Airport Rd  
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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all vehicles owned by the Borough are fueled in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when fueling any Borough-owned vehicles and/or equipment.

## **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.

### **SPILLS FROM VEHICLES**

In the event of an accident involving vehicle fluids or cargo, 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 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.

### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

### **REFERENCES**

“When It Rains It Drains.” *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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# Standard Operating Procedures for Municipal Vehicle Washing



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all vehicles owned by the Borough are washed in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when washing any Borough-owned vehicles.

## **MUNICIPAL VEHICLE WASHING**

The Borough should wash vehicles in a manner that ensures protection of the environment. Borough personnel should avoid washing vehicles outside and should utilize commercial car washes for Borough vehicles whenever practicable.

### **WASHING AT MUNICIPAL FACILITIES**

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. Ensure that wastewater generated from any power washing or steam-cleaning activity is also directed to the floor drain system and does not enter into the environment.

Utilize phosphate-free biodegradable detergents whenever possible and consider using detergent-based or water-based cleaning systems in place of organic solvent degreasers.

### **SPILLS FROM VEHICLES**

In the event of an accident involving vehicle fluids, cargo, or detergents 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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# Standard Operating Procedures for the Handling of Sodium Hypochlorite



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all Sodium Hypochlorite owned by the Borough is used in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require the use of Sodium Hypochlorite.

## **SODIUM HYPOCHLORITE**

The Borough intends to properly store Sodium Hypochlorite to mitigate the risk of spill and entrance in the Borough's MS4. Sodium Hypochlorite, also known as bleach, is used as a disinfectant.

### **PROPER HANDLING AND DISPOSAL PROCEDURES**

Sodium Hypochlorite is a corrosive chemical and can cause severe damage to the eyes and skin.

Exposure to this chemical is harmful to humans and animals. Borough staff is required to use protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain Sodium Hypochlorite.

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.

### **SPILLS FROM SODIUM HYPOCHLORITE**

In the event of a spill involving Sodium Hypochlorite, 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 on hand for all activities 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 that requires more than one (1) bag of liquid absorbent 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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# Standard Operating Procedures for the Handling of Paint



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all paint, paint thinner, containers, and rags owned by the Borough are used in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require the use of paint.

## **PAINT**

The Borough intends to properly store and use paint and associated materials to mitigate the risk of spills and entrance in the Borough's MS4.

### **PROPER HANDLING AND DISPOSAL TECHNIQUES**

The use of paint involves other materials such as paint thinner, containers, and rags. Borough staff is required to wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain water or solvent based paints. Solvent contaminated items and unattended spills, if left for long periods of time have the potential to enter the Borough's MS4.

Use the following precautions when working with paint 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.

### **SPILLS FROM PAINT**

In the event of an accident involving paint, 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 on hand for all activities 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 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.

### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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# Standard Operating Procedures for the Handling of Herbicides



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

ARRO CONSULTING, INC.  
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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all herbicides owned by the Borough are used in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require the use of herbicides.

## **HERBICIDES**

The Borough intends to properly use and store herbicides to mitigate the risk of spills and entrance into the Borough's MS4.

### **PROPER HANDLING AND DISPOSAL PROCEDURES**

The application and handling of herbicides can be harmful to humans and aquatic environments. Borough staff is required to wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain herbicides.

Use the following precautions when working with herbicides and associated materials:

- 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.

### **SPILLS FROM HERBICIDES**

In the event of a spill involving herbicides, 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 on hand for all activities 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 that requires more than one (1) bag of liquid absorbent materials 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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# Standard Operating Procedures for the Handling of Lawn Fertilizers



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all lawn fertilizers owned by the Borough are used in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require the use of lawn fertilizer.

## **LAWN FERTILIZER**

The Borough intends to properly store lawn fertilizers to mitigate the risk of spills and entrance in the Borough's MS4.

### **PROPER HANDLING AND DISPOSAL TECHNIQUES**

Borough staff is required to wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain lawn fertilizers.

Use the following precautions when working with lawn fertilizer 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)
- Dumping materials into drains or onto the ground is prohibited.
- Store separate from other chemicals.
- Provide secondary containment.

### **SPILLS FROM LAWN FERTILIZERS**

In the event of a spill involving lawn fertilizers, 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 on hand for all activities 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 that requires more than one (1) bag of liquid absorbent material to absorb, or that threatens 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

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# Standard Operating Procedures for the Handling of Petroleum Products



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

ARRO Project Number: 10843.74

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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all petroleum products owned by the Borough are used and stored in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require the use of petroleum products.

## **PETROLEUM PRODUCTS**

The Borough uses petroleum products to fuel various vehicles, generators, and other equipment.

### **PROPER HANDLING AND DISPOSAL TECHNIQUES**

The application and handling of petroleum products can be harmful to humans and aquatic environments.

Use the following precautions when working with petroleum products 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).
- 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.

### **SPILLS FROM PETROLEUM PRODUCTS**

In the event of a spill involving petroleum products, 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 on hand for all activities 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 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

"Guidelines for the Development and Implementation of Environmental Emergency Response Plans." *Resources*, Pennsylvania Department of Environmental Protection, 2019, [www.dep.pa.gov/Business/Water/Waterways/Pages/Resources.aspx](http://www.dep.pa.gov/Business/Water/Waterways/Pages/Resources.aspx)

"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*, OSHA, 2019, [www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_id=10420&p\\_table=STANDARDS](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=10420&p_table=STANDARDS).



# Standard Operating Procedures for the Handling of Street Sweeping Debris



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all street sweeping debris generated from the Borough are managed in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities involving street sweeping debris.

## **STREET SWEEPING DEBRIS**

The Borough intends to properly store and manage street sweeping debris to mitigate pollutants entering the stormwater system. Debris can be transported into the Borough's MS4 through precipitation events and introduce pollutants into the stormwater system. The Borough's stormwater conveyance system may clog with debris, which will reduce its effectiveness.

## **PROPER HANDLING AND DISPOSAL PROCEDURES**

Street sweeping debris should be contained and kept away from drains to avoid contaminants entering the Borough's MS4. Street sweeping materials should be disposed of at a sanitary landfill (PA DEP, 2015). The street sweeper itself should have an absorption pad to mitigate the risk from leaking petroleum products.

The Pennsylvania Department of Environmental Protection (PA DEP) states the following recommendations for recycling of street sweeping materials. Street sweeping materials can be:

- Reused as antiskid (PA DEP, 2015).
- Remixed within a new salt mixture for winter application on roads (PA DEP, 2015).
- Reused as the subgrade beneath a paved municipal road or parking lot (PA DEP, 2015).
- Reused for filling potholes (PA DEP, 2015).
- Reused as repair material along roads within the municipally or for privately owned roads within the public right-of-way (PA DEP, 2015).
- Reused in other fill (PA DEP, 2015).

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 (PA DEP, 2015). Street sweeping debris should be kept away from stormwater conveyances.

## **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

## **REFERENCES**

“When It Rains It Drains.” *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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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)  
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“Disposal/Reuse of Street-Sweeping Debris and Antiskid.” *Files.dep.state.pa.us*, Pennsylvania Department of Environmental Protection Bureau of Waste Management, 19 August 2015, [files.dep.state.pa.us/Water/BNPNSM/StormwaterManagement/MunicipalStormwater/MCM6\\_Municipal\\_Operations/Street\\_Sweepings\\_final\\_Rev\\_081915.pdf](http://files.dep.state.pa.us/Water/BNPNSM/StormwaterManagement/MunicipalStormwater/MCM6_Municipal_Operations/Street_Sweepings_final_Rev_081915.pdf).

# Standard Operating Procedures for the Handling of Calcium Chloride



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all calcium chloride owned by the Borough is used and stored in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require the use of calcium chloride.

## **CALCIUM CHLORIDE**

The Borough intends to properly store calcium chloride to mitigate the risk of spills and entrance into the Borough's MS4.

## **PROPER HANDLING AND DISPOSAL TECHNIQUES**

The application and handling of calcium chloride, also known as road salt, can be harmful to humans and aquatic environments.

Use the following precautions when working with Calcium Chloride and associated materials:

- 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.

## **SPILL RESPONSE FROM CALCIUM CHLORIDE**

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:

- Materials should be swept up and disposed in a Borough 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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"Quick Resource Guide for Winter Maintenance BMPs." *SPC Water Resource Center*, Pennsylvania Department of Environmental Protection, Southwestern Pennsylvania Commission Water Resource Center, 2013.

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# Standard Operating Procedures for Salt Storage Sheds



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

ARRO CONSULTING, INC.  
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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that the salt storage shed owned by the Borough is maintained in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities related to the salt storage shed.

## **SALT STORAGE SHED**

The Borough intends to properly maintain the salt storage shed that is located at the Public Works Maintenance Complex.

## **PROPER HANDLING AND DISPOSAL PROCEDURES**

In addition to chlorides that are applied to roads, sidewalks, and parking lots, the salt that is located in the storage shed can impact the environment (SPC, PA DEP 2013).

The Pennsylvania Department of Environmental Protection and SPC Water Resource center recommend using the following precautions when conducting operations and maintenance of a salt storage shed:

- Locate away from water sources (SPC, PA DEP 2013).
- Locate on an impervious surface (SPC, PA DEP 2013).
- Maintain adequate drainage controls to prevent runoff (SPC, PA DEP 2013).
- Locate all salt and de-icing areas outside the 100-year floodplain, areas of localized flooding, and away from stormwater facilities (SPC, PA DEP 2013).
- After loading materials, clean up any spills that occurred (SPC, PA DEP 2013).
- Cover all salt and de-icing material storage piles with tarps, hard shelters, or within dikes/berms (SPC, PA DEP 2013).

### **For piles less than 3,000 tons:**

The Pennsylvania Department of Environmental Protection and SPC Water Resource Center state that recommendations and Best Management Practices (BMPs) from the Salt Institute's "Salt Storage Handbook" must be implemented (SPC, PA DEP 2013). These piles must always be covered and located on an impervious surface (SPC, PA DEP 2013).

### **For piles greater than 3,000 tons:**

The Pennsylvania Department of Environmental Protection and SPC Water Resource Center state that recommendations and BMPs from the Salt Institute's "Voluntary Salt Storage Guidelines for Distribution Stockpiles" must be implemented (SPC, PA DEP 2013). These piles must be located on an impervious surface and covered with canvas, polyethylene or other synthetic material, except when receiving salt, building the stockpile, or distributing out to customers (SPC, PA DEP 2013).

### **SPILL RESPONSE FROM THE SALT STORAGE SHED**

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:

- Materials should be swept up and disposed of in a Borough 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 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.

### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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<https://www.epa.gov/quality/guidance-preparing-standard-operating-procedures>

“Quick Resource Guide for Winter Maintenance BMPs.” *SPC Water Resource Center*, Pennsylvania Department of Environmental Protection, Southwestern Pennsylvania Commission Water Resource Center, 2013.

# Standard Operating Procedures for the Handling of Brine



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

ARRO CONSULTING, INC.  
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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that any brine owned by the Borough is maintained and used in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require the use of brine.

## **BRINE**

The Borough intends to properly store brine to mitigate the risk of spills and entrance in the Borough's MS4.

## **PROPER HANDLING AND DISPOSAL PROCEDURES**

The application and handling of brine can be harmful to humans and aquatic environments. The Pennsylvania Department of Environmental Protection (PA DEP) and Southwestern Pennsylvania Commission for Water Resource Center (SPC) state that, a 23% brine solution may be stored outside; however, if the temperature drops below 0° F, it may freeze (SPC, PA DEP, 2013). A circulator pump should be installed to reduce the risk of freezing (SPC, PA DEP, 2013).

Use the following precautions when working with Brine and associated materials:

- 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.

The date the brine is created, the name of person who mixed it, and the concentration of the brine should be recorded with the checklist (SPC, PA DEP, 2013).

## **SPILL RESPONSE FROM BRINE**

Spills should be immediately addressed to 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. Appropriate spill containment and recovery



equipment should be on hand for all activities 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 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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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)  
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# Standard Operating Procedures for the Handling of Generators



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all Borough-owned generators are maintained in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities relating to generators.

### **Generators**

The Borough intends to properly handle generators, which are fueled with petroleum products, to mitigate the risk of spills and entrance in the Borough's MS4.

### **PROPER HANDLING AND DISPOSAL PROCEDURES**

The fuel, or petroleum products, used to power generators can be harmful to humans and the aquatic environment.

Use the following precautions when working with petroleum products and associated materials:

- Keep containers closed, except when removing or adding material (OSHA, 2013).
- Use only the amount of petroleum 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.
- Provide secondary containment.

### **SPILLS FROM GENERATORS**

In the event of a spill involving a generator, 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 generators 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 materials 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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"UNITED STATES DEPARTMENT OF LABOR." *Occupational Safety and Health Administration*, OSHA, 2019, [www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_id=10420&p\\_table=STANDARDS](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=10420&p_table=STANDARDS).

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# Standard Operating Procedures for the Handling of Flammable Liquids



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4

The goal of this SOP is to ensure that all flammable liquids owned by the Borough are used and stored in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require the use of flammable liquids.

## **FLAMMABLE LIQUIDS**

The Borough intends to properly store flammable liquids to mitigate the risk of spill and entrance in the Borough's MS4.

### **PROPER HANDLING AND DISPOSAL PROCEDURES**

Flammable liquids can cause severe damage to the eyes and skin. Exposure to this chemical is harmful to humans and animals. Borough staff is required to wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying products that contain flammable liquids.

Use the following precautions when working with flammable liquids:

- Keep containers closed, except when removing or adding material (OSHA, 2013).
- Use only the amount of product needed for the task (OSHA, 2013).
- Spills should be addressed immediately (OSHA, 2013).
- Dispose of waste material in approved waste cans (OSHA, 2013).
- Dumping materials into drains or onto the ground is prohibited.
- Store chemicals separate from each other.
- Provide secondary containment.

### **SPILLS FROM FLAMMABLE LIQUIDS**

In the event of a spill involving flammable liquids, 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 on hand for all activities 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

#### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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# Standard Operating Procedures for Municipal Lawn Care



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all lawn care vehicles, equipment, and associated activities by the Borough are operated and conducted in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting any lawn care activities.

## **MUNICIPAL LAWN CARE**

The Borough owns vehicles and machinery that are associated with lawn care and landscaping.

### **LAWN CARE VEHICLE INSPECTION**

All Borough lawn vehicles and pieces of equipment should be inspected prior to operation to ensure that all components are functioning properly.

- The area underneath of where the vehicles and equipment are parked should be checked to see if there is any staining or other signs of leaking fluids.
- Any vehicles and equipment with signs of fluid leakage should be immediately scheduled for maintenance to repair those leaks.
- A fluid catch pan must immediately be placed under the portion of the vehicle where the leak is occurring.
- Any vehicles leaking fluids should not be parked over or near a floor drain.
- Vehicles and equipment that are leaking fluids must not be operated until the leaks are repaired.

### **LAWN CARE VEHICLE OPERATION**

All Borough vehicles and equipment, including contractor vehicles and equipment, are to be operated in a safe and legal manner that reduces the likelihood of accidents, and which reduces the potential for pollution to enter the municipal storm sewer system through a discharge incident. This includes obeying all road and traffic rules, and being alert at all times.

- Vehicles should not be driven off of roadways if possible.
- If driving must be done off of a roadway, any dirt that the vehicle carries back onto the roadway must be immediately cleaned up using a shovel and broom, or by a street sweeper if possible.

### **SPILLS FROM LAWN CARE VEHICLES**

In the event of an accident involving vehicle fluids or cargo, 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 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 the PA DEP and downstream water users/intakes.

### **DISPOSAL OF DEBRIS**

Lawn Debris should be collected in the proper containers and disposed of via compost piles. The debris should be contained and kept away from precipitation in order to reduce the likelihood that materials will enter the Borough's stormwater system. The EPA states that composting requires three basic ingredients:

- Browns- This includes materials such as dead leaves, branches, and twigs (EPA, 2018).
- Greens- This includes materials such as grass clippings, vegetable waste, fruit scraps, and coffee grounds (EPA, 2018).
- Water- Having the right amount of water, greens, and browns is important for compost development (EPA, 2018).

The EPA lists items that can be used for compost from lawn care activities. These items are (EPA, 2018):

- Cardboard
- Yard trimmings (that are not treated with chemical pesticides)
- Grass clippings
- Hay and straw
- Leaves
- Saw dust
- Wood chips

## **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

## **REFERENCES**

“When It Rains It Drains.” *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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# Standard Operating Procedures for the Handling of Batteries



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all batteries owned by the Borough are handled in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting any activities that require the use of batteries.

## **BATTERIES**

The Borough intends to properly store Batteries to mitigate the risk of any waste entering the MS4.

### **PROPER HANDLING AND DISPOSAL PROCEDURES**

Batteries contain acid, which is harmful to humans and animals. Borough staff is required to wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling batteries.

Use the following precautions when working with batteries and associated materials:

- 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.

### **SPILLS FROM BATTERIES**

In the event of a spill involving batteries or battery waste, 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 on hand for all activities 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 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.

### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

### **REFERENCES**

"When It Rains It Drains." *Stormwater Management*, Pennsylvania Department of Transportation, 2019, [www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx](http://www.penndot.gov/doing-business/localgovernment/stormwatermanagement/pages/default.aspx).

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# Standard Operating Procedures for the Handling of Household Cleaners



Spring Grove Borough, York County, Pennsylvania

ARRO Project Number: 00010856.29

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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 municipal activities that have the potential to contribute pollutants to the Borough's MS4.

The goal of this SOP is to ensure that all household cleaners owned by the Borough are handled in a manner that works to prevent polluted runoff into the MS4. Borough personnel are required to follow this manual when conducting activities that require household cleaners.

## **HOUSEHOLD CLEANERS**

Household cleaners may contain ammonia, bleach, aerosol, corrosive substances, and other chemicals that are harmful to humans and animals. The Borough intends to properly store household cleaners to mitigate the risk of spill and entrance into the Borough's MS4.

### **PROPER HANDLING AND DISPOSAL PROCEDURES**

Borough staff is required to wear protective clothing, including safety glasses or goggles and chemical-resistant gloves, when handling and applying household cleaners.

Use the following precautions when working with 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.

### **SPILLS FROM HOUSEHOLD CLEANERS**

In the event of a spill involving household cleaners, 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 on hand when conducting activities that have the potential for a significant fluid spill. A spill containment kit should include absorbent materials such as, Safe T Sorb, 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 Safe T Sorb 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.

#### **QUALITY ASSURANCE/QUALITY CONTROL**

All Borough personnel are responsible for reviewing and understanding this SOP. The applicable supervisor will review this SOP at the end of every MS4 reporting period for relevancy. The checklist will be signed by supervisor after activities to ensure appropriate measures have been taken. The Borough Manager will be notified immediately if any issues occur. Corrective actions will be taken if needed.

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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).

# Standard Operating Procedures for the Maintenance of Stormwater BMPs



Spring Grove, York County, Pennsylvania

ARRO Project Number:

10856.29

ARRO CONSULTING, INC.  
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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**

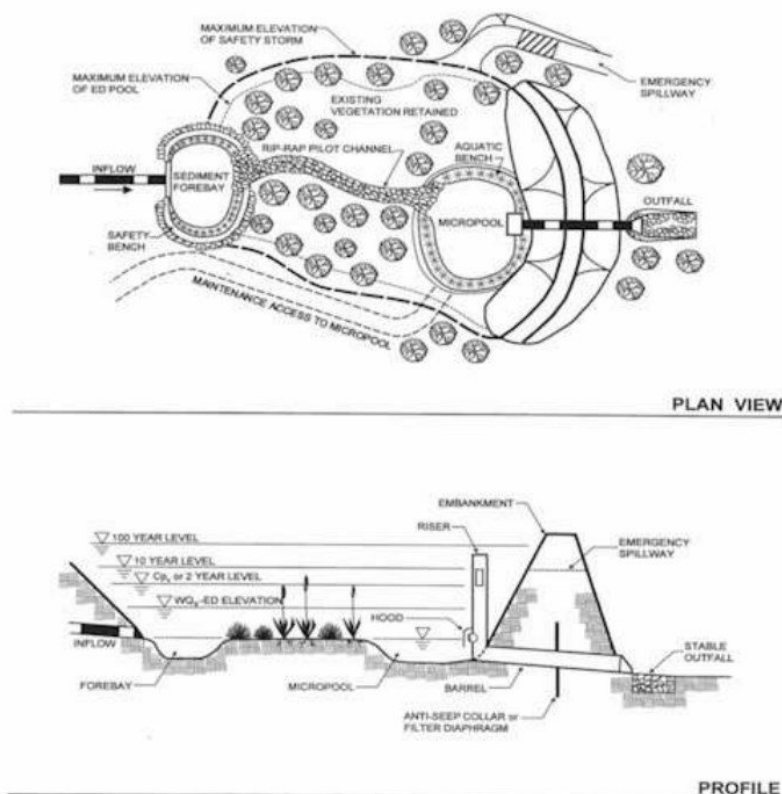
Types of structural BMPs in the Borough may include the following: pervious pavement with infiltration beds, infiltration basins, subsurface infiltration beds, infiltration trenches, rain gardens/bioretention, vegetated swales, constructed wetlands, wet ponds/retention basins, and dry extended detention 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**

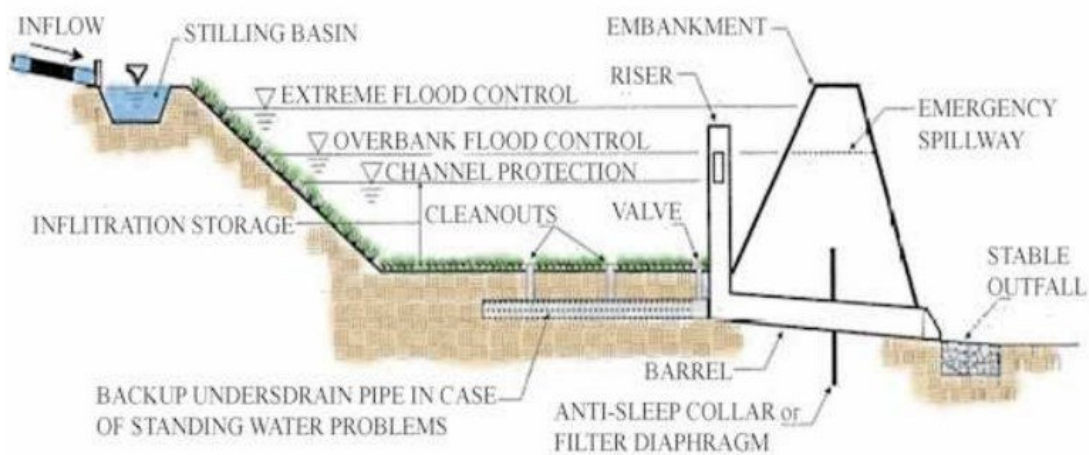
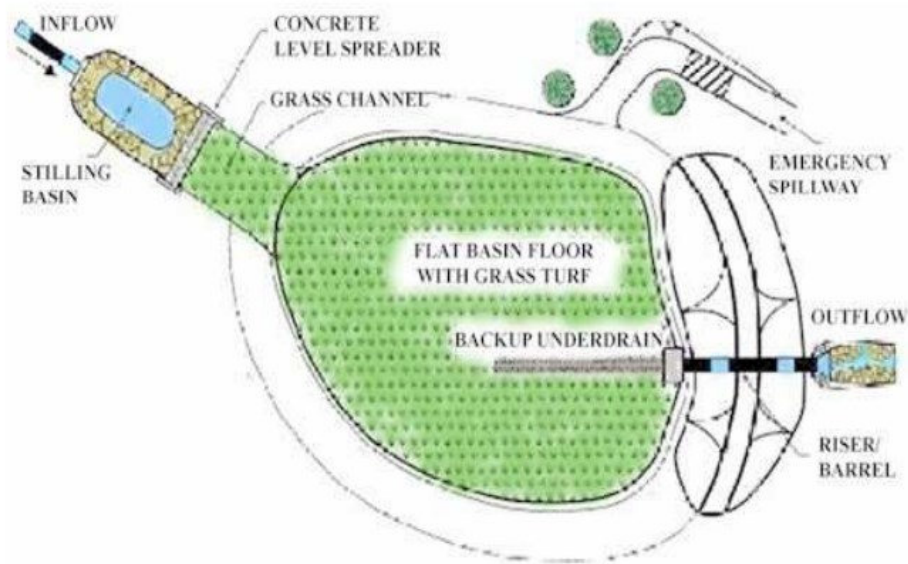
Sub-surface extended detention Extended detention storage can also be provided in a variety of sub-surface structural elements, such as underground vaults, tanks, large pipes or other structural media placed in an aggregate filled bed in the soil mantle. All such systems are designed to provide runoff 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

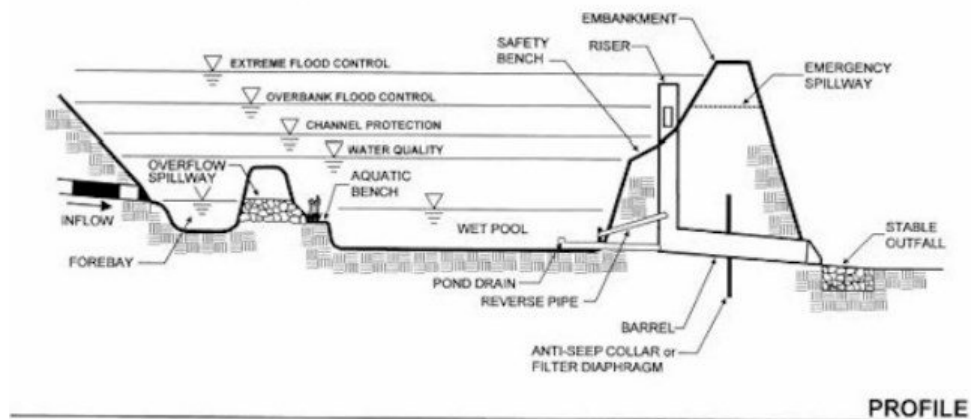
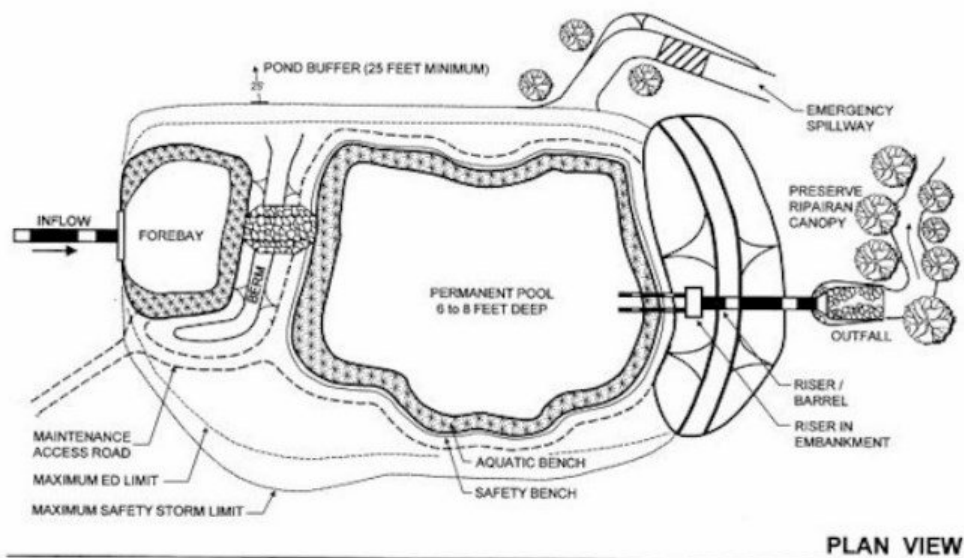
- All Catch Basins and Inlets should be inspected and cleaned at least 2 times per year.
- The overlying vegetation of Subsurface Infiltration features should be maintained in good condition, and any bare spots revegetated as soon as possible.
- Vehicular access on Subsurface Infiltration areas should 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.

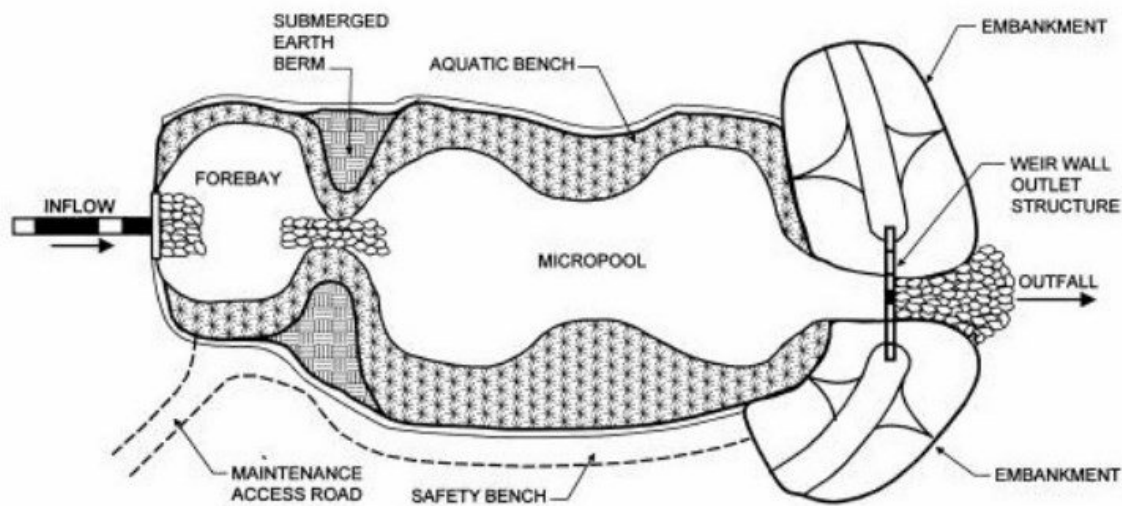


## Variations

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.

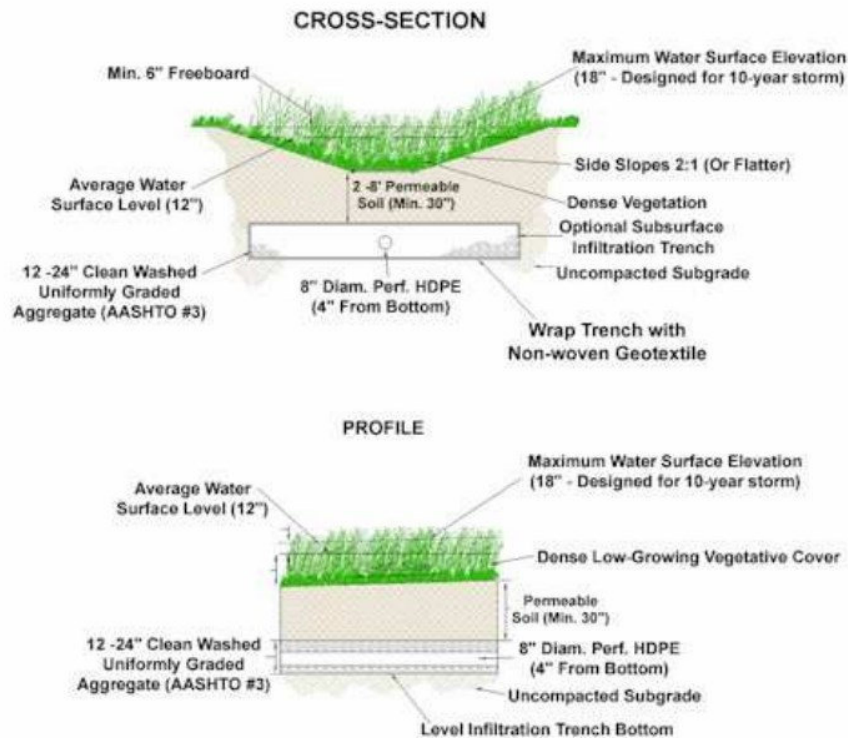
- Wet Pond and buffer vegetation may need support (watering, weeding, mulching, replanting, etc.) during the first 3 years.
  - Undesirable species should be carefully removed and desirable replacements planted if necessary.
- Wet ponds should be inspected at least 4 times per year and after major storms (> 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.



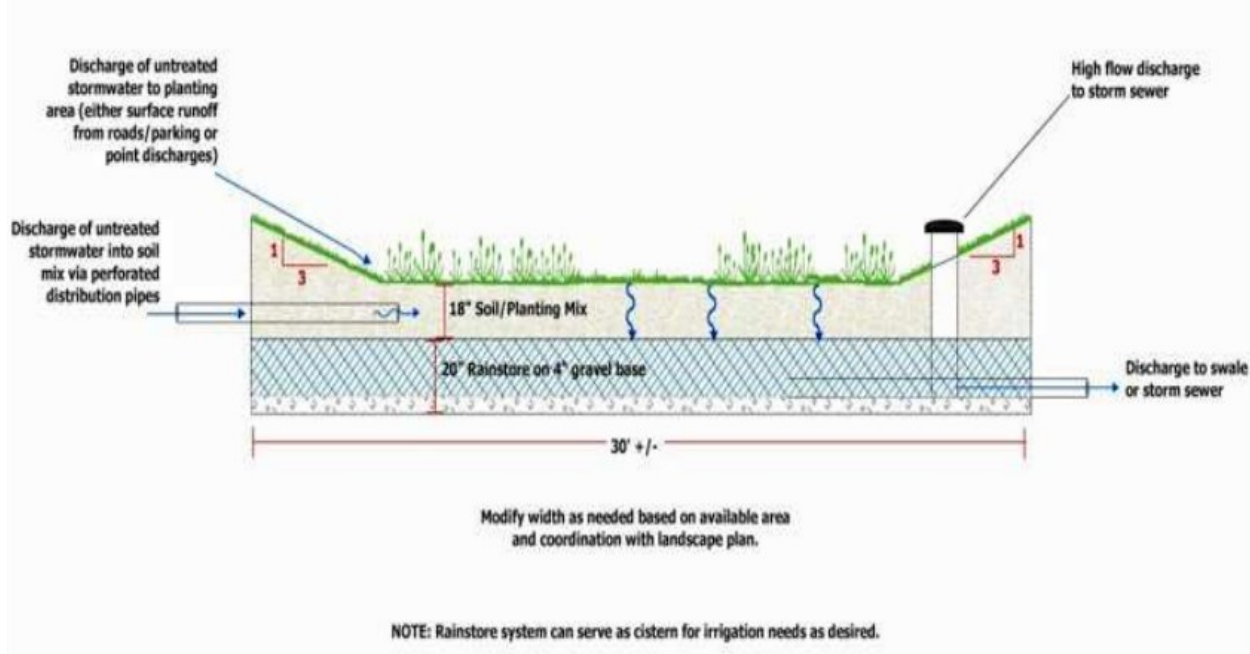
- Annual harvesting of vegetation may increase the nutrient removal. Care should be taken to avoid disturbance, especially of bottom sediments, during harvesting. The potential disturbance from harvesting may outweigh its benefits.
- Sediment should be removed from the forebay before it occupies 50% 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

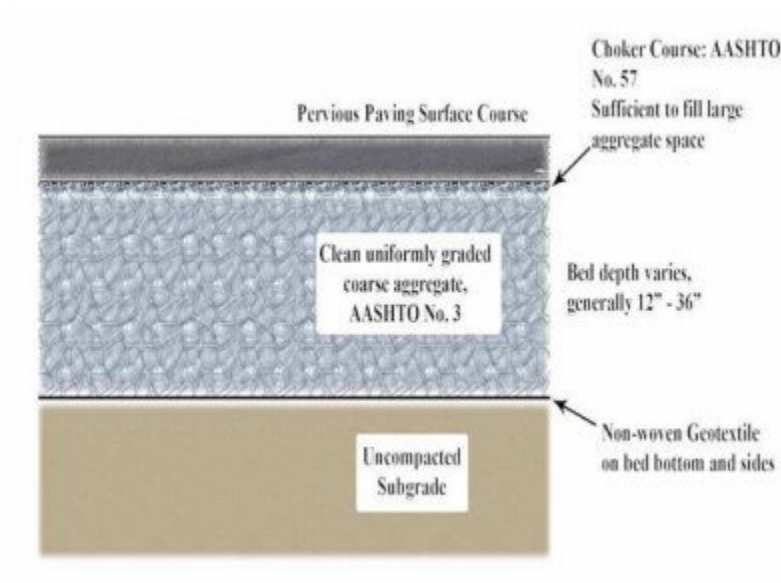
Wet swales are essentially linear wetland cells. Their design often incorporates shallow, permanent pools or marshy conditions that can sustain wetland vegetation, which in turn provides potentially high pollutant removal.



## 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.



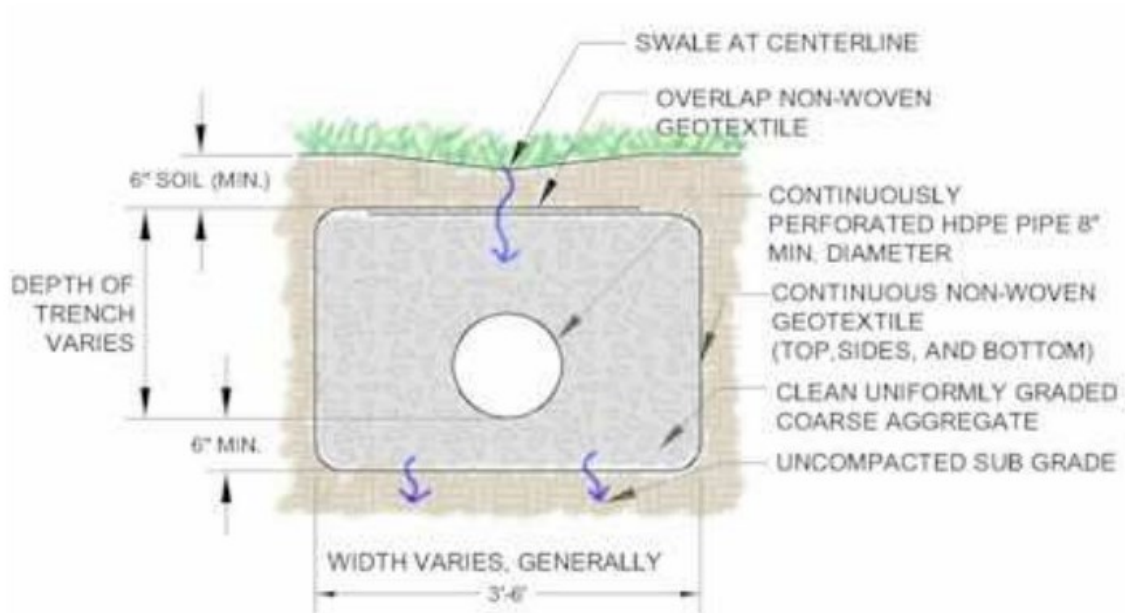
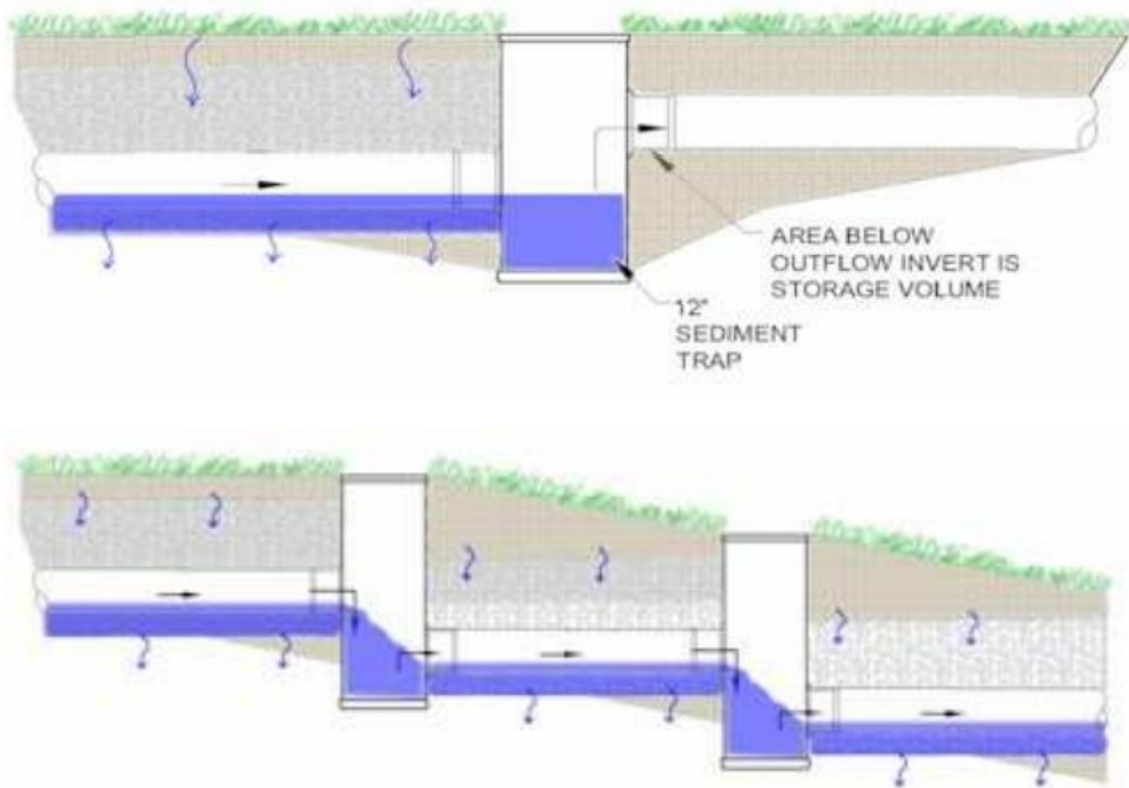


Figure 6.4-1



## Variations

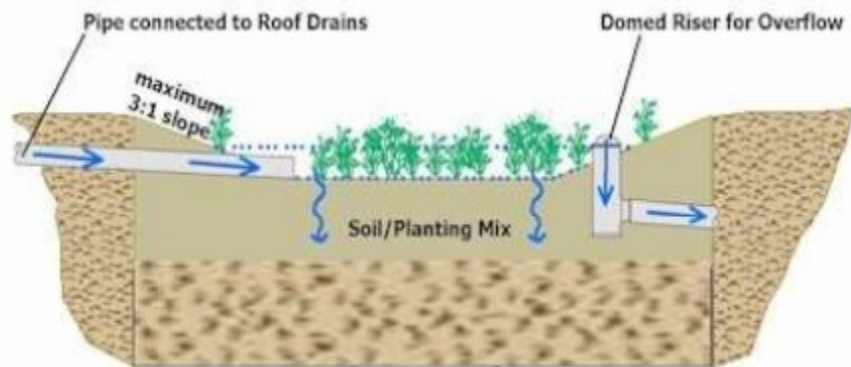
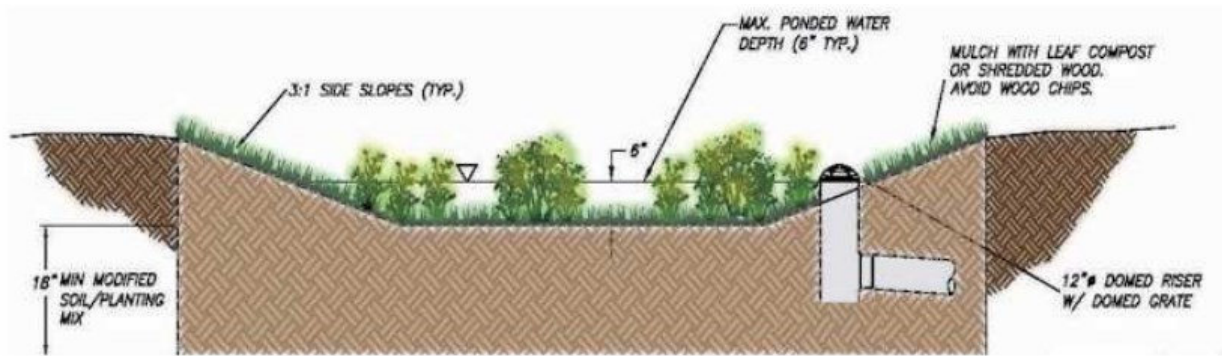
Infiltration Trenches generally have a vegetated (grassed) or gravel surface. Infiltration Trenches also may be located alongside or adjacent to roadways or impervious paved areas with proper design. The subsurface drainage direction should be to the downhill side (away from subbase of pavement), or

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.

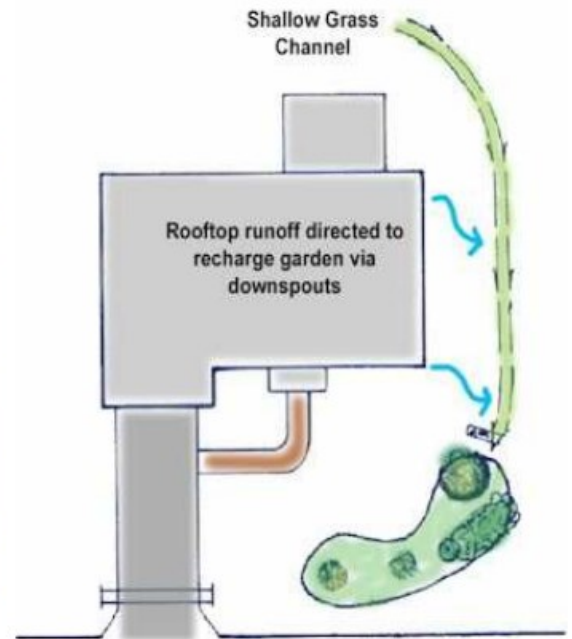
## Rain Gardens/Bioretention



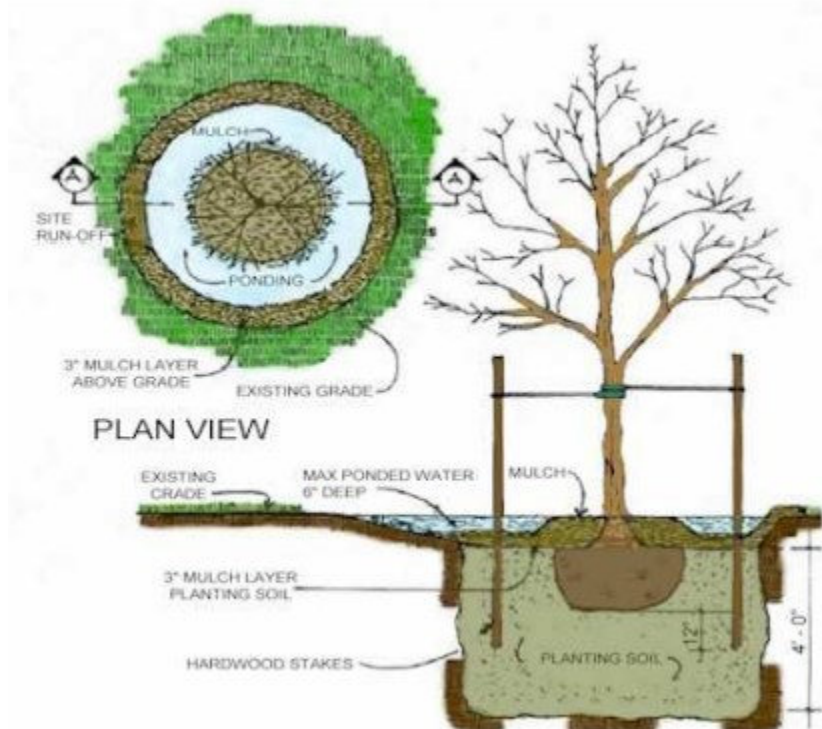
A Rain Garden (also called Bioretention) is an excavated shallow surface depression planted with specially selected native vegetation to treat and capture runoff.

## Example Applications

- Residential On-lot

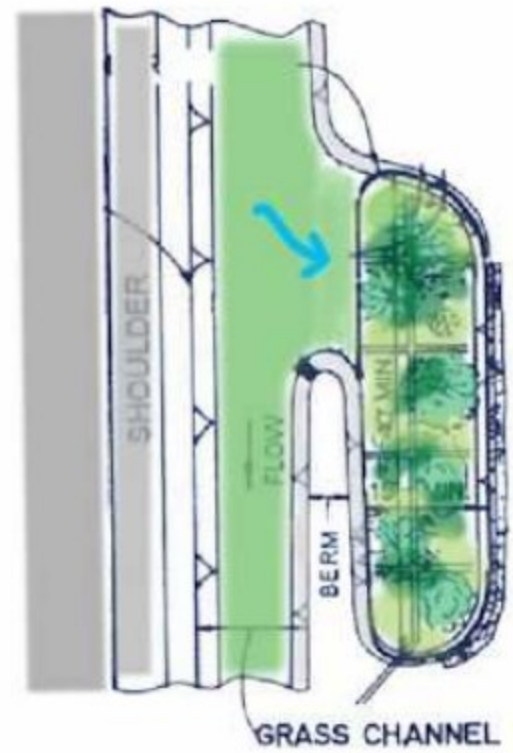


- Tree and Shrub Pits





- 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.

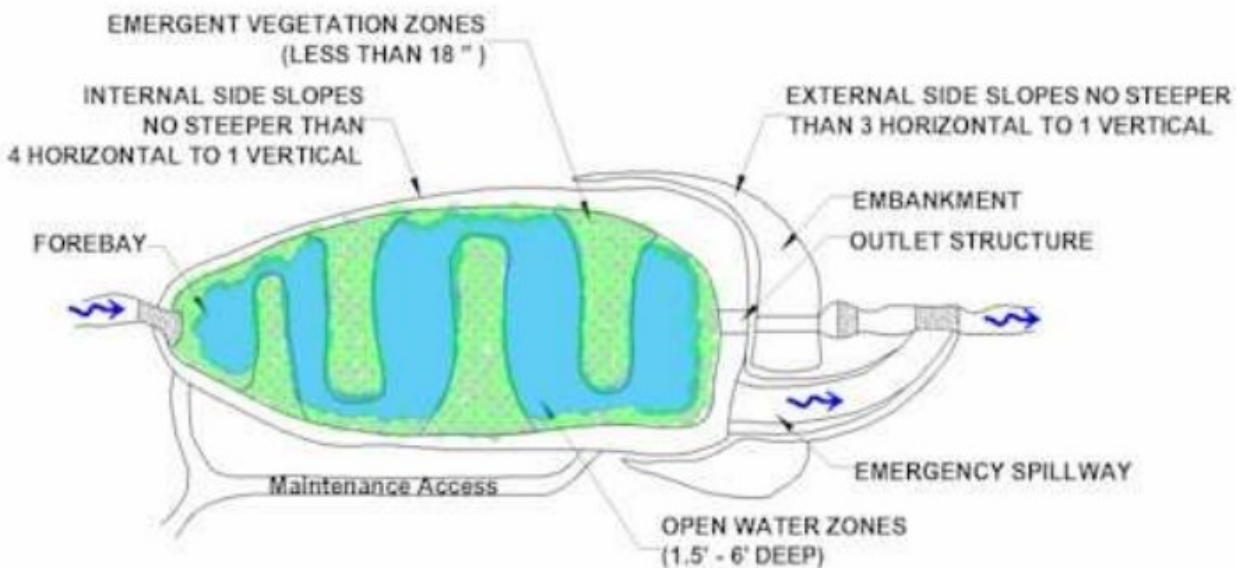
### Variations

- 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.



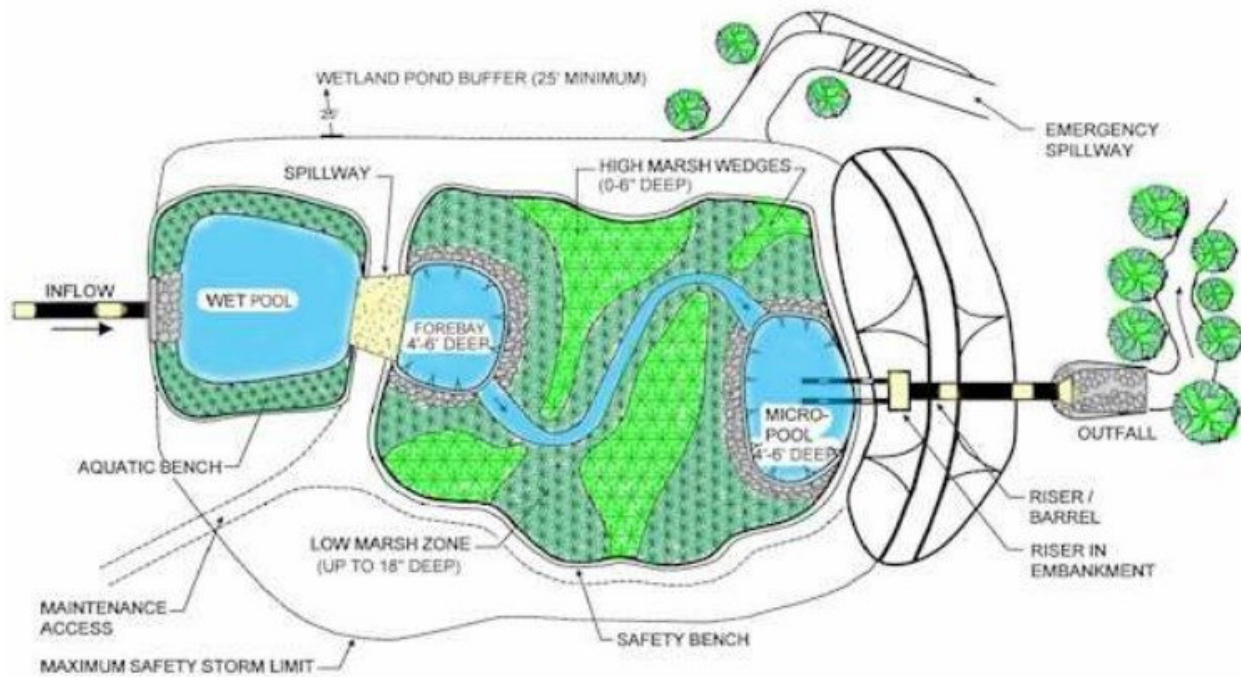
### Applications

Alternating bands of deeper water and shallow marsh.

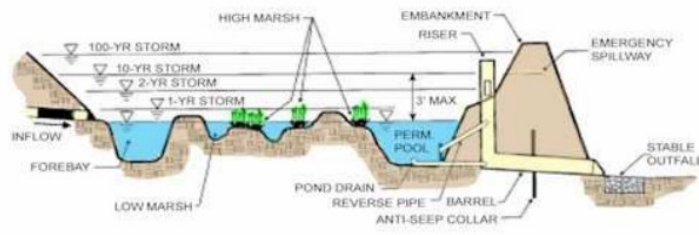
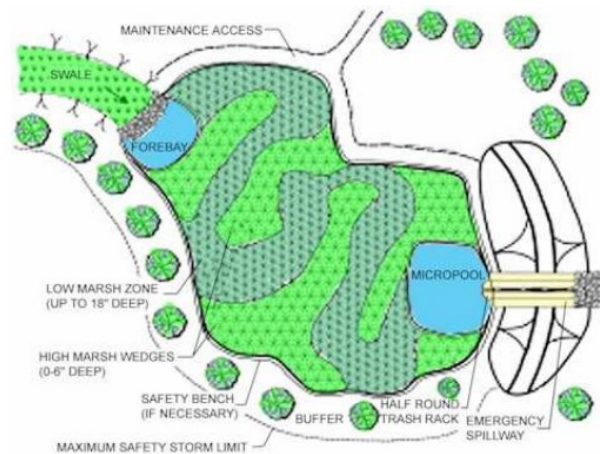




## Wet Pond/Wetland System



## 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.

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