

September 30, 2024

NPDES Annual MS4 Status Report Reviewer

Bureau of Clean Water
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, PA 19401
Submitted via DEP's Public Upload Website


RE: Plymouth Township 2024 Annual MS4 Status Report
NPDES Permit No. PAG130008
Plymouth Township, Montgomery County, PA

Dear Reviewer,

On behalf of Plymouth Township, the Center for Watershed Protection is pleased to provide the enclosed Annual MS4 Status Report and associated documentation for the NPDES MS4 General Permit (PAG130008) covering the period from July 1, 2023 to June 30, 2024. The report documents the Township's compliance with the permit and continuing efforts to improve their Stormwater Management Program.

Thank you in advance for your time. Please do not hesitate to contact me at beu@cwp.org or 484-680-0806 with any questions.

Best Regards,
Center for Watershed Protection



Beth Uhler
Pennsylvania Director

cc: Karen Weiss, Plymouth Township Manager
Christopher Loschiavo, Plymouth Township Public Works Director
Tim Woodrow, P.E., Woodrow & Associates, Inc.



MUNICIPAL SEPERATE STORM SEWER SYSTEM

ANNUAL MS4 STATUS REPORT 2024

PLYMOUTH TOWNSHIP,

Montgomery County

700 Belvoir Road,
Plymouth Meeting, PA 19462

**CENTER FOR
WATERSHED
PROTECTION**

Center for Watershed Protection, Inc.
11711 East Market Place, Suite 200,
Fulton, MD 20759
www.cwp.org

MUNICIPAL SEPERATE STORM SEWER SYSTEM ANNUAL MS4 STATUS REPORT



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ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT

FOR THE PERIOD July 1, 2023 TO JUNE 30, 2024

GENERAL INFORMATION

Permittee Name: Plymouth Township	NPDES Permit No.: PAG130008
Mailing Address: 700 Belvoir Rd	Effective Date: 7/1/2013
City, State, Zip: Plymouth Meeting, PA, 19462	Expiration Date: 6/30/2018
MS4 Contact Person: Christopher Loschiavo	Renewal Due Date: Administratively Extended
Title: Public Works Director	Municipality: Plymouth Township
Phone: (610) 233-0566	County: Montgomery County
Email: closchiavo@plymouthtownship.org	

Co-Permittees (if applicable):

Appendix(ces) that permittee is subject to (select all that apply):

Appendix A
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WATER QUALITY INFORMATION

Are there any discharges to waters within the Chesapeake Bay Watershed? Yes 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?
Diamond Run	WWF/MF	Yes	Siltation	No	N/A
Plymouth Creek	WWF/MF	Yes	Siltation	No	N/A
Saw Mill Run	WWF/MF	Yes	Siltation	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	Plymouth Township	Christopher Loschiavo	(610) 233-0566
#2 Public Involvement/Participation	Plymouth Township	Christopher Loschiavo	(610) 233-0566
#3 Illicit Discharge Detection and Elimination (IDD&E)	Plymouth Township	Christopher Loschiavo	(610) 233-0566
#4 Construction Site Storm Water Runoff Control	Plymouth Township	Christopher Loschiavo	(610) 233-0566
#5 Post-Construction Storm Water Management in New Development and Redevelopment	Plymouth Township	Christopher Loschiavo	(610) 233-0566
#6 Pollution Prevention / Good Housekeeping	Plymouth Township	Christoper Loschiavo	(610) 233-0566

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

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

- For new permittees only, has the written PEOP been developed and implemented within the first year of permit coverage?
 Yes No
- Date of latest annual review of PEOP: June 2024 Were updates made? Yes No
- What were the plans and goals for public education and outreach for the reporting period?
Township to routinely update its website and local government access channel.
- Did the MS4 achieve its goal(s) for the PEOP during the reporting period? Yes No
- Identify specific plans and goals for public education and outreach for the upcoming year:
 - Publish at least one (1) stormwater article in the Township Newsletter.
 - Provide at least one (1) stormwater article on the Township Facebook page.
 - Complete a detailed review and update of the stormwater webpage on the Township website.
 - Have at least two (2) resources (brochures/pamphlets) available in the lobby of the Township Municipal Building for public distribution.

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

- For new permittees only, have the target audience lists been developed and implemented within the first year of permit coverage?
 Yes No
- Date of latest annual review of target audience lists: June 2024 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: June 2024 Were updates made? Yes No
3. Do you have a municipal website? Yes No (URL:
www.plymouthtownship.org/services/stormwater-management/)

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

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

Ordinance / SOP / Plan Name	Date of Public Notice	Date of Public Hearing	Date Enacted or Submitted to DEP

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:

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.

-2023 Fall Newsletter announcement for Tree Planting/Ecological Restoration volunteer opportunities through Colonial Canopy Trees (CCT), a local non-profit organization. Refer to Appendix A.

-On December 21, 2023 the Township posted a call for volunteers to join the Environmental Advisory Board (EAB) on their Township Facebook page.

-On April 19, 2024 the Township shared an Energy-Savings Tree Give-Away event, which was hosted by PECO and the Arbor Day Foundation to the Township Facebook page. Township residents were invited to reserve trees from the events selection.

-On April 26, 2024 the Township posted about a Drug Take Back event to the Township Facebook. The event took place on April 27. The event was also posted on the Township calendar, accessible through the Township website. A link was provided on the Facebook post.

-On May 2, 2024 the Township posted a notice for the Town Hall Meeting that discussed the plastic bag ban on the Township Facebook page. The Township also posted a notice about the Town Hall Meeting on the Township calendar, accessible through the Township website. The Town Hall Meeting took place on May 29, 2024.

-On June 10, 2024 the Township EAB posted to the Township Facebook page that the First Consideration of the Single-Use Plastic Reduction Ordinance would take place on June 10, 2024 at 7 pm, at the Township public meeting.

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.

Plymouth Township regularly partners with Colonial Canopy Trees (CCT) to plant native trees and riparian buffers, remove invasive species, and provide education. The Township website, Tree Planting webpage (www.plymouthtownship.org/government/citizen-boards/tree-planting/) discusses the partnership with CCT and provides a link for residents to access upcoming events. CCT hosting the following events during the reporting period:

-On April 10, 2024 CCT hosted a Native Tree Planting event at JFK Park to plant native shade trees along the park edge. Volunteers assisted in the planting of native shade trees.

-On May 11, 2024 CCT hosted a Riparian Restoration event at Stonehouse Church. Volunteers and CCT members planted 17 trees and shrubs along the streambank of Sawmill Run.

-On May 13, 2024 CCT hosted a tree and shrub planting event at Harriet Wetherill Park. 7 trees and 2 shrubs were planted by CCT members and volunteers along the creek.

-On June 6, 2024 CCT hosted a Riparian Restoration planting event at Bicentennial Park. CCT members and volunteers planted native trees and shrubs and removed invasive species.

-On June 12, 2024 CCT hosted a garden maintenance event for the Pollinator Garden at Black Horse Park. Volunteers helped with garden maintenance tasks.

MCM #2 Comments:

Refer to Appendices A and B for MCM #2 supporting documentation.

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: June 2024 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): 3/18/2022

3. Total No. of Outfalls in MS4: 65 Total No. of Outfalls Mapped: 77

4. Total No. of Observation Points: 12 Total No. of Observation Points Mapped: 65

5. During the reporting period, have you identified any existing outfalls that have not been previously reported to DEP in an NOI, application or annual report, or are any new MS4 outfalls proposed for the next reporting period?

Yes No If Yes, select: Existing Outfall(s) Identified New Outfall(s) Proposed

BMP #3: In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), the permittee shall develop and maintain map(s) that show the entire storm sewer collection system within the permittee's jurisdiction that are owned or operated by the permittee (including roads, inlets, piping, swales, catch basins, channels, and any other components of the storm sewer collection system), including privately-owned components of the collection system where conveyances or BMPs on private property receive stormwater flows from upstream publicly-owned components.

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

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

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

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

3. Date of last update or revision to map(s): 3/18/2022

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? 0

2. Indicate the percentage of all outfalls screened in the past five years. 0%

3. Indicate the percent of outfalls screened during the reporting period that revealed dry weather flows: %

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: 3/9/2015

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? The Township Fall 2023 and Spring 2024 Newsletters included information on illicit discharges and reporting. Refer to Appendix A for supporting Newsletter documentation.

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:

The Township has a goal of updating the written IDD&E Program (including dry weather outfall field screening) and identifying priority areas (and outfalls that drain them) in the next permit term. The Township is currently in the process of covering mapping into a consolidated GIS geodatabase format. Once the GIS update is complete, the priority areas and associated outfalls will be identified and dry weather outfall screening conducted. The Township plans to screen a minimum of 20 percent of outfalls during the next reporting period, using a Survey123 form that will be consistent with DEP's Dry Weather Outfall Field Screening Form.

The Township ordinance will be reviewed and updated for consistency with the DEP 2022 Model Stormwater Management Ordinance as required by the 2018 NPDES MS4 permit, once issued.

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: 3/9/2015

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:

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:

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:

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:

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:

MCM #4 Comments:

The Township relies on PA's statewide program for stormwater management associated with construction activities to satisfy this MCM. The Township also completes erosion and sediment control inspections and enforcement. Active construction projects are monitored daily, others are inspected on a bi-weekly basis.

The Township Stormwater Ordinance will be reviewed and updated for consistency with the DEP 2022 Model Stormwater Management Ordinance as required by the 2018 NPDES MS4 Permit once issued

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: 3/9/2015
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:
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.

The Township is in the process of completing a detailed review and update of the PCSM BMP Inventory and will work towards submitting an updated working version with the next Annual MS4 Status Report. The Township has assembled a list of sites with NPDES Permits for Stormwater Discharges Associated with Construction Activities authorized after March 10, 2003 in coordination with Montgomery County Conservation District. This list has been reviewed and the status of the development documented. These plans will be pulled, scanned to pdf, and the BMPs at each site populated into the inventory and GIS to reconcile the original inventory. After the inventory update is complete, a Stormwater BMP Inspection and Compliance Program will be developed.

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):

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				o ' "	o ' "			
2				o ' "	o ' "			
3				o ' "	o ' "			
4				o ' "	o ' "			
5				o ' "	o ' "			
6				o ' "	o ' "			
7				o ' "	o ' "			
8				o ' "	o ' "			
9				o ' "	o ' "			
10				o ' "	o ' "			
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:

The Township relies on the PA statewide program, but also conducts PCSM reviews for compliance with the Township ordinances.
The Township is in the process of reviewing and finalizing the PCSM BMP Inventory and will work on submitting an updated working version with the next Annual MS4 Status Report. After the inventory update is complete, a Stormwater BMP Inspection and Compliance Program will be developed.
The Township Stormwater Ordinance will be reviewed and updated for consistency with the DEP 2022 Model Stormwater Management Ordinance as required by the 2018 NPDES MS4 permit, once issued.

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? June 2024
3. When was it last updated?

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: Reviewed: June 2024

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.

3. Training topics covered:

- Overview of MS4 Program
- General MS4 MCM#3 IDDE information
- Common Illicit Discharges
- Mapping, Field Screening, and Reporting Procedures

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

Beth Uhler, Center for Watershed Protection
Julie, Schneider, Center for Watershed Protection

5. Names of training attendees:

Christopher Loschiavo

MCM #6 Comments:

Other trainings attended by Plymouth Township included:

Perkiomen Stormwater Symposium (3/8/2024)- Lower Providence Township employee, Christopher Loschiavo, attended this training event hosted by the Perkiomen Watershed Conservancy (PWC). In addition Township engineer, Tim Woodrow, PE, from Woodrow Associates, Inc., also attended. Presenters included speakers from PA DEP, Montgomery County Planning Commission, Montgomery County Conservation District, PWC, and CWP. Topics covered included an overview of the NPDES MS4 Program, IDDE, the Perkiomen Flood Study, municipal collaboration on stormwater projects, erosion and sediment control, and emerging contaminants.

Montgomery County Public Works Association Meeting (6/27/2024)- Lower Providence Township employees, Christopher Loschiavo, attended this meeting which included a training on IDDE presented by Beth Uhler, CWP. The training included an overview of the NPDES MS4 Program, requirements of MCM #3, how to identify and track an illicit discharge, and dry weather outfall field screening procedures.

Refer to Appendix C for MCM #6 supporting documentation.

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:

The 2018 NPDES MS4 Permit has not yet been issued for Plymouth Township.

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 type="checkbox"/> Chesapeake Bay PRP (Appendix D)			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 checked="" type="checkbox"/> Combined PRP / TMDL Plan	March 2022	Pending	Plymouth Creek, Diamond Run, & Saw Mill Run

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 type="checkbox"/> Chesapeake Bay PRP (Appendix D)			
<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 checked="" type="checkbox"/> Combined PRP / TMDL Plan	448,053.52 lbs/yr		

3. Date Final Report Demonstrating Achievement of Pollutant Load Reductions Due:

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 PRP and associated reports have been submitted to DEP for review and comment. The 2018 NPDES MS4 Permit and PRP approval has not yet been issued.

6. Anticipated activities for next reporting period.

The Township anticipates receiving PRP/TMDL Plan approval and Individual Permit issuance in the next reporting period and will be implementing.

PRP/TMDL Plan Comments:

The Township anticipates receiving PRP/TMDL Plan approval and Individual Permit issuance in the next reporting period and will be implementing.

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)
						o ' "	o ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						o ' "	o ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						o ' "	o ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						o ' "	o ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						o ' "	o ' "		<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?
						o ' "	o ' "				<input type="checkbox"/>
						o ' "	o ' "				<input type="checkbox"/>
						o ' "	o ' "				<input type="checkbox"/>
						o ' "	o ' "				<input type="checkbox"/>
						o ' "	o ' "				<input type="checkbox"/>
						o ' "	o ' "				<input type="checkbox"/>

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).

CHRISTOPHER LOSCHIAVO

Name of Responsible Official

610-233-0566

Telephone No.

Christopher Loschiavo

Signature

9/23/2024

Date

MUNICIPAL SEPERATE STORM SEWER SYSTEM ANNUAL MS4 STATUS REPORT



APPENDIX A

MCM#1 PUBLIC EDUCATION AND OUTREACH PROGRAM

- Public Education and Outreach Documentation
- Township Newsletters
- Single-Use Plastics Study- Published June 2023

PUBLIC EDUCATION AND OUTREACH DOCUMENTATION

July 17, 2023- The Township Environmental Advisory Board (EAB) shared a document titled, "Single-Use Plastics Study" to the Township Facebook page. See "Single-Use Plastics Study" in Appendix A.



TOWNSHIP WEBSITE DOCUMENTATION



Services

[Trash Collection](#)
[Recycling](#)
[Appliance and Electronic Recycling](#)
[Leaf Collection](#)
[Mulch Deliveries](#)
[Branch and Chip Program](#)
[Stormwater Management](#)
[Snow Removal](#)
[Street Light Hotline](#)
[Code Enforcement](#)
[Fire Marshal](#)
[Emergency Management](#)
[Plymouth Fire Company](#)
[Harmonville Fire Company](#)
[Plymouth Community Ambulance](#)

Stormwater Management

Media error: Format(s) not supported or source(s) not found

Download File: https://plymouthtownship.org/download/resources/MS4.mp4?_=1

The goals of stormwater management:

- Reduce the discharge of pollutants
- Protect water quality
- Satisfy requirements of the Clean Water Act

Anything that goes into a storm sewer goes directly to streams, without being cleaned or filtered at a treatment plant. Residents can help! Be careful about using materials that could end up in the stormwater system and keep an eye on stormwater inlets. Items that can run off into storm drains and cause pollution include:

- Pet waste
- Fertilizers
- Sediment from construction sites
- Chemical, gas and oil spills

Dumping into the storm sewer system is illegal and dangerous! Call the Public Works Department at (610)277-4103 if you witness anyone dumping materials. This includes the dumping of waste water, illicit liquids or solids into inlets, streams or storm sewers. Call the Police Department at (610)279-1900 if you see illicit dumping after hours or on weekends.

Stormwater management is regulated by the [Clean Water Act](#) and by the Township's National Pollutant Discharge Elimination System (NPDES) permits. The NPDES program includes local separate storm sewer systems called MS4s that serve populations with fewer than 100,000 residents. Plymouth received its permit on January 15, 2004. As an MS4, Plymouth Township is required to develop a stormwater management plan that involves the community through:

- Public education and outreach
- Public participation and involvement
- Illicit discharge detection and elimination
- Construction site runoff control
- Post-construction storm water management in new development and redevelopment
- Pollution prevention and good housekeeping for municipal operations and maintenance

More information about the MS4 program is available from the [Pennsylvania DEP website](#) and from

More information about the MS4 program is available from the [Pennsylvania DEP website](#) and from the following EPA fact sheets:

[Overview of the Phase II program](#)

[Small MS4 overview](#)

[Who's covered](#)

[Urbanized areas](#)

CONSTRUCTION PROFESSIONALS

Please note that a permit is required for the addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping.

A construction site is a source of chemicals, debris and other pollutants that can be picked up by flowing stormwater. Not only does this pollute local water sources, it can also result in expensive repairs to vegetation, property, storm drains and gullies.

These pollution prevention measures can help:

- Minimize the amount of exposed soil.
- Protect existing trees, vegetation, streams, wetlands and woodlands with fencing.
- Properly install and maintain silt fences and inspect them after every storm.
- Sweep the construction site entrance regularly so that soil and debris does not reach storm drains. Landscape soon after the land is graded to stabilize the site.

For more information on construction activities see:

[PAG-02 Stormwater Discharges Associated with Construction Activities](#)

[Storm water and the Construction Industry Poster](#)

For more information about storm water management, education, and ways to prevent pollution, see:

[StormwaterPA](#)

[U. S. Environmental Protection Agency](#)

[Center for Watershed Protection](#)

[Montgomery County Conservation District](#)

[EPA's Stormwater Tool Box of Education Materials](#)

[Water Cycle Glossary of Terms](#)

Ideas for Landscaping and Reducing Runoff Pollution:

[Rain Barrels and Rain Gardens](#)

[Water Efficient Landscaping](#)

[Clean Water is Everybody's Business](#)

[When it Rains it Drains Brochure](#)



SUMMARY OF ARTICLES IN TOWNSHIP NEWSLETTERS

2023 Fall Newsletter- Public Works page contains information instructions on Yard Waste and Leaf Collection (pages 21-22). Another page contains informative articles titled "Storm Water Regulations," "Where Does Your Sump Pump Flow?" and a notice to never dump garbage into storm drains because they connect to Saw Mill Creek (page 28).

2024 Spring Newsletter- Citizen Boards section contains information on the Township's Environmental Advisory Board. An update was provided on the single-use plastics ban and ordinance proposal. There was also an article introducing Tree Planting/Ecological Restoration volunteer opportunities through Colonial Canopy Tree (CCT), a local non-profit organization (pages 7-8). Another page contains informative articles titled "Storm Water Regulations," "Where Does Your Sump Pump Flow?" and a notice to never dump garbage into storm drains because they connect to Saw Mill Creek (page 21). These are the same stormwater-related articles that were posted in the 2023 Fall Newsletter.

RECYCLING NOTICE

Plymouth Township residents are required to separate recycling material from their trash for separate collection. **Do not put recycling in plastic bags.** Items must be placed loose in the blue can. Any items in plastic bags will not be collected.

The recycling pick-up includes newspaper, any type of cardboard, magazines, junk mail, clear, brown and green glass, and aluminum and bimetal cans and plastics. **Recyclables are collected once a week, on your designated recycling day.**

All items must be placed in the blue recycling container and set out at curbside for collection. Flattened cardboard items may be placed next to recycle containers. Additional containers may be used so long as it is marked for recycling. Recycle stickers are available at the Township Building at no charge. **Blue recycle containers are for single stream recycling only. Yard waste or trash will not be accepted in this container.**

Damaged containers can be exchanged at no cost. Lost containers will be replaced at the cost of \$25. Containers will be delivered while the Township Building is being renovated. Please call 610-233-0566.

Preparation Guidelines

Glass

- Clear, brown and green glass bottles and jars only.
- Remove all lids and rinse out.
- Labels may be left on.
- Please do not break the glass.
- Place at curbside in the recycling container.

Aluminum and Bimetal Cans

- Aluminum and bimetal (tin) beverage and food cans.
- Drain and rinse out the cans.
- The cans may be flattened or crushed.
- Place at curbside in the recycling container.

Papers

- Save newspaper, inserts, junk mail, telephone books, magazines, and all cardboard except pizza boxes.
- Place at curbside in the recycle container. Flattened cardboard items may be placed next to container.

Plastic (Now Collecting #1 thru #7)

#1 - PET, PETE, clear, tough plastic commonly used in soft drink bottles.

#2 - HDPE is a plastic commonly used to make bottles for milk, juice, water and laundry products.

#3 - PVC is a plastic commonly used to make some shampoo bottles, cooking oil bottles, some cosmetic bottles, charcoal lighter, mineral oil bottles.

#4 - LDPE is a plastic commonly used to make food storage containers, dairy container lids, fabric softener bottles, lotion and sunscreen tubes.

#5 - PP is a plastic commonly used to make yogurt containers, medicine bottles, deli containers, cosmetic containers, frozen juice cans, some microwave containers.

#6 - PS is a plastic commonly used to make yogurt cups and tubs, cookie and muffin trays, clear carry out containers, aspirin & vitamin bottles (no Styrofoam).

#7 - Others can be used to make some ketchup squeeze bottles, syrup bottles, glass cleaner bottles, 5 gallon water cooler bottles, microwave containers, layered plastic containers.

Containers may be flattened or crushed to save space.

Please check # on bottom of plastics. **If it does NOT have a 1 - 7 in the triangle symbol it is not recyclable by our recycle center.**

Recyclables must be placed at curb no later than 6:00 A.M. on the collection day, but no earlier than 7:00 P.M. on the day preceding the collection. **If a holiday falls on your recycling day, your recyclables will be collected on Wednesday of that week.**



PUBLIC WORKS

PLEASE KEEP OUR STREAMS CLEAN!



ANY QUESTIONS?

You would never dream about dumping garbage into Saw Mill Creek. But let waste run down its storm drain and that's exactly what you're doing!

STORM WATER REGULATIONS

Federal storm water regulations require Plymouth Township, as well as most other municipalities in "urbanized areas" across Pennsylvania, to comply with the Environmental Protection Agency's new storm water management program. One of the many requirements of the program is to obtain a National Pollutant Discharge Elimination System (NPDES) permit. The program in Pennsylvania is administered by the Pennsylvania Department of Environmental Protection (DEP). Plymouth received its permit on June 28, 2013. The Township is in the process of implementing the storm water management protocols developed by the DEP.

Under the DEP program, Plymouth Township will implement the six required Best Management Practice (BMP) control measures, including Public Education, Public Participation, Illicit Discharge Detection and Elimination, Construction Site Run-off Control, Post

Construction Storm Water Management and Pollution Prevention and Good Housekeeping for Municipal Maintenance.

An important part of the Township's compliance plan is to educate the public regarding the environmental impact of storm water run-off. The PA DEP maintains a website with comprehensive information on storm water education (www.dep.state.pa.us). The Plymouth Township website also has information and links to other websites.

We also ask that residents report any suspected pollution incidents to the Township at 610-277-4103. This includes the dumping of wastewater, illicit liquids or solids into streams or storm sewers.



WHERE DOES YOUR SUMP PUMP FLOW?

The Township is continuing its efforts to prevent unwanted stormwater water from entering the sanitary sewer system. We continue to inspect and repair manholes and sewer lines throughout the township in an effort to remove as much stormwater Inflow and Infiltration (I&I) from the system as possible.

Are you aware that it is illegal to have your sump pump connected to the sanitary sewer system? Illegal sump pump connections put unnecessary rain water into the Township's sanitary sewer system. The Township pays to have this water treated. This results in higher sewer rates for everyone. In addition, it can overload pump stations and other facilities. This leads to sewer overflows, which can cause environmental, and other health hazards, as well as costly property damage. It can also lead to expensive facility upgrades, which result in higher sewer rates and taxes.

What can you do to help? Make sure your sump pump is not connected to the sanitary sewer system. Sump pumps should be connected to a pipe so it can discharge to a lawn area where it can infiltrate back into the ground. Keeping rain water out of the sanitary sewer system will help keep rates from rising unnecessarily.

If you need help with suggestions on where to re-route your sump pump discharge, please call the Plymouth Township Public Works Department at **610-277-4103**.

PLYMOUTH TOWNSHIP PROPERTY SALE SEWER INSPECTION

The owner must have the sewer lateral inspected by a licensed Master Plumber, who is registered in the Township prior to the sale of a property. It is recommended that this process start once the property is listed for sale due to the time it will take for completion, but no later than once a property has an agreement of sale. The inspection should be completed before the property is transferred.

The Plumber must video the lateral from the house to the inlet of the main to make sure there is no water infiltration or illegal hook-ups (sump pumps, Storm water inlets, etc.).

Then the Plumber will prepare a report stating what is found and provide a copy of a video on CD or DVD that will be given to the Township.

If the lateral is found to be deficient, then a permit application must be submitted and approved, prior to repairs being made. Repairs should be completed prior to transfer of the property.

Once the repairs are made, the Plumber must submit a report stating that all deficiencies have been remediated.

If the repair can't be made prior to settlement, then a Home Sale Affidavit signed by the buyer must be submitted to the Township before a Certificate of Adequacy will be issued.

Work must be completed no later than 30 days after settlement. This inspection is in addition to the curb & sidewalk inspection.

POLICE DEPARTMENT

As we face a new year full of possibilities, I am pleased to acknowledge the noteworthy achievements of our members throughout this past year. While our sworn and civilian staff provide for our community with pride and dedication, they do so alongside our committed Emergency Service partners as well as the goodwill bestowed by our residents and businesspeople.

Despite a continued rise in criminal offenses within the Township, the Police Department achieved various objectives established for 2023:

- Amidst a steady rise in calls for service, we successfully increased our traffic enforcement efforts in several areas unduly impacted by speeding and reckless driving.
- As part of our recruitment efforts, we further developed our work force with the hire of four officers of diverse backgrounds. This broadening supports our endeavor to better serve our community.
- Through a concerted effort to better equip our officers, we updated our handguns to include a more advanced sighting system. These improvements support better accountability and increased safety measures.
- In response to the tremendous strain placed upon our resources by Montgomery County's bail reform platform, we developed a streamlined system of prisoner processing and arraignment; utilizing fewer officers in the process and providing enhanced police coverage in the community.
- We have fortified our community partnerships through an alliance with CAARSEA, Church on the Mall, Laurel House, our Emergency Service companions and the District Attorney's Office. We collaborated on the following community initiatives:
 - National Night Out
 - COP Camp
 - Coffee with a Cop
 - Cops-N-Kids Basketball Fun Night
 - Trunk-or-Treat Halloween Drive-Thru
 - Citizens' Police Academy
 - Shop with a Cop
 - Church on the Mall Code Blue Shelter
 - Winter Clothing Drive
 - Holiday Food Drive
 - Feeding our Unhoused Neighbors
 - Toy Drive for Children's Hospital
 - Placement for the Homeless
 - Drug Take Back Events
 - Gun Turn-In Events

As to our organizational goals for 2024: The concern over maintaining our community service objectives, as demands on our resources are escalating, require a focused review of our capabilities.

As we advocate for the practice of evidence-based policing, our agency subscribes to the collection and analysis of data. Since our initial examination of 2021 staffing conditions, we have continued charting statistical trends in the Township over the past two years. The following is evident to date:

- Calls for Service have increased 17%
- Vehicle Thefts have increased 25%
- Calls involving guns have increased 30%
- Criminal Arrests have increased 52%
- Retail Thefts have increased 144%

While our public safety resources are overtaxed, we find areas of social obligation that demand attention: Homelessness and traffic related quality of life issues.

- Public Assistance to the unhoused community has increased 75%
- Traffic Enforcement efforts in our neighborhoods have increased 34%

Although we continue to prioritize essential demands, and maneuver existing means, we find that our resources have not adequately kept up with the vulnerabilities confronting the Township. These challenges remain our top priority for 2024.

We remain committed to serve and protect the Plymouth Township community, and we do so through a partnership with our Township colleagues and Emergency Service allies. Similarly, we compassionately serve our community through the leadership of Manager Karen Weiss and our Plymouth Township Council members.

Ultimately, I offer tribute to the women and men of the Plymouth Township Police Department. As you have stayed committed to serving the needs of our town with professionalism and compassion, the Plymouth Township community strives to provide you with the support you endlessly deserve. I thank you all for your service and appreciate the hardships felt by your families and loved ones.

CITIZEN BOARDS

ENVIRONMENTAL ADVISORY BOARD

Single-Use Plastics

Over the past year, in conjunction with several other local municipalities, we have been researching a single-use plastics ban and presented an ordinance recommendation to Council. The proliferation of plastics and their harmful effects to our health and to our environment have become more apparent to many of our community. This will continue to be a focus of the EAB as we look to ask Council to implement a single-use plastic ban in 2024.

Ready for 100 and Clean Energy Transition Plan

With Resolution 2019-16 Plymouth Township pledged to transition to 100% renewable energy by 2050. During 2024 the EAB will review and refresh the draft Clean Energy Transition Plan for Plymouth Township which was developed in 2021 through a joint effort of twenty-eight municipalities across the five SE PA counties. The EAB plans to then present the transition plan for adoption.

Complementary to the Clean Energy Transition Plan and similar to some other local suburban townships, the EAB has been working on a rooftop solar cost/benefit analysis for the municipal buildings. Our plans are to complete this assessment in 2024 and to present our findings for consideration to Council.

Tree Planting / Ecological Restoration Volunteer Opportunities

There will be several volunteer events throughout the spring and fall through a local non-profit called Colonial Canopy Trees (CCT). Events will be posted on <https://colonialcanopytrees.org/upcoming-events/>, and we encourage you to sign up for the newsletter on CCT's homepage, especially if you're interested in volunteering at future events. Events will focus on planting new native trees, caring for our existing ones, and removing invasive species throughout Plymouth's parks and natural areas. Hope to see you there!

CITIZEN BOARDS

Other Activities

Other activities that the EAB has been evaluating for further efforts include: investigating proposal of a tree preservation ordinance, evaluating budget and grant opportunities for walk/bike path planning, evaluating township resident climate change education opportunities, evaluating the return on environmental open space funding, applying to receive support from a shared county level Energy Manager service, researching installation of additional EV charging stations in the township and a lawn/meadow ordinance.

EAB Board Member Opening

We are looking for a resident volunteer to join our board. If you have an interest in the environment and helping the township increase its environmental stewardship, please consider applying by contacting Karen Weiss, Township Manager. We meet on the 3rd Tuesday of the month at 7pm. Our meetings are open to the public and the zoom link is found in the calendar entry on the township website.

HUMAN RELATIONS COMMISSION

Joretha Bourjolly served 5 years on the Human Relations Commission.



ZONING HEARING BOARD

Denise Pygatt served 5 years on the Zoning Hearing Board.



ENVIRONMENTAL ADVISORY BOARD

Ben Deatrich served 3 years on the Environmental Advisory Board.



PARKS, RECREATION AND SHADE TREE ADVISORY BOARD

Mike Perez served 4 years on the Park, Recreation and Shade Tree Advisory Board.



PUBLIC WORKS

PLEASE KEEP OUR STREAMS CLEAN!

This is our Fish Tank



This is its lid.

ANY QUESTIONS?

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STORM WATER REGULATIONS

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YARD WASTE

Plymouth Township will collect yard waste on every Wednesday throughout the year as part of the new yard waste collection schedule. This program is in addition to your regular trash pick-up and recycle day. Every year hundreds of tons of recyclable yard waste is thrown into the waste stream costing the Township \$63 for every ton. In our continued effort to help the environment we are implementing this new program to validate our commitment to help the environment and save tax dollars in the process.

Residents who have yard waste should put it out before 6:00 a.m. every Wednesday to be collected. **If a holiday should fall on Wednesday, collection will be the following week.**

Collection will be in a designated trash truck for yard waste. Remember, all of our trash trucks look the same so rest assured that each one will be designated for a particular waste material.

All Recyclables and Yard Waste is Collected in a Designated Trash Truck

The Township uses a trash truck to collect all recyclables including corrugated cardboard. This is called Single Stream Recycling. Why are we doing this? Processing costs have come down. The simplicity for residents to recycle should increase our recycling totals and help prevent potential recyclable material from entering the trash stream. This in turn will save the township money for disposal costs and help the environment as well.

Cans, bottles, plastics, papers and cardboard will now be **collected together** in a single rear load trash truck and sorted at a processing facility. The Township used to collect the commingled items (cans, bottles, plastics) separate from the papers. Now, simply **put all recyclable material including cans, bottles, plastics, paper and all cardboard in the same bin or designated recycle container.** No need to separate paper from other commingled material. Large cardboard items must be broken down and can be placed next to bin or can if they do not fit.

So rest assured that although the materials will be collected with a trash truck, the materials are still being recycled to protect our earth and reduce disposal costs.

What is Yard Waste?

Yard waste is grass clippings, twigs/shrub trimmings and prunings, leaves, and garden waste such as pinecones, weeds, dead plants. **Rocks, dirt and logs are not considered yard waste!**

How do I prepare my yard waste for collection?

Yard waste must be placed in biodegradable brown paper bags or in a designated yard waste container or trash can. **No plastic bags!** All material that is not properly prepared will not be collected.

Biodegradable brown yard waste bags can be purchased at Home Depot, Lowes and some grocery stores.

This program is not intended to remove large entire trees from your property. The Township reserves the right to refuse collection at its discretion in such cases.



**For more information,
call the Public Works
Department at
610-277-4103**

LEAF COLLECTION

Please refer to the map on the [following page](#) and **tentative** schedule for leaf collection this fall. The schedule will be adjusted based on weather conditions and how many leaves are falling. Residents should have their leaves curbside for collection by Monday of the scheduled week.

Leaf collection can be a dusty proposition. Residents are urged to keep car windows rolled up and park in the driveway to limit any pesky dust problems.

Please don't begin raking leaves to the curb until the week before your scheduled collection. This prevents safety hazards caused by clogged storm sewers or fires from parking cars on the leaf pile.

If crews are available, they may be in your area early. But don't worry; we'll be back in the areas as scheduled to get your leaves.

Optional Bagged Collection: Residents can opt to place bagged leaves at the curb for collection on Wednesdays. Residents must use biodegradable paper leaf bags for collection or a designated yard waste container. LEAVES IN PLASTIC BAGS WILL NOT BE COLLECTED. Biodegradable paper leaf bags are available for purchase at local retailers, including Home Depot, Lowes, other hardware stores and some area supermarkets.

Follow these guidelines in order to make leaf collection as safe and efficient as possible:

- ◆ Curbside leaf piles may extend along the entire length of the property.
- ◆ DO NOT mix limbs, brush and other debris with leaf piles since such items may cause damage to the collection equipment and injury to Township personnel. Mixed Piles will not be collected.
- ◆ Leaves will not be collected with your regular trash collection. Trash with leaves co-mingled will not be collected.
- ◆ Adverse weather conditions may cause delays in leaf collection dates.
- ◆ Once the leaf collection machine has passed it will not return until the next scheduled collection.
- ◆ Township employees and/or equipment are not permitted to enter private property to remove leaves.
- ◆ Property owners are encouraged to start their own compost piles.

Tentative Leaf Collection Schedule

(See Township map on next page)

Week of	Section
October 16	3
October 23	2
October 30	1
November 6	3
November 13	2
November 20	1
November 27	3
December 4	2
December 11	1



Plymouth Township EAB Single-Use Plastics Study - June 2023

The Plymouth Township Environmental Advisory Board is continuing its investigation into ways to reduce the use of single-use plastics in the township.

Regarding single-use plastics in PA, as of the end of March 2023, there are 17 municipalities in PA that have adopted a single-use plastics ordinance including Philadelphia and Pittsburgh. Four are in Montgomery County: Narberth, Ambler, West Norriton and Cheltenham. Lower Merion and Whitemarsh will be voting on their ordinances soon. Nine others in SE PA are discussing. We expect to provide more information this fall. If you would like to receive an update, please fill in your contact email on the feedback form, below. Thank you for responses received since this study was initially announced in April 2022.

Why should you care about single use plastics? Did you know that:

- Many plastics are not recyclable. They do not biodegrade but instead break up into microplastics that enter our water, food, and air. Recent survey data shows [microplastics in waterways across Pennsylvania](#).
- [40% of the plastic consumed globally is plastic packaging that is used just once and then thrown away](#).
- The national average number of single-use plastic bags used per person is [365 bags per year](#). This means in 2020, that added up to more than **6.6 MILLION bags** for the 18,256 Plymouth Township residents in 2020 alone!
- Most recycling machinery can't handle plastic bags, it's difficult to get usable material from the bags, and there is little market for post-consumer plastic as new material is cheaper. As a result nearly all plastic bags end up as litter, water or air pollution, or sit for hundreds of years in landfills[1].
[1] Sources, (UC Berkeley, McArthur /World Economic Forum, RecyclingToday report, State Impact Pa., NPR, PennEnvironment).

We can all do our part to eliminate single-use plastics use in the township and start improving our environment as a result. If you are up for a challenge, try the Plastics Free July pledge on the back of this page.

Feedback and questions

We are interested in your input on this issue. Please submit your ideas and questions at <https://tinyurl.com/PlymouthTwpPlastics2023>. Even if you do not have comments at this time, please submit your email to be informed of updates on our progress.

Document Version: 2023-06-22



SCAN ME

Plastics Free July

Plastic Free July (official PFJ link HERE: <https://www.plasticfreejuly.org/>)

- SIGN UP: Please see this form <https://mluc.breezechms.com/form/3af679> for people to sign up and take the pledge to be more aware of and try to reduce their plastic waste for the month of July (or longer!)

- FORUM: This group has also created a Plastic Free July Regional Challenge Forum, "Let's Go Plastic Free," which is up and running. It's a place where you can share your questions, suggestions, tips, frustrations, successes, and great ideas with everyone. It is a public site, so you can direct your friends and neighbors to sign up too.

Link HERE: <https://pkosty2.wixsite.com/lets-go-plastic-free>

- VIDEO: To motivate people, HERE is the link to a startling video about plastics and our bodies and earth - <https://paipl.us/2023-02-10-now-available-video-of-pa-ipl-environmental-education-series-february-2023/>

**MUNICIPAL SEPERATE STORM SEWER SYSTEM
ANNUAL MS4 STATUS REPORT**



**APPENDIX B
MCM#2
PUBLIC INVOLVEMENT AND
PARTICIPATION PROGRAM**

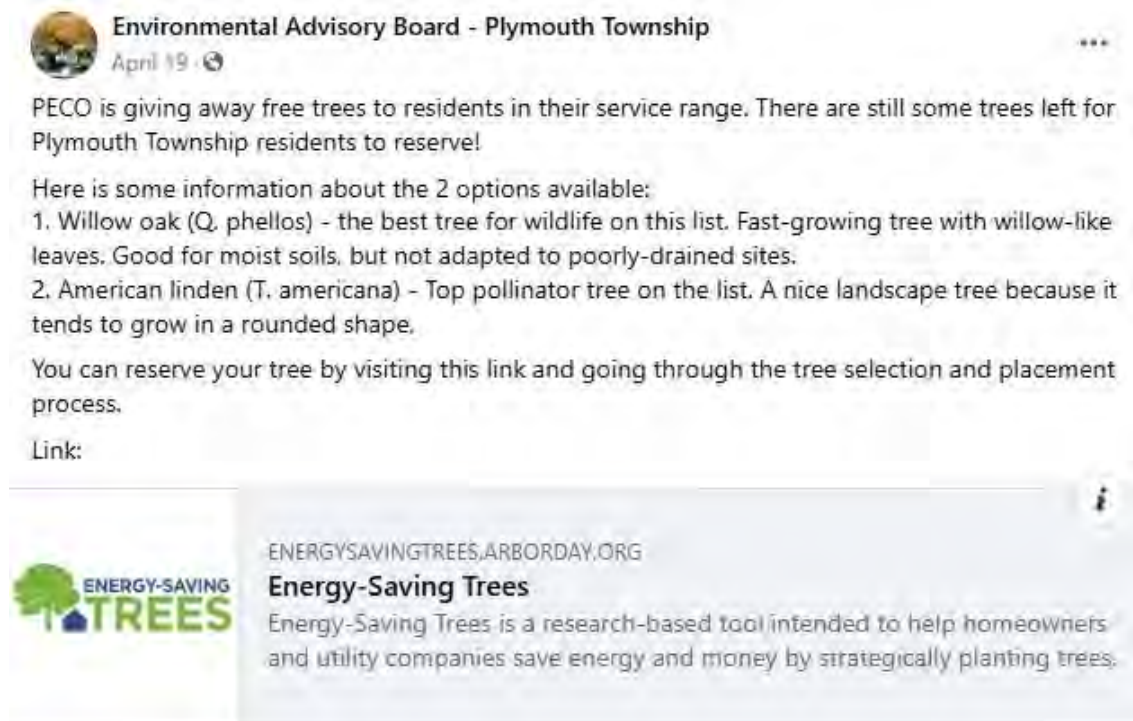
- Public Involvement and Participation Documentation

PUBLIC EDUCATION AND OUTREACH DOCUMENTATION

December 21, 2023- The Township posted a call for volunteers to join the Environmental Advisory Board (EAB) on their Township Facebook page.



April 19, 2024- PECO, in collaboration with the Arbor Day Foundation hosted an Energy-Savings Tree Give-Away for residents in their service area, including Plymouth Township. The event was shared on the Township Facebook page.



April 26, 2024- The Township hosted a Drug Take Back event on April 27, 2024. The Township posted about the event on their Township Facebook page and on the Township calendar, accessible through the Township website.



Drug Take Back

Date: Saturday, April 27

Time: 10 a.m. – 2 p.m.

Location: The nearest drop off locations for our district include:

- **Conshohocken Police Department**, 400 Fayette St., Conshohocken
- **West Conshohocken Police Department at Borough Hall**, 112 Ford St., Conshohocken
- **Plymouth Township Police Department**, 700 Belvoir Road., Plymouth Meeting
- **Norristown Police Department**, 235 E. Airy St., Norristown

For a full list of locations, visit

<https://www.montgomerycountypa.gov/DA>.

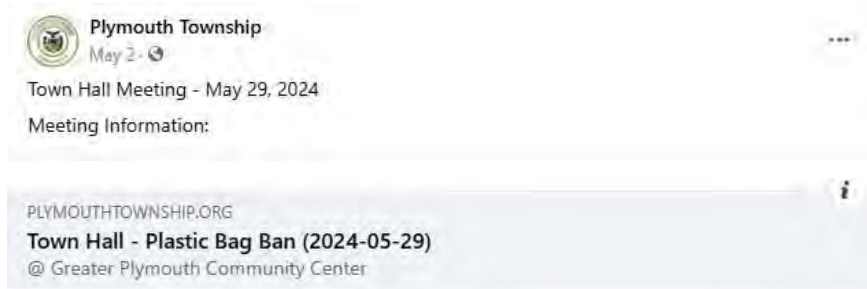
Residents are encouraged to bring any unwanted or expired prescription or over-the-counter medications to the Police Department to be properly destroyed.

We will be accepting prescription and over-the-counter tablets and capsules, inhalers, creams, ointments, nasal sprays, pet medicines and vaping product. (We cannot accept needles, liquid medications and intravenous or injectable solutions)

Stop by and see Officer Lacy of the Community Policing Unit and keep those unwanted drugs out of the wrong hands and out water system!

Spread the word about this event to your friends, family, and neighbors. Together, we can make our community safer and more secure.

May 2, 2024- The Township posted on their Township Facebook page about a Town Hall Meeting that discussed the Plastic Bag Ban ordinance. The Township also posted a notice about the Town Hall Meeting on the Township calendar. The Town Hall Meeting took place on May 29, 2024.



Town Hall – Plastic Bag Ordinance

WHEN: May 29, 2024 @ 7:00 PM America/New York Timezone

Calendar

@ Greater Plymouth Community Center

Add to Calendar



June 10, 2024- The Environmental Advisory Board posted on the Township Facebook page that the First Consideration of the Single-Use Plastic Reduction Ordinance would take place on June 10, 2024.

Environmental Advisory Board - Plymouth Township's Post

Environmental Advisory Board - Plymouth Township
June 10 · 🌐

Plymouth Council will have First Consideration of the Single-Use Plastic Reduction Ordinance at Monday, June 10th, at their regular monthly meeting at 7pm, at GPCC.

1 comment

 Like  Comment  Share

Most relevant ▾

 **Paul Krepto**
What was the response at the end of May town hall? I was unable to attend.

7w Like Reply

PUBLIC EDUCATION AND OUTREACH DOCUMENTATION

COLONIAL CANOPY TREES EVENTS IN PLYMOUTH TOWNSHIP

Plymouth Township regularly partners with Colonial Canopy Trees (CCT) to plant native trees and riparian buffers, remove invasive species, and provide education. The Township website, Tree Planting webpage discusses the partnership with CCT and provides a link for residents to access upcoming events. CCT hosting the following events during the reporting period:



Plymouth Township

Montgomery County, Pennsylvania

RSS
Twitter
Facebook

Search

Search

Departments
Government
Community
Services
Calendar
Citizen Request
Documents

- Building Code Appeals
- Civil Service Commission
- East Norriton-Plymouth-Whitpain
- Joint Sewer Authority
- Emergency Services Board
- Environmental Advisory Board
- Historical Architectural Review Board
- Human Relations Commission
- Park, Recreation and Shade Tree Advisory Board
- Planning Agency
- Property Maintenance Code Appeals
- Zoning Hearing Board

Tree Planting

Plymouth Township continually works with a local non-profit organization to replenish the township's tree coverage in parks and public areas. [Colonial Canopy Trees](#) (CCT) is a 501(c)(3) charitable organization serving the Plymouth, Whitemarsh, Conshohocken and Norristown areas.

CCT regularly hosts volunteer events to plant trees, remove invasive species, provide education and empower citizens to make a change. Residents can volunteer with CCT by signing up for upcoming events, [found here](#). Residents can make a [tax-deductible donation](#) to Colonial Canopy Trees, which funds additional ecological restoration projects in Plymouth Township.

Plymouth Township also offers Remembrance & Commemorative trees, which are planted in public parks throughout the township. Honor a loved one by purchasing a tree [at this link](#).



April 10, 2024- Colonial Canopy Trees (CCT), a local non-profit organization, hosted a Native Tree Planting event at JFK Park to plant native shade trees along the edge of the park.



Native Tree Planting at JFK Park

[JFK Park West Parking Lot, Plymouth Meeting](#)

Wednesday, April 10 – 9:30am – 12pm

We will be planting ten native shade trees along the edge of the park to provide more shade and invite more wildlife. We will be working with our friends at Cencora who have worked with us before, but all are welcome.

[Sign up here!](#)

May 11, 2024- Colonial Canopy Trees (CCT) hosted a Riparian Restoration event at Stonehouse Church, Plymouth Meeting. Previously, 15 native trees were planted to stabilize the streambank along Sawmill Run. During this event, 17 new native trees and shrubs were planted.



Riparian Restoration at Storehouse Church!

[Storehouse Church, Plymouth Meeting](#)

Saturday, May 11 – 9:30am – 12pm

We'll be implementing phase two of our riparian restoration project at Storehouse Church. We previously planted 15 native lowland trees to begin the process of stabilizing the streambank along Sawmill Run in Plymouth Township. We'll be planting an additional 17 trees and shrubs during this phase!

[Sign up here!](#)

May 30, 2024- CCT hosted a tree and shrub planting event at Harriet Wetherill Park, Plymouth Meeting. 7 additional trees and 2 shrubs were planted along the creek flowing through the park.

More Trees and Shrubs for Harriet Wetherill Park!



[Harriet Wetherill Park, Butler Pike Lot \(2642 Butler Pike\), Plymouth Meeting](#)

Wednesday, May 15 – 10:00am – 12pm

Postponed due to forecasted rain!

Thursday, May 30 – 10:00 am to 12:30 pm

We have been planting the area along the creek that travels through Harriet Wetherill Park for a few years now, but the more trees the better. We will plant 7 more native shade trees and 2 shrubs. We will be working again with our friends at Quaker Houghton, but all are welcome. Please join us!

[Sign up here!](#)

June 6, 2024- CCT hosted a Riparian Restoration planting event at Bicentennial Park, Plymouth Meeting. CCT members and volunteers planted native trees and shrubs and removed invasive species.



Riparian Restoration in Plymouth Township!

Meet at Bicentennial Park – [700 Belvoir Rd, Plymouth Meeting](#)

June 6th, 2024 – 9:30am – 3pm

We will begin working at Bicentennial Park in the morning, and then head over to Harriet Wetherill Park in the afternoon. At both sites, we'll be planting native trees and shrubs, and removing invasive species where necessary. We'll be working with our friends at AXA – but feel free to join us for as much or as little as you'd like!

[Sign up here!](#)

June 12, 2024- CCT hosted a maintenance event for the Pollinator Garden at Black Horse Park, Plymouth Meeting.

Plymouth Pollinator Patch Maintenance!

June 12th, 2024 – 6:30pm – 8pm

Meet at Black Horse Park – 436 School Ln



In the spring of 2023, we planted a pollinator garden at Black Horse Park in Plymouth Meeting. We removed some turf grass and installed native plugs. They are THRIVING just over a year later! We are holding a brief evening event to do some minor tasks at the garden to improve aesthetics and appeal:

- enjoy the blooms, pollinators, and company!
- remove weeds and unwanted grasses
- re-edge the perimeter to reduce mower damage
- install a small rope border to hold up our flopping sedges
- install a fresh layer of wood chips along the walking path

No signup required! We hope you can join us!

MUNICIPAL SEPERATE STORM SEWER SYSTEM ANNUAL MS4 STATUS REPORT



APPENDIX C

MCM #6 POLLUTION PREVENTION/GOOD HOUSEKEEPING

- NPDES MS4 Program Training Presentation
- NPDES MS4 Program Training Sign-In Sheet
- Perkiomen Watershed Conservancy Stormwater Symposium Documentation
- Montgomery County Public Works Association Illicit Discharge Elimination and Detection Training Documentation



MONTCO PUBLIC WORKS ASSOCIATION



Summer 2024 Outdoor Training & Vendor Event

Thursday, June 27, 2024

**Montgomery County 4-H Center
1015 Bridge Road, Collegeville, PA 19426**

Meeting Sponsors

Lawn and Golf Supply Co., Levan Machine and Truck Equipment, Northeast Sweepers and Rentals, Robert E. Little Inc., & SealMaster PMG

This event will consist of two education/training sessions, vendor product displays and vendor demonstrations showcasing different products and processes relevant to Public Works. All aspects of this event will be held either outdoors or under open-air pavilions. *Only register those who will attend and please do not send anyone not registered.*

Education/Training Sessions

CDL On Site

- On site CDL Training and Certifications for Businesses and Municipalities

Center for Watershed Protection

- MS4 Training on Illicit Discharge and Detection

Vendor Presentations & Product Viewing/Demonstrations

- Lawn and Golf Supply Co.: Outdoor Power Equipment
- Levan Machine and Truck Equipment: Machine Shop and Commercial Vehicle Upfitting
- Northeast Sweepers and Rentals: New, Used and Rental Street Sweepers
- Robert E. Little, Inc.: Site Work Construction Equipment
- SealMaster PMG: Pavement Products and Equipment

Schedule:

8:00 AM – 8:30 AM	On-Site Registration
8:30 AM – 9:00 AM	Vendor Introductions
9:00 AM – 9:45 AM	First Training Session – <i>CDL On Site</i>
9:45 AM – 11:15 AM	Equipment Viewing/Vendor Presentations & Demonstrations
11:15 AM – 12:00 PM	Second Training Session – <i>Center for Watershed Protection</i>
12:00 PM – 12:15 PM	MCPWA Business Meeting
12:15 PM – 1:00 PM	Lunch

Lunch: Mama's Majik Kitchen

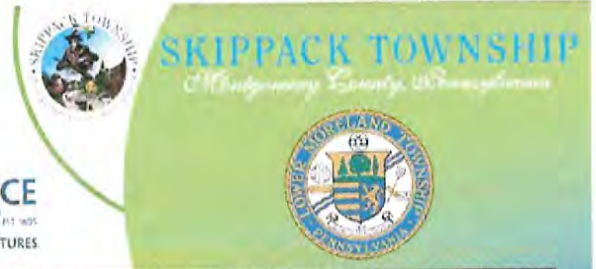
Meeting attendees will be given a food voucher for 2 Hot Dogs, Chips and Beverage

RSVP by **Monday, June 24, 2024** to: **MontcoPWA@gmail.com** or 610.246.4806

Please indicate how many individuals will be attending the event.

NPDES MS4 Program Training Sign-In

Lower Providence Township Building
100 Parklane Drive, Eagleville, PA 19403
February 22, 2024 at 9:00am



Name	Department	Email
JOE CHILLANO	P.W. LPT	jchillano@lowerprovidence.org
Harold Rosenberger	Skipack	Public works
Allison Lewis	Skipack	alewis@skipacktownship.org
Ian Hammer	Springfield	ihammer@springfieldmontco.org
Craig Lloyd	"	clloyd@springfieldmontco.org
PAUL DONNELLY	LPT	pdonnelly@lowerprovidence.org

Training conducted by Beth Uhler and Julie Schneider, Center for Watershed Protection.



NPDES MS4 Program Training Sign-In

Lower Providence Township Building
100 Parklane Drive, Eagleville, PA 19403
February 22, 2024 at 9:00am



SKIPPACK TOWNSHIP
Empowering Community Development



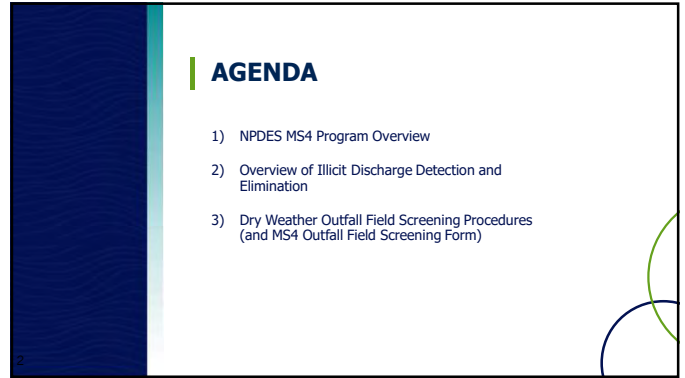
Name	Department	Email
CHRIS LOSCHIARO	Plymouth Twp	CLOSCHIARO@PLYMOUTH.TOWNSHIP.PA.GOV
John Evans	LPT	
Matthew Woerner	Lower Merion	
J. Vodejka	LPT	
Zach Griffiths	LPT	
Stephen Wower	Lower Merion	
Charlie Miller	LPT	
Scott Miley	LPT	
Dave Wilde	LPT	
Alvin Day	LPT	
Mike Nester	LPT	
Jim Alexander	LPT	
E.J. Mentry	LPT	
Alice Eastman	Skippack	
Ti Sebo	LPT	
Ty Wibr	LPT	
Rodney Hogenbuch	LPT	

Training conducted by Beth Uhler and Julie Schneider, Center for Watershed Protection.

CENTER FOR
**WATERSHED
PROTECTION**



1



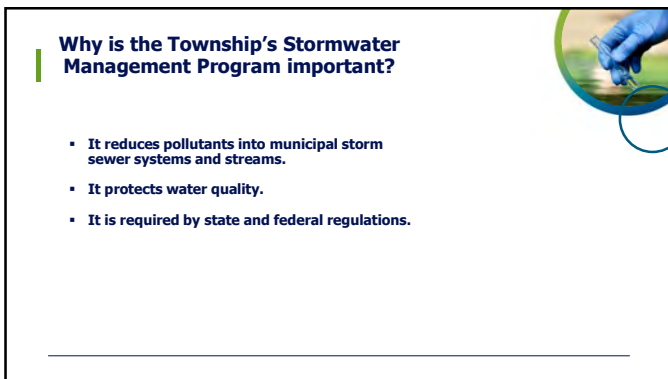
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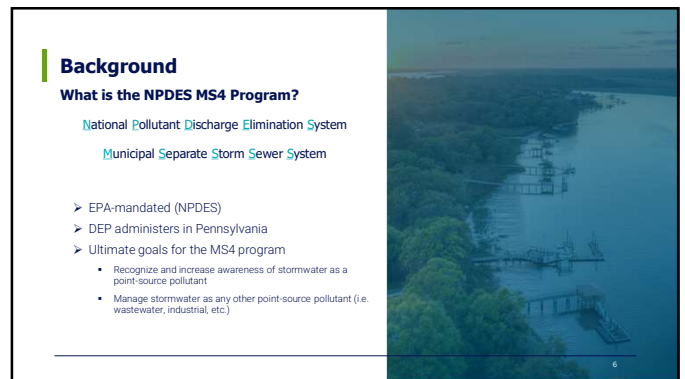
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5



6

Background

Permit Round 1 – 2003 - 2013

- Implement Best Management Practices (BMPs) under Six (6) Minimum Control Measures (MCMs)

Permit Round 2 – 2013 - 2018

- Continuation of MCMs
- Added Total Maximum Daily Load (TMDL) Requirements (including Chesapeake Bay Pollutant Reduction Plan)

Permit Round 3 – 2018 - 2023

- Continuation of MCMs
- Added Pollutant Reduction Plans (PRPs) & Pollutant Control Measures (PCMs) Requirements

7

Pollutant Reduction Plan (PRP)

Planning

5-year Implementation Period once approved.



Design & Construction

Must record annual progress towards achieving BMPs identified in your PRP.

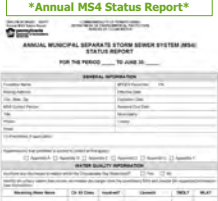


8

Minimum Control Measures

- Public Education & Outreach
- Public Involvement & Participation
- Illicit Discharge Detection & Elimination**
- Construction Site Stormwater Runoff Control
- Post Construction Stormwater Management for Development & Redevelopment
- Pollution Prevention/Good Housekeeping

Annual MS4 Status Report




9

Public Education & Outreach (MCM #1)

Permit Requirements:

- Written PEOP Program**
 - Review annually and update as needed.
 - Plans and goals.
- Target Audience Lists**
 - Review annually and update as needed.
- Publish at least one (1) education item per year**
 - Website
 - Newsletter
- Distribute stormwater educational materials to target audiences using at least two (2) distribution methods per year**
 - Displays, posters, signs
 - Pamphlets, booklets, brochures, mailings, fact sheets
 - Radio, local TV, newspaper articles, other advertisements
 - Presentations, conferences, meetings
 - Workshops, giveaways, storm drain stenciling

DOCUMENT, DOCUMENT, DOCUMENT!!!





10

Public Involvement & Participation (MCM #2)

Permit Requirements:

- Written PIPP Program**
 - Review annually and update as needed
 - Identifies plans and goals
 - Opportunities for the public to participate in decision-making processes
 - Routine communication with watershed associations and other environmental organizations
 - Make Progress Reports available to the public
 - Website
 - Township Building
 - By Mail, etc.
- Public Input on Stormwater-Related Ordinances**
- At least one (1) Public Meeting**
- Stream clean-ups, volunteer plantings, community events, etc.

DOCUMENT, DOCUMENT, DOCUMENT!!!





11

Illicit Discharge Detection & Elimination (MCM #3)

Permit requirements:

- Written IDD&E Program**
- Mapping**
- Outfall Field Screening**
- Ordinance Prohibiting Non-Stormwater Discharges into the MS4**
 - Consistent with DEP's 2022 Model Stormwater Management Ordinance and due to DEP by September 30, 2022
- Educational outreach specific to IDD&E**



12

Construction Site Runoff Control (MCM #4)



Erosion and Sediment Control
 Statewide program for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities through DEP, County Conservation District, and Municipality **SATISFIES** this permit requirement.

13

13

Post Construction Stormwater Management in New and Re-Development (MCM #5)

Permit requirements:

- Statewide Program for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities through DEP & the County Conservation District **SATISFIES A PORTION** of this permit requirement.
- Ordinance
- Low Impact Development (LID)
- PCSM BMP Inventory
- Written PCSM BMP Inspection Program **for BMPs approved after 2003** (Operations & Maintenance)



14

14

Pollution Prevention/Good Housekeeping (MCM #6)

Permit Requirements:

- **Written Operations & Maintenance Program**
 - Review annually and update as needed
 - Township-owned facilities and activities
- **Written Employee Training Program (for everyone!)**
 - Review annually and update as needed
 - Hold **one (1)** Employee Training per year




15

15

MCM #3: Illicit Discharge Detection & Elimination




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MCM #3 – Illicit Discharge Detection and Elimination (IDDE)

What is an Illicit Discharge?

- Any discharge (or seepage) to a MS4 that is not composed entirely of stormwater.
 - Does not refer to discharges authorized under a NPDES permit.
 - This includes pet waste, leaking dumpsters, grass clippings, sediment runoff from construction sites, parking lot trash, leaf litter, etc.

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What are common illicit discharges?

<p>Sewage:</p> <ul style="list-style-type: none"> • Broken or leaking sanitary sewer line • Sewer cross-connections • Sanitary sewer overflows • Failing septic systems • Sump pumps, basement drains, floor drains 	<p>Miscellaneous:</p> <ul style="list-style-type: none"> • Concrete washout water • Illegal dumping practices: motor oil, paint • Restaurant grease 	<p>Wash Water:</p> <ul style="list-style-type: none"> • Laundry wash water • Commercial car washing • Floor drains connected to stormwater pipes
---	---	--

18

18

How do you detect an Illicit Discharge?

What to look for:

- Discoloration
- Clarity/sedimentation
- Oily sheen
- Odor
- Floating solids
- Suspended solids
- Foam
- Other visible indicators of pollution




EXAMPLES.....

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Motor vehicle fluids (oil, etc.) Soaps, detergents

Color: Rainbow sheen
Odor: Petroleum or gasoline smell




Color: White, grey, cloudy
Odor: Laundry detergent, soaps, or none at all




20

Sediment Sewage

Color: Brown, orange/yellow, "chocolate milk"
Odor: None





Color: Grey
Odor: Sulfur, fecal matter




21

Concrete Washout Fertilizer

Color: whitish discharge
Odor: None





Color: Algal Growth
Odor: Sulfur, fecal matter



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Generating Sites

- Land uses where routine operations can produce higher levels of storm water pollutants, and/or
- Present a higher potential risk for spills, leaks or illicit discharges.
- Discharges are generally intermittent or transitory.
- Generating sites can be identified and discharges can be prevented.

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MS4 Permit Requirements for Illicit Discharge Detection and Elimination

6 Best Management Practices (BMPs)

- BMP #1:** Written IDD&E Program
- BMPs #2 and #3:** Mapping
- BMP #4:** Dry Weather Outfall Field Screening
- BMP #5:** Ordinance prohibiting Non-Stormwater Discharges into the MS4
- BMP #6:** Educational Outreach specific to IDD&E

24

BMP #1. Written IDD&E Program

Develop and implement a written program for the detection, elimination, and prevention of illicit discharges

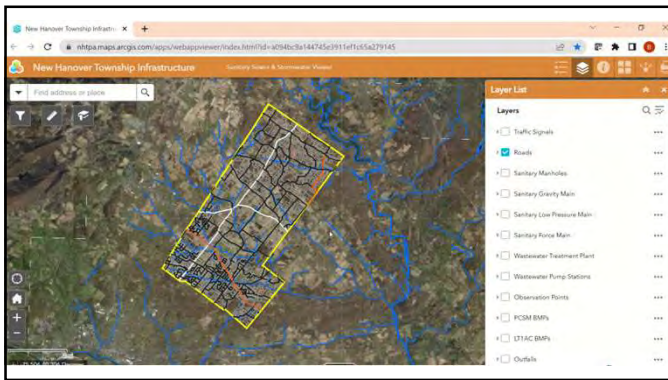
- Identify priority areas
- Procedures for screening outfalls
- Procedures for identifying source of illicit discharge
- Procedures for elimination of illicit discharge
- Gain access to private property
- Document, evaluate and assess program
- Address information and complaints from the public

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BMP #2. Mapping Stormwater Systems




26



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IDD&E Outfall Field Screening

Using Survey123



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BMP #4 Priority Outfall Area Identification

Procedure for identification


- Areas with a higher likelihood of illicit discharges, connections or illegal dumping

Example areas:

- Containing older infrastructure
- Concentration of high-risk activities
- History of water pollution

Procedure for screening outfalls

- Dry weather screening
- Lab sampling and testing



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IDD&E Outfall Field Screening

What is an Outfall?

- A point source where an MS4 discharges stormwater to surface waters.

How often?

- Once per permit term
- Priority Areas and known Continual Dry Weather Flows: Annually

When?

- "Dry weather" is anytime following the initial 48 hours after a stormwater producing event.

What?

- Dry weather flows
- Color, Turbidity, Sheen, Floating or submerged solids, Odor

Sampling
 Compliance & Enforcement per IDD&E Program
 Documentation, documentation, documentation.




30

WHAT DO YOU DO WHEN YOU SEE AN ILLICIT DISCHARGE?

Resident: Call Township
Public Works: Report to MS4 point person

DOCUMENT!!! DOCUMENT!!! DOCUMENT!!!



31

Illicit Discharge:
 Chemicals

Sources:
 Dumping



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Illicit Discharge:
 Detergent

Source:
 Illicit Washing Machine Connection



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BMP #5 - IDD&E Stormwater Management Ordinance

Prohibited Discharges
"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 the municipality's separate storm sewer system or the waters of the commonwealth is prohibited."

Prohibited Connections
*"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 separate storm sewer system, and any connections to the separate storm sewer system from indoor drains and sinks."
 "Any drain or conveyance connected from a commercial or industrial land use to a separate storm sewer system, which has not been documented in plans, maps, or equivalent records and approved by the municipality."*

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BMP #5 Eliminating an Illicit Discharge

Voluntary Compliance

Enforcement

- Enforcement Notice
- Notice of Violation
- Citation
- Cease & Desist Order
- Penalties and fines

Program Documentation

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BMP #5 IDD&E Stormwater Management Ordinance

Authorized Discharges

- Discharges or flows from firefighting activities.
- Discharges from potable water sources, including dechlorinated water line and fire hydrant flushing if such discharges do not contain detectable concentrations of total residual chlorine (TRC).
- Noncontaminated irrigation water, water from lawn maintenance, landscape drainage and flows from riparian habitats and wetlands.
- Diverted stream flows and springs.
- Noncontaminated HVAC condensation and water from geothermal systems.
- Residential (i.e., not commercial) vehicle wash water where cleaning agents are not utilized.
- Noncontaminated pumped groundwater and water from foundation and footing drains and crawl space pumps.
- Noncontaminated hydrostatic test water discharges if such discharges do not contain detectable concentrations of TRC.

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EPA Audits/DEP Inspections

Non-compliance is costly

- Four central PA communities were fined in 2010 by EPA for stormwater violations. One community was fined \$177,500.

What do they want to see?

- Clean workspaces
- Labeled chemicals/containers
- Signage
- Preparedness for spills
- DOCUMENTATION!!!**



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EPA Audits/DEP Inspection

Are you ready?

O&M Program is there to help when EPA/DEP comes!


IMPORTANT to keep records and documents of repairs, events, or anything pertaining to the stormwater system.

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BMP #6. IDDE Education and Outreach

Provide educational outreach to public employees, public in general

- Citizen reporting phone number**
 - Easy to find on the website
 - After hours number can be non-emergency police dispatch
- Educational outreach: brochures, recycling programs, encourage public reporting, etc.**
 - Educate any public staff that drives around as part of their jobs



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Tips

- Designate a Public Works staff member to conduct more frequent routine inspections.
- Always DOCUMENT inspections, screenings and O&M activities.
- Don't just write it down. Take PHOTOS.
- Notify Supervisor/Manager immediately if there appears to be an illicit discharge and/or safety concern.

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Resources

- Montgomery County Planning Commission (MCPC)
- Montgomery County Conservation District (MCCD)
- PA Department of Environmental Protection (PA DEP)
- Center for Watershed Protection (CWP)**


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Dry Weather Outfall Field Screening Procedures

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"Dry Weather" Outfall Screening

- Looking at and testing flow from pipes, not in-stream
- At least 48 hours after precipitation (runoff-producing rain event)
- During period of low groundwater



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Field Assessments Time of Year Considerations



Winter:

- Frozen flows
- Safety
- Road salt
- Temperature affects on equipment

Spring:

- High groundwater table

Summer:

- Vegetation overgrowth
- Hard to find outfalls

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Field Assessments Time of Year Considerations



Fall:

- Vegetation is low
- Not too cold; good time for field work
- Road salt and groundwater influences at a minimum

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Choose Your Own Adventure

46

Scenario 1

It is Monday morning. You are training a new Stormwater Inspector today. You scheduled their day to be filled with field work and you want to start with outfall screenings. Let's decide if today is a good day to do outfall screenings.

What is the weather?

Option 1:
Cloudy and warm.
No precipitation since last Wednesday.

Option 2:
Sunny and windy.
Rain yesterday.

Option 3:
Sunny and cold.
6-inches of snow on the ground.

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[Back to Scenario 1](#)

No outfall screening today

- Prefer 48 hours of no precipitation.
- What else could the new inspector do to be ready for outfall screening later in the week?

- 1 Read the IDDE Standard Operating Procedures (SOPs)
- 2 Look at the Outfall Reconnaissance Inventory (ORI) form
- 3 Familiarize themselves with the storm drain system and outfall map
- 4 Review monitoring history and note repeat problem areas
- 5 Gather equipment for field work later in the week
- 6 Other – good idea!

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Back to Scenario 1

No outfall screening today

- Snow is not an ideal condition since snowmelt could look like a dry weather discharge
- Do not perform outfall inspections if salt has been applied to the roads and could drain to outfalls
- Some field tests (e.g. ammonia, chlorine) are affected by cold temperatures

Tip: In northern regions / cold climates, ice melting patterns can be useful to find illicit discharges

49

Perfect day! What do we need to bring?

- Maps or Tablet
- Gloves
- Sterile Sample Bottles
- Dipper and/or telescoping rod
- Ziplock Bags
- Stopwatch
- Field Binder with ORI forms
- Manhole hook
- Waders or boots
- Thermometer
- Vest
- First Aid Kit
- Cooler and Ice Packs
- Pencils/Sharpies
- Ammonia meter & reagents
- Other Probes
- Tape Measure
- Hand sanitizer
- Camera
- Flashlight

50

Field Equipment to Bring in the Field

- Sterile Sample Bottles
- Testing Kits
- Measuring Tape
- Stopwatch
- Ziplock Bags
- Binder with field forms
- Waders or boots
- Manhole Hook
- Maps or Tablet
- Safety Vest
- First Aid Kit
- Disposable gloves
- Pencils/Sharpies
- Hand Sanitizer
- Camera
- Flashlight

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3602-FM-81CW0621 12/2018
MS4 Outfall Field Screening Report

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION	
Permittee Name:	NPDES Permit No.: PA
Date of Inspection:	Outfall ID No.:
Land Uses in Outfall Drainage Area (Select All):	Latitude: _____
<input type="checkbox"/> Industrial <input type="checkbox"/> Urban Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Suburban Residential <input type="checkbox"/> Open Space <input type="checkbox"/> Other: _____	Longitude: _____
	Dry Weather Inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Date of Previous Precipitation: _____
	Amount of Previous Precipitation: _____ in
Inspector Name(s):	Were Photographs Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Are Photographs Attached? <input type="checkbox"/> Yes <input type="checkbox"/> No

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MS4 Outfall Field Screening Report


OUTFALL DESCRIPTION				
TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Other	<input type="checkbox"/> Circular <input type="checkbox"/> Single <input type="checkbox"/> Elliptical <input type="checkbox"/> Double <input type="checkbox"/> Box <input type="checkbox"/> Triple <input type="checkbox"/> Other <input type="checkbox"/> Other	Diameter: _____ in	<input type="checkbox"/> In Water <input type="checkbox"/> With Sediment
<input type="checkbox"/> Open Channel	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> Rip-Rap <input type="checkbox"/> Other	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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Outfall Type

Open Channel



Closed Pipe



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MS4 Outfall Field Screening Report



Submerged: More than 1/2 below water



Partially submerged: Bottom is below water




Fully submerged: Can't see outfall


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MS4 Outfall Field Screening Report



Trickle Flow: Very narrow stream of water



Moderate Flow: Steady stream, but very shallow depth



Significant flow
(Source is a fire hydrant discharge)

Dry Weather Flow Present at Outfall During Inspection? Yes No *(If No, skip to Certification Section)*

Description of Flow Rate: Trickle Moderate Significant N/A

56

56

If No Dry Weather Flow: MS4 Outfall Field Screening Report

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were 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 knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name	Signature
Telephone No.	Date

57

57

If Dry Weather Flow is Present: MS4 Outfall Field Screening Report

DRY WEATHER FLOW EVALUATION

Does the dry weather flow contain color? Yes No *If Yes, provide a description below.*

Does the dry weather flow contain an odor? Yes No *If Yes, provide a description below.*

Is there an observed change in the receiving waters as a result of the discharge? Yes No *If Yes, provide a description below.*




Does the dry weather flow contain floating solids, scum, sheen or substances that result in deposits? Yes No *If Yes, provide a description below.*

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MS4 Outfall Field Screening Report Dry Weather Flow Evaluation

- Do you see a color?
- Do you smell an odor?
- Floatables? Sheen?
- Discoloration in receiving water?








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MS4 Outfall Field Screening Report Dry Weather Flow Evaluation

- Damage to Outfall?
- Pipe Benthic Growth
- Abnormal Vegetation
- Poor Pool Quality

60

60



MS4 Outfall Field Screening Report Foam

"Natural" Foam

- Formed when organic matter decomposes
- Can be caused by turbulence (i.e. waterfalls)
- Does not "last"
- Brownish/tannish edges

"Un-natural" Foam




- Has "staying" power
- Whiter
- May have an odor

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MS4 Outfall Field Screening Report Iron Floc



- Normally a naturally occurring phenomenon resulting from iron bacteria growth.
- These harmless bacteria "bloom" when oxygen, water and iron combine. The bacteria are typically rust-colored and appear oily.
- Generally associated with acidic soils.
- May be especially evident after heavy rains, when iron leaches from the soil.

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MS4 Outfall Field Screening Report Sheens

- Sheens can occur from naturally occurring bacteria
 - These break into pieces when touched with a stick or other object
- Petroleum-based sheens break apart and then come back together when disturbed

synthetic oil forms a swirling pattern.

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Visual Indicators

Source	Indicator
Wastewater	Gray, sewage odor, sewage fungus, floatables
Washwater	Suds, detergent or sweet smell
Sediment	Orange/brown color
Tap water	Chlorine smell (maybe)
Paint	Color, turbidity
Concrete washout	Turbidity
Industrial	Color, odors

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MS4 Outfall Field Screening Report

Were sample(s) collected of the dry weather flow? Yes No (If Yes, No. Samples: ____)

FIELD / LABORATORY ANALYSIS					
PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		GPM	Fecal Coliform		No./100 mL
pH		S.U.	COD		mg/L
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Conductivity		µmhos/cm	TSS		mg/L
Ammonia-Nitrogen		mg/L	TDS		mg/L
Other: _____			Oil and Grease		mg/L
Other: _____			Other: _____		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

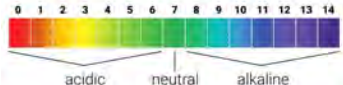
65

MS4 Outfall Field Screening Report Field/Laboratory Analysis

pH

- Good indicator for industrial wastes
- Inexpensive, simple

The pH scale




acidic neutral alkaline

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MS4 Outfall Field Screening Report Field/Laboratory Analysis

Ammonia

- Concentration much higher in sewage than groundwater or tap water
- Present in some industrial wastes




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MS4 Outfall Field Screening Report Field/Laboratory Analysis

Conductivity

- Correlated with amount of dissolved material in water
- Some industrial discharges have very high conductivity
- Easy to measure but limited value




68

MS4 Outfall Field Screening Report Field/Laboratory Analysis

Chlorine

- Used to disinfect tap water
- Highly volatile
- Can indicate water line break, swimming pool discharge, or industrial discharge from chlorine bleaching process




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MS4 Outfall Field Screening Report Field/Laboratory Analysis

Detergents

- Many illicit discharges have detergents present
- Absent in natural waters and tap water
- Surfactants = active ingredient in most detergents



70

Detergents (anionic surfactants, MBAS) — CHEMets Visual Kit

Catalog No.: K-9400
 Range: 0-3 ppm
 MDL: 0.125 ppm
 Method: Methylene Blue

Detergents (MBAS) test kit K-9400 comes in a cardboard box and contains everything needed to perform 20 tests: Refill, Comparator, reaction tube with lid, tip breaking tool, and instructions.

Shelf life: The refill contained in this detergents (MBAS) test kit has a shelf life of 5 months.

WARNING! PROP-65

\$111.09



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Indicator Monitoring

Test chemical makeup of dry weather flows to:

- Find problem discharges not apparent from visual indicators alone
- Test suspect flow to *confirm* if illicit discharge
- Determine *type* of illicit discharge



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MS4 Outfall Field Screening Report Field/Laboratory Analysis

Taking a Sample

- DO NOT take sample if discharge has strong smell or is hard to reach
- Only take sample if it seems safe
- Wear gloves
- Avoid touching inside lip of container



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MS4 Outfall Field Screening Report

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? Yes No

If Yes, describe efforts made to determine the source(s) of the illicit discharge.

Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

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MS4 Outfall Field Screening Report

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were 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 knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Responsible Official Name	Signature
Telephone No.	Date

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Investigation Techniques


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Best Options for Finding Discharges

Continuous	Intermittent	Transitory
<ul style="list-style-type: none"> • Comprehensive Outfall Surveys • Tracking to the Source 	<ul style="list-style-type: none"> • Look for signs of flow • Look at different hours/days • Hotlines for citizen reporting 	<ul style="list-style-type: none"> • Hotlines for citizen reporting • Education for prevention

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Track Up Storm Drain Network



- During dry weather only
- Start at outfall & move up pipe network
- Isolate flow at manholes
- Look for physical indicators
- Sample in manholes & test for chemical indicators
- Need crew of 2
- Traffic diversion
- Proper lifting

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Mapping is Really Important!

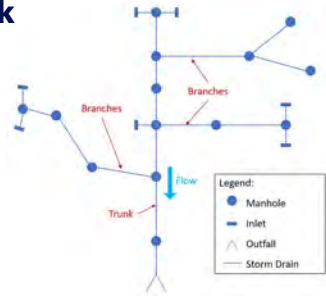
- MS4 Permit requires mapping storm drain system including outfalls.
- Other utility mapping (water and sanitary sewer) is helpful too.
- Webmaps are useful for field staff to access utility information in the field on an iPad or laptop.



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Splitting the Trunk

- Identify major branches to the trunk (largest diameter pipe in the network)
- Identify manholes where branches connect to trunk, plus one immediately upstream.
- Working up the network, investigate manholes on each contributing branch and trunk
- Narrow the discharge to a specific section of trunk or contributing branch
- Move up until a specific pipe segment is isolated



80

Classifying Discharges: Type of Discharge


What chemicals/pollutants are in these discharges?

- Sanitary Wastewater**
Typical sources are cross-connections or sewer leaks.
- Washwater**
Laundry connection and various industrial discharges.
- Other Liquid Wastes**
Various other (non-washwater) sources
- Tapwater**
Irrigation discharge or water system leak
- Groundwater***
Seepage of Groundwater into storm drain

*Typically not considered illicit

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Drainage Area Investigation



Drive or walk around looking at potential discharge source sites

Only works if flow is distinct (e.g., color, odor, or high indicator reading)

Not very helpful for finding sewage leaks

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Choose Your Own Adventure

83

Scenario 2

A Sanitation Crew member noticed a cloud of white in the water while on his routine trash route. He told his supervisor when he got back into the office.

What do you do?

- Option 1:** Send the Sanitation Crew member the ORI form.
- Option 2:** Call the Sanitation Crew member to get more information.
- Option 3:** Drive the Sanitation route to find the cloudy water.

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Back to Scenario 4

No!

- The Sanitation Crew member was correct to report the cloudy water to his supervisor.
- The ORI form is not appropriate to ask someone to fill out if they are not trained.

Note: Great example of staff training resulting in finding an illicit discharge. Encourage the supervisor to give recognition to that employee.

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Back to Scenario 4


No!

- It is likely to be transitory, so you have limited time to find it
- If you don't know where it was located, then ask the employee that found it or their supervisor

86

Yes!

The Sanitation Crew member was able to tell you where they saw the cloudy water and when
You go to the site and find this:



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How do you investigate this?

- The area is difficult to access so you cannot get a sample
- The cloudy water appears to be a concrete washout

Track up the storm drain system Look for construction in the drainage area

88

Back to Scenario 4

Track up the storm drain system

- This is typically an effective tool and could be pursued although it is potentially time consuming
- Since concrete washout is suspected, start with another method first

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Look for construction in the drainage area

- Search Permit database
- Talk to building inspector or construction inspector to know where construction is occurring
- Drive around (windshield survey) of drainage area

Challenges with this approach?

- Undefined drainage area
- Large drainage area
- No permit
- Other

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Back to Scenario 4

Windshield Survey

What did you find?

Determine responsibility

Which contractor was working in the area?

- Permits
- Eyewitnesses



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Scenario 3

During an outfall screening, dry weather flow is encountered at an outfall. The flow is odorless and colorless.

What do you do?

Option 1:
Check for flow in a couple of days

Option 2:
Take a sample



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Back to Scenario 5

Not preferred!

- Although odorless and colorless, the dry weather flow should be investigated as soon as possible
- It is not an emergency, so it could be prioritized lower than other investigations

93

Sample collection techniques

What techniques will you use?



94

Sample results

<p>A</p> <ul style="list-style-type: none"> • Surfactants: non detect • Ammonia: non detect • Fluoride: 0.7 mg/L <p>↓ ?</p> <p>Municipal Water</p>	<p>B</p> <ul style="list-style-type: none"> • Surfactants: 0.25 mg/L • Ammonia: non detect • Fluoride: 0.6 mg/L <p>↓ ?</p> <p>Wastewater</p>
--	--


Would you investigate samples A and B differently?

95

Investigation

Where do you start tracking up the storm drain network?

What are you looking for?




96

Actual Example

Back to Scenario 5

Guess what it was...

- ~~Hydrant flushing~~
- ~~Outside faucet leaking into storm drain inlet~~
- Water valve leaking into ground, entering storm drain through cracked pipe
- ~~Irrigation runoff from nearby property~~



Consequences of not investigating this discharge:


- Chlorine discharge into River
- Valve non-functioning
- Leak could have caused sink hole
- Significant water loss!

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THANK YOU

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The Symposium is FULL | Digital Access is Available!
Friday, March 8th, 9:00 am - 3:30 pm

GET DIGITAL ACCESS

DONATE

About the Event

Join the Perkiomen Watershed Conservancy and our regional partners to dive deeper into the world of stormwater! Discover the different methods local organizations are using to tackle stormwater issues. Municipalities will walk away with educational materials and volunteer opportunities for their residents. **This training is also designed to be a one-stop-shop for municipal staff, covering all six MCMs!**

Learn from our great panel of speakers:
The Department of Environmental Protection
The Montgomery County Planning Commission
The Montgomery County Conservation District
The Perkiomen Flood Study
Center for Watershed Protection
Perkiomen Watershed Conservancy

Have an impressive stormwater project you would like to showcase? Submit a project poster to display during event registration and the lunch hour. Don't miss this opportunity to share your work with fellow colleagues! Check out project poster guidelines [here](#).

[Sponsor the Perkiomen Stormwater Symposium!](#) Support the Symposium AND show off your organization's logo and marketing materials to attendees. It's a win-win!

The Stormwater Symposium is the first training hosted in the Conservancy's Professional Education Series! Be on the lookout for information about our upcoming Teacher Training and the Island Field Workshop.



**MONTCO
PUBLIC WORKS
ASSOCIATION**



Summer 2024 Outdoor Training & Vendor Event

Thursday, June 27, 2024
Montgomery County 4-H Center
1015 Bridge Road, Collegeville, PA 19426

Meeting Sponsors

Lawn and Golf Supply Co., Levam Machine and Truck Equipment, Northeast Sweepers and Rentals, Robert E. Little Inc., & SealMaster PMG

This event will consist of two education/training sessions, vendor product displays and vendor demonstrations showcasing different products and processes relevant to Public Works. All aspects of this event will be held either outdoors or under open-air pavilions. *Only register those who will attend and please do not send anyone not registered.*

Education/Training Sessions

- CDL On Site
 - o On site CDL Training and Certifications for Businesses and Municipalities
- Center for Watershed Protection
 - o MS4 Training on Illicit Discharge and Detection

Vendor Presentations & Product Viewing/Demonstrations

- Lawn and Golf Supply Co.: Outdoor Power Equipment
- Levam Machine and Truck Equipment: Machine Shop and Commercial Vehicle Upfitting
- Northeast Sweepers and Rentals: New, Used and Rental Street Sweepers
- Robert E. Little, Inc.: Site Work Construction Equipment
- SealMaster PMG: Pavement Products and Equipment

Schedule:


8:00 AM – 8:30 AM	On-Site Registration
8:30 AM – 9:00 AM	Vendor Introductions
9:00 AM – 9:45 AM	First Training Session – <i>CDL On Site</i>
9:45 AM – 11:15 AM	Equipment Viewing/Vendor Presentations & Demonstrations
11:15 AM – 12:00 PM	Second Training Session – <i>Center for Watershed Protection</i>
12:00 PM – 12:15 PM	MCPWA Business Meeting
12:15 PM – 1:00 PM	Lunch

Lunch: Mama's Majik Kitchen


Meeting attendees will be given a food voucher for 2 Hot Dogs, Chips and Beverage

RSVP by **Monday, June 24, 2024** to: **MontcoPWA@gmail.com** or 610.246.4806

Please indicate how many individuals will be attending the event.



Illicit Discharge Elimination and Detection

 **Montgomery County Public Works Association**

Montgomery County 4-H Center
June 27, 2024

Beth Uhler, Pennsylvania Director
Center for Watershed Protection

CENTER FOR WATERSHED PROTECTION

Outline

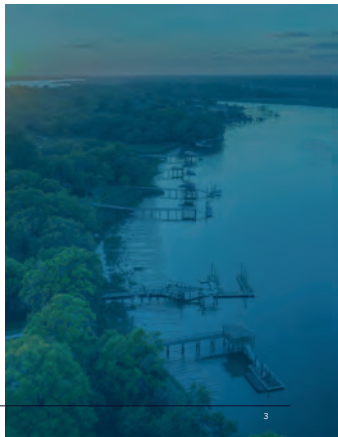
- 1) NPDES MS4 Program Overview
- 2) What an Illicit Discharge is
- 3) Illicit Discharge Detection and Elimination (IDDE) Requirements Crash Course

Background

What is the NPDES MS4 Program?

[National Pollutant Discharge Elimination System](#)
[Municipal Separate Storm Sewer System](#)

- EPA-mandated (NPDES)
- DEP administers in Pennsylvania
- Ultimate goals for the MS4 program
 - Recognize and increase awareness of stormwater as a point-source pollutant
 - Manage stormwater as any other point-source pollutant (i.e. wastewater, industrial, etc.)



Pennsylvania NPDES MS4 Program Components

Minimum Control Measures

1. Public Education and Outreach
2. Public Involvement and Participation
3. **Illicit Discharge Detection and Elimination**
4. Construction Site Runoff Control
5. Post Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping

Pollutant Reduction Plans (PRPs)

- Stormwater discharges to streams impaired for sediment and/or nutrients

Total Maximum Daily Load (TMDL) Plans

- Stormwater discharges to streams with TMDLs for sediment and/or nutrients

Pollutant Control Measures (PCMs)

- Stormwater discharges to streams impaired for acid mine drainage, priority organic compounds, and/or pathogens

Annual MS4 Status Report

CENTER FOR WATERSHED PROTECTION | 4

MCM #3 – Illicit Discharge Detection and Elimination (IDDE)

What is an Illicit Discharge?

- Any discharge (or seepage) to a MS4 that is not composed entirely of stormwater.
 - Does not refer to discharges authorized under a NPDES permit.
 - This includes pet waste, leaking dumpsters, grass clippings, sediment runoff from construction sites, parking lot trash, leaf litter, etc.



What are common illicit discharges?

Sewage:

- Broken or leaking sanitary sewer line
- Sewer cross-connections
- Sanitary sewer overflows
- Failing septic systems
- Sump pumps, basement drains, floor drains

Miscellaneous:

- Concrete washout water
- Illegal dumping practices: motor oil, paint
- Restaurant grease

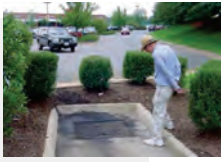
Wash Water:

- Laundry wash water
- Commercial car washing
- Floor drains connected to stormwater pipes

How do you detect an Illicit Discharge?

What to look for:

- Discoloration
- Clarity/sedimentation
- Oily sheen
- Odor
- Floating solids
- Suspended solids
- Foam
- Other visible indicators of pollution



EXAMPLES

Motor vehicle fluids (oil, etc.)

Color: Rainbow sheen
Odor: Petroleum or gasoline smell



Soaps, detergents

Color: White, grey, cloudy
Odor: Laundry detergent, soaps, or none at all



Sediment

Color: Brown, orange/yellow, "chocolate milk"
Odor: None



Sewage

Color: Grey
Odor: Sulfur, fecal matter



Concrete Washwater

Color: whitish discharge
Odor: None



Fertilizer

Color: Algal Growth
Odor: Sulfur, fecal matter



MS4 Permit Requirements for IDDE

6 Best Management Practices (BMPs)

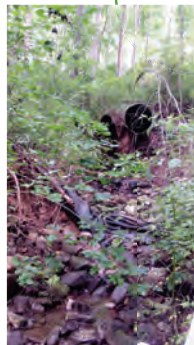
BMP #1: Written IDDE Program

BMPs #2 and #3: Mapping Stormwater Systems

BMP #4: Dry Weather Outfall Field Screening

BMP #5: Ordinance Prohibiting Non-Stormwater Discharges into the MS4

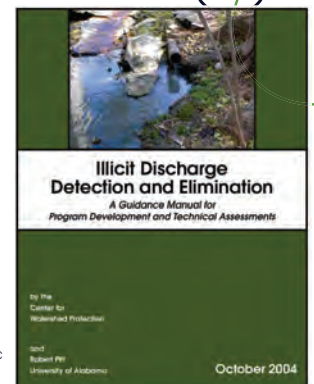
BMP #6: Educational Outreach Specific to IDDE



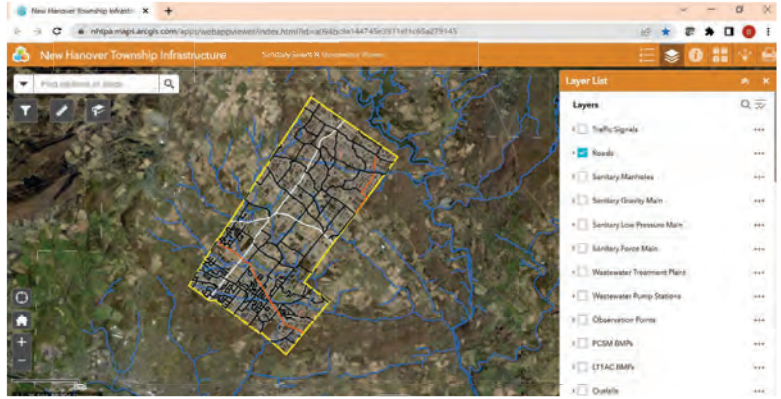
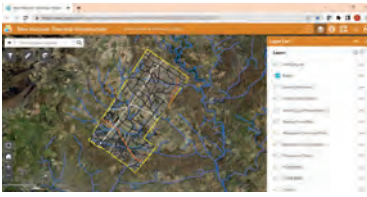
BMP #1. Written IDDE Program

Include procedures for:

- Identifying priority areas
- Screening outfalls in priority areas
- Identifying source of illicit discharge
- Eliminating illicit discharges
- Assessing potential for illicit discharges from sewage disposal systems
- Gaining access to private property
- Documenting, evaluating, and assessing program
- Addressing information and complaints from the public



BMPs #2 and 3. Mapping Stormwater Systems

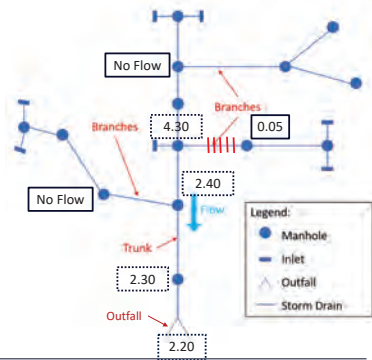


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IDDE Tracking

1. Start at the outfall
2. Sample at manhole closest to outfall
3. Move up the network and sample manholes

Goal: Isolate discharge between manholes



BMP #4. Dry Weather Outfall Field Screening

What is an Outfall vs. Observation Point?

- A point source where an MS4 discharges stormwater to surface waters.

How often?

- Once per 5-year permit term
- Priority Areas and known Continual Dry Weather Flows: Annually

When?

- "Dry weather" is anytime following the initial 48 hours after a stormwater producing event.

What?

- Dry weather flows
- Color, Turbidity, Sheen, Floating or submerged solids, Odor

Sampling

Compliance & Enforcement per IDD&E Program
Documentation, documentation, documentation.



Dry Weather Outfall Field Screening Tips

Time of Year Considerations



Winter:

- Frozen flows
- Safety
- Road salt
- Temperature affects on equipment



Spring:

- High groundwater table



Summer:

- Vegetation overgrowth
- Hard to find outfalls

Dry Weather Outfall Field Screening Tips

Time of Year Considerations



Fall:

- Vegetation is low
- Not too cold; good time for field work
- Road salt and groundwater influences at a minimum

PAID BY: [blank] COUNTY: [blank] DEPARTMENT OF PUBLIC SAFETY
 MUNICIPALITY: [blank] DIVISION: [blank]

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Member Name: SPICE French Oak, PA
 Date of inspection: [blank] Street #: [blank]
 City: [blank] Latitude: [blank]
 Longitude: [blank]
 City Weather Impact? Yes No
 State of Physical Protection: [blank]
 Amount of Precipitation: [blank]
 Snow Photography Taken? Yes No
 Ice Photography Taken? Yes No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	UNDERLIES
<input type="checkbox"/> Covered Pipe	<input type="checkbox"/> HDPE <input type="checkbox"/> Cast Iron <input type="checkbox"/> PVC <input type="checkbox"/> Metal <input type="checkbox"/> Steel <input type="checkbox"/> Other	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Square <input type="checkbox"/> Oval <input type="checkbox"/> Triangular <input type="checkbox"/> Other	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	<input type="checkbox"/> In Water <input type="checkbox"/> In Bank <input type="checkbox"/> Brick Setback
<input type="checkbox"/> Open Channel	<input type="checkbox"/> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> Earth <input type="checkbox"/> Other	<input type="checkbox"/> Trapezoidal <input type="checkbox"/> Parabolic <input type="checkbox"/> Other	Depth: _____ ft Top Width: _____ ft Bottom Width: _____ ft	

Dry Weather Flow Present at Outfall During Inspection? Yes No. If No, Why is Condition History:
 Description of Flow Runoff: From Downstream Upstream Not

DRY WEATHER FLOW EVALUATION

Does the dry weather flow appear color? Yes No. If Yes, provide a description below:
 Does the dry weather flow appear as suds? Yes No. If Yes, provide a description below:
 Is there an unusual odor at the outfall as a result of the discharge? Yes No. If Yes, provide a description below:
 Does the dry weather flow appear floating debris, silt, gravel or accumulations that are not in deposit? Yes No. If Yes, provide a description below:

Dry Weather Outfall Field Screening Tips



PAID BY: [blank] COUNTY: [blank] DEPARTMENT OF PUBLIC SAFETY
 MUNICIPALITY: [blank] DIVISION: [blank]

When completed collect the dry weather flow? Yes No. If Yes, Why is Condition History:
 Description of Flow Runoff: From Downstream Upstream Not

FIELD LABORATORY ANALYSIS

PARAMETER	RESULTS	UNITS	PARAMETER	RESULTS	UNITS
Flow Rate		gpm	Field Coliform		Col/100 mL
pH		pH			
Total Residual Chlorine (TRC)		mg/L	BOD5		mg/L
Chlorophyll a		µg/L	TSS		mg/L
Ammonia Nitrogen		mg/L	TSS		mg/L
Other			Oil and Grease		mg/L
Other			Other		

Indicate the parameters above that were analyzed by a DEP-certified laboratory:

ILLEGAL DISCHARGES

Is the dry weather flow an illegal discharge? Yes No
 If Yes, describe what you observed to determine the location of the illegal discharge:

Describe any other actions taken by the permittee in response to the finding of an illegal discharge:

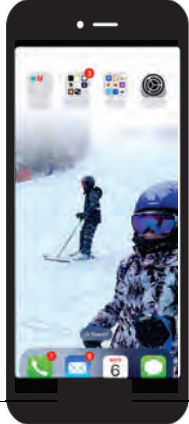
Inspector Comments:

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that the information on all attachments were prepared under no duress or coercion in accordance with a system designed to ensure that qualified personnel properly gathered and analyzed the information reported. Based on my review of this permit or permits who managed 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 knowingly false information, including the possibility of fines and imprisonment for knowledge of violation. See 18 Pa. C.S. § 6101 relating to perjury.

Responsible Official Name: _____ Signature: _____
 Title: _____ Date: _____

Indicator	Source
Gray, sewage odor, sewage fungus, floatables	Wastewater
Suds, detergent or sweet smell	Washwater
Orange/brown color	Sediment
Chlorine smell (maybe)	Drinking water
Color, turbidity	Paint
Turbidity	Concrete washout
Color, odors	Industrial



BMP #5. Stormwater Management Ordinance

Prohibited Discharges
 "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 the municipality's separate storm sewer system or the waters of the commonwealth is prohibited."

Prohibited Connections
 "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 separate storm sewer system, and any connections to the separate storm sewer system from indoor drains and sinks."
 "Any drain or conveyance connected from a commercial or industrial land use to a separate storm sewer system, which has not been documented in plans, maps, or equivalent records and approved by the municipality."

Authorized Discharges

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

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Eliminating an Illicit Discharge

> Voluntary Compliance

> Severe Cases

> Enforcement

- Enforcement Notice
- Notice of Violation
- Citation
- Cease & Desist Order
- Penalties and fines



County Conservation District

BMP #6. IDDE Education and Outreach

Provide educational outreach to public employees, general public, elected official about the program

1. Public reporting mechanism

- Easy to find on the website
- 24 hours
- After hours number can be non-emergency police dispatch



2. Educational outreach: brochures, recycling programs, encourage public reporting, etc.

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WHAT DO YOU DO WHEN YOU SEE AN ILLICIT DISCHARGE?

Resident: Call Municipality

Public Works: Report to MS4 point person

If non-stormwater discharges enter the MS4 or a stream, report to PA DEP immediately.

Report to PA DEP in Annual MS4 Status Report.

DOCUMENT!!! DOCUMENT!!! DOCUMENT!!!



IDDE Tips for Municipal Staff

Designate a Public Works staff member to conduct screenings and investigations.

Always DOCUMENT routine outfall screenings and complaint based investigations

Designate a staff member to record/collect all documentation

Don't just write it down. Take PHOTOS.

Notify Supervisor/Manager immediately if there appears to be an illicit discharge and/or safety concern.

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Choose Your Own Adventure

Scenario 1

It is Monday morning. You are training a new Stormwater Inspector today. You scheduled their day to be filled with field work and you want to start with outfall screenings. Let's decide if today is a good day to do outfall screenings.

What is the weather?

Option 1:
Cloudy and warm.
No precipitation since last Wednesday.

Option 2:
Sunny and windy.
Rain yesterday.

Option 3:
Sunny and cold.
6-inches of snow on the ground.

No outfall screening today

- Prefer 48 hours of no precipitation.
- What else could the new inspector do to be ready for outfall screening later in the week?

- 1 Read the IDDE Standard Operating Procedures (SOPs)
- 2 Look at the IDDE Outfall Field Screening Form
- 3 Familiarize themselves with the storm drain system and outfall map
- 4 Review monitoring history and note repeat problem areas
- 5 Gather equipment for field work later in the week
- 6 Other – good idea!

[Back to Scenario 1](#)

No outfall screening today

- Snow is not an ideal condition since snowmelt could look like a dry weather discharge
- Do not perform outfall inspections if salt has been applied to the roads and could drain to outfalls
- Some field tests (e.g. ammonia, chlorine) are affected by cold temperatures

[Back to Scenario 1](#)

Perfect day! What do we need to bring?

- Gloves
- Sterile Sample Bottles
- Dipper and/or telescoping rod
- Maps or Tablet
- Flashlight
- Field Binder with field forms
- Manhole hook
- Waders or boots
- First Aid Kit
- Safety Vest
- Pencils/Sharpies
- Test Strips
- Other Probes
- Tape Measure
- Hand sanitizer
- Camera

[Back to Scenario 1](#)

Scenario 2

A Sanitation Crew member noticed a cloud of white in the water while on his routine trash route. He told his supervisor when he got back into the office.

What do you do?

Option 1:
Send the Sanitation Crew member the IDDE form.

Option 2:
Call the Sanitation Crew member to get more information.

Option 3:
Drive the Sanitation route to find the cloudy water.

No!

- The Sanitation Crew member was correct to report the cloudy water to his supervisor.
- The IDDE form is not appropriate to ask someone to fill out if they are not trained.

Note: Great example of staff training resulting in finding an illicit discharge. Encourage the supervisor to give recognition to that employee.

[Back to Scenario 4](#)

[Back to Scenario 4](#)

No!

- It is likely to be transitory, so you have limited time to find it
- If you don't know where it was located, then ask the employee that found it or their supervisor

Yes!

The Sanitation Crew member was able to tell you where they saw the cloudy water and when

You go to the site and find this:



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How do you investigate this?

- The area is difficult to access so you cannot get a sample
- The cloudy water appears to be a concrete washout

[Track](#) up the storm drain system

[Look](#) for construction in the drainage area

Track up the storm drain system

- This is typically an effective tool and could be pursued although it is potentially time consuming
- Since concrete washout is suspected, start with another method first



[Back to Scenario 4](#)

Look for construction in the drainage area



Search Permit database



Talk to building inspector or construction inspector to know where construction is occurring



Drive around (windshield survey) of drainage area

Challenges with this approach?

- Undefined drainage area _____
- Large drainage area _____
- No permit _____
- Other _____

Windshield Survey

What did you find?

Determine responsibility

Which contractor was working in the area?
- Permits
- Eyewitnesses



Questions?

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PROTECTION**

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