



September 30, 2020

NPDES Annual MS4 Status Report Reviewer
Bureau of Clean Water
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, PA 19401

RE: West Norriton Township – NPDES Annual MS4 Status Report – Year 2
NPDES Permit No. PAG130006
WNR-20-002

Dear Reviewer,

On behalf of West Norriton Township, CEDARVILLE Engineering Group, LLC is pleased to provide the enclosed NPDES Annual MS4 Status Report and associated documentation for Year 2 of the NPDES MS4 General Permit (PAG130006) covering the period from July 1, 2019 to June 30, 2020.

We believe that the report adequately documents the Township's compliance with the permit and continuing effort to go above and beyond in improving their Stormwater Management Program.

Thank you in advance for your time. Please do not hesitate to contact me at 610-705-4500 or buhler@cedarvilleeng.com with any questions.

Best Regards,
CEDARVILLE Engineering Group, LLC

Beth Uhler
Environmental Project Manager

cc: Jason Bobst, West Norriton Township Manager



ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT

September 2020

PREPARED FOR:

West Norriton Township
Montgomery County, PA
1630 W. Marshall Street
Jeffersonville, PA 19403

PREPARED BY:

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**Federally Certified 8(a) EDWOSB
State Certified DBE/WBE**



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ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT

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

GENERAL INFORMATION					
Permittee Name:	West Norriton Township	NPDES Permit No.:	PAG130006		
Mailing Address:	1630 West Marshall Street	Effective Date:	3/16/2018		
City, State, Zip:	Jeffersonville, PA 19403	Expiration Date:	3/15/2023		
MS4 Contact Person:	Jason Bobst	Renewal Due Date:	9/16/2022		
Title:	Township Manager	Municipality:	West Norriton Township		
Phone:	610-631-0450	County:	Montgomery		
Email:	jbobst@wntwp.com				
Co-Permittees (if applicable): n/a					
Appendix(ces) that permittee is subject to (select all that apply):					
<input type="checkbox"/> Appendix A <input type="checkbox"/> Appendix B <input checked="" type="checkbox"/> Appendix C <input type="checkbox"/> Appendix D <input checked="" type="checkbox"/> Appendix E <input type="checkbox"/> Appendix F					
WATER QUALITY INFORMATION					
Are there any discharges to waters within the Chesapeake Bay Watershed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Identify all surface waters that receive stormwater discharges from the permittee's MS4 and provide the requested information (see instructions).					
Receiving Water Name	Ch. 93 Class.	Impaired?	Cause(s)	TMDL?	WLA?
Schuylkill River	WWF	Yes	PCBs	YES	NO
Indian Creek	WWF	Yes	Water/Flow Variability, Siltation; Cause Unknown	NO	NO
UNT 1 to Stony Creek	TSF	Yes	Water/Flow Variability, Siltation; Cause Unknown	NO	NO
UNT 2 to Stony Creek	TSF	Yes	Water/Flow Variability, Siltation; Cause Unknown	NO	NO
UNT to Indian Creek	WWF	Yes	Water/Flow Variability, Siltation; Cause Unknown	NO	NO
UNT to Schuylkill River	WWF	Yes	Water/Flow Variability, Siltation, Cause Unknown	NO	NO

GENERAL MINIMUM CONTROL MEASURE (MCM) INFORMATION

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

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

MCM	Entity Responsible	Contact Name	Phone
#1 Public Education and Outreach on Storm Water Impacts	West Norriton Township	Jason Bobst	610-631-0450
#2 Public Involvement/Participation	West Norriton Township	Jason Bobst	610-631-0450
#3 Illicit Discharge Detection and Elimination (IDD&E)	West Norriton Township	Jason Bobst	610-631-0450
#4 Construction Site Storm Water Runoff Control	West Norriton Township	Jason Bobst	610-631-0450
#5 Post-Construction Storm Water Management in New Development and Redevelopment	West Norriton Township	Jason Bobst	610-631-0450
#6 Pollution Prevention / Good Housekeeping	West Norriton Township	Jason Bobst	610-631-0450

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

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

1. For new permittees only, has the written PEOP been developed and implemented within the first year of permit coverage?
 Yes No

2. Date of latest annual review of PEOP: **March 2020** Were updates made? Yes No

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

- **Review the PEOP and update, as necessary.**
- **Review the target audience list and update, as necessary.**
- **Review the information and links on the Stormwater page of the Township website and update, as necessary.**
- **Display stormwater educational information at the Township Building.**
- **Publish at least one (1) stormwater article in the Township newsletter.**
- **Review and update the interactive GIS story map on ArcGIS Online as needed. A link to this map can be found on the Township website.**

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

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

The Township’s measurable goal for upcoming reporting period is to focus on stormwater management education on residential properties through Homeowners Associations (HOAs). HOAs comprise a significant portion of the Township’s residents and typically have efficient distribution methods for information, and will therefore, provide a widespread benefit from targeted outreach material. The Township plans to develop an article or flyer for the HOAs to issue in their newsletters, mailings, and/or social media pages for residents. The topic will include information about illicit discharges. Of the 5 HOAs (Fairways at Green Meadows, Norrington Knoll, Stonybrook Condominium, Mews at Valley Forge, Westover Crossing) within the Township, the goal will be to have at least 50% of them successfully publish the provided stormwater content within the reporting period.

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

1. For new permittees only, have the target audience lists been developed and implemented within the first year of permit coverage?

Yes No

2. Date of latest annual review of target audience lists: **March 2020** 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: **March 2020** Were updates made? Yes No

3. Do you have a municipal website? Yes No (URL: **<https://www.westnorritontwp.org/178/Storm-Water>**)

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

- **Storm Water Management in West Norriton background information**
- **Permit Framework information**
- **PRP Information and links to the Township's proposed plan**
- **A link to the July 1, 2016 – June 30, 2018 Annual MS4 Status Report pdf document**
- **Information on how residents can help and inform the Township of any illicit discharges**
- **A customized interactive GIS story map providing information on the Townships MS4**
- **Links to PADEP, EPA, MCCD, CWP, and many other entities relating to stormwater**
- **The Township has a link to the "Homeowners Guide to Stormwater BMP Maintenance" posted on their website.**
- **The Township website has a link to Stony Creek Anglers, a trout nursery that focuses on water quality. They held a Youth Field Day on August 22, 2019 to educate people about the outdoors, which was advertised in their August 2019 newsletter and on their Facebook page.**

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

Please refer to BMP #4 below for additional methods used.

Refer to Appendix A for documentation.

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

- **Review the stormwater educational information on the Township website and update as necessary (BMP #2).**
- **Provide HOAs with stormwater educational content for newsletters (BMP #3).**
- **Publish one article relating to stormwater and one or more of the MCMs in the Township newsletter.**
- **Provide stormwater-related pamphlets in the lobby of the municipal building.**

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

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

- **The Township utilizes social media to distribute educational information. For example, the Township shared CEDARVILLE Engineering Group, LLC's post on April 3, 2019 regarding the Alexander Drive basin retrofit that is proposed as part of the Township's PRP.**
- **The Township also had flyers advertising a tire collection event and household hazardous waste collection events in their municipal building.**
- **The Township has a display in the lobby of the municipal building that contains stormwater flyers and pamphlets.**
- **The interactive GIS Story Map linked on the website teaches the public about stormwater.**
- **The Township advertised the Montgomery County A-Z Recycling Guide on their website as a quick and easy resource to find out how to recycle, compost or reuse just about anything. This guide helps to find where and how to recycle over 200 items in Montgomery County.**
- **The Township posted the "Spring Stormwater Tips" flyer in the lobby of the municipal building.**

Refer to Appendix A & B for documentation.

MCM #1 Comments:

The Township updated with written program for PEOP (dated March 2020) to include more specific program goals and objectives. The measurable goal(s) for each reporting period will be developed by referencing the written program and documenting it in the Annual MS4 Status Report.

MCM #2 – PUBLIC INVOLVEMENT/PARTICIPATION

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

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

Yes No

2. Date of latest annual review of PIPP: **March 2020**

Were updates made? Yes No

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

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

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

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

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:

1.14.20 - CEG provided a presentation on the Township's Stormwater Management Program, including the Township's accomplishments and what to expect for upcoming years. The meeting took place at the Board of Commissioner's Meeting. Refer to Appendix B for documentation.

7.9.19 - CEG provided a presentation on the Township's Pollutant Reduction Plan (PRP), including an overview of the PRP requirements and the Township's proposed BMPs. Refer to Appendix B for documentation.

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.

- **West Norriton Township advertised the Montgomery County Curb My Clutter recycling event for 2019 on the Township website. The Township also publicized Montgomery County's Household Hazardous Waste events schedule on their website.**
- **The Township encouraged residents to participate in a Tire Collection Event hosted by Montco PA Recycles and took place on the following Saturdays: May 11, June 8, and June 29, 2019. The purpose of the event was to prevent tires from being improperly disposed of (i.e. pollution prevention) and to reduce breeding grounds for disease carrying mosquitoes. The Township advertised the event on the Township website.**
- **The Township encouraged residents to participate in a Household Hazardous Waste Collection Event that was held at Norristown Area High School on Saturday, June 15, 2019. This event was hosted and run by Montgomery County. The Township advertised the event on their Facebook page and on the Township's website.**
- **The Township website has a link to Stony Creek Anglers, a trout nursery that focuses on water quality. They held their 33rd Annual Stony Creek Memorial Clean Up on March 23, 2019, which was advertised in their March/April 2019 newsletter and on their Facebook page.**

Refer to Appendix B for documentation.

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.

- **West Norriton Township staff in collaboration with CEG, provided a stormwater educational event for children ages 5-12 at the Township Summer Camp. Summer camp attendees include residents and non-residents. The event took place on June 25, 2019 and educated approximately 200 children on stormwater pollution and MS4s. Stormwater activities included: painting a rain barrel, stormwater runoff demonstration (EnviroScape), and a storm drain stencil contest.**
- **The Township's Environmental Advisory Committee (EAC) met on 8/7/19 and discussed the stormwater basin inventory and inspections along with Port Indian flooding concerns.**
- **The EAC met on 1/15/20 and discussed the following topics: status on Port Indian flooding control, Alexander Drive basin retrofit updates, Blue Dove basin retrofit updates, and the MS4 presentation by CEG that was attended by 2 EAC members.**

Refer to Appendix B for documentation.

MCM #2 Comments:

The Township plans to have a stormwater presentation at one of the public Board of Commissioners Meetings during the next reporting period that will review the MS4 program's background, status, and upcoming activities. The public will have the ability to make comments during the presentation.

The Township updated their written program for PIPP (dated March 2020) to include more specific program goals and objectives. The measurable goal(s) will be developed for each reporting period by referencing the written program and documenting it in the Annual MS4 Status Report. The Township's measurable goal for the upcoming reporting period is to focus on reaching the Township residents who are on Facebook. The Township will post a stormwater educational video on their Facebook and website. The video will provide viewers education about stormwater and how they can help reduce their impact at home. A photo contest will be held to encourage residents to post photos of how they enjoy the beauty of nature and clean water. The amount of involvement with this activity will establish a baseline for next reporting period's goal. Success for the event will be measured through the number of comments, shares, and "Like".

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: **April 2020** 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): **June 2020**

3. Total No. of Outfalls in MS4: **90** Total No. of Outfalls Mapped: **90**

4. Total No. of Observation Points: **15** Total No. of Observation Points Mapped: **15**

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): **June 2020**

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 screened 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? **90**

2. Indicate the percentage of all outfalls screened in the past five years. **100%**

3. Indicate the percent of outfalls screened during the reporting period that revealed dry weather flows: **12%**

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: **7/13/2004**

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
12/11/2019	Substance located within a storm drain during a stormwater infrastructure assessment. It was a paint-like material inside and surrounding the drain.	Unknown	Illicit discharge recorded and location monitored.
02/20/2020	7/11 representatives opened a sewer lateral, which drained sewage into the street and the MS4.	7/11 Convenience Store (1503 W Main St)	The Township remained at the location until the discharge was cleaned up.

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? **Illicit discharge detection and elimination information is provided on the Township's website, presented in the interactive Story Map (also available on the Township's website) and materials are present for distribution in the lobby of the Township's Municipal Building.**

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 conducted dry weather field screening of all 90 of their outfalls during the reporting period. 11 outfalls had dry weather flow, but all were determined to have flow due to naturally occurring sources. The Township utilizes the Dry Weather Outfall Field Screening form developed based on the Outfall Reconnaissance Inventory/Sample Collection Field Sheet (Center for Watershed Protection, 2004) and the MS4 Outfall Field Screening Report (PA DEP, 2015), and readily available on Survey123 hosted by ArcGIS Online. The results of the outfall field screening are documented in the attached Dry Weather Outfall Field Screening Report dated March 2020.

During the reporting period, there were 2 recorded illicit discharges. The sources were determined, and the spill commenced. There is a reporting button on the Township's website for residents to easily notify and log a concern (<https://www.westnorritontwp.org/178/Storm-Water-Management-MS4>).

The Township updated priority areas, procedures for identifying priority areas, and procedures for screening outfalls in priority areas. This is documented in the attached Priority Area Outfall Determination report dated April 2020. Outfalls that drain priority areas are proposed to be screened on an annual basis until the outfall has not shown any indication of potential illicit discharges/connections during routine screening for three (3) consecutive years.

The relevant sections of the written program for Illicit Discharge Detection and Elimination have also been updated for consistency. The updated version of the IDDE Program is dated April 2020 and is attached.

The Township maintains a map with all stormwater infrastructure, outfalls, and BMPs by hosting a live ArcGIS Online web map app, in addition to the pdf map attached to this report. The web map app is publicly accessible via the Township website through the GIS Hub here: <https://wntwp.maps.arcgis.com/apps/webappviewer/index.html?id=5376211f39fd482fbd9abe3caf2813c1>. The Township has a password-protected version available to Township staff that includes more detailed information.

BMP #5: The Township's Stormwater Management Ordinance is consistent with an Act 167 Plan approved by DEP as required by the 2018 NOI (3800-PM-BCW0100b). The ordinance will be updated as necessary prior to September 30, 2022 for consistency with the DEP's 2022 Model Stormwater Management Ordinance with respect to authorized non-stormwater discharges.

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 (1) 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: **7/13/2004**

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:

PA DEP completed an inspection of a Township drainage improvement project located in the vicinity of 56 West Indian Lane on 1/24/2020. It was noted that the Township did not have proper Erosion & Sediment (E&S) control measures for the project. The Township corrected the issue immediately and completed the project. The Township has also developed

E&S Standard Operating Procedures dated 8/26/2020 to be used for municipal projects per PA DEP's recommendation. The SOP is included with this report.

The Township does rely on PA's statewide program for stormwater associated with construction activities to satisfy this MCM. However, West Norriton Township completes regular construction inspections of all active construction sites. E&S is a component of these inspections.

Number of Inspections Performed Throughout the Reporting Period:

Markley Farms Phase 1 (SFH residential development) – 52
Markley Farms Phase 2 (SFH residential development) – 104
Montgomery County Intermediate Unit (site renovations at the school) – 52
Blue Dove Basin (industrial office) – 104
Jubilee Church (parking lot expansion) – 104
Reserve at Stony Creek (townhouse development) – 26
1807 Sterigere Street (single family home) – 26
510 Joseph Street (SFH) – 26
Pathway School (drainage improvements) – 52
Total – 546

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: **7/13/2004**
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: **7/13/2004**
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 (1) acre, including projects less than one (1) 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.

Thirty (30) PCSM BMPs were inspected on June 16, 2020. Of these BMPs, five (5) BMPs were noted to have items that need to be addressed. Notices of violation were sent to BMP owners on 7/20/20 for BMPs located on their property that were not properly operated and maintained and given 30 days to address. Coordination is ongoing.

Refer to Appendix D for documentation.

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	Refer to Appendix D.			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:

BMP #3) The Township's PCSM BMP Inspection Program was updated (dated March 2020) to refine the inspection and compliance process and is attached. A compliance and enforcement flow chart were developed as part of this update and included in the written program. Extensive research was conducted at the County Courthouse and the Township Building to locate all of the PCSM BMPs' Operations and Maintenance (O&M) agreements. 3 PCSM BMPs were removed as part of this research. 1 PCSM BMP was added to the inventory due to the issuance of a Notice of Termination (NOT) for the NPDES Permit. All PCSM BMPs will be inspected for proper O&M in the next reporting period according to the Township's PCSM BMP Inspection Program.

The Township's enforcement of the PCSM BMP O&M Program have resulted in a significant improvement in the proper operations and maintenance of BMPs. There were 14 violations in 2019 and only 5 violations in 2020.

Refer to Appendix C for the Township's PCSM BMP Inventory.

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? **April 2020**
3. When was it last updated? **April 2020**

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: **Updated May 2020**

Refer to Appendix E for documentation.

BMP #3: Develop and implement an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from operations to the regulated small MS4. All relevant employees and contractors shall receive training.

1. Have you developed an employee training program? Yes No

2. Date of last review or update to training program: Updated March 2020 Date of latest training: 12/18/2019

3. Training topics covered:

2019 MS4 Training covered the following topics:

- Stormwater basics, maintenance, and regulation
- NPDES MS4 program overview (i.e., background and minimum control measures)
- Detailed information regarding MCM 3 (IDD&E) and MCM 6 (Pollution Prevention and Good Housekeeping)

Refer to Appendix E.

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

Amanda Reitbauer, CEG Geographic information Systems (GIS) Specialist
Nicole Martin, CEG Environmental Scientist

5. Names of training attendees:

Mike Valyo, Public Works Director
John Bergstrasse, Public Works
John Manderak, Public Works
Mark Pinchok, Public Works
Kenny Krauer, Public Works
Johnathan Kennedy, Public Works
Gordon McMeekin, Public Works

MCM #6 Comments:

The Township's O&M Program was updated (dated May 2020) to include more specific details regarding the Township's municipal operations. The Township has readily available forms for storm sewer O&M, hazardous spill clean-up, and municipal facilities inspections located on their ArcGIS online account accessible through Survey123 for field use. The Township's Employee Training Program was updated (dated March 2020) to include specific goals and training topics ideas.

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)	6/10/2019	<input checked="" type="checkbox"/>	-
Source Inventory	8/14/2020	<input checked="" type="checkbox"/>	-
Investigation of Suspected Sources	n/a	<input type="checkbox"/>	n/a
Ordinance/SOP for Controlling Animal Wastes	n/a	<input type="checkbox"/>	n/a

PCM Comments:

The Township is required to implement Pollutant Control Measures for Priority Organic Compounds (Appendix C) for discharges to the Schuylkill River which is impaired by polychlorinated biphenyls (PCBs). Each task will be completed by the anticipated completion date indicated in the table above per the 2018 NPDES MS4 permit (3800-PM-BCW0100d). Because no suspected sources of PCBs were identified in the Source Inventory, an investigation of suspected sources is not applicable.

In addition, the Ordinance/SOP for Controlling Animal Wastes is only applicable for Appendix B. West Norriton does not have this requirement.

Refer to Appendix F for documentation.

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 checked="" type="checkbox"/> Impaired Waters PRP (Appendix E)	May 24, 2019	October 7, 2019	Unnamed tributaries (UNTs) to Schuylkill River, Indian Creek and UNTs, UNTs to Stony Creek
<input type="checkbox"/> TMDL Plan (Appendix F)			
<input type="checkbox"/> Combined Chesapeake Bay / Impaired Waters PRP			Chesapeake Bay,
<input type="checkbox"/> Combined PRP / TMDL Plan			

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

Joint Plan Participants:

2. Identify the pollutants of concern and pollutant load reduction requirements under the permit (see instructions).

Type of Plan	TSS Load Reduction (lbs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)
<input type="checkbox"/> Chesapeake Bay PRP (Appendix D)			
<input checked="" type="checkbox"/> Impaired Waters PRP (Appendix E)	144,574.14	189.68	1,594.20
<input type="checkbox"/> TMDL Plan (Appendix F)			
<input type="checkbox"/> Combined Chesapeake Bay / Impaired Waters PRP			
<input type="checkbox"/> Combined PRP / TMDL Plan			

3. Date Final Report Demonstrating Achievement of Pollutant Load Reductions Due: **March 15, 2023**

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

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

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

If Yes to #4, describe the plan modifications.

5. Summary of progress achieved during reporting period.

DEP approved the Township's Pollutant Reduction Plan (PRP) on October 7, 2019. Status updates for each proposed BMP are provided below:

- **Jeffersonville Golf Club Stream Restoration Phase I: Construction began May 2020. Holes #2, #15, #17 and #18 are completed.**
- **Jeffersonville Golf Club Stream Restoration Phase II: A feasibility study was completed in May 2019. A Growing Greener Grant application was submitted for design, permitting, and construction in December 2019. The grant application is pending.**

- **Blue Dove Basin Retrofit:** A plan was submitted to the Township for review for the repair of the swale entering the basin. This plan was deemed adequate in a letter dated May 4, 2020. Construction is anticipated Fall 2020.
- **Burnside Village Basin Retrofit:** Complete. O&M ongoing. Inspection completed June 2020. Results are documented in the PCSM BMP Inspection Report.
- **Alexander Drive Basin Retrofit:** Construction began June 2020 and is anticipated to be complete in August 2020.

6. Anticipated activities for next reporting period.

The status of the BMPs for the next reporting period are as follows:

- **Jeffersonville Golf Club Stream Restoration Phase I:** Construction will be complete. O&M activities will be ongoing.
- **Jeffersonville Golf Club Stream Restoration Phase II:** If Growing Greener Grant is awarded, the project will be in the design/permitting phase. If not, additional funding will be pursued.
- **Blue Dove Basin Retrofit:** Construction of the pipe repair will be complete. The final basin retrofit will also be complete.
- **Burnside Village Basin Retrofit:** Ongoing O&M activities.
- **Alexander Drive Basin Retrofit:** Construction will be complete. O&M activities will be ongoing.

PRP/TMDL Plan Comments:

NEW BMPs FOR PRP/TMDL PLAN IMPLEMENTATION

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

BMP No.	BMP Name	DA (ac)	% Imp.	BMP Extent	Units	Latitude	Longitude	Date Installed or Implemented	Planning Area?	Ch. 102?	Annual Sediment Load Reduction (lbs/yr)
						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?
24	Burnside Village Detention Basin	87.56	100	0.65	Acres	40°8'29.0"	-75°22'4.4"	September 2017	34,289.67	June 16, 2020	<input checked="" 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).

Jason Bobst

Name of Responsible Official



Signature

610-631-0450

Telephone No.

9-29-2020

Date



Annual MS4 Status Report

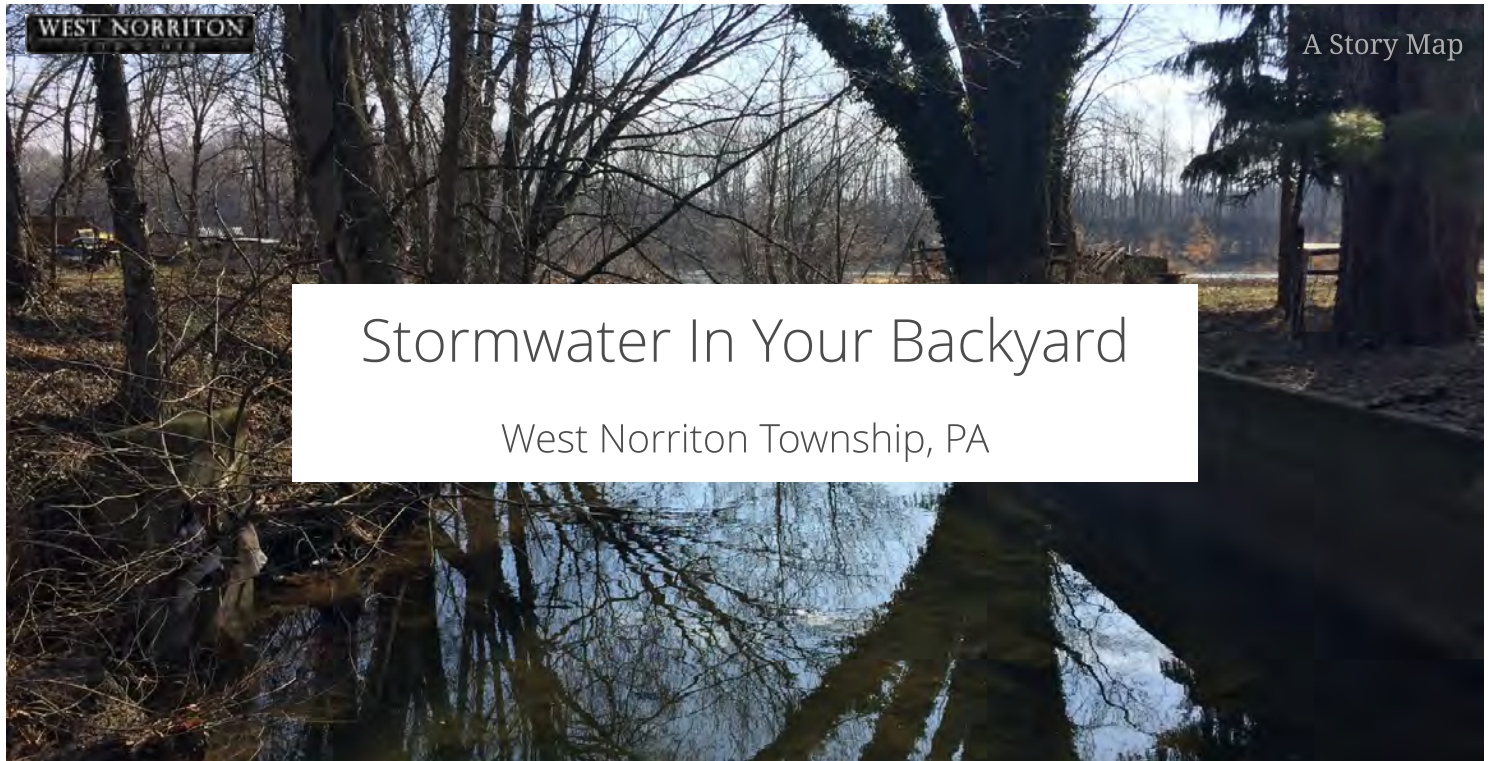
APPENDIX A

MCM #1 Public Education and Outreach

- 1. Educational Outreach Documentation**
- 2. PEOP Program (Updated March 2020)**

This story was made with [Esri's Story Map Cascade](#).

Read it on the web at <https://arcg.is/1bKq8i>.



Have you ever wondered where all that water that gushes into a storm drain ends up? The journey does not end there...

This story map provides a summary of the stormwater journey, including what stormwater contains, how it is managed, and its impacts on West Norriton Township streams and the community.

What is Stormwater?



Stormwater runoff is generated when precipitation from rain and snowmelt events flows over land or impervious surfaces and does not percolate into the ground. As the runoff flows over the land or impervious surfaces such as paved streets, parking lots, and building rooftops it accumulates debris, chemicals, sediment or other pollutants that can adversely affect water quality. The primary method to control stormwater discharges is the use of best management practices (BMPs).

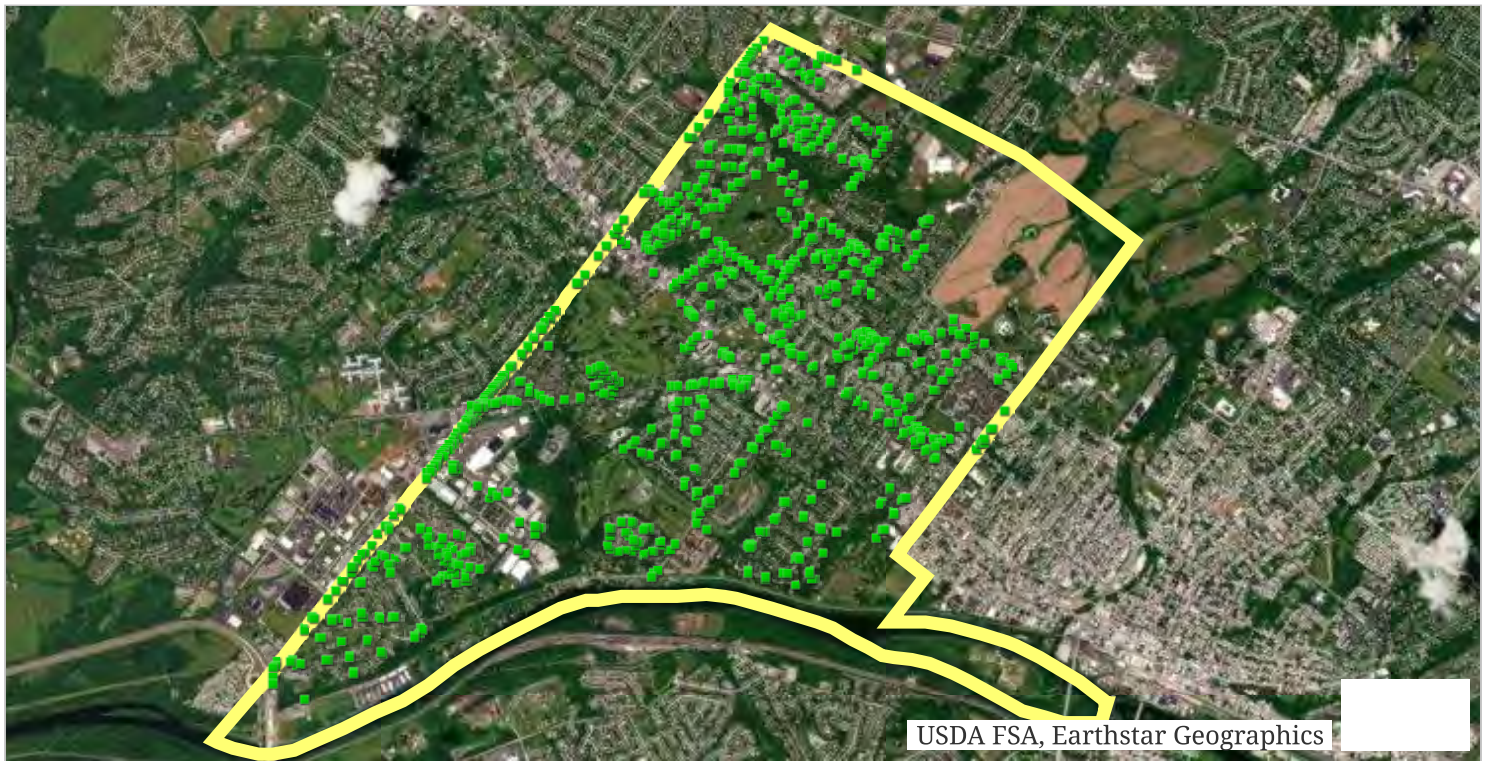


Source: StormwaterPA

Video: www.youtube.com/watch?v=b5NOSufD3do

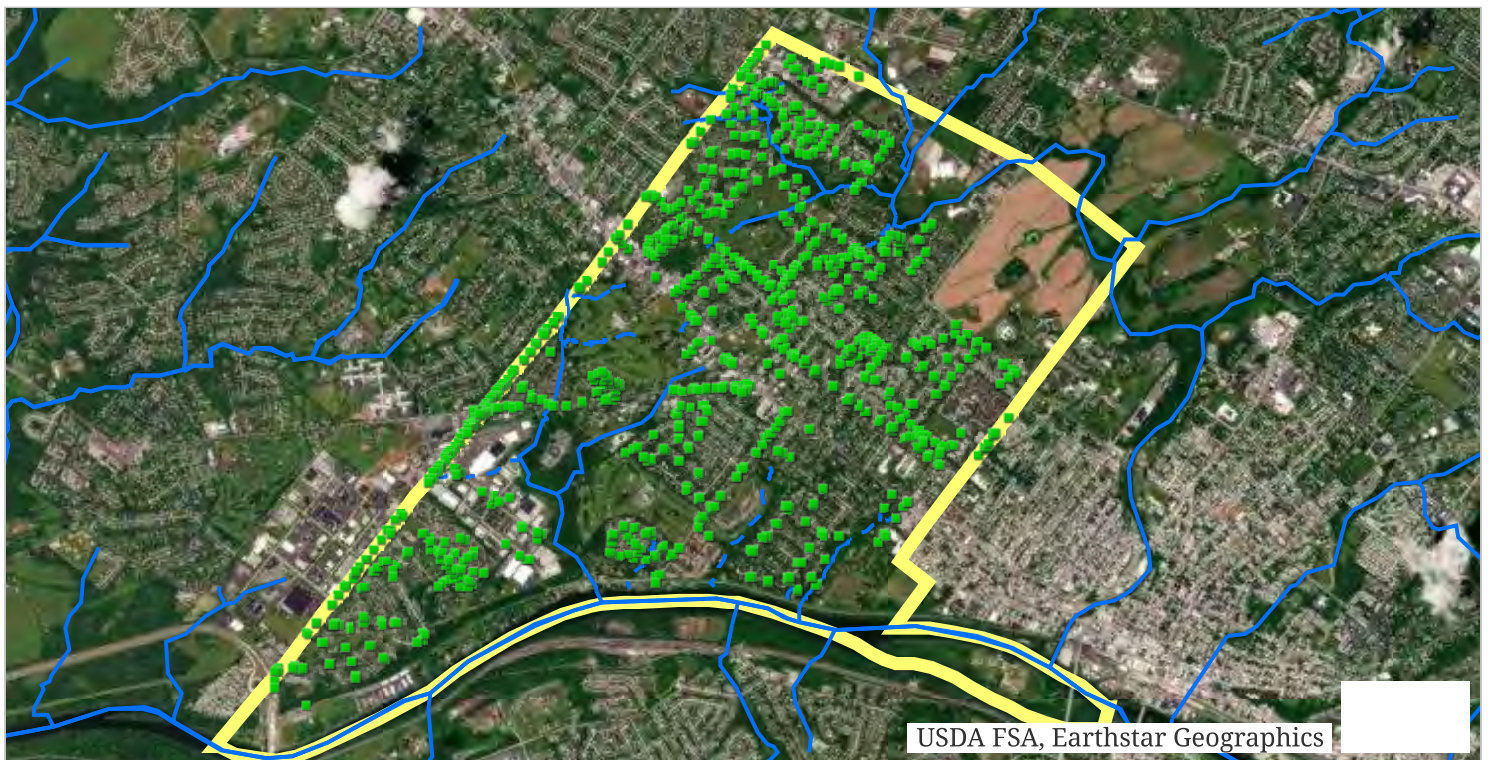
Let's learn more about stormwater in West Norriton Township!

West Norriton Township has...



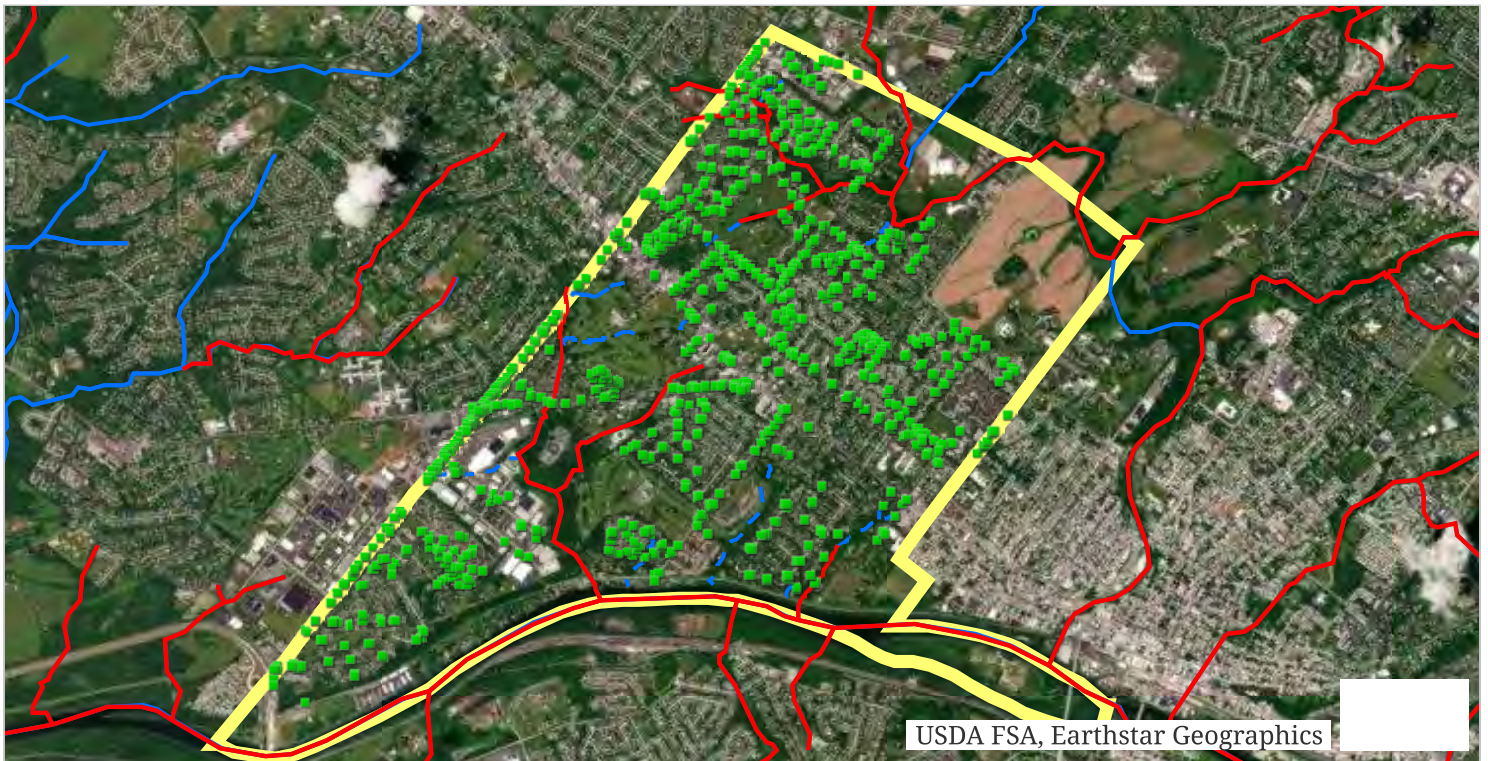
1,282 Storm Drains

14 Miles of Stormwater Pipes & Swales



14 Miles of Streams

This includes: the Schuylkill River, Stony Creek, Indian Creek, and all of the tributaries that flow to those surface waters.



13 Miles of Impaired Streams

These streams are impaired due to sediment loads in excess of water quality standards. All of these streams will eventually discharge to the also impaired Schuylkill River.



44 Stormwater Outfalls

An outfall is the point where stormwater discharges to a surface water coming from the Township's impervious cover that runs off and drains through the municipal storm sewer system including inlets, culverts, pipes, and swales.

Now that we have learned about West Norriton Township's storm sewer system and introduced the streams and their water quality within the Township's Boundary, it is time to learn how stormwater is regulated within the Township.

How is Stormwater Regulated?



In Pennsylvania, DEP administers the EPA mandated National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) program. Municipalities, including West Norriton, are required to implement a number of programs and practices to comply with these requirements.

The ultimate goals for the MS4 program are to:

- Increase awareness of stormwater as a point-source
- Manage stormwater for quality and quantity control

What is MS4?



A Municipal Separate Storm Sewer System (MS4) is any municipal-owned stormwater conveyance or system of conveyances. i.e. Township roads, ditches/swales, and stormwater pipes. West Norriton has to comply with the NPDES MS4 permit through 6 Minimum Control Measures (MCMs):



MCM #1) Public Education & Outreach

MCM #2) Public Involvement/Participation

MCM #3) Illicit Discharge Detection & Elimination

MCM #4) Construction Site Stormwater Runoff Control

MCM #5) Post Construction Stormwater Runoff Control

MCM #6) Pollution Prevention/Good Housekeeping

Stormwater affects humans, plants, animals, and other aspects of our environment. Uncontrolled stormwater runoff causes flooding in neighborhoods and communities, can negatively affect the quality of drinking water, results in loss of wildlife habitats, and causes increased erosion. In some cases, stormwater runoff can alter an entire watershed.

What is an Illicit Discharge?



An illicit discharge is generally any discharge to a municipal separate storm sewer (MS4) that is not composed entirely of stormwater. Examples of illicit discharges include:



Dumping of motor

Leaf litter, trash,
grass clippings

Pet Waste

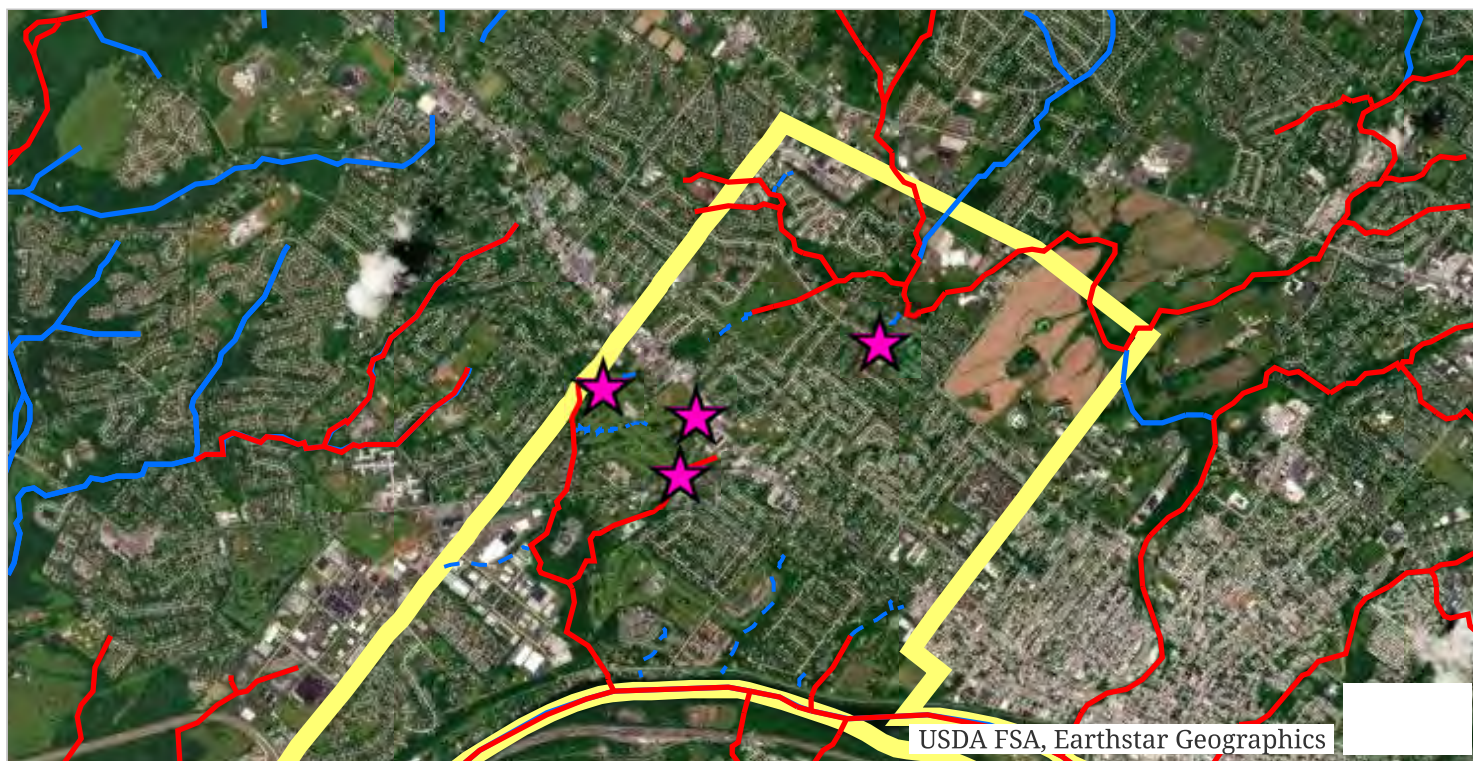
household hazardous
wastes

Common indicators of illicit discharges include abnormal odors, strange colors, or oil sheen present around or inside storm inlets or pipes. Keeping harmful substances out of our water benefits everyone; environmentally and economically.

If you suspect an illicit discharge, please contact the Township at (610) 631-0450.

To prevent illicit discharges from entering our streams, Best Management Practices (BMPs) should be implemented. The U.S. Environmental Protection Agency (EPA) defines BMPs as: "...schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States..." Let's learn about West Norriton Township's Best Management Practices!

West Norriton is Doing Their Part!



West Norriton Township is doing their part by implementing **Best Management Practices (BMPs)** to reduce the stormwater impacts on the impaired streams. Combined, these BMPs will reduce ~65,800 lbs/yr of sediment that would have drained into the Schuylkill River!

Click on each **BMP (Star)** to see what they are how much reduction in sediment is anticipated.

Public education and participation are essential and important elements of a successful MS4 program to ensure comprehensive management of stormwater. In developed communities, each resident has a role to play in reducing stormwater impacts around the home, and each citizen has a voice in how their community should grow and develop in the future. Below are some examples of BMPs that can help you reduce stormwater pollution!

Here is what YOU can do!



Use best practices on your lawn!



The Homeowner's Guide to Stormwater: Healthy Lawn Care (6 of 6)

Video: www.youtube.com/watch?v=6dTVw70ipmY

Set up a rain barrel on your property!



Rain Barrels: Small Investment, Big Benefits

Video: www.youtube.com/watch?v=rSBKqFrzoZA

As we've established, stormwater management is essential to the community and to the environment. However, to properly construct, operate and maintain a municipal separate storm sewer system (MS4) a significant expense is required.

Funding Challenges



West Norriton Township is facing many stormwater issues including: increased NPDES MS4 permit requirements, drainage, erosion, flooding, capital infrastructure.

Here are some ways that Townships fund stormwater projects and maintenance:

1) General Fund

2) Grants

3) **Stormwater Fee (Stormwater Utility)**

- Fee provides a dedicated stream of funding to manage stormwater issues

- Users can be charged according to their contribution
- Can offer credits, rebates, offsets
- Allows a proactive approach to capital improvements

Please monitor stormwater inlets near your property. No one should dump anything into the storm sewer system. If you see someone dumping, please call the Township at (610) 631-0450. For more information, click on the links below:

[West Norriton Township](#)

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

[Pennsylvania Department of Environmental Protection](#)



This Story Map was created for [West Norriton Township](#) by [CEDARVILLE Engineering Group, LLC](#). For questions, please contact CEDARVILLE at (610) 705-4500 or info@cedarvilleeng.com.

[Pollutant Reduction Plan](#)[How This Applies](#)[Stormwater In Your Backyard](#)[Home](#) > [Departments](#) > [Storm Water Management/ MS4](#)

STORM WATER MANAGEMENT AND MS4

Storm Water Management in West Norriton

The Clean Water Act is the federal legislation that governs storm water management. Storm water point discharges to waters of the U.S. are regulated using National Pollutant Discharge Elimination System (NPDES) permits.

In 1999, federal regulations extended coverage of the NPDES program to local separate storm sewer systems (MS4s) serving populations less than 100,000. West Norriton Township is required to comply with the NPDES program as a MS4. Under the NPDES storm water program, permittees must develop a storm water management plan that provides the details of how the community (West Norriton Township) will comply with the requirements of the permit.



Permit Framework

Permits are based on a framework of six minimum control measures:

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

More information on this program is available from the [Pennsylvania DEP website](#).

West Norriton Township Municipal Separate Storm Sewer Systems

The goals of all municipal separate storm sewer systems (MS4s) programs and West Norriton Township are to:

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

West Norriton Township would like you to remember that the water and any items that go into a storm sewer go directly into streams. This water is not cleaned in any way and does not go to the waste water treatment plant. West Norriton Township needs all of its residents to assist us in keeping our storm water and storm water sewer system clean by doing the following:

- Clean up after your pets
- Dispose of water properly
- Store materials that could pollute storm water indoors
- Use fertilizers properly efficiently to prevent excess runoff

Also, please monitor storm water inlets near your property. No one should dump anything into the storm sewer system. If you see someone dumping, please call the township at 610-631-0450.

Annual Municipal Separate Storm Sewer System (MS4) Status Reports

- [July 1, 2016 to June 30, 2018 \(PDF\)](#)

Pollutant Reduction Plan

How This Applies

Stormwater In Your Backyard

Home » Departments » Storm Water Management/ MS4 » Pollutant Reduction Plan

POLLUTANT REDUCTION PLAN

Pollutant Reduction Plan

Stony Creek, Indian Creek and Unnamed Tributaries to Schuylkill River

Purpose and Scope

West Norriton Township is required to develop and implement a Pollutant Reduction Plan (PRP) for Municipal Separate Storm Sewer System (MS4) discharges to Stony Creek, Indian Creek, and unnamed tributaries (UNTs) to the Schuylkill River as part of the 2018 National Pollutant Discharge Elimination System (NPDES) MS4 Individual Permit application to the Pennsylvania Department of Environmental Protection (PA DEP). This plan has been prepared based on the best and most current guidance made available by PA DEP.

Permit Requirements

In order to develop a PRP, it is important to have an understanding of the Township's requirements. West Norriton Township is required by the PA DEP and Environmental Protection Agency (EPA) to reduce sediment pollution from stormwater discharges to surfaces impaired by sediment by ten (10) percent over the five (5) year permit term (March 16, 2018 to March 15, 2023) by implementing projects or Best Management Practices (BMPs).

West Norriton has MS4 discharges or "outfalls" to Stony Creek, Indian Creek, and UNTs to the Schuylkill River, which are listed by the 2014 Pennsylvania Integrated Water Quality Monitoring and Assessment Report (Integrated Report) as impaired for siltation (i.e. sediment).

To review the proposed plan and review the summary document, please visit the links below:

[MS4 Pollutant Reduction Plan Summary \(PDF\)](#)

[Proposed Pollutant Reduction Plan prepared by Cedarville Engineering \(PDF\)](#)

Public Presentations on Pollutant Reduction Plan

[July 9, 2019 Presentation by Cedarville Engineering \(PDF\)](#)

HOW THIS APPLIES

How This Applies in West Norriton Township

Historically, storm water has been piped directly from houses and roads to streams. This influx of water during and after storm events has led to erosion of stream banks and scour of stream bed bottoms, moving sediment (and any potential pollutants in the sediment) into downstream waterways and ponds. This method of storm water management has also led to a reduction in groundwater recharge while causing flooding to downstream neighbors.

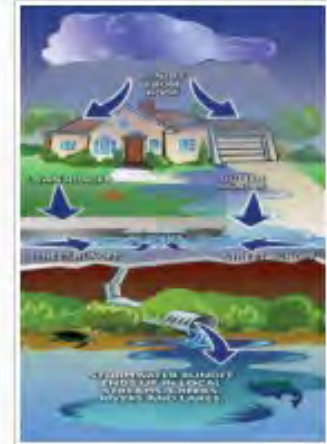


Today, regulations governing storm water management emphasize the infiltration of storm water on-site, if possible. These on-site infiltration beds contribute to groundwater recharge while minimizing downstream flood impacts. These regulations only impact new land developments, however.

How Can You Help With Storm Water Management

You can help manage storm water by volunteering:

1. Participate in a stream or creek cleanup within the township
2. Plant trees along a stream or creek
3. Stencil storm drains with warnings about dumping
4. Organize a neighborhood pollution watch



What Residents can help watch for:

- Dry weather flows from outfall pipes into streams (72 hours after a rain storm)
- Illegal dumping activity into streams or storm sewers (please call 911 first)
- Sediment leaving a construction site in storm water spills (chemicals, gas, oil)

Residents may be the first to recognize illicit discharges dumping into storm sewers or coming out of from storm sewer outfalls. If you see an illicit discharge, please report that to the township by one of the following methods:

- Call 610-631-0450
- [Email for More Information](#)

Additional Information

- [U.S. Environmental Protection Agency](#)
- [Center for Watershed Protection](#)
- [Montgomery County Conservation District](#)
- [Stormwater Discharges from MS4s](#)
- [Stormwater Public Education](#)
- [EPA's Stormwater Tool Box of Education Materials](#)
- [Stormwater Information for Homeowners](#)
- [Stormwater Menu of BMPs](#)
- [PA Department of Environmental Protection](#)
- [PA Department of Environmental Protection Bureau of Watershed Management](#)
- [PA Department of Environmental Protection Website on Storm Water Management](#)
- [PA Department of Environmental Protection Southeast Regional Office](#)
- [Stony Creek Anglers](#)
- [Schuylkill River National and State Heritage Area](#)

Pollutant Reduction Plan

How This Applies

Stormwater In Your Backyard

Home » Departments » Storm Water Management/ MS4 » Stormwater In Your Backyard

STORMWATER IN YOUR BACKYARD



Stormwater In Your Backyard

West Norriton Township, PA

ENVIRONMENTAL ADVISORY COUNCIL EDUCATIONAL CENTER



SPRING STORMWATER TIPS



CLEAR

Uncover and clean storm drains, gutters, and down spouts to help avoid flooding.



MAINTAIN

Inspect vehicles and other equipment for spills, drips, and leaks.



PLANT

Plant trees, native plants, and ground cover to soak up spring rains and provide food and habitat for pollinators.



PROTECT

Move stored chemicals such as salt, fertilizers, and pesticides to high areas where potential stormwater cannot reach.



PICK UP



DISPOSE

Homeowners Guide to Stormwater BMP Maintenance

LAW SAFER

18 crashes involving a re reported throughout compared to 14th in 2009, and was ranked 10th in the or its 15 bicycle-related traffic in 2009.

A bicycle law requires:

- leave at least a 4-foot cushion of safety and drive at a reduced speed when passing a bicyclist. Drivers may cross the yellow line in order to pass a cyclist, but only if it is safe to do. If they cannot pass with a 4-foot buffer zone, drivers must wait until they are able to pass.

1. To avoid impeding the normal flow of traffic, bicyclists should not use the center of the lane. However, on a road with a single lane in each direction, bicyclists may use the center of the lane to pass a slower moving vehicle. Bicyclists should use the center of the lane to pass a slower moving vehicle only when it is safe to do so. Bicyclists should not use the center of the lane to pass a slower moving vehicle if that lane is used for other traffic.

2. To avoid impeding the normal flow of traffic, bicyclists should not use the center of the lane. However, on a road with a single lane in each direction, bicyclists may use the center of the lane to pass a slower moving vehicle. Bicyclists should use the center of the lane to pass a slower moving vehicle only when it is safe to do so. Bicyclists should not use the center of the lane to pass a slower moving vehicle if that lane is used for other traffic.

Violation is a summary offense

SPRING STORMWATER TIPS



CLEAR

Uncover and clean storm drains, gutters, and down spouts to help avoid flooding.



MAINTAIN

Inspect vehicles and other equipment for spills, drips, and leaks.



PLANT

Plant trees, native plants, and ground cover to soak up spring rains and provide food and habitat for pollinators.



PROTECT

Move stored chemicals such as salt, fertilizers, and pesticides to high areas where potential stormwater cannot reach.



PICK UP

Pick up pet waste and dispose in a trash receptacle. Pet waste is a source of stormwater pollution.



DISPOSE

Properly dispose of any unwanted household paints and chemicals from spring cleaning at a local hazardous waste collection site.

Homeowners Guide to Stormwater BMP Maintenance

What You Need to Know to Take Care of Your Property



About Stormwater Management
SW **Regulations** for Homeowners
Home Stormwater **BMP Descriptions**

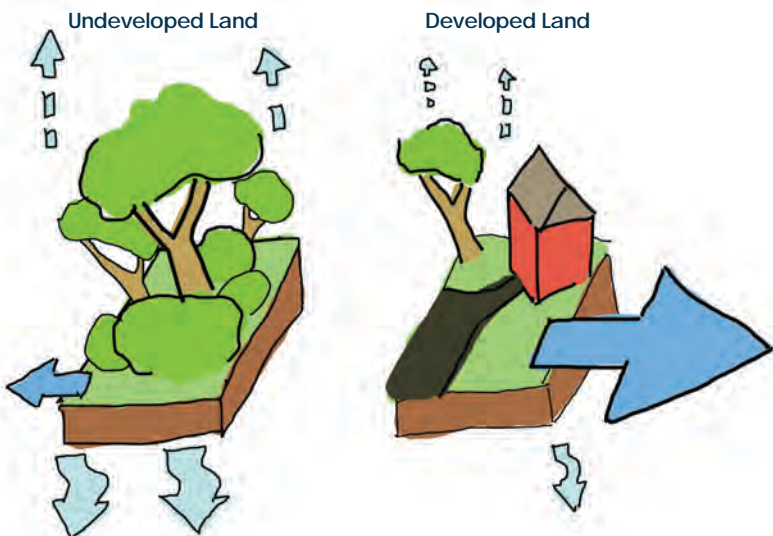
Pages **1 - 4**
Pages **5 - 6**
Pages **8 - 22**

What is Stormwater?

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

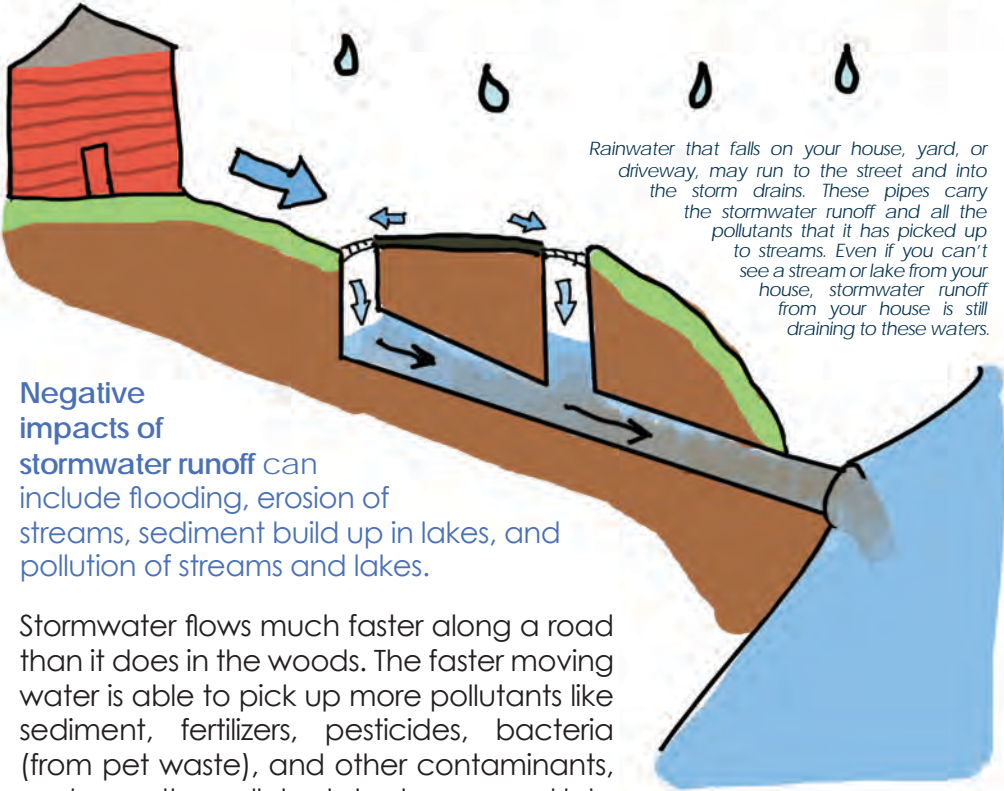
Stormwater runoff happens in natural, undeveloped areas, but typically only for larger storms. For most areas in Pennsylvania that are wooded or natural meadows, it takes about an inch or more of rain to produce runoff.

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



When it rains on an undeveloped piece of property, much of the rainwater infiltrates into the soil or is evaporated back into the atmosphere. When vegetation is replaced with streets, driveways, sidewalks, houses, and lawns, less rainwater is able to infiltrate or return to the atmosphere, and more of the rain turns into runoff.

Why should you care about Stormwater Management?



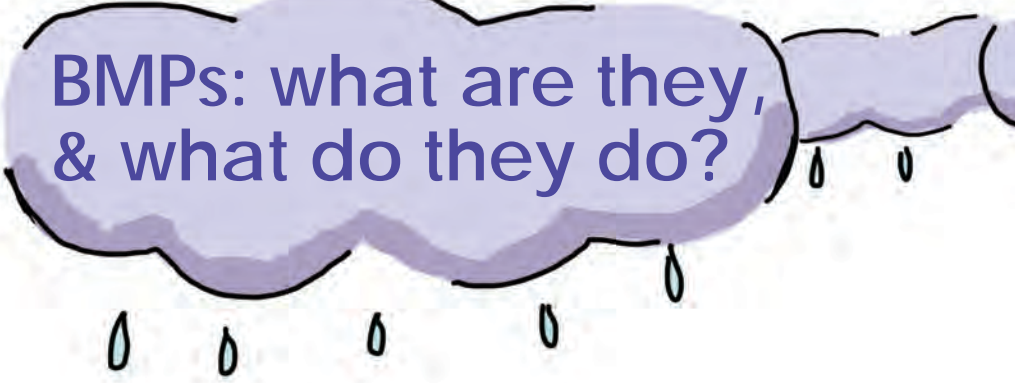
Rainwater that falls on your house, yard, or driveway, may run to the street and into the storm drains. These pipes carry the stormwater runoff and all the pollutants that it has picked up to streams. Even if you can't see a stream or lake from your house, stormwater runoff from your house is still draining to these waters.

Negative impacts of stormwater runoff can include flooding, erosion of streams, sediment build up in lakes, and pollution of streams and lakes.

Stormwater flows much faster along a road than it does in the woods. The faster moving water is able to pick up more pollutants like sediment, fertilizers, pesticides, bacteria (from pet waste), and other contaminants, and carry the pollutants to streams and lakes.

An increase in the amount of water that runs off after development and how quickly it runs off can cause erosion and instability in streams. Stormwater runoff can cause streams to become wider, deeper, and straighter, losing their natural bends (or meanders) and decreasing habitat for fish and other animals that live in streams. Stormwater from developed areas can also be hotter than natural stream sources. Warmer water holds less dissolved oxygen so stormwater can be harmful to fish like trout that need more oxygen.

It's easy to notice the flooding impacts of large rain storms, but over time, smaller storms can have an impact on streams, too. Across the state, about 95% of the rainfall volume occurs in small events (less than 2.4 to 3.2 inches depending on your location.)



BMPs: what are they, & what do they do?

BMP stands for Best Management Practice, and includes designed “things” like detention basins, as well as non-engineered approaches like protecting open space to manage stormwater. SCMs are Stormwater Control Measures, which are engineered facilities that are designed and constructed to manage stormwater. For the most part, the terms BMP and SCM can be used interchangeably.

The goal of BMPs or SCMs is to reduce the impact of development on downstream streams and lakes by:

- △ **minimizing the amount of runoff,**
- △ **slowing down the runoff,**
- △ **infiltrating runoff,**
- △ **evapotranspiring runoff, or**
- △ **filtering runoff.**

Many BMPs or SCMs will use vegetation for their ability to use water, put water back into the atmosphere, or help it infiltrate into the ground, rather than allow it to become runoff.

If you've ever walked through a meadow or shaken a tree branch after a rain, you got wet with intercepted water. When it rains, some of the water is trapped on plants. This “intercepted” water never even makes it to the ground where it could be infiltrated. Plants also use water as part of the photosynthesis process where they use the sun's energy to create their own food. This water used by plants is called evapotranspiration. Larger plants with broader leaves and deeper roots like trees, shrubs, or decorative grasses will intercept and evapotranspire more water than a grass lawn.



All of the homes in your community drain to a stream or lake. All homeowners need to do their part to maintain stormwater BMPs in their own yard to protect streams and lakes for everyone.

Your whole community has been designed with stormwater management in mind.

There are many different BMPs spread throughout the development. Stormwater flows downstream, and the homeowners must do their part on their own property to protect the streams for everyone. You and all of your neighbors each play an important role in the health of downstream waters.

Some BMPs/SCMs are landscaped and others are buried so you might not see anything at the surface.

Even though it might just look like some plants or gravel, the BMP is still performing a very important function. Disturbing the vegetation or compacting the soil can ruin that BMP and have a negative impact downstream.

Native vegetation is the best choice for BMPs

because they're naturally adapted to the soils and climate. They require less fertilizer, pesticides, watering, and overall less maintenance.

Stormwater Regulations



When a property is developed, the developer must incorporate stormwater management facilities. He/she must design **Erosion and Sediment Control (E&S) BMPs** that are used during construction to prevent soil from running off the site and polluting downstream waters. When the construction period is over, **Post-Construction Stormwater Management (PCSM) BMPs** will have been constructed, and the developer must provide a way for these BMPs to be properly maintained over time.

When the developer finished the project, they will have turned over the maintenance responsibilities for the BMPs to someone else, which could be the property owner, a nonprofit organization, the local municipality, an authority, a private corporation, or another person. The developer will also have produced a plan that must include drawings, which show the location and dimensions of each PCSM BMP. Accompanying this PCSM Plan will be a long-term operation and maintenance schedule, which provides for inspection of PCSM BMPs, including the repair, replacement, or other routine maintenance of the PCSM BMPs to ensure proper function and operation. This maintenance program must describe how access to the PCSM BMPs will be achieved.

The developer will be following the rules of **PA Code, Title 25, Chapter 102**, which defines rules for both Erosion and Sediment Control, and Post Construction Stormwater Management. These regulations can be found by going to PA Code online at www.pacode.com and then browsing to Title 25, Chapter 102.

What's the Homeowner's Legal Responsibility?

If your home was constructed after 2010, and your property contains any Post Construction Stormwater Management (PCSM) BMPs, the developer will have recorded details about them with your property's deed. State regulation requires that the information recorded with the deed identifies the PCSM BMP, provides for access to the BMPs for maintenance and inspection purposes, and provides notice that the responsibility for long-term operation and maintenance of the PCSM BMP is a legal requirement that runs with the property. You can view your property records at the Recorder of Deeds office at your county courthouse to determine if you are responsible for the maintenance of any BMPs.

If you are the person designated as the responsible-party for operation and maintenance, you must ensure that the BMPs continue to function properly and follow the maintenance schedule provided by the developer and recorded with your deed. The responsibility to maintain the BMPs includes the cost of plants or material for upkeep or replacement. You should have been provided a maintenance plan by the developer if you're the first owner of the home. If your home was constructed after 2010, you may need to check the property records for information if you're not the first owner and didn't receive the maintenance plan at the time of purchase.

If you're not doing the necessary maintenance and required documentation, you may be billed by your municipality for the cost of having someone else do the work, or you could face a summary offense and daily fine until the maintenance work is complete.

If responsibility has been transferred to someone else, you need to provide access for maintenance and inspection. You also must leave any BMPs in place. For example, you can't remove the vegetation of a rain garden, level it, and plant lawn grass.

Downspout Disconnection

What is it?

Traditionally, roof gutter downspouts were connected directly to underground storm drain pipes. Disconnecting the downspout allows the roof runoff to be managed right on your property, not allowing it to pick up any pollutants to carry downstream. Roof runoff can be directed to grassy lawn areas, to rain barrels and cisterns for reuse, or to an underground sump for infiltration.

Rain barrels and sumps are discussed separately. This section describes maintenance of roof runoff to a lawn area.

How does it work?

When the gutter downspout is turned and allowed to drain into the yard, the stormwater can be filtered by the grass and infiltrated into the soil. Downspout disconnection reduces stormwater volume by allowing it to be used by plants (evapotranspiration) or infiltrated into the soil.



How does a Homeowner maintain it?

Regularly:

- Maintenance for a downspout draining to a lawn area is generally part of the typical yard maintenance.
- Mow the lawn in this area at the same time interval that the rest of the yard is mowed.
- Check for bare spots and reseed if needed.

Additional Information:

- 💧 A splash guard or small pile of rocks may be needed at the location where the water leaves the drain to slow the water down and prevent erosion.
- 💧 The downspout could be directed to a rain garden rather than the lawn, in which case the Rain Garden maintenance (page 9) should be followed.



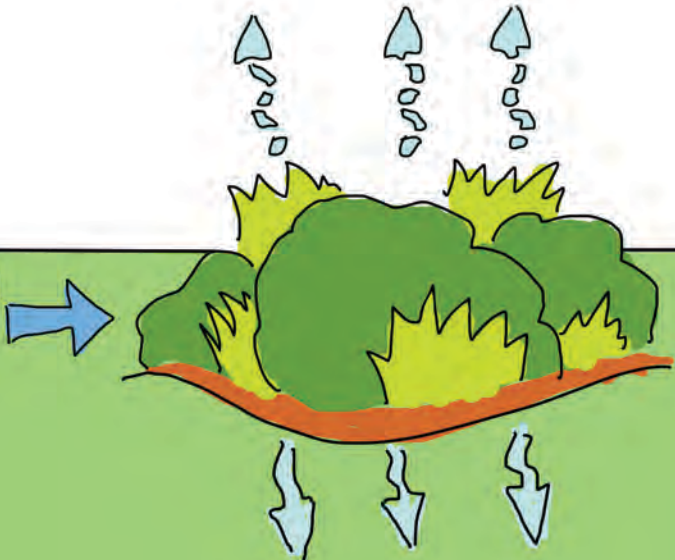
Rain Gardens & Small Bioretention

What is it?

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

How does it work?

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



How does a Homeowner maintain it?

Twice a year:

- Vegetation needs to be checked to make sure that it's healthy. Any bare spots need to be replanted.
- Check the inflow area to make sure that there isn't any sediment building up. Remove any accumulated sediment.
- Mulch should be re-spread when erosion is evident and be replenished as needed.

Annually:

- Perennial plants should be cut back if needed by species type and any dead vegetation should be removed at the end of the growing season.

Every Three Years:

- Apply mulch in the spring as needed to cover soil. Mulch should be 1-3 inches deep. Do not use mulch to "fill-in" the depression of the rain garden. That depression area is needed for stormwater management.

Additional Information:

- 💧 While vegetation is being established in the first few years, weeding may be required.
- 💧 If any plants die, they need to be replaced. Refer to the Post-Construction Stormwater Management Plan for what types of plants to use.
- 💧 During periods of extended drought, bioretention areas may require watering.
- 💧 Rain gardens should be checked after large rain storms to make sure that they are draining within 72 hours. If water remains in the rain garden longer than 72 hours, you could have mosquito problems, and should contact your county conservation district for guidance on fixing or replacing your rain garden.

Rain Barrels & Cisterns

What is it?

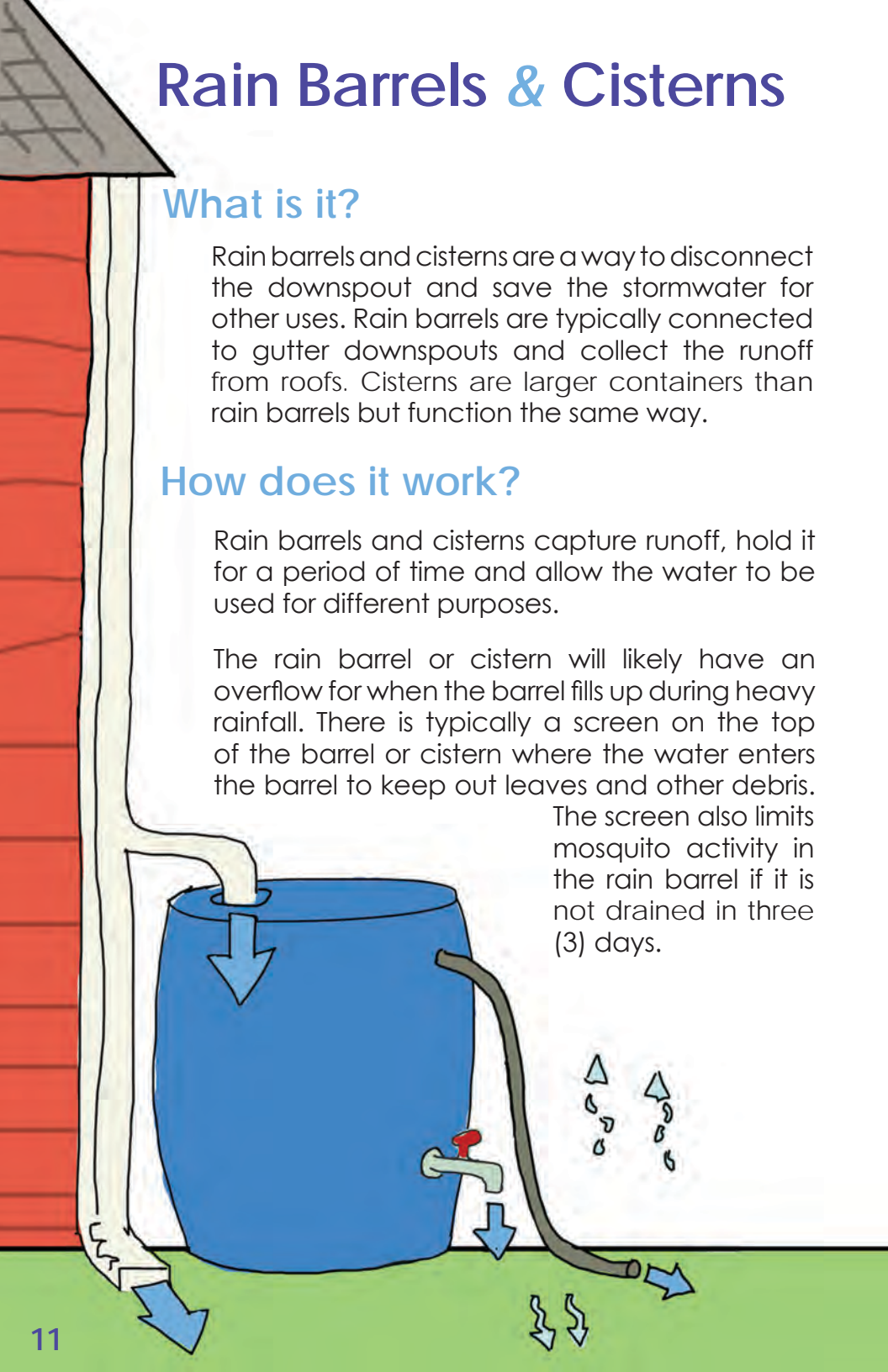
Rain barrels and cisterns are a way to disconnect the downspout and save the stormwater for other uses. Rain barrels are typically connected to gutter downspouts and collect the runoff from roofs. Cisterns are larger containers than rain barrels but function the same way.

How does it work?

Rain barrels and cisterns capture runoff, hold it for a period of time and allow the water to be used for different purposes.

The rain barrel or cistern will likely have an overflow for when the barrel fills up during heavy rainfall. There is typically a screen on the top of the barrel or cistern where the water enters the barrel to keep out leaves and other debris.

The screen also limits mosquito activity in the rain barrel if it is not drained in three (3) days.



How does a Homeowner maintain it?

After Rain Events:

- Clean the screen by removing any leaves that could block the flow of water into the barrel/cistern.
- Use the water in the barrel/cistern so that it's empty and ready to collect runoff from the next rain.

Annually:

- Clean gutters to remove leaf debris that could clog the barrel/cistern.

❄ Special Winter Needs:

- In the fall, empty the rain barrel/cistern before the water could freeze.
- Rinse out the barrel/cistern to remove any accumulated sediment.
- Do not reconnect the barrel/cistern until spring. During the winter months, connect a piece of flexible gutter to the end of the downspout and direct the outlet to a grassy area of the yard.

Additional Information:

- 💧 **Rain barrels and cisterns are great (and economical!) water sources for watering plants.** The spigot can fill a watering can or be connected to a standard garden or irrigation hose.
- 💧 **Safety note!** The water in a rain barrel or cistern is not safe for consumption without prior treatment.



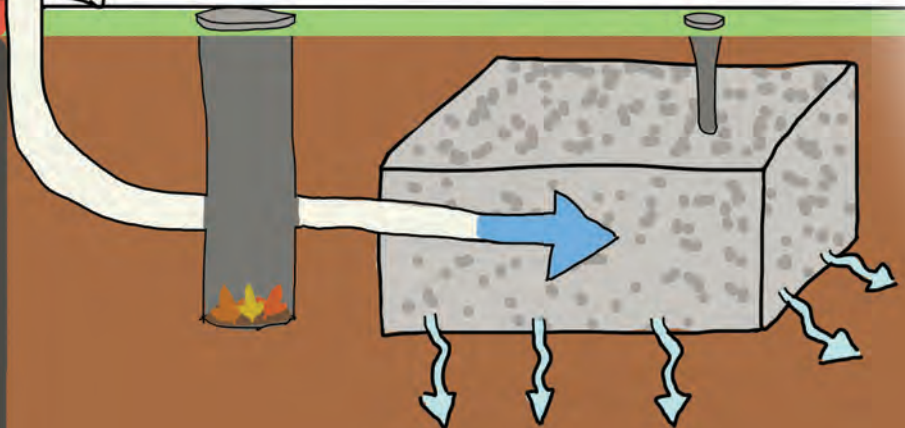
Dry Well

What is it?

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

How does it work?

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



How does a Homeowner maintain it?

After storms with larger than 1 inch of rain:

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

Quarterly:

- There should be an above ground cap that allows access to the dry well. Four times a year, view down the access pipe to make sure that the dry well is not accumulating sediment, trash, or other material. Over time the accumulation of sediment or trash may be vacuumed or may require excavation. Contact your county conservation district for guidance on cleaning out your dry well.

Annually:

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

Additional Information:

- △ After large rain events, check the access pipe to ensure that the dry well is draining within 72 hours. If the drain times are more than 72 hours, the dry well may need to be cleaned out or replaced. Contact your county conservation district for guidance on fixing or replacing your dry well.

Infiltration Trench

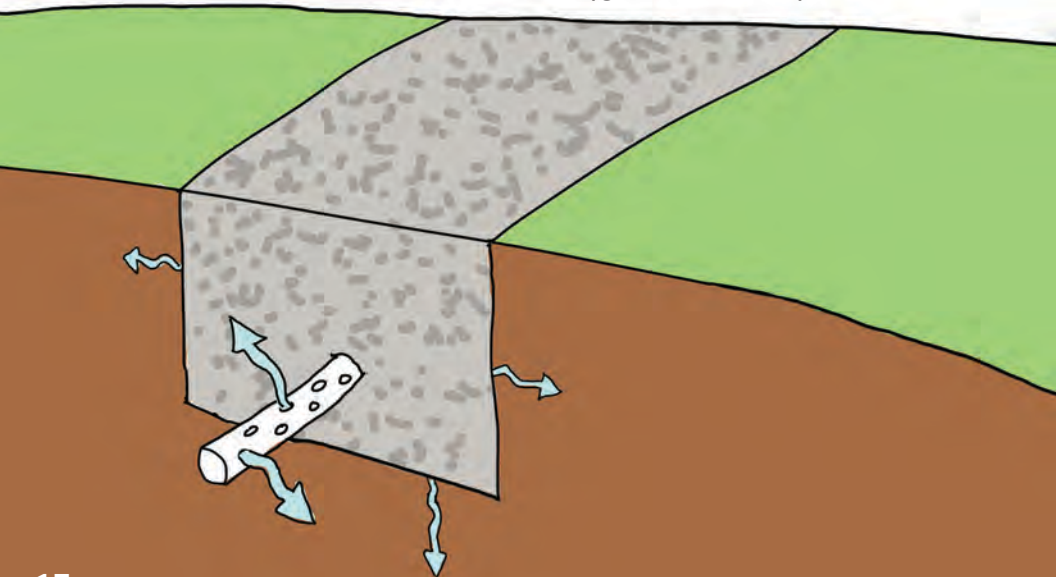
What is it?

Infiltration trenches are essentially leaky pipes in a stone-filled trench. Surface runoff or gutter downspouts can be directed to infiltration trenches.

How does it work?

An infiltration trench contains a perforated pipe in a stone trench. It can be thought of as the opposite of a French drain. In a French drain, water flows from the soil into a perforated pipe and away from the wet spot. For an infiltration trench, stormwater runoff is directed into a perforated pipe that is surrounded by gravel. The water then drains out of the perforated pipe into the trench.

During small rain events with a small amount of runoff, stormwater flows out of the pipe through the perforations into the gravel and then into the soil. During larger storms that produce more runoff, some stormwater will be stored in the stone trench, but water will also flow through the pipe to a larger BMP or SCM. Runoff that moves into the soil can help recharge aquifers (ground water) and wells.



How does a Homeowner maintain it?

Protection:

- You should be careful to not regularly drive over an infiltration trench so as to not cause compaction or crush the perforated pipe.

Annually:

- If the trench has an access pipe, it should be checked annually to make sure that the trench isn't clogged.

Additional Information:

- ⚠ Ponding of water on the surface over the trench indicates that there is a problem with the trench and you should contact your county conservation district for guidance on fixing or replacing the infiltration trench.

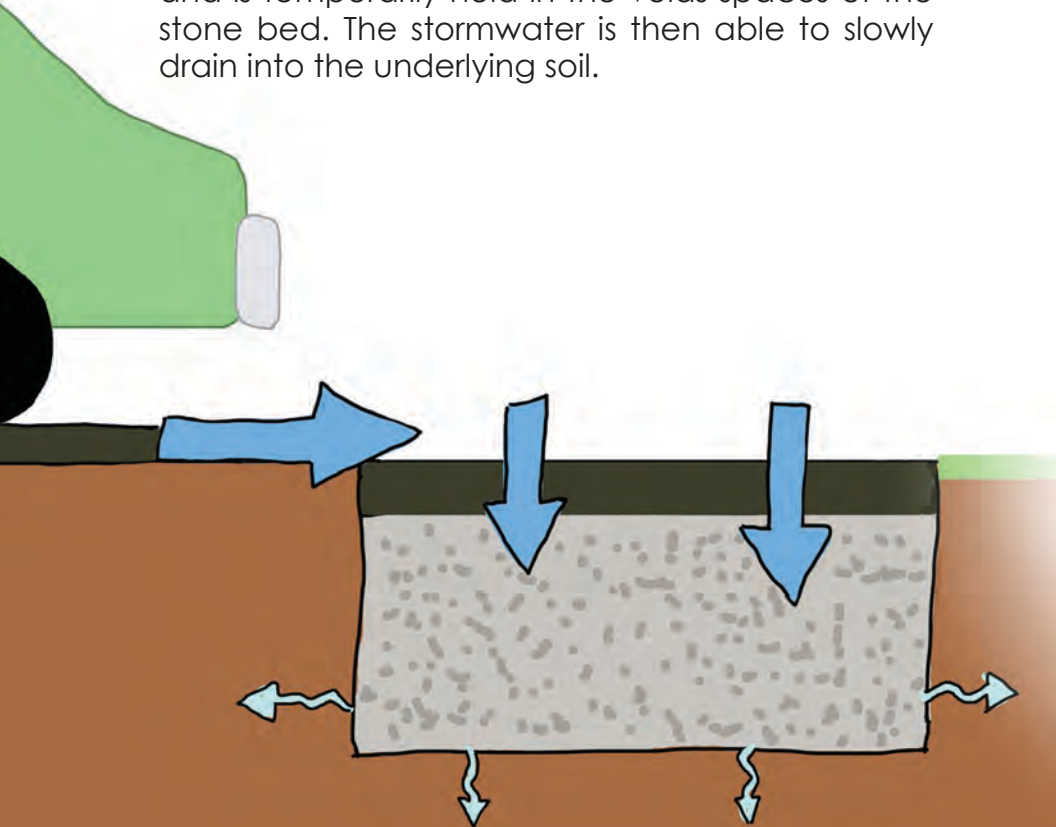
Pervious Pavements

What is it?

Pervious pavements are a modification to typical pavement that allow water to drain through the surface rather than run off it. Pervious pavements include porous asphalt or porous concrete which are poured over a gravel bed, or porous pavers on uncompacted soil.

How does it work?

Stormwater drains through the pervious surface and is temporarily held in the voids spaces of the stone bed. The stormwater is then able to slowly drain into the underlying soil.



How does a Homeowner maintain it?

Protection:

- The key to maintaining pervious pavements is to prevent the surface from getting clogged.
- Planted areas near the pervious pavement should be well maintained to prevent soil from washing into the pavement. If you see a bare spot or eroded area, it should be replanted to prevent soil wash off.
- If soil does wash onto the pavement, it should be immediately cleaned off before it gets ground into the surface.
- It is very important to never apply a sealing coat. A sealing coat over a pervious asphalt driveway or walkway will clog all the openings and prevent water from draining through it.

Biannually:

- The surface needs to be vacuumed twice a year with a commercial cleaning unit to remove fine particles from the surface.

❄ Special Winter Needs:

- Sand or cinders should not be used with pervious pavement because the small particles will clog the surface.
- Snow shoveling and plowing is fine, but be careful not to scrape the surface.
- Salt can be used on pervious pavements, but nontoxic, organic deicers or magnesium chloride-based products are better than sodium chloride.

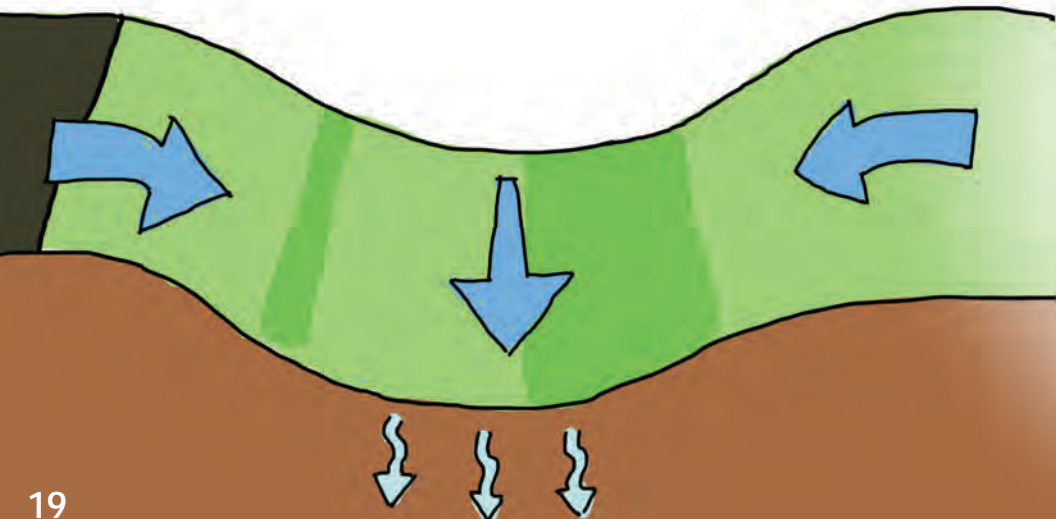
Vegetated Swale

What is it?

A vegetated swale is a wide, shallow channel, planted with grass or shrubs. A swale conveys runoff like a ditch, but a swale is much shallower and wider than a typical drainage ditch. If the swale is located on a steeper slope, rocks may be used to prevent erosion.

How does it work?

The wide, shallow design of swales allows runoff to flow more slowly than it would in a narrow, deep ditch or in a pipe. Vegetated swales slow runoff, promote infiltration, and filter pollutants and sediment in the process of conveying runoff. They can be used instead of conventional curb and gutter.



How does a Homeowner maintain it?

Regularly:

- If the vegetation in the swale is turf grass, mow the swale when mowing the rest of the yard. Mow only when swale is dry to avoid rutting.
- After rain events look for erosion, damage to vegetation, or sediment accumulation. Reseed bare areas and remove sediment.

Twice a Year:

- If the vegetation in the swale is larger perennial shrubs and bushes, check to make sure that it's healthy. Any bare spots need to be replanted.
- Look for any sediment build-up. Remove any accumulated sediment.

Annually:

- Perennial plants should be cut back if needed by species type, and any dead vegetation should be removed at the end of the growing season.

Additional Information:

- While vegetation is being established in the first few years, weeding may be required.
- Watering may be necessary during dry periods.

❄️ Special Winter Needs:

- After the spring melt, remove any accumulated antiskid material like sand. Replace any damaged vegetation.
- If driveway or sidewalk runoff is directed to the swale, use nontoxic, organic deicing agents or magnesium chloride-based liquid products (rather than sodium chloride-based salts).



Amended Soils

What is it?

Much of the management of stormwater relies on soil that can infiltrate runoff. Disturbed soils that have been compacted through construction activities or soils with poor organic content can be restored and amended through loosening the soil and adding material like compost.

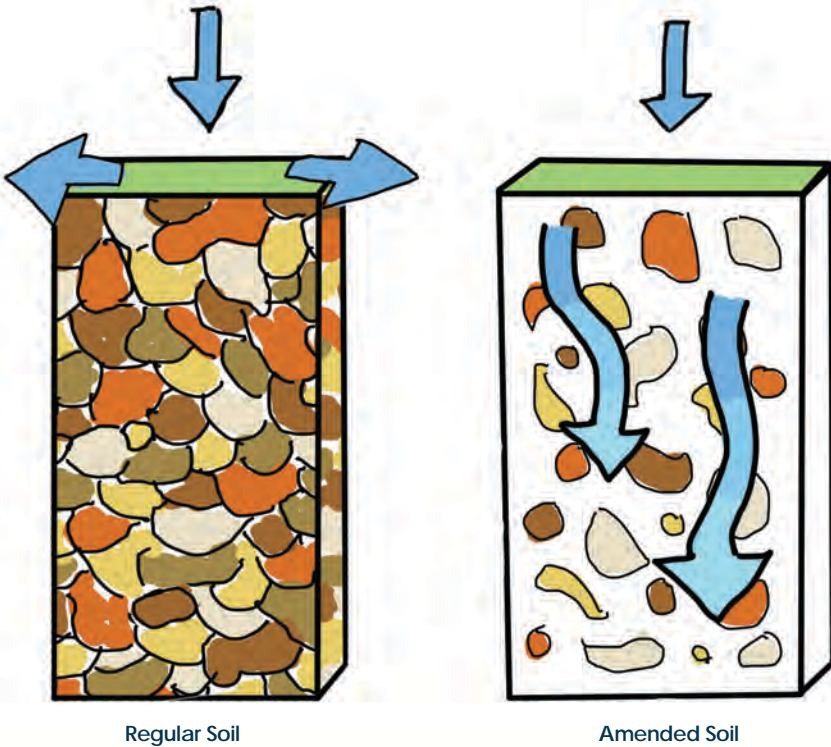
How does it work?

Little spaces between soil particles called pores or voids allow water to both be stored in the soil and move through the soil as infiltration. When the soil is compacted through the process of development, the pores or void spaces are reduced. Compaction of soil prevents water from infiltrating. Loosening the soil or tilling can reduce compaction and increase the soil's ability to infiltrate runoff. Adding organic material like compost, sand, or manufactured soil media to the soil increases the pore spaces in the soil, which increases its ability to hold water.

How does a Homeowner maintain it?

Protection:

- The key to maintaining amended soils is to protect and preserve them.
- Compaction of the soil should be avoided. Don't use as an extra parking area or storage for a recreational vehicle.
- Amended soils that are a BMP can't be removed. For example, the area cannot be converted to a patio or other use that would prevent stormwater infiltration.



There needs be air spaces in between soil particles for water to be infiltrated. Amended soils have increased air space, but these air spaces are lost if the soil is compacted by heavy equipment or vehicle parking.

Funding Acknowledgements

This publication was developed under Assistance Agreement No. CB-96317101-5 awarded by the U.S. Environmental Protection Agency. The views expressed in this document are solely those of the PaDEP and EPA does not endorse any products or commercial services mentioned in this publication.

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Northeast Regional Office

2 Public Square, Wilkes-Barre, PA 18711-0790
24 Hour Emergency Number: (570) 826-2511

North-central Regional Office

208 West Third Street, Suite 10, Williamsport, PA 17701-6448
Main Number & 24 Hour Emergency Number: (570) 327-3636

Northwest Regional Office

230 Chestnut Street, Meadville, PA 16335
Business Hours: (814) 332-6945
After Hours: (800) 373-3398

Southeast Regional Office

2 East Main Street, Norristown, PA 19401
Main and 24 Hour Emergency Number: (484) 250-5900

South-central Regional Office

909 Elmerton Avenue, Harrisburg, PA 17110
Business Hours: (717) 705-4700
24 Hour Emergency Number: (866) 825-0208

Southwest Regional Office

400 Waterfront Drive, Pittsburgh, PA 15222-4745
24 Hour Emergency Number: (412) 442-4000

Additional Resources

🌱 Landscaping with Native Plants.

www.dcnr.state.pa.us/forestry/plants/nativeplants/

🌱 PA Stormwater Best Practices Manual (2006).

www.elibrary.dep.state.pa.us/dsweb/View/Collection-8305

EAC Meeting Minutes 8.7.19 7 p.m.

In attendance: El-Tirib McKelvey, Marc Brier, Curt Huston, Robert Kline, Jean Bochnowski

- I. Port Indian Flooding Jason statement status
 - A. El sent request to Commissioner Roseanne Milazzo to get all parties to a meeting. He heard back on 8/7 that Roseanne would take up with Jason.
 - B. Blue Dove basin – confirmed the business owner building above the basin that they will not get occupancy permit until the basin is retrofitted. Can Jason confirm that the date for that is September?

- II. National Night Out- is it happening and are we participating? No township did not participate this year.

- III. Boat Trip
 - A. July 10 was shortened due to boat issues so we did not get to many of the key sites downriver. Curt will send out a new invite to a second trip.

 - B. Out of this discussion, we talked about the buoy marking of the submerged pieces of old dam upriver of Port Indian. The Fish Commission is responsible for marking and the buoys they place wash away. Several boats have been damaged from hitting the dam. Jean is going to write the head of the PA Fish and Boat Commission to see what the policy is. We may also pursue political solutions with state representatives.

 - C. We also discussed the role of the Blue Marsh Army Corps of Engineer's role in Port Indian properties flooding. Rudy Fedor showed us a chart of the recent discharges of the dam paired with the reservoir's level and said that they probably could have kept more water back to prevent the flood that occurred recently. The EAC is willing to partner with other local organizations to investigate the situation with the Corps.

- IV. Ready for 100 updates – Bill Sabey answered all Roseanne's questions, and commissioners seem to be in favor, so we need to keep the issue before them. Marc will send out the power point from Cheltenham EAC showing practical steps in how to accomplish Ready for 100 goals.

- V. Discussion of survey of stormwater basins, still would like to conduct inspection?
 - A. Curt is going to send out email with some proposed dates to start inspection.

 - B. Jean scanned the list of stormwater basins and emailed it to all of the members.

 - C. Marc checked the stormwater online map that Jason sent us the link to and did not readily see the basins on the map. We should check on home computers to see if any stormwater basins are visible in the map layers. Curt has a paper copy of the stormwater basin map.

- VI.** Social Media access to township website – We are going to request an appointment with Jason to get access to that we can post agendas, etc. to the site. We are also curious to get some feedback from the township on how the EAC is performing.
- VII.** Logo – can wait till we get web access.
- VIII.** Barbados Island – we did discuss if we should make another gesture to the landowner to see if there are any areas of cooperation with the township with him. We will try and request through Jason if we pursue this course.
- IX.** Marc will present on the Earth Quaker Action Team campaign to get PECO energy to provide 20% of their generation from solar energy by 2025.

Next meeting is Wednesday, September 4 at 7 p.m.

EAC Meeting Minutes**1.15.20****7 p.m.**

In attendance: Marty Miller, El-Tirib McKelvey, Donna Suevo, Robert Kline, Marc Brier

- I. WN Board of Commissioners President Marty Miller has volunteered to be liaison to the EAC. Each board now has a liaison. Marty will give a brief report on our meeting at the next township meeting. He has asked us to put Ready for 100 back on our radar. El will contact Bill Sabey to see if he can give a refresher presentation at one of the February township meetings.
- II. Port Indian Flooding
 - A. Mediation Work update from Jason: "The work is nearing completion. The re-grading of the swale along the bike path is completed. We are in the process of upgrading the existing stormwater pipe that runs from the bike path to the river along the property at 60 W. Indian Lane. This pipe was upgraded to a 30in pipe from an 18in pipe. The next step will be to install a new pipe from the rear area of the swale and tie it into the pipe that runs along 78 W. Indian Lane. This should improve the drainage on either end of the swale and remove the standing water we see during storms. I hope to have this project finished in the next 10 days." Yes the work is done. Bob will visit and provide photos that we may use on the website with a brief writeup of this project that is important to the neighborhood.
 - B. Blue Dove basin status update from Jason: "The building is nearing completion as they have a few punch list items remaining. The basin is nearing completion but we are waiting on 2580 General Armistead Blvd. to provide the township with a Corrective Action Plan for their property. This property has a disconnected stormwater pipe that feeds into the basin. The County Conservation District issued them a violation letter at our request. Once this is complete the basin will be completed." 2580 General Armistead Blvd is a different property than the new one being built that will be responsible for the whole basin retrofit.
- III. Budget for the year is \$5000. Our 12 month plan will be a way of checking in on our progress.
- IV. Website – what should we add to our page? Port Indian Flooding, the Alexander Drive basin when work starts, recycling guidelines, yard waste, lantern fly information, native species, rain gardens, composting, and stormwater all can be subjects that we post. We would like to have the email address added so that we can answer citizen questions. Bob volunteered to be the contact with El as his backup. El will contact Jason to get this set up.
- V. Alexander Drive basin retrofit – we could feature on our webpage to show progress once work is started. Jason: "Cedarville Engineering is completing the final designs on the basin work. They recently televised all the piping coming into and out of the basin. Cedarville should be completing their design work in the next few weeks so we can prepare the bid documents for the project."

- VI.** The township is proposing to significantly increase the size of some parking lots, including Paddon Park and the newly acquired Burnside School property lot that is adjacent to the Little League fields. EAC input into lessening the environmental impact of adding more paved surface, such as the possibility of using permeable surface. We noted that permeable surface can be twice as expensive. Donna added that if projects such as these are more than in the township's budget we can pursue a growing greener grant to cover the difference. The EAC would like to look into either permeable surface or at least mitigation efforts such as improved basins. Marc will run these ideas past Jason to see how we can get started in the process.

- VII.**
 - A. MS 4 presentation by Beth Uhler of Cedarville Engineering at township meeting on January 14. Marc and Bob attended. The presentation was close to the same as we received last year except that it included new projects. Marc will contact Jason to get a copy of the program.
 - B. Future township meeting EAC representation. We can present if there is a special topic or can suggest presenters for future meetings.

Next meeting is Wednesday, February 5 at 7 p.m.

July 9, 2019

The regular monthly meeting of the Board of Commissioners of West Norriton Township was convened at 7:00 PM on the above date by President Miller. Commissioners Eckles, Kennedy, McKenzie and Milazzo were in attendance. Also, present were: Jason Bobst; Dan Grieser, Esquire; Kathy Frederick; A. Dale Mabry; Michael Kelly; Donna Horn; Michael Valyo; Michael Housley; T.J. Figaniak; and Ed Brown. There were nine (9) people in the audience, including the press.

After reciting the Pledge of Allegiance, the meeting proceeded.

Presentations: Maggie Dobbs of the Montgomery County Planning Commission presented the final master vision plan from the W. Main Street Corridor Study. Ms. Dobbs explained the Commission's study and identified the section of W. Main Street which comprises the area. The presentation included slides depicting, among other things: current conditions, land uses, zoned districts, transportation, building setbacks, design guidelines, interim improvements and implementation. According to Ms. Dobbs, the real changes come with the Township's adoption of regulations via resolution, zoning, and land development ordinances. In response to Ms. Milazzo's inquiry about the adoption process, Mr. Bobst stated that steps include a formal Resolution to adopt the Main Street Corridor Study and, thereafter, moving forward with zoning regulations.

Pollution Reduction Plan Beth Uhler of Cedarville Engineering presented the West Norriton Township Pollutant Reduction Plan (PRP) as part of the NPDES MS4 Program. It was explained by Ms. Uhler that the NPDES MS4 is a federal program administered by the state and implemented by municipalities to recognize and reduce stormwater sediment. The current sediment reduction guideline is 10% over a five (5) year permitting term. As relates directly to West Norriton Township, Ms. Uhler stated that the retrofits of the Burnside Basin, Alexander Drive Basin, and Blue Dove Basin, as well as the stream restoration at JGC are some of the BMP's (Best Management Practices) counting toward our 10% reduction requirements.

In response to an inquiry by Ms. Milazzo regarding the Plan approval date, Ms. Uhler stated that, although the DEP has informally accepted the PRP, it is not yet approved; therefore, the 5 year term has not "officially" started, but that the Township has already met 7% of the 10% reduction requirement and "should be in very good shape."

Minutes Approval Upon motion of Ms. Milazzo, seconded by Mr. McKenzie and unanimously passed by the Board were the minutes of its work session of June 4th and the Board's regular meeting of June 11th.

Report of Bills Approval of checks Ms. Horn read the Finance Committee Report and requested approval of: General Fund and Golf Club payroll checks in the amount of \$33,582.05; payroll vouchers in the amount of \$245,861.09; and the Payment Approval Report in the amount of \$506,571.47.

**Committee
Reports:
Administration
& Finance**

Mr. Bobst enumerated and highlighted the items on the Agenda under New Business and stated that the Township is in a healthy financial condition, with the biggest drivers to that condition being deed transfer taxes (102% above projected), increased building permits (over 70% of projection already collected) and interest received (up 64%) due to changing banking institutions. According to Mr. Bobst, the only pending item is the police arbitration award.

Also, the addition of new items to the Agenda were requested by Mr. Bobst as follows:

- Withdrawal of pending litigation in the Court of Common Pleas of Montgomery County against Trinity Broadcasting, lessee of the radio station at JGC; and
- Termination of the lease with Trinity Broadcasting for the radio station at JGC for failure to pay.

Thereafter, it was announced by Mr. Bobst that he received notice from "The Times Herald" that West Norriton Township received its Best of Montgomery County awards for "Best Community" and "Best Summer Camp".

Treasurer Horn did not present her report at the meeting; however, she has submitted her summary which shows cash balances in the various funds as follows:

	<u>May 31st</u>	<u>June 30th</u>
General Fund	10,632,949.78	10,678,986.90
PLGIT 10105000	14,971.59	14,999.02
PLGIT CD	0.00	0.00
Continental CD	0.00	0.00
Golf Fund	577.46	111,016.46
Escrow Fund	476,273.49	508,229.80
Sinking Fund	6,128.07	6,135.57
Liquid Fuels	546,547.62	541,702.91
Capital Reserve PLGIT	21,308.10	21,547.35
Capital Reserve CD	0.00	0.00
Capital Reserve	0.00	0.00
Sewer Capital Acct	1,808,265.26	1,808,472.77
Vehicle Replacement Fund	526,201.93	673,374.60
Police Pension Citizens	176,715.17	188,430.55
Non-Uniform Pension Citizens	2,950.78	3,927.73
Grants, DUI	0.00	0.00
Grants, Misc.	115,596.66	115,734.43
Traffic Impact Fee	459,338.85	459,886.29

Public Safety

Chief Mabry highlighted his public safety report and reminded all residents to lock their vehicle doors and bikes that the summer season sees and uptick in thefts.

In response to an inquiry by Mr. Miller, Chief Mabry confirmed that the newly hired police officers are all doing well in their positions.

Public Works & Planning

The highlights of the Public Works and Building-Plumbing reports were presented by Mr. Valyo.

It was noted by Mr. Valyo that the 2019 Street Paving Project is due to be finished tomorrow, which project is paid for by liquid fuels funds and not taxpayers' money, and that the bid opening for the purchase of the new leaf machine is tomorrow.

Recreation

The Recreation report was prepared and highlighted by Mr. Dzedzy, who announced the showing of "Ralph Breaks the Internet" at the upcoming movie night on August 24th.

Jeffersonville Golf Club

Mr. Housley presented the monthly and quarterly golf report and was "pleased" to announce that every month in the 2nd quarter of 2019 beat the corresponding month in 2018, and that June of 2019 was the course's best month ever. Also, it was mentioned by Mr. Housley that the new sign is fantastic and the course looks great.

Also, Mr. Bobst mentioned possible project funding opportunities/grants through the state for improvements at the golf club, which opportunities/grants, according to Mr. Bobst, are supported by our local representatives.

Sanitary Sewer

The highlights of the monthly Sanitary Report of Gilmore & Associates were presented by Mr. Figaniak, which included the I & I work and the DEP's lifting of its moratorium. According to Mr. Figaniak, we need to continue to maintain the sewer system and "don't take our foot off the gas."

Engineer

The engineer's report of Gilmore & Associates was prepared and highlighted by Mr. Garton who mentioned that the intersection improvements meetings were recently held with the residents whose properties will be directly impacted. In response to an inquiry by Mr. Kennedy, Mr. Garton stated that there will be no severe impact to the roadway during construction.

Upon motion of Ms. Eckles, seconded by Ms. Milazzo and unanimously passed, the Report of Bills and all monthly Department Reports were approved.

Commissioners' Comment

Ms. Milazzo commented that she was fortunate to attend the PSATC conference last month at which Mr. Kennedy received an award for his 12+ years of service as a Township

Commissioner. Ms. Milazzo also congratulated Township staff for helping the residents vote us as Montgomery County's Best Community.

Public Comment Mary Ellen Moran of 714 Port Indian Road stated that she is surprised that the Blue Dove Basin is on the list of "accomplishments" as regards the PRP since, in her opinion, the basin doesn't operate properly. It was mentioned by Mr. Brown that typically construction is stabilized upon its completion and not early on in the process...as is the case with the Blue Dove Basin. Mr. Miller noted that he met with State Representative Webster to implore his help with stormwater and environmental issues as he "wants to use all the tools in our arsenal to address issues."

There being no further public comment offered, upon motion of Mr. McKenzie, seconded by Ms. Milazzo and unanimously approved, the public comment portion of the meeting was closed.

**Discussion
Items**

Items presented by Mr. Bobst for discussion:

- Proposed 2019 Capital Borrowing - Mr. Bobst prepared a power point presentation of proposed projects in the Township and the estimated costs thereof, including: Burnside Avenue property purchase; Centennial Park parking lot; parking lot and restrooms at the Jefferson Firehouse recreation site; Padden Park parking lot; Padden Park pavilion, restroom and playground; road paving at Regents Park, Sterigere Street and the Township building for a total of \$3.6M for all projects. It was stated by Mr. Bobst that he is not looking to raise taxes for these projects, only use debt service. Ms. Milazzo suggested the use of speed bumps in Regents Park to deter speeding while Mr. Miller inquired about the status of the DCNR grant for the purchase of the Burnside Avenue property and the freeing up of money in the event the grant application is successful. Also, Ms. Eckles inquired about an even distribution of priority for funds between public works and recreation. Per Mr. Bobst, borrowing options to be presented and discussed at a future time.
- Additional Allotment to the Jefferson Fire Company No. 1 of one month, \$14,500.00, to close the gap between the Fire Company's expenses and its budget allotment from the Township
- The Norristown Municipal Waste Authority Consent Order & Agreement of 2003 and Amendment thereto of 2008 - DEP moratorium lifted;

- *Membership in PA League of Cities - PSATC runs the PA League of Cities and the potential savings in w/c rates and insurance costs is greater than the \$1,489.11 dues. According to Mr. Miller, membership is a "no brainer";*
- *Amending Fee Schedule for increase in U&O Inspection fee from \$75.00 to \$150.00. The current fee of \$75.00 was implemented in 2004 and has not increased, despite neighboring municipalities' fees ranging from \$150.00 - \$200.00.*

New Business

Upon motion of Mr. Miller, seconded by Mr. McKenzie and unanimously agreed, the Board adopted Ordinance No. 2019-735 Amending Special Events License Requirements and Permitting Guidelines (copy attached).

Upon motion of Mr. Miller, seconded by Ms. Milazzo and unanimously agreed, the Board adopted Resolution #19-1634 Authorizing Issuance of Individual Procurement Cards (copy attached).

Upon motion of Ms. Milazzo, seconded by Ms. Eckles and unanimously agreed, the Board authorized staff to withdrawal litigation at MCCCCP Docket #2018-26096 against Trinity Broadcasting.

Upon motion of Ms. Milazzo, seconded by Ms. Eckles and unanimously agreed, the Board authorized staff to take appropriate action to terminate the lease with Trinity Broadcasting.

Upon motion of Mr. Kennedy, seconded by Mr. Miller and unanimously agree, the Board approved a one-time additional allotment to the Jefferson Fire Company No. 1 of \$14,500.00.

Schedule of Meetings

Mr. Bobst announced that upcoming meetings are scheduled as follows: EAC on August 7th at 7:00 PM; Human Relations Commission on July 25th at 7:00 PM; and no meetings of the Planning Commission or Zoning Hearing Board.

Adjournment

There being no further business, at 9:05 PM, on motion of Ms. Milazzo, seconded by Ms. McKenzie, the public meeting was adjourned.

*Kathy Frederick
Assistant Secretary*



Established 1997

STONY CREEK ANGLERS

NEWSLETTER – AUGUST/OCTOBER 2019

Happy Labor Day & Halloween



Notes from the President: Hello Everyone!!!

We hope that everyone is enjoying their summer vacation. Our weekend work parties were a real disaster, as our members were stingy with their time. We only had a few individuals do much of the punch list. **Wake up SCA members** an hour or two once in a while would be appreciated.

On Thursday July 18th our new fingerlings arrived from the Huntsdale Fish Hatchery of the PA. Fish & Boat Commission. We received 4,000 Rainbows, 2000 Brook, 2,000 Brown and 90 Palomino's. This is the 4th year in a row we have received small trout. The Brook's and Browns were 2-3", the Rainbows 3-4" and the Palominos 5-6". We still need someone to feed on Saturday evening if interested call Chas (267-438-2572).

The Gator shed and the Pavilion received additional repairs. The Gator shed roof was examined and it required replacement of one plywood panel and new shingles. The Pavilion now has new lights and ceiling fans. There remains a load of modified stone to add to the floor and a load of top soil for the grass.

Our monthly meetings will resume on *Tuesday, September 10th, 2019* at 7:30PM at the Norristown Maennor-Chor Club, 920 West Haws Avenue, Norristown, PA. We will have a 50/50 drawing, club news and other events. Please bring a friend along.

God Bless America
Charles J. Wood
President - Stony Creek Anglers

SCA Events:

Sunday, August 11th, 2019, Open House at the Nursery from 11AM to 4PM. Tours, life cycle, and feeding the fish. We will serve hot dogs, tomato pie, soft pretzels, chips cold water and soda. All are welcome. Rain or Shine.

Tuesday, September 3rd, 2019, Board of Directors Meeting at the Nursery at 7:30PM.

Tuesday, September 10th, 2019, General Membership Meeting, Norristown Maennor-Chor Club, 920 West Haws Avenue, Norristown, PA. at 7:30PM.

Tuesday, October 1st, 2019, Board of Directors Meeting at the Nursery at 7:30PM.

Tuesday, October 8th, 2019, General Membership Meeting, Norristown Maennor-Chor Club, 920 West Haws Avenue, Norristown, PA. at 7:30PM.

Other Events to Consider:

Saturday, August 10th, 2019, 55th Lancaster Hunting & Fishing Show & Sale, 9AM to 1:00PM at the Lancaster Farm & Home Center, 1383 Arcadia Road, Lancaster, PA. For information call 717-687-8101.

(other events cont.)

Tuesday, August 20th, 2019, Camp Kweebec State Police Cadets Fishing for Troop K ages 11-14 on Game Farm Road, Schwenksville, PA. We will supply poles, bait and help from 8 to 10AM. Rain or shine. **We will need volunteers** to help. Meet at the nursery at 7AM. If interested call Andrew Nesbitt at 267-252-7849.

Saturday, August 24th, 2019, Montgomery County Youth Field Day will take place at Camp Hart in Green Lane, PA. off of Ridge Road from 8:00AM to 5:00PM. The event is for boys & girls ages 9 to 15. We will meet at the nursery at 6:00AM. All volunteers will get a T-shirt and box lunch. We will host the fishing station and will provide rods, bait, fish measurement and help for 4 sessions in the morning and 4 in the afternoon. **WE NEED HELP please call Chas before August 23rd** if interested.

Sunday September 1st, 2019, Officer Thomas Barone Annual Custom Car Show, will be held at the Norristown Maenner-Chor Club, 920 West Haws Street. Free event, lots of antique, muscle, street, original and customized cars. Bucket and 50/50 raffles as well as food and cold drinks. 11AM to 3PM rain date September 8, 2019.

Wednesday, October 16th, 2019, Boscov's Fund Raiser. We will sell \$5.00 shopping passes at the Plymouth Meeting and the Coventry Mall. To purchase passes in advance call Chas 267-438-2572.

Monday, October 21st, 2019, Federation of Sportsman's Clubs Fall Meeting, will be held at the Upper Perkiomen Sportsman's Club in Red Hill, PA. at 7:30PM. The club can be found by following Rt. 29 to Redner's Market. Turn right for 1/8th of a mile and it is located on the right side behind several homes. PA. Game Commission Report, PA Fish and Boat Commission Report, Legislation Update News, Club News, Fellowship and Refreshments and 50/50 drawing.

SCA Officers:

President: Charles Wood
Vice-President; Andrew Nesbitt
Treasurer: Danielle London
Recording Secretary: Joe Bednarz
Nursery Manager: Mike Sherman

Board Members:

Bob Emery Chris London
Kenny Salvo John Sauer
Harvey Schlesinger Pat Wood

General Membership Meeting
2nd Tuesday of the month at 7:30PM
New Night
(Except July & August) at the Norristown Maenner-Chor Club
Call 610-291-1361 for Directions

LONDON LANDSCAPING

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Sport Fishin' Outlet

Live Bait & Tackle
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Jacobs Tree Surgery, Inc.

252A Fulmer Road
Perkiomenville, PA. 18074
Phone 610-287-7107
Warren A. Jacobs



STORMWATER MANAGEMENT PROGRAM PUBLIC EDUCATION & OUTREACH



West Norriton Township
Montgomery County, Pennsylvania

1630 West Marshall Street
Jeffersonville, PA 19403

Updated: March 2020

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APPENDIX A – Target Audience List



1. INTRODUCTION

West Norriton Township has developed a Public Education and Outreach Program (PEOP) as part of the Township's Stormwater Management Program that will be reviewed annually and updated as necessary. The PEOP provides a guide for:

- distributing educational materials to the community;
- conducting outreach activities about the impacts of stormwater discharges on water quality; and
- the steps the public can take to reduce pollutants in stormwater runoff.

The PEOP is designed to comply with the West Norriton Township's National Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES MS4) General Permit No. PAG130006 issued by the Pennsylvania Department of Environmental Protection (PA DEP) and has been updated per the Special Conditions listed in the current 2018 PAG-13 NPDES MS4 permit (3800-PM-BCW0100d 5/2016). More specifically, it will meet the measurable goals and criteria outlined in Minimum Control Measure (MCM) No. 1 – Public Education and Outreach on Stormwater Impacts – Best Management Practice (BMP) #1 of the NPDES MS4 permit.

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



Storm Drain Education at the West Norriton Summer Camp.



Rain Barrel Painting at the West Norriton Summer Camp.

2. TARGET AUDIENCE

The target audience for the PEOP is the public and includes all property owners and/or operators within the Township. The public should be informed about the causes of stormwater pollution and the impacts it has in their community, as well as the actions they can take on their own property or during their own activities to prevent stormwater pollution. Refer to **Table 1** below. Outreach, education, and full engagement of the public are essential and important elements of a successful MS4 program to ensure comprehensive management of stormwater. In developed communities regulated under MS4 permits, each resident has a role to play in reducing stormwater impacts around the home, and each citizen has a voice in how their community should grow and develop in the future. The target audience for the PEOP includes:



Residents

- West Norriton Township is primarily composed of residential property that includes households and neighborhoods within the Township. Many of the lots in these areas are likely to be served by stormwater infrastructure such as subsurface pipes, curbed streets, and/or inlets.
- Subdivisions within the Township may have developed into close-knit neighborhoods. These distinct audiences can be reached for waterway cleanup projects and other events that encourage positive behavior and/or productive activity. These types of events can often be organized with and sponsored by watershed associations.

Homeowners Associations

- West Norriton Township has several Homeowners Associations (HOAs) that serve residential developments. HOAs are unique in that they can provide a vehicle to more efficiently reach residents through additional outlets such as HOA Board meetings, newsletters, and community social media pages. HOAs are typically responsible for maintaining stormwater management facilities on their property.

Students

- West Norriton Township is located within the Norristown Area School District. The school district is comprised of twelve (12) public schools, including one (1) preschool, six (6) elementary schools, three (3) middle schools, and two (2) high schools. Three (3) of these schools are located within the Township boundary: Norristown Area High School, Whitehall Elementary School, and Marshall Street Elementary School.

Township Officials & Staff

- West Norriton Township owns and maintains several sites throughout the municipality through their officials and staff (i.e., Administration, Public Works, and First Responders). At each of these locations, there are opportunities to utilize proper operational practices to reduce impacts on runoff and waterways.

Community Groups

- Places of worship within West Norriton Township include, but are not limited to, the following religious institutions: St. Teresa of Avila, St. Sophia Greek Orthodox Church, Visitation Blessed Virgin Mary Parish, First Baptist Church, Jubilee Presbyterian Church, Fellowship Church of West Norriton, and Reformed Church – The Ascension.
- The Westover Crossing Homeowner’s Association (HOA) is located in the southern portion of the Township.
- Boards and commissions within West Norriton Township include, but are not limited to, the following: Civil Service Commission, Environmental Advisory Council (EAC), Industrial Development Authority, Planning Commission, Recreation Committee, Zoning Hearing Board, and Human Relations Commission.
- Other community groups within the Township include sports teams such as the West Norriton Girls Athletic Association, West Norriton Little League, and the Jeffersonville Soccer Club, to list a few.

Environmental Groups

- Watershed organization such as the Stony Creek Anglers can partner with the Township and continue to support the efforts of educating community members to become “watershed stewards” by practicing “good watershed housekeeping” in and outside of their homes.

Businesses

- Businesses include commercial, industrial, and retail establishments within the Township that sell goods or offer services. It is important to include businesses within the MS4 Program for management and prevention of stormwater pollution as these non-residential properties have parking lots, building footprints, and other impervious surfaces that contribute to stormwater runoff.



Table 1: Stormwater Pollution Prevention Activities

Target Audience	Pollution Prevention Activities
Residents	<ul style="list-style-type: none"> • Education materials to distribute to residents can include topics such as best practices for lawn fertilization, pet waste management, swimming pool dewatering, car washing, winter salt application, • Increase awareness of how the storm sewer system works, where it drains to, and why dumping any substance into it has a negative impact on waterways. Practical knowledge is vital to reducing pollution. • Stormwater activities can be hosted at the Township’s annual Community Day.
Homeowners Associations	<ul style="list-style-type: none"> • Distribute educational materials to HOAs to be communicated at their Board meetings and distributed through newsletters and/or community social media pages. • Hold workshops/trainings geared towards HOA-related topics such as rain barrels, rain gardens, pollution prevention, and stormwater BMP O&M as well as topics listed above.
Students	<ul style="list-style-type: none"> • Using the Norristown Area School District and its administration for passage of MS4 information allows a direct link to the teachers, students, and parents of the Township. Hands-on activities and lectures could be held with students annually. • Stormwater activities can be hosted at the Township’s annual summer camp. • The students within the Township are particularly important because they will be potential Township landowners in the future and can help reach their parents now, as current landowners.
Community Groups	<ul style="list-style-type: none"> • Places of worship and athletic groups regularly unite people and can be conduits for MS4 information dispersion throughout the community. Encouraging green practices is a great way to protect our local waterways and aligns with these groups’ interests. • HOAs may be interested in implementing green infrastructure on their properties and recognize the importance of environmental improvements to the community they serve. • The Township’s EAC is a prime source for tackling local stormwater issues.
Environmental Groups	<ul style="list-style-type: none"> • Watershed and non-profit organizations can collaborate with schools and host professional training sessions to provide tools to make teaching in an outdoor setting enjoyable and successful. • Non-profits can host volunteer workdays to support watershed projects.
Businesses	<ul style="list-style-type: none"> • Businesses can support municipal and/or watershed group efforts by displaying posters, distributing handouts, sponsoring events, etc. • Keeping a “clean shop” is important with non-residential land uses that utilize cleaners, chemicals, or other types of process liquids that flow into waterways directly or via the storm sewer system. Since non-residential uses can have more impervious coverage than residential uses (considering area and percentage of total lot), runoff can be pre-treated with green infrastructure techniques like rain gardens and infiltration before reaching waterways.
Township Officials & Staff	<ul style="list-style-type: none"> • Township staff must implement and manage "good housekeeping" principles at its facilities, including the Township buildings and community parks, to maintain water quality and provide a positive example to the public.



By successfully identifying the stakeholder groups, distributing materials, and involving the groups in local stormwater activities, the Township will be able to educate the community about the importance of stormwater control and the resulting benefits of maintaining water quality. The detailed **Target Audience List** is included in *Appendix A*. This list is divided into six (6) categories based on land use classes indicated in the Montgomery County Open Data Portal parcel information (updated October 28, 2019): Residential, Commercial, Utilities, Industrial, Exempt, and Apartment. This list should be reviewed and updated annually.

3. METHODS OF REACHING TARGET AUDIENCE

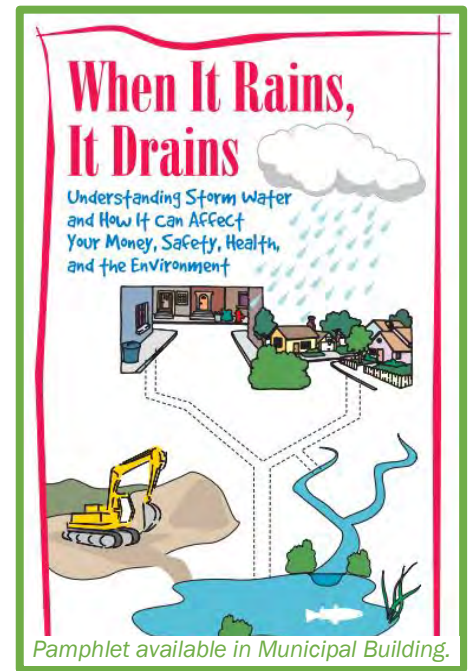
The Township has provided stormwater educational information on the Township website at <http://www.westnorritontwp.org/index.aspx?nid=178>, including an interactive Geographic Information System (GIS) Story Map. The Story Map is available on the Township website at <https://www.westnorritontwp.org/424/Stormwater-In-Your-Backyard>. The content and links provided on the website will be reviewed and updated annually.

As an alternative to maintaining the website, a minimum of one (1) of the following should be published and reviewed annually (and updated as necessary): newsletter, pamphlet, and/or flyer.

The publications should contain general stormwater educational information, a general description of the Township's Stormwater Management Program, and/or information about ongoing stormwater management activities. The publications should address one or more of the six (6) MCMs.

In addition to the above requirements, the Township will distribute stormwater educational materials and/or information to target audiences utilizing a minimum of two (2) of the following distribution methods per year:

- Displays, posters, or signs
- Pamphlets, booklets, fact sheets, or brochures
- Radio, local cable television, or newspaper advertisements
- Newspaper articles
- Bill stuffers
- Presentations, conferences, or meetings
- Giveaways
- Storm drain stenciling, stream clean-up, or another educational event



Storm Drain Stenciling at Marshall Street Elementary School.



4. SURVEY (OPTIONAL)

To measure the success of the PEOP and evaluate the overall effectiveness of the public education and outreach efforts, a survey should be circulated. The survey may be distributed by mail, be available on the website, or be completed in person at a Township event or meeting. Offering a survey allows the Township to engage with and gain feedback from the residents.

Survey Questions

1. What is stormwater?
2. What are potential causes of stormwater pollution?
3. What is an illicit discharge?
4. How did you learn about stormwater?
5. What type of stormwater-related information would you be interested in learning more about?
6. What type of workshop or event related to stormwater management, pollution prevention, or water quality would you be interested in attending?
7. Are there specific locations where you have experienced stormwater issues in your neighborhood?

Once the survey results are obtained, they should be assessed to determine what areas of the program need improvement and what areas have been successful. The results should be used to focus future education efforts in areas where improvement is needed and provide guidance on what distribution methods are most successful. A survey is not required by the permit and will be considered an above and beyond activity if the Township has the resources to conduct this effort within a permit reporting period.





5. EDUCATIONAL MATERIAL SOURCES

“High quality water is more than the dream of the conservationists, more than a political slogan; high quality water, in the right quantity at the right place at the right time, is essential to health, recreation, and economic growth.”

– Edmund S. Muskie,
introduced the Clean Water Act
bill in Congress in 1971.

Educational materials will be developed or obtained that will increase the public’s knowledge of stormwater issues and the practices that can be applied. Educational material should address one or more of the six (6) MCMs.

Sources to consider include, but are not limited to:

- Montgomery County Conservation District (MCCD)
- Pennsylvania Department of Environmental Protection (PA DEP)
- Environmental Protection Agency (EPA)
- Water Resources Education Network (WREN)
- Pennsylvania Environmental Council (PEC)

Each of these organizations has stormwater educational information available for download on their websites. The Township will source materials from these websites or publish custom educational items.

6. STORMWATER EDUCATION TOPICS

There are a wide variety of stormwater topics that can be presented to the public. Diversifying the public education and outreach topics can assist in maintaining the public’s interest. It may also assist residents in identifying potential stormwater management practices that best suit their properties and budgets. Below are some general stormwater topics to provide residents with a basic understanding of stormwater, the NPDES MS4 permit, and how they can participate. Information on these topics can be found through the sources listed above, among others.

Stormwater Topics

1. The **importance of clean stormwater** to individual residents and the overall watershed health, along with the detrimental effects of pollution.
2. **NPDES MS4 permit** overview.
3. **Common pollutants** (i.e., fertilizer, litter, dog poop, motor oil, leaves, swimming pool discharges, etc.).
4. **Pollution reduction practices** (i.e., limit fertilizer use, prevent leaves from entering storm drains, proper trash and motor oil disposal, dog poop clean up, etc.).
5. Common **Best Management Practices (BMPs)**, such as basins, pervious pavement, subsurface infiltration beds, vegetated swales, wet ponds, etc.
6. BMPs that residents can easily implement on their properties.
 - a. **Rain gardens** to promote increased water filtration and infiltration.
 - b. **Rain barrels** to collect and reuse rainwater.



7. ANNUAL GOALS

The specific goals for the PEOP to be completed annually to meet the minimum permit requirements are detailed in **Table 2** below. In addition, West Norriton Township will go above and beyond the permit requirements, as resources allow.

Table 2: Permit Compliance

Permit Requirements	Minimum Township Compliance Goal	Above and Beyond Measures
BMP #1: Develop, implement, and maintain a written PEOP.	The Township has a written PEOP that is reviewed annually and revised as necessary.	-
BMP #2: Develop and maintain lists of target audience groups within the Township's regulated small MS4.	The Township has a target audience list that is reviewed annually and updated as necessary (updated concurrently with PEOP revisions).	-
BMP #3: The permittee shall annually publish at least one (1) issue of a newsletter, pamphlet, flyer, or website that includes general stormwater educational information, a description of the Township's stormwater management program (SWMP), and information about the Township's stormwater management activities	The Township will publish a minimum of one (1) of the following items annually: <ul style="list-style-type: none"> • Stormwater educational pamphlets/flyers; • A stormwater article in the Township newsletter; and • Maintain and update the content the stormwater page on the Township website. 	The Township may exceed the minimum requirement of one (1) publication annually by utilizing all methods mentioned and/or by publishing multiple newsletter articles, etc.
BMP #4: Distribute stormwater education materials and/or information to the target audiences using a variety of distribution methods. The permittee must utilize at least two (2) distribution methods annually.	The Township will distribute stormwater information to target audiences through two (2) of the following methods: <ul style="list-style-type: none"> • Posters hung in the municipal building; • Flyers/pamphlets for distribution in the municipal building; • Through the Township website; • Articles in their newsletter; and • Sharing on the Township Facebook page. 	The Township may exceed the minimum requirement of two (2) distribution methods annually by utilizing all methods mentioned and/or by publishing multiple newsletter articles, etc.



8. ANNUAL ACCOMPLISHMENTS

The Township is required to submit Annual MS4 Status Reports to PA DEP by September 30th. The annual reports are available to the public by request at the municipal offices. PEOP accomplishments will be reported each year in the Annual MS4 Status Reports.



Storm Drain Stenciling Caption "I don't want trash" at the Summer Camp.



APPENDIX A
Detailed Target Audience List

(available upon request)



Annual MS4 Status Report

APPENDIX B

MCM #2 Public Involvement and Participation

- 1. Public Involvement Documentation**
- 2. PIPP Program (Updated March 2020)**



West Norriton Township's Guide for **Mandatory** Commercial, Industrial and Institutional Recycling required by State Law and Municipal Ordinance

Recycling Rules

For Businesses in West Norriton Township:

You are required by law to provide an annual recycling report to the West Norriton Township recycling coordinator. Act 101 of 1988 and West Norriton Township Ordinance requires commercial, industrial and institutional establishments located in Pennsylvania municipalities with greater than 5,000 populations to recycle the following:

Commercial, Industrial & Institutional Businesses

Aluminum Cans
Office Paper
Corrugated Cardboard
Leaf Waste

Apartment Complexes & Residential Communities

Aluminum Cans Glass Containers
Newspapers Office Paper
Junk Mail Other Clean Paper
Number 1 & 2 Plastics
Steel & Bimetal Cans
Leaf Waste

All apartment complexes or residential communities (condominiums, retirement communities, etc.) are required to provide recycling containers or centralized collection containers for their residents. At a minimum, you must provide one container for co-mingled recyclables including aluminum cans, glass, steel and bimetal cans and number 1 and 2 plastics; and a second container for newspapers, office paper, junk mail, cardboard and other clean paper. You are required to report on a yearly basis how much recyclables are collected at your property. Leaf waste must be separated from other waste and the amount removed should also be reported to the Township.

All commercial, industrial and institutional business owners and apartment complexes or residential communities in West Norriton Township are required to report on a yearly basis how much they recycle. At the beginning of each year all businesses located in West Norriton Township are required to complete a ***Recycling Data Collection Form*** and return to the Township's recycling coordinator by **February 28th** of each year. You will be asked to provide on the form the quantities of recyclables your business collected during the previous year. The trash hauler that handles your recyclables should provide annual tonnage information to you.

For further information or to obtain collection forms, please contact:

HOUGH ASSOCIATES
105 Town Center Road, Suite 3
King of Prussia, PA 19406 610-992-9990

WEST NORRITON TOWNSHIP RESIDENTIAL RECYCLING REQUIREMENTS

WEST NORRITON'S WASTE AND RECYCLING ORDINANCE AND PENNSYLVANIA STATE LAW (ACT 101 OF 1988) REQUIRE THAT ALL RESIDENTS MUST HAVE WASTE AND RECYCLING SERVICE FROM A PRIVATE HAULING COMPANY.

What and How to Recycle in West Norriton Township:

YES – **Paper:** Newspaper, magazines, junk mail, office paper and computer paper.
Tie in bundles or put in paper bag.

NO – Waxed paper, coated paper or tissue paper.

YES – **Glass:** clear, amber and green glass from beverage bottles and food jars.
Rinse bottles and jars and remove lids.

NO – Window glass, light bulbs, crystal or ovenware.

YES – **Aluminum, Steel and Bimetal Cans:** Food and beverage cans.
Rinse out and crush cans if possible.

NO – Pots and pans, or wire hangers. No lids or covers of cans

YES – **Plastic:** Number 1 & 2 (PETE & HDPE) Plastics. Look for the number on the bottom of plastic items. Rinse out container and crush if possible

NO – Number 3-7 plastics, plastic flower pots or motor oil bottles.

YES – **Leaf and Yard Waste:** Visit the township website www.westnorritontwp.org or contact the township office for schedule and details.

West Norriton Township receives recycling performance grants based on how much of these materials our residents recycle. ***The more you recycle the greater the grant.***

Local non-profit organizations benefit from newspaper dropped off in Abitibi paper retrievers. Abitibi reports the tonnage to the Township so that it is included in our performance grant total. To find out where they are located in your area, use your computer to log on to www.paperretriever.com. Then click on container locator and type in the info request and it will let you know the container site nearest to you.

Look for dates for the Household Hazardous Waste Drop-off Sites. This recycling service is provided by Montgomery County. For more information please call the County Recycling Coordinator at 610-278-3618 or visit the web at www.montcopa.org for directions and details.

This Residential Recycling Requirements reminder for West Norriton Township residents was prepared using PA DEP recycling performance grant funds.

- Seasonal Services
- Storm Water
- Streets Maintenance
- Trash & Recycling
- Capital Improvement Projects

TRASH & RECYCLING

Trash

All residents of the township and all commercial, industrial, or institutional establishments located in the township shall contract with a municipal waste collector to have all the municipal waste generated at the premises occupied by such person or entity by any of the occupants of said premises removed and deposited in a permitted landfill at a minimum of once per week.

Recyclable Materials

All residents of West Norriton Township shall separate recyclable materials from the municipal waste generated at their property. When placed at the curb for collection in accordance with the provision of this part, recyclable materials shall be placed in separate, reusable metal, or plastic containers which clearly identify the contents as recyclables. Such containers shall initially be provided by the township.

Recycle Containers

Recycle containers are available for purchase at the township building, Monday through Friday, 8 a.m. to 4:30 p.m., for \$15 each. Each household in West Norriton Township is required to have a recycle container either issued by their private trash hauler, or purchased through the township.

Placement of Containers

No municipal waste or recyclable material container shall be placed at the curb or in the front yard of any lot except during the period beginning at 6 p.m. on the night prior to the scheduled collection and ending at midnight on the day of the scheduled collection.



Residential Recycling Requirements

West Norriton's [Waste and Recycling Ordinance](#) and Pennsylvania State Law (Act 101 of 1988) require that all residents must have waste and recycling service from a private hauling company. [Review what and how to recycle in West Norriton \(PDF\)](#)

Guide for Mandatory Commercial, Industrial and Institutional Recycling

Act 101 of 1988 and West Norriton Township Ordinance requires commercial, industrial and institutional establishments located in Pennsylvania municipalities with greater than 5,000 populations to recycle certain items. [Review the guide \(PDF\)](#)

[Compost Material & Joint Composting Site](#)

[Snow Removal](#)

[Snow Emergencies](#)

[Leaf & Branch Collection](#)

[Home](#) › [Departments](#) › [Public Works](#) › [Seasonal Services](#) › [Compost Material & Joint Composting Site](#)

COMPOST MATERIAL & JOINT COMPOSTING SITE

Compost Site

A group of three (3) municipalities, West Norriton Township, East Norriton Township and Norristown Borough, initiated a joint leaf composting program in 1989 on the grounds of the Norristown Farm Park. The Norristown Farm Park is operated by Montgomery County and owned by the Commonwealth of Pennsylvania. The two leaf composting sites (one for East Norriton Township and one for the other two municipalities) are leased from Montgomery County. The compost sites are operated by East Norriton Township under an agreement with the three municipalities and a lease arrangement with the County.

Composting Material

West Norriton Township is 5.5 square miles and has a population of 16,663 as of the 2010 census. As mandated by Act 101 West Norriton Township developed a comprehensive recycling program; a major component of this program is the collection of leaves which are delivered to the leaf composting facility. The West Norriton Township Public Works Department collects on average 4,500 cubic yards of leaves from the middle of October to the 2nd week of December each year and properly advertises this collection schedule each year on our website and in the newspaper. Leaves must be separated from the municipal waste stream per Township Ordinance. Leaves are collected utilizing leaf vacuums. Only Township vehicles are permitted to place leaves at the composting facility.

The leaves are composted using a compost turner and the final product is screened through a rotary tumbler. The majority of the final product is used on the farm fields throughout the Norristown Farm Park.

Product Pickup Location

In addition, the final mulch product is also available for pick up by the residents of West Norriton Township at the Bin located behind the Jefferson Fire Company 85 School Lane. Each resident is responsible to load the mulch themselves.

Compost Material & Joint
Composting Site

Snow Removal

Snow Emergencies

Leaf & Branch Collection

Home > Departments > Public Works > Seasonal Services

SEASONAL SERVICES

Leaf Collection

Leaf collection occurs October through the second week of December. Due to weather conditions, the dates may vary.

Leaf Collection Guidelines

1. Curbside leaf piles are to be 12 inches high and 18 inches wide.
2. Do not mix limbs, brush, and other debris with leaf piles, as such items may cause damage to collection equipment and injury to township personnel.
3. Adverse weather conditions may cause delays.
4. Township employees and/or equipment are not permitted to enter private property to remove leaves.
5. Once the leaf machine has passed it will not return until items on every street in the township has been collected.
6. **If your residence is located on the corner of the street, please place the leaves to be picked up at least 25 feet from the intersection.**
7. If you live on a private street in the township we will pick up your leaves, but they must be bagged. Since most of the private streets in the township have narrow widths, we cannot take the leaf machines down those roadways and safely turn the machine around. Once you have the leaves bagged, please call the township office at **610-631-0450** and schedule the pickup.

Tree Branch Collection

Collection will take place the third Tuesday of each month **April through September**. Branches shall be placed at the curbside for pickup on the third Tuesday of each month by 10 a.m. **Only Branches and Tree limbs are permitted**. Tree stumps, sticks, weeds, grass, any vine related species and leaves are listed as non-chippable materials and will **Not** be taken. **Tree limbs must not be in plastic bags or tied**. Once the Truck passes and clears the street it will not return until the following month for pick-up. **Tree limbs must be stacked curbside with the butt ends facing the street. The month's of February and March will be used as demanded. ****All of these rules will be strictly enforced ******

Limits

- Individual branches or limbs - up to 6 inches in diameter
- Total collection per household limited to 2 cubic yards
- **Improperly prepared materials or materials deemed not chippable will not be collected, including large piles**

Christmas Tree Collection

Christmas Tree collection will take place the month of January thru the first week of February Weather permitting. Christmas trees must be placed curbside and must be free of any ornaments and lights. Only Christmas trees will be collected during this collection period.

Guidelines

Items Collected

- Tree limbs or Branches 6 inches or less in diameter

Items Not Collected

- Bundles with thorns, poison ivy or oak, wire, metal, or concrete stones
- Grass clippings
- Landscape timbers
- Logs or firewood
- Materials cut by contracted services
- Ornamental grass, sticks or vine like material
- Piles of clippings
- Plantings with roots and dirt
- Pressure-treated wood
- Railroad ties
- Tree limbs with nails, wire, metal or cement

The above items are to be taken by your Trash Hauler, they have been instructed by the Township to furnish two dates that these items will be collected. Once the Township receives these dates from the haulers we will list them. The materials need to be placed in Biodegradable Bags for pickup.

- White Tail Disposal
- Advanced Disposal
- Allied Waste Services
- J.P. Mascaro and Son
- Waste Management



**West Norriton Township
Reorganization Mtg. & Work Session Agenda
January 6, 2020
7:30 PM**

1. Call To Order And Pledge Of Allegiance

2. REORGANIZATION MEETING

A. Manager's Items:

- 1. Presentation Of Certificates Of Election And Administration Of Oath Of Office - Anne Pavone And Peter D. Smock As Commissioners**
- 2. Request Nominations For The Office Of President Of The Board Of Commissioners**

B. President's Items:

1. Request Nominations For The Office Of Vice President Of The Board Of Commissioners

2. Public Comment

- a. Recognize individuals that are taxpayers or residents of West Norriton Township wishing to offer comment.
- b. Require the name and address of such persons wishing to comment.
- c. Permit each individual at minimum one (1) opportunity to speak. The President may require an individual who has already spoken to wait until all others wishing to speak have had the opportunity before permitting an additional opportunity to speak. Once all others have had the opportunity to speak, the President shall determine whether time would allow for additional comment from the individual wishing to speak. Such a determination shall be based solely on the factor of time and shall not be based on the content or viewpoint of the particular individual(s) seeking additional opportunity to speak.
- d. Provide for a five (5) minute maximum for each individual to offer public comment. There shall be no ceding or assigning of time. In no case shall a time limit of fewer than two (2) minutes be designated. It may be requested that a spokesperson from a group address the Board of Commissioners.
- e. Preserve order by prohibiting disruptive conduct including, but not limited to, speaking by any person who is not, at that time, taking part in public comment.

3. Consider Appointments Of Township Personnel - Secretary, Assistant Secretary, Code Enforcement, Fire Marshal, Deputy Fire

**Marshal, Auditor, Engineer, Sanitary Engineer, Land Planner,
Traffic Engineer, Zoning Officer, Treasurer, And Assistant Zoning
Officer**

4. **Consider Appointment Of Township Solicitor**
5. **Consider Appointments To Board And Commissions - Planning Commission, IDA, Review Board For UCC, Civil Service Commission, Zoning Hearing Board, Recreation Committee, Human Relations Commission, And Vacancy Board**

3. WORK SESSION

A. Discussion/Update On Status

1. **Appointment Of Board Member Liaison To Boards And Commissions**
2. **Proposed Borrowing**
3. **Manager's Employment Contract**
4. **Presentation Of 2020 Census By Tricia Reedy Jones Of US Census Bureau**
5. **Presentation Of MS4 By Beth Uhler Of Cedarville Engineering**

B. Public Comment

- a. Recognize individuals that are taxpayers or residents of West Norriton Township wishing to offer comment.
- b. Require the name and address of such persons wishing to comment.
- c. Permit each individual at minimum one (1) opportunity to speak. The President may require an individual who has already spoken to wait until all others wishing to speak have had the opportunity before permitting an additional opportunity to speak. Once all others have had the opportunity to speak, the President shall determine whether time would allow for additional comment from the individual wishing to speak. Such a determination shall be based solely on the factor of time and shall not be based on the content or viewpoint of the particular individual(s) seeking additional opportunity to speak.
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- e. Preserve order by prohibiting disruptive conduct including, but not limited to, speaking by any person who is not, at that time, taking part in public comment.

C. Meeting Dates

1. **Environmental Advisory Council - January 8th @ 7:00 PM**
2. **Planning Commission - TBA**
3. **Human Relations Commission - January 23rd @ 7:00 PM**

4. Zoning Hearing Board - None

D. Adjournment

www.westnorritontwp.org



Do you have old clothes you don't wear taking up space in your closet? Or old phones in your drawers, or printers and DVD players in the basement?

Your neighbors have discovered the joy of decluttering their homes by recycling these items: over 50 tons of clothing and electronics so far. Now Montgomery County residents can, too!

Thanks to Montgomery County's partnership with Curb My Clutter, you can recycle your clothing and electronics right from your doorstep. This service is FREE* to Montgomery County residents. **Simply text the word PICKUP to 610-TEXT-CMC** (610-839-8262), and Curb My Clutter will schedule an appointment to send a truck to your home. Bag up your items and leave them on your porch; or, leave them inside your door and tell CMC to ring your bell when they arrive.

**Convenience fees apply for certain items: \$10 for each microwave, \$35 for each TV under 150 lbs, and \$100 for each TV 150 lbs or more.*

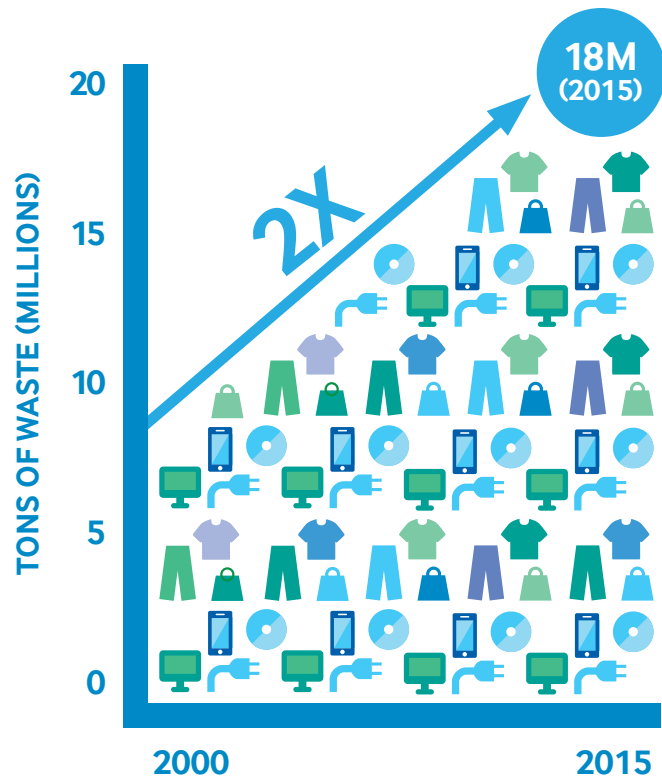
EARN REWARDS JUST IN TIME FOR BACK TO SCHOOL. Have your kids grown out of last year's clothes? **DON'T THROW THEM OUT.** Nearly all of your clothing is recyclable; send a text to CMC and let them pick it up. It's easier than taking out the trash. Plus, for a limited time, if you snap a photo of your items while scheduling your appointment, you'll earn a \$10 Amazon gift card as a reward.

Why clothing and electronics?

US cities collectively spend **half a billion dollars** every year to send clothes and electronics to landfill. It's a huge problem, and it's been getting worse; Americans trashed **twice as many** clothes and electronics in 2015 as we did in 2000. The good news: these items are almost entirely recyclable. Even better news: the more you recycle, the less our community pays in landfill fees.

Why is Montgomery County introducing this recycling program now?

Typically, on recycling day, a truck will run past every house on every block on their route. That works for paper, bottles, and cans: you use them every day and will always have something to recycle. On the other hand, you may only tackle the task of cleaning out your closet or basement a few times each year. It isn't cost-effective for a recycling company to run a truck past every home on the recycling route for clothing and electronics.



That's where Curb My Clutter's innovative program comes in. When you raise your hand by texting CMC, then on recycling day the driver only needs to visit the homes that raised their hands as ready to recycle. CMC's solution means that your recyclables are collected so efficiently, we can offer this program to residents for free. And that's what people mean by "Circular Economy": when companies have an economic incentive to do the right (i.e., sustainable) thing, everybody wins.

FAQ

When does the program go into effect?

Right now! Simply text the word PICKUP to 610-TEXT-CMC (610-839-8262) and follow the guided scheduler to set a date.

What if I can't send text messages?

Call our number and leave a voicemail. Someone will contact you to schedule a pickup.

Send a text. Save the planet.



What items do you accept?

Visit www.curbmyclutter.com/montcopa for a full list of accepted items.

What happens to my stuff after the driver takes it?

We believe in Reuse > Renew > Recycle, in that order. If we can give your item a second life as-is, that's the best case. If it needs some mending first, we find a partner who can give it the TLC it needs. And if a second life isn't possible, it gets recycled: clothing is shredded and repurposed as insulation, seat cushions, or rags; electronics are disassembled and sold for parts or shredded and sold as scrap.

Is the pickup really free?

Yes, most pickups are completely free. Curb My Clutter will only charge a convenience fee for items that are particularly hard to collect. These include:

- \$10 for each microwave
- \$35 for each TV under 150 lbs and monitors that use a Cathode Ray Tube (CRT)
- \$100 for each TV 150 lbs or more, such as those with wooden cabinets or rear-projection TVs

Where should I leave my items?

You can leave your items on your porch, just outside your door, or just outside your garage.

What if I have items I don't want to leave outside, is that okay?

Yes! You might prefer to keep items like computers, phones, or tablets indoors until the driver arrives. When you schedule your pickup, you can ask CMC to ring your bell when they arrive.

Can I get a tax write off for items collected?

No. Just as your recycled paper, bottles and cans are not tax deductible, neither are recycled clothing and electronics.

If you have access to a local donation center prefer to donate some or all of your items, we respect that choice. Donation keeps your items out of the landfill, which makes us happy.

What photos do you want me to take to earn my reward?

If you share at least one photo (of anything other than a TV or microwave), then you are eligible for a reward once your pickup is collected. Ideally, we'd like photos of all electronics, any like-new items, and all jeans, shoes, or handbags to be collected.

How it Works



TEXT "pickup" to
610-TEXT-CMC (610-839-8262)



SNAP photos of your items



PICK an appointment time
that works for you



BAG/BOX your used
electronics and clothing



LEAVE them outside for pickup



EARN rewards



FEEL GOOD about giving your
items a second life





HOUSEHOLD HAZARDOUS WASTE

2020 MONTGOMERY COUNTY PA RESIDENTIAL EVENTS

9:00 am – 3:00 pm

DATES:

~~Saturday, April 25~~

~~Boyertown Middle School East~~

~~2020 Big Rd. • Gilbertsville~~

~~Cancellation due to COVID-19~~

~~Saturday, May 2~~

~~Indian Valley Middle School~~

~~130 Maple Ave. • Harleysville~~

~~Cancellation due to COVID-19~~

~~Saturday, May 16~~

~~Temple University–Ambler Campus~~

~~enter at 1431 E. Butler Pike • Ambler~~

~~Cancellation due to COVID-19~~

~~Saturday, June 13~~

~~Norristown Area High School~~

~~1900 Eagle Dr. • Norristown~~

~~Cancellation due to COVID-19~~

~~Saturday, June 20~~

~~Abington Junior High School~~

~~enter at 2056 Susquehanna Rd. • Abington~~

~~Cancellation due to COVID-19~~

~~Saturday, September 26~~

~~Spring-Ford 9th Grade Center~~

~~400 South Lewis Rd. • Royersford~~

~~SUNDAY, October 25~~

~~Lower Merion Transfer Station~~

~~1300 N. Woodbine Ave. • Penn Valley~~

Free residential collection events are held outdoors from 9am-3pm. Residents may attend any Household Hazardous Waste event held by Bucks, Chester, Delaware, Montgomery, or Philadelphia Counties.

For additional information and in case of severe weather:

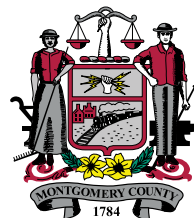
Please visit MontcoPARecycles.org, email recycling@montcopa.org, or call the recycling line at 610.278.3618. Please do not contact the host sites, as they are not affiliated with the events.

In case of severe weather, call 610.278.3618, option 6 for event status.

 Follow us on Facebook at [MontgomeryCountyRecycling](https://www.facebook.com/MontgomeryCountyRecycling).



Pennsylvania Department
of Environmental
Protection



MONTCO PA
RECYCLES



MontcoPARecycles.org

MONTGOMERY COUNTY BOARD OF COMMISSIONERS

Valerie A. Arkoosh, MD, MPH, *Chair* • Kenneth E. Lawrence, Jr., *Vice Chair* • Joseph C. Gale, *Commissioner*

HOUSEHOLD HAZARDOUS WASTE COLLECTION INFORMATION

ACCEPTABLE MATERIALS

PAINT PRODUCTS	OUTDOOR PRODUCTS	AUTOMOTIVE PRODUCTS	HOUSEHOLD PRODUCTS	HOUSEHOLD OTHER
Turpentine	Swimming Pool Chemicals	Grease & Rust Solvents	Drain Openers	Acids, Caustics, Solvents
Paint Thinners	Weed Killers	Fuel Additives	Rug Cleaners	Flammables
Strippers & Removers	Septic Tank Degreasers	Carburetor Cleaners	Wood & Metal Cleaners	Oxidizers
Oil-Based Paints	Asphalt Sealers	Transmission/Brake Fluid	Mothballs/Flakes	Reactives
Stains, Varnish	Caulking Compounds	Antifreeze	Adhesives/Solvents	Lead
Shellac	Joint Compound	Car(lead-acid), Truck, Motorcycle, Marine, Batteries	Rechargeable batteries, Lithium, Ni-Cad, Button, Lead Acid	Mercury (Thermostats & Thermometers)
Other Solvent-Based Paint Products	Roof Cements	Gas, Oil, Gas Oil Mixture	Spot Removers Dry Cleaning Fluid	Fluorescent Tubes, Ballast, and CFLs
Wallpaper Cement	MINI Propane Tanks	Flares	Fire Extinguishers	Aerosols
Spray Paint	Pesticide		Kerosene	Electric Oil-filled Heaters

UNACCEPTABLE MATERIALS

Explosives & Ammunition	Electronics	Asbestos	Appliances/White Goods
Infectious or Medical Waste	BBQ-Sized Propane Tanks (leave at local exchange sites)	Radioactive Waste	Freon/Refrigerants
Tires	Helium Tanks	Unidentified Waste	25- or 50-Gallon Drums
Latex Paint* (Water-Based)	Gas Cylinders	Alkaline Batteries (Trash)	Smoke Detectors

* Take off lid, dry out paint, discard can without lid; or pour paint into plastic bag with absorbent material (clay based kitty litter, saw dust, rags) place bag and can without lid, in trash. Paint hardener can also be purchased at hardware stores.

DROP OFF GUIDELINES

- MATERIALS MUST BE IN THE TRUNK OR BED OF VEHICLE AND WILL NOT BE COLLECTED FROM PASSENGER COMPARTMENT TO MAINTAIN SOCIAL DISTANCING. The only thing in your trunk should be waste for removal.
- Event workers will unload your materials so please remain in your vehicle with your windows up.
- Lines and wait times between 1-3 PM are much shorter, consider coming in the afternoon.
- BUSINESSES AND CONTRACTORS WILL BE TURNED AWAY, no commercial/industrial waste accepted.
- Bring all substances in original containers with labels. Items must be identifiable. Do not mix materials.
- Gas containers returned upon request.
- Tighten lids on all containers. If containers are leaking, pack in larger container with newspaper to soak up leaks.
- Maximum amount accepted is 25 gallons or 220 pounds. No 25- or 50-gallon drums.
- There are no permanent drop off locations in the region for household hazardous waste, only the listed collections.



Stony Creek Anglers
@StonyCreekAnglers

- Home
- About
- Events
- Photos
- Videos
- Community
- Reviews

Posts

Create a Page


Like Follow + Create Fundraiser ...

Write a comment...

Most Relevant is selected, so some comments may have been filtered out.

Stony Creek Anglers March 3 · 🌐

Stony Creek Anglers
 P.O. Box 566
 Eagleville, Pa. 19408


 Established 1997

A Non-Profit Organization
 President: Charles Wood
 Vice-president: Andrew Nesbitt
 Treasurer: Danielle London
 Recording Secretary: Open
 Nursery Manager: John Sauer

STONY CREEK ANGLERS

34th Annual Memorial Clean Up




Saturday March 28, 2020

8:00AM till Noon – RAIN or SHINE

Meet at the Bocce Court in Elmwood Park
 We Will Provide: Gloves & Bags
Dress According to Weather - If Possible Bring Waders
For More Information Call Chas Wood at 267-438-2572
 Hot Chocolate & Coffee Will Be Provided

Trucks & Drivers Provided by the Borough of Norristown, Elmwood Park Zoo & London Landscaping
 Facilities Provided by the Norristown Bocce League
 Lunch Provided By the Anglers & The Norristown Maenner-Chor Club

This Year's Clean Up Is Dedicated In Memory Of

STEVEN A. CORBIN October, 5, 1964 to October, 24, 2019	EUGENE C. ROBERTS May, 27, 1954 to September, 28, 2019	GLENN R. MAKARA April, 21, 1953 to August, 12, 2019
		

11

1 Comment 12 Shares

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Visitor Posts

Gregory Fatto April 9 at 11:00

Rebecca Fatto take for a little recreation... i good sport.

Like · Comment

Donna McCu July 13, 2019

Count down on today's going to catch the bigg

Like · Comment

Chuck Ellmc July 12, 2019

Catfish tournament still

Like · Comment

English (US) · Español · Français (France) · Deuts

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West Norriton Township Pollutant Reduction Plan

July 9, 2019

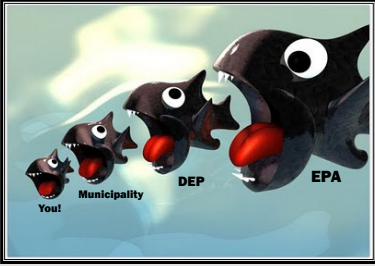

Beth Uhler
MS4 Program Manager




1

National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4)


UNFUNDED MANDATE

2

What is the NPDES MS4 Program?

- Five (5) year Permit Terms
- Ultimate goal for this Program
 - Recognize and increase awareness of stormwater as a point-source pollutant
 - Manage stormwater as you would any other point-source pollutant (like sewage)



3

Minimum Control Measures


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



4

Permit Round 3

- Effective in March 2018 (due September 16, 2017)
- Continuation of Minimum Control Measures
- Pollutant Reduction Plans (PRPs)
 - Discharges to Waters Impaired by Nutrients and/or Sediment
 - STONY CREEK, INDIAN CREEK, AND UNNAMED TRIBUTARIES TO SCHUYLKILL RIVER**
- Pollutant Control Measures (PCMs)
 - Appendix C (PCBs)
 - SCHUYLKILL RIVER**





5

What is a Pollutant Reduction Plan?

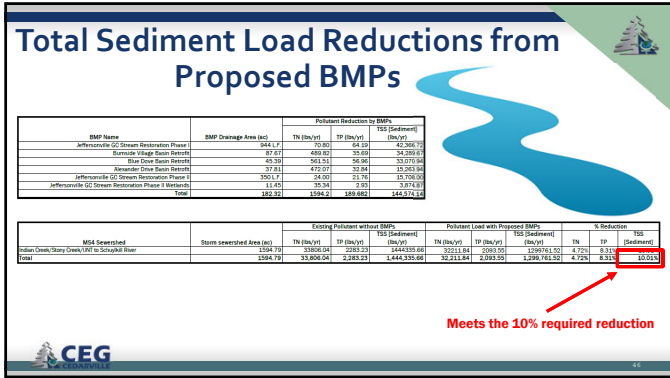
Permit Requires:

Projects (i.e. BMPs) that will reduce the sediment load to STREAMS IMPAIRED BY SEDIMENT (Stony Creek, Indian Creek, Unnamed Tributaries to Schuylkill River) by 10% over the 5-year permit term

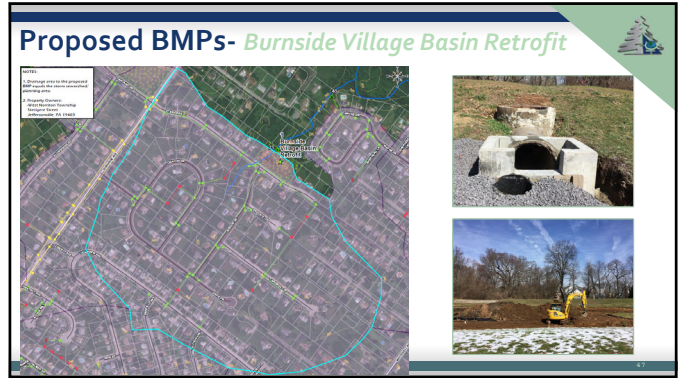
- Rain Gardens
- Basin Retrofits
- Stream Restoration
- Porous Pavement
- Green Roofs
- Riparian Buffer Enhancement

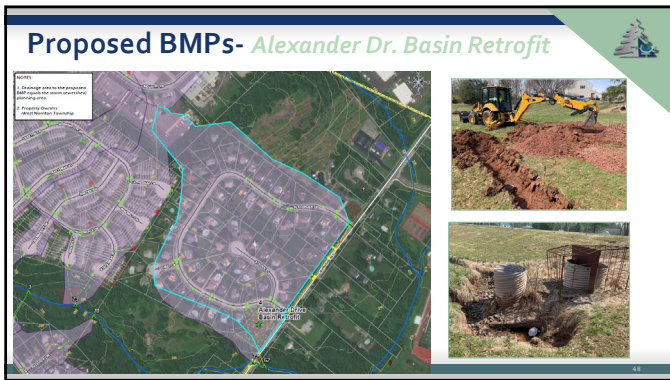
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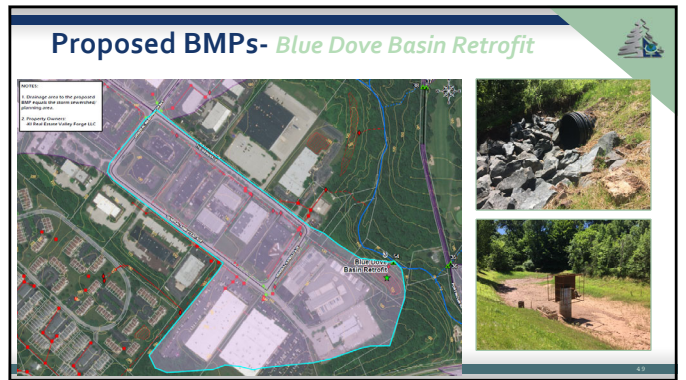
13



14



15



16



17

Operations & Maintenance of BMPs


- Identify **RESPONSIBLE PARTY**.
- List what **O&M** is needed for each BMP.

BMP	Owner	Responsible Party for O&M	O&M Responsibilities
Burnside Village Basin Retrofit	West Norriton Township	West Norriton Township	<ul style="list-style-type: none"> Inspect at least 2x per year Clean inlets at least 2x per year Maintain vegetation Remove invasive species Prohibit vehicular access Avoid excessive compaction by mowers
Blue Dove Basin Retrofit	KI Real Estate Valley Forge, LLC	KI Real Estate Valley Forge, LLC	<ul style="list-style-type: none"> Inspect at least 2x per year Avoid excessive use of fertilizers, pesticides, or other chemicals Mow surrounding areas as appropriate (remove clippings) Remove accumulated sediment
Alexander Drive Basin Retrofit	West Norriton Township	West Norriton Township	<ul style="list-style-type: none"> Inspect at least 2x per year Avoid excessive use of fertilizers, pesticides, or other chemicals Mow surrounding areas as appropriate (remove clippings) Remove invasive species Remove debris
Jeffersonville Golf Club Stream Restoration Phases I and II	West Norriton Township	West Norriton Township	<ul style="list-style-type: none"> Inspect at least 2x per year Avoid excessive use of fertilizers, pesticides, or other chemicals Mow surrounding areas as appropriate (remove clippings) Remove invasive species Remove debris

18

Funding Mechanisms

Source	Agency	Project	Probable Cost Estimate	% Sediment Reduction
...	Growing Greener Grant	2.29
...	Property Owner	2.21
...	Growing Greener Grant	2.83
...	\$135,000-\$195,000	1.31
...	\$230,000	1.02



19

Public Participation

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20

Next Steps

- 1) **Feedback-** Close Public Participation period July 11 and address any comments.
- 2) **Submit-** updated TMDL/Pollutant Reduction Plan to DEP.
- 3) **Implement-** The 5-year Implementation Period begins once approval is received and permit is issued by DEP.

Additionally:

- Pollutant Reduction Plan is a dynamic document and can be revised at any time.
- Township may want to consider potential funding sources.



21

Funding Options

- 1) **GRANTS**
 - a) Watershed Resource Protection Program (WRPP)
 - b) Growing Greener Plus
- 2) **LOW-INTEREST LOANS**
 - a) PENNVEST
- 3) **Stormwater Fee**




22

Construction Site Runoff Control (MCM #4)

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







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

BMP Number	Site	Year	Site Address	Owner
1	Wetland	1		
2	Wetland	1		
3	Wetland	1		
4	Wetland	1		
5	Wetland	1		
6	Wetland	1		
7	Wetland	1		
8	Wetland	1		
9	Wetland	1		
10	Wetland	1		
11	Wetland	1		
12	Wetland	1		
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99	Wetland	1		
100	Wetland	1		

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Pollution Prevention & Good Housekeeping (MCM #6)



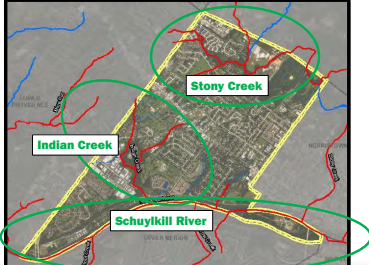

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Pollutant Reduction Plan

Completed BMP – Burnside Village Basin Retrofit

- Growing Greener Grant
Ixqg lqj #rew#lqhg#lq#
53481
- Frqyhwhg#r#lq#
Extended Detention Basin z lq#p lfursrrov#
- Construction frp sdwhg#
lq#534:1






STORMWATER MANAGEMENT PROGRAM PUBLIC INVOLVEMENT & PARTICIPATION



West Norriton Township
Montgomery County, Pennsylvania

1630 West Marshall Street
Jeffersonville, PA 19403

Updated: March 2020

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State Certified DBE/WBE



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1. INTRODUCTION

West Norriton Township has developed a Public Involvement and Participation Program (PIPP) as part of the Township’s Stormwater Management Program that will be reviewed annually and updated as necessary. The PIPP provides a vehicle for the public to participate in the Township’s Stormwater Management Program. Specifically, the PIPP addresses:

- Opportunities for the public to **participate** in the decision-making processes associated with the development, implementation, and update of programs and activities related to the Stormwater Management Program.
- Methods of routine **communication** to groups such as watershed associations, environmental advisory committees, and other environmental organizations that operate with the Township.
- Making the Township’s **periodic reports** available to the public on the website, at the Township building, or by U.S. mail upon request.

The PIPP is designed to comply with the West Norriton Township’s National Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES MS4) General Permit No. PAG130006 issued by the Pennsylvania Department of Environmental Protection (PA DEP) and has been updated per the Special Conditions listed in the current 2018 PAG-13 NPDES MS4 permit (3800-PM-BCW0100d 5/2016). More specifically, it will meet the measurable goals and criteria outlined in Minimum Control Measure (MCM) No. 2 – Public Involvement/Participation – Best Management Practice (BMP) #1 of the NPDES MS4 permit.

The PIPP is designed to comply with all applicable state and local public notice requirements.

2. PUBLIC PARTICIPATION & INVOLVEMENT

The Township encourages public participation and involvement by listening to the public’s concerns and coming up with solutions together. Through this, the Township gains the public’s support and the community becomes invested in the program.

Below are ways in which the Township provides opportunities for the public to participate and be involved with the Township’s MS4 program.



2.1. West Norriton Township Stormwater Management Ordinance

The Township adopted a stormwater ordinance as part of the Township Code on July 13, 2004. The ordinance may be cited as the “West Norriton Township Stormwater Management Ordinance” and is Ordinance 04-595. The adoption of this ordinance followed the advertising requirements set forth in the Pennsylvania General Assembly Second Class Township Code (1933 Act 69), Section 1601 to provide the opportunity for public review, input, and feedback. The ordinance can be found on the township’s website.

2.2. New Ordinances

Notice of the Township’s intent to adopt an ordinance will follow the advertising requirements set forth in the Pennsylvania General Assembly Second Class Township Code (1933 Act 69), Section 1601 to provide the opportunity for public review, input, and feedback. A summary of the code and location where copies may be obtained or reviewed will be published in the newspaper no more than 60 days nor less than 7 days prior to ordinance passage. The public hearing in which the proposed ordinances will be decided upon may also be advertised on the Township website. Dates of the notification(s) and feedback from the public regarding the ordinances will be documented.

2.3. Public Meetings

The Township will primarily solicit public involvement and participation from the target audience groups identified in the Public Education & Outreach Program (PEOP) by presenting information about the Stormwater Management Program at a minimum of one public meeting per year, which is above and beyond the permit requirements. The meeting can be MS4-specific or any other public meeting where MS4 information is included. The permit only requires a public meeting presentation once per permit period (five years). The Township elects to complete one annually due to the importance of the subject matter

The presentation will provide a summary of the Stormwater Management Program’s progress, activities, and accomplishments, and solicit feedback from the public. The presentation should be documented and reported to DEP in the Annual MS4 Status Report.

The Township’s environmental advisory committee was established in 2015 and will hold meetings that are open to the public. This will provide another opportunity for public participation in activities pertaining to the Township’s Stormwater Management Program.

2.4. Other Activities

Document and report other instances of public participation and involvement in activities during the reporting period. These activities may include the following:

- Participation in stormwater-related Township activities;
- Presentations to local watershed and/or conservation organizations;
- Educational activities;
- Cleanups;
- Compliance monitoring; and
- Storm drain stenciling.



These activities are optional and not required by the permit. The Township will make an effort to engage the public in these type of activities as resources are available.

3. COMMUNICATION WITH ENVIRONMENTAL GROUPS

The Township maintains routine communication with various groups to further shared water quality and environmental protection goals, as detailed in **Table 1** below.

Table 1: Cooperative Involvement

Entity	Description
West Norriton Township's Environmental Advisory Committee (EAC)	The EAC advises the Township regarding numerous environmental issues, including street cleanup to clear storm drains and maintenance of updated stormwater infrastructure mapping (i.e., updated basin inventory). Minutes to the EAC meetings are available to the public on the Township website.
Stony Creek Anglers	The Stony Creek Anglers is a co-operative trout nursery, watershed conservation organization, and the local leader in protecting water quality and the environment. They host various community involvement events, including their annual stream cleanup.
Center for Watershed Protection (CWP)	The CWP is a non-profit organization that aims to protect and restore water quality throughout the nation by assisting municipalities with their clean water projects, both actively (via regulation review or training workshops) and/or passively (via their published guidance manuals). The CWP is a national leader on stormwater management and watershed planning with a focus on watershed research and public education.
Montgomery County Conservation District (MCCD)	The MCCD works with watershed associations, conservation groups and organizations, municipalities, corporations, and individual landowners to provide assistance in conserving their local watersheds.
Pennsylvania Department of Environmental Protection (DEP)	The DEP's Bureau of Clean Water administers the NPDES permitting and compliance monitoring programs for industrial, municipal, and construction stormwater in Pennsylvania. The Bureau also oversees the implementation of the Act 167 stormwater management program in DEP's regional offices.
Neighboring Municipalities	The Township is open to partnerships with adjacent municipalities to further their water quality improvement goals. For example, the Township purchased the Van Landeghem property with East Norriton Township for future open space projects.
Montgomery County	The Township shares Montgomery County hosted events and recycling information on their municipal website to increase public awareness and involvement in the County-hosted pollution reduction events.



4. COMMUNITY EVENTS

The Township regularly hosts a variety of community events, including, but not limited to, the following:

- Easter Egg Hunt
- Family Movie Night
- Halloween Parade & Party
- Holiday Decorating Contest
- West Norriton Day
- Tree Lighting Ceremony



The Township also provides numerous community programs, including, but not limited to, the following:

- Sports teams
 - Basketball
 - Soccer
 - Baseball
 - Football
 - Cheerleading
 - Tennis
 - Swim
 - Wrestling
- Summer Camp
- Drama Camp
- Karate
- Zumba (for all ages)



West Norriton Summer Camp

Given the Township's active engagement with the community, the integration of stormwater-related information into existing events is a viable option for public involvement and participation. The Township already does this during their Summer Camp by allowing the children to paint rain barrels, stencil storm drains, and interact with the Enviroscape model. Information distribution can be as simple as handing out pamphlets, hosting an event table dedicated to stormwater, or allowing people walking by to put their handprint on a rain barrel (during which time the purpose and benefits of a rain barrel could be discussed).



5. ANNUAL GOALS

The specific goals for the PIPP to be completed annually to meet the minimum permit requirements are detailed in **Table 2** below. In addition, West Norriton Township will go above and beyond the permit requirements, as resources allow.



Table 2: Permit Compliance

Permit Requirements	Minimum Township Compliance Goal	Above and Beyond Measures
BMP #1: Develop, implement, and maintain a written PIPP that describes various types of participation activities.	The Township has a written PIPP that is reviewed annually and revised as necessary.	-
BMP #2: The permittee shall advertise and solicit public input for Stormwater Management Ordinances, Standard Operating Procedures (SOPs), and Pollutant Reduction Plans (PRPs).	The Township will advertise and solicit public input for any ordinance or PRP revisions and/or updates.	-
BMP #3: Regularly solicit public involvement and participation from target audience groups to assist the public in their stormwater management program (SWMP) implementation and illicit discharge reporting. The permittee should also document instances of cooperation and public involvement activities.	<p>The Township will regularly solicit public involvement and participation from target audience groups through the following methods:</p> <ul style="list-style-type: none"> • The Township will conduct public meeting presentations at a minimum of once per permit period; and • The Township will utilize social media to share stormwater-related event information; • The Township will engage with the EAC; • The Township will partner with the Stony Creek Anglers, along with other organizations, who host community involvement events (i.e., stream cleanups); or • The Township will provide a stormwater education event for children at Summer Camp or Community Day. 	The Township may exceed the minimum requirement by completing annual public meeting presentations and by increasing their implementation of the methods mentioned as resources allow.



Enviroscape model demonstration at West Norriton Summer Camp at Marshall Street Elementary School.

6. ANNUAL REPORTING AND ACCOMPLISHMENTS

The Township is required to submit Annual MS4 Status Reports to PA DEP by September 30th. These reports are available to the public by request at the Township building. PIPP accomplishments will be reported in the Annual MS4 Status Reports.



Annual MS4 Status Report

APPENDIX C

MCM #3 Illicit Discharge Detection and Elimination

- 1. Illicit Discharge Reporting Forms**
- 2. Dry Weather Outfall Field Screening Report**
- 3. Priority Area Outfall Determination Report**
- 4. IDDE Program (Updated March 2020)**

**ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form**

STRUCTURE #: 626 Date: 12/11/19 Time: 2:08 PM

STRUCTURE OWNER: TOWNSHIP PENNDOT PRIVATE DEVELOPMENT _____

TIME SINCE LAST RAIN: ≥72 hours <72 hours
QUANTITY OF LAST RAIN: ≥0.1 inches <0.1 inches
INSPECTION TEAM: Amanda R. & Nicole M.

SITE DESCRIPTION:

LOCATION (Narrative Description): In front of 2041 Hemlock Rd

STRUCTURE TYPE: OPEN CHANNEL MANHOLE OUTFALL OTHER: Inlet

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL RESIDENTIAL UNKNOWN
OTHER: _____

FLOW ESTIMATION:

WAS FLOW OBSERVED? NO YES IF YES, PLEASE ANSWER a. - d. BELOW.
a. WIDTH OF WATER SURFACE (feet): _____
b. APPROXIMATE DEPTH OF WATER (feet): _____
c. APPROXIMATE FLOW VELOCITY (feet per second): _____
d. FLOW RATE (cubic feet per second) = a x b x c = _____

VISUAL OBSERVATIONS:

WAS A PHOTO TAKEN? NO YES (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: NONE OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: NONE SEDIMENTS OILY OTHER: _____

VEGETATION CONDITION: NONE NORMAL EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: NORMAL CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C CHLORINE (Total): _____ mg/l
pH: _____ COPPER: _____ mg/l
PHENOL: _____ mg/l DETERGENTS: _____ mg/l

WAS A LABORATORY SAMPLE COLLECTED? NO YES
(if yes attach copy of chain-of-custody record)

COMMENTS: The substance was soft and wet. It did not have an odor. It was shiny and grey. It felt like wet sand.

DATA SHEET FILLED OUT BY: (signature): Amanda Reitbauer DATE: 12/11/19

(print name): Amanda Reitbauer



**ILLICIT DISCHARGE FIELD SCREENING PROGRAM
Data Collection Form**

STRUCTURE #: 929 Date: 02/20/20 Time: 10:23

STRUCTURE OWNER: TOWNSHIP PENNDOT PRIVATE DEVELOPMENT _____

TIME SINCE LAST RAIN: ≥72 hours <72 hours
QUANTITY OF LAST RAIN: ≥0.1 inches <0.1 inches
INSPECTION TEAM: WH & AR

SITE DESCRIPTION:

LOCATION (Narrative Description): 7/11 side parking lot. Corner of Montgomery Ave. and Main St.

STRUCTURE TYPE: OPEN CHANNEL MANHOLE OUTFALL OTHER: Inlet

DOMINANT WATERSHED LAND USES: INDUSTRIAL COMMERCIAL RESIDENTIAL UNKNOWN
OTHER: _____

FLOW ESTIMATION:

WAS FLOW OBSERVED? NO YES IF YES, PLEASE ANSWER a. - d. BELOW.
a. WIDTH OF WATER SURFACE (feet): _____ 1
b. APPROXIMATE DEPTH OF WATER (feet): _____ 0
c. APPROXIMATE FLOW VELOCITY (feet per second): _____ 1
d. FLOW RATE (cubic feet per second) = a x b x c = _____ 0

VISUAL OBSERVATIONS:

WAS A PHOTO TAKEN? NO YES (Roll and Photo Number: _____)

ODOR: NONE MUSTY SEWAGE ROTTEN EGGS SOUR MILK OTHER: _____

COLOR: CLEAR RED YELLOW BROWN GREEN GREY OTHER: _____

CLARITY: CLEAR CLOUDY OPAQUE

FLOATABLES: NONE OILY SHEEN GARBAGE/SEWAGE OTHER: _____

DEPOSITS/STAINS: NONE SEDIMENTS OILY OTHER: Toilet paper, raw sewage

VEGETATION CONDITION: NONE NORMAL EXCESSIVE GROWTH INHIBITED GROWTH

STRUCTURAL CONDITION: NORMAL CONCRETE CRACKING METAL CORROSION OTHER: _____

BIOLOGICAL: MOSQUITO LARVAE BACTERIA/ALGAE OTHER: _____

FIELD ANALYSIS:

WATER TEMP: _____ °F / °C CHLORINE (Total): _____ mg/l
pH: _____ COPPER: _____ mg/l
PHENOL: _____ mg/l DETERGENTS: _____ mg/l

WAS A LABORATORY SAMPLE COLLECTED? NO YES
(if yes attach copy of chain-of-custody record)

COMMENTS: 7/11 representatives opened clogged sewer lateral and released raw sewage that drained directly into Township inlet 929.

DATA SHEET FILLED OUT BY: (signature): WSH DATE: 2/20/20

(print name): William Hendel

PHOTOGRAPH 1:



PHOTOGRAPH 2:





STORMWATER MANAGEMENT PROGRAM

DRY WEATHER OUTFALL FIELD SCREENING REPORT



West Norriton Township
Montgomery County, Pennsylvania

1630 W. Marshall St.
Jeffersonville, PA 19403

April 2020

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Pottstown, PA 19464
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f @cedarvilleeng



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State Certified DBE/WBE



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APPENDICES

- Appendix A – Outfall Summary Chart
- Appendix B – Outfall Inspection Reports



1. INTRODUCTION

CEDARVILLE Engineering Group, LLC (CEG) has performed outfall field screening on behalf of West Norriton Township as required by Minimum Control Measure (MCM) #3 “Illicit Discharge Detection and Elimination” (IDD&E) of the National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) General Permit No. PAG130006. West Norriton Township has eighty-eight (88) outfalls within their regulated MS4. An additional two outfalls were identified during the field screening process. These outfalls were added to the Township outfall database and screened. All eighty-seven (88) existing outfalls were screened including the two additional outfalls identified to account for a total of ninety (90) outfalls screened.

2. METHODS

The outfalls were assessed per the IDD&E protocol outlined in MCM #3 - BMP #4 of the NPDES MS4 General Permit and the Township IDD&E Program. All outfalls are required to be evaluated at least once during each 5-year permit coverage term. Outfalls where past problems have been reported or known sources of dry weather flows occur on a continual basis are required to be screened annually.

Outfalls must be evaluated a minimum of 48 hours after the last precipitation event to ensure any flows observed are not stormwater-related (i.e. dry weather flow). If the screening revealed dry weather flow, the discharge from the outfall and the area around the outfall was inspected visually for color, turbidity, sheen, floating or submerged solids, adverse effects on plants or animals in proximity to the outfall, and odor.

If the outfall has flow that has a potential, suspect, or obvious illicit discharge as determined by the screening, then samples of the discharge are required to be collected for field and/or lab testing of selected chemical and biological parameters as part of a process to determine if the dry weather flow is illicit. Testing parameters include, but are not limited to: pH, conductivity, E. Coli bacteria, fecal coliform bacteria, metals, suspended solids, dissolved solids, oils, ammonia, surfactants, chlorine, and fluoride.

Observations of each outfall were recorded at the time of the screening, regardless of the presence of dry weather flow. All outfall inspection information was recorded digitally using an ArcGIS Online Survey123 Form, which was developed from the Outfall Reconnaissance Inventory/Sample Collection Field Sheet (Center for Watershed Protection 2004), as required by the Pennsylvania Department of Environmental Protection (PA DEP). Written justification has been provided for all outfalls with dry weather flow present, but none were determined illicit.

The results of outfall inspections and actions taken to remove or correct illicit discharges are required to be summarized in the progress report.



3. RESULTS

The outfall field screening was conducted on February 24th 2020, and March 9th 2020 and revealed that out of the ninety (90) outfalls evaluated, dry weather flow was present in eleven (11) outfalls. No physical indicators of potential illicit discharges were observed in any of the outfalls with dry weather flow present; therefore, illicit discharges were determined to be unlikely. In almost all cases, the dry weather flow observed appear to originate from naturally occurring sources, including but not limited to: pond discharges, perennial or intermittent streams, spring seeps, and/or other groundwater sources. This is based on visual observation and is not definitive without laboratory testing.

Refer to **Table 1** below for details regarding the eleven (11) outfalls where dry weather flow was observed, including an explanation for its presence. Refer to **Appendix A** for detailed information on all ninety (90) outfalls.

Table 1. Outfalls with Dry Weather Flow

Outfall ID	Pipe Type	Pipe Diameter (in)	Shape	Flow Present	Illicit Discharge Determination	Outfall Condition	Subwatershed	Notes
12	RCP	36	Circular	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to naturally occurring sources.
17	RCP	18	Circular	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to naturally occurring sources.
19	HDPE	28	Circular	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to residential pool drainage into the system.
22	RCP	36	Circular	Yes	Unlikely	Good	Stony Creek	Flow due to naturally occurring sources.
33	RCP	42	Circular	Yes	Unlikely	Good	Stony Creek	Flow due to naturally occurring sources.
50	RCP	36	Circular	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to naturally occurring sources.
62	RCP	36	Circular	Yes	Unlikely	Good	Stony Creek	Flow due to naturally occurring sources.
63	CMP	36	Circular	Yes	Unlikely	Good	Stony Creek	Flow due to naturally occurring sources.
64	CMP	24	Circular	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to naturally occurring sources.
68	Steel	18	Circular	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to naturally occurring sources.
82	RCP	48	Circular	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to naturally occurring sources.



Refer to **Appendices A** and **B** for an Outfall Screening Summary Chart and the individual Outfall Inspection Reports, which includes photo documentation of each outfall. The structural condition of each outfall has been noted in both the inspection reports and summary chart.

4. CONCLUSION

Of the ninety (90) outfalls evaluated, dry weather flow was present in eleven (11) outfalls, and illicit discharges were determined to be unlikely in those with dry weather flows. No further investigation is recommended at this time.

APPENDIX A

Outfall Summary Chart



OUTFALL FIELD SCREENING

SUMMARY CHART

LOCATION: West Norriton Township
 SCREENING DATES: 2/24/20, 3/9/20
 BY: W. Hendel and A. Reitbauer

Outfall ID	Type	Pipe Type	Shape	Pipe Diameter (in)	Flow Present	Illicit Discharge Determination	Outfall Condition	Subwatershed:	Notes
1	Observation Point	RCP	Circular	24	No	Unlikely	Good	Stony Creek	No issues.
2	Observation Point	RCP	Circular	10	No	Unlikely	Good	Stony Creek	No issues.
3	Observation Point	RCP	Circular	34	No	Unlikely	Good	Stony Creek	No issues.
4	Observation Point	RCP	Circular	36	No	Unlikely	Good	Stony Creek	No issues.
5	Observation Point	RCP	Circular	20	No	Unlikely	Good	Stony Creek	No issues.
6	Observation Point	RCP	Circular	16	No	Unlikely	Good	Stony Creek	No issues.
7	Observation Point	RCP	Circular	24	No	Unlikely	Good	Stony Creek	No issues.
8	Observation Point	RCP	Circular	16	No	Unlikely	Good	Stony Creek	No issues.
9	Observation Point	RCP	Circular	20	No	Unlikely	Good	Stony Creek	No issues.
10	Observation Point	RCP	Circular	16	No	Unlikely	Good	Stony Creek	No issues.
11	Observation Point	RCP	Circular	24	No	Unlikely	Good	Stony Creek	No issues.
12	Outfall	RCP	Circular	36	Yes	Unlikely	Good	Stony Creek	Flow due to presence of stream.
13	Outfall	RCP	Elliptical	26	No	Unlikely	Good	Stony Creek	No issues.
14	Outfall	RCP	Circular	30	No	Unlikely	Good	Stony Creek	No issues.
15	Observation Point	RCP	Circular	30	No	Unlikely	Good	Stony Creek	No issues.
16	Observation Point	RCP	Circular	12	No	Unlikely	Good	Stony Creek	No issues.
17	Outfall	RCP	Circular	18	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to presence of stream.

OUTFALL FIELD SCREENING

SUMMARY CHART

LOCATION: West Norriton Township
SCREENING DATES: 2/24/20, 3/9/20
BY: W. Hendel and A. Reitbauer

Outfall ID	Type	Pipe Type	Shape	Pipe Diameter (in)	Flow Present	Illicit Discharge Determination	Outfall Condition	Subwatershed:	Notes
18	Outfall	RCP	Circular	36	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
19	Observation Point	HDPE	Circular	28	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to draining of residential pool.
20	Observation Point	RCP	Circular	24	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
21	Observation Point	RCP	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
22	Outfall	RCP	Circular	36	Yes	Unlikely	Good	Stony Creek	Flow due to presence of stream.
23	Observation Point	RCP	Circular	24	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
24	Observation Point	RCP	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
25	Observation Point	RCP	Circular	24	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
26	Observation Point	RCP	Circular	24	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
27	Observation Point	RCP	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
28	Observation Point	RCP	Circular	48	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
29	Observation Point	RCP	Circular	16	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
30	Observation Point	RCP	Circular	36	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
31	Observation Point	RCP	Circular	40	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
32	Outfall	CMP	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
33	Outfall	RCP	Circular	36	Yes	Unlikely	Good	Stony Creek	Flow due to presence of stream.
34	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.



OUTFALL FIELD SCREENING

SUMMARY CHART

LOCATION: West Norriton Township
SCREENING DATES: 2/24/20, 3/9/20
BY: W. Hendel and A. Reitbauer

Outfall ID	Type	Pipe Type	Shape	Pipe Diameter (in)	Flow Present	Illicit Discharge Determination	Outfall Condition	Subwatershed:	Notes
35	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
36	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
37	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
38	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
39	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
40	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
41	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
42	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
43	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
44	Outfall	Open Concrete	Swale	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
45	Observation Point	Open	Scupper	N/A	No	Unlikely	Good	Stony Creek	No issues.
46	Outfall	Open	Scupper	N/A	No	Unlikely	Good	Stony Creek	No issues.
47	Outfall	RCP	Circular	18	No	Unlikely	Good	Stony Creek	No issues.
48	Observation Point	RCP	Circular	24	No	Unlikely	Good	Stony Creek	No issues.
49	Observation Point	RCP	Circular	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
50	Outfall	RCP	Circular	36	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to presence of stream.
51	Outfall	CMP	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.

OUTFALL FIELD SCREENING

SUMMARY CHART

LOCATION: West Norriton Township
SCREENING DATES: 2/24/20, 3/9/20
BY: W. Hendel and A. Reitbauer

Outfall ID	Type	Pipe Type	Shape	Pipe Diameter (in)	Flow Present	Illicit Discharge Determination	Outfall Condition	Subwatershed:	Notes
52	Observation Point	RCP	Circular	42	No	Unlikely	Good	Stony Creek	No issues.
53	Observation Point	RCP	Circular	24	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
54	Observation Point	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
55	Outfall	RCP	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
56	Outfall	RCP	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
57	Outfall	HDPE	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
58	Outfall	RCP	Circular	24	No	Unlikely	Good	Stony Creek	No issues.
59	Outfall	RCP	Circular	32	No	Unlikely	Good	Stony Creek	No issues.
60	Observation Point	RCP	Circular	N/A	No	Unlikely	Good	Stony Creek	No issues.
61	Observation Point	RCP	Circular	18	No	Unlikely	Good	Stony Creek	No issues.
62	Observation Point	RCP	Circular	36	Yes	Unlikely	Good	Stony Creek	Flow due to presence of stream.
63	Outfall	Open	Earthen	36	Yes	Unlikely	Good	Stony Creek	Flow due to presence of stream.
64	Observation Point	CMP	Circular	24	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to presence of stream.
65	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
66	Outfall	Open	Swale	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
67	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
68	Outfall	Steel	Circular	18	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to presence of stream.
69	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Stony Creek	No issues.

OUTFALL FIELD SCREENING

SUMMARY CHART

LOCATION: West Norriton Township
SCREENING DATES: 2/24/20, 3/9/20
BY: W. Hendel and A. Reitbauer

Outfall ID	Type	Pipe Type	Shape	Pipe Diameter (in)	Flow Present	Illicit Discharge Determination	Outfall Condition	Subwatershed:	Notes
70	Observation Point	RCP	Circular	16	No	Unlikely	Good	Stony Creek	No issues.
71	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Stony Creek	No issues.
72	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Stony Creek	No issues.
73	Observation Point	RCP	Circular	36	No	Unlikely	Good	Stony Creek	No issues.
73A	Observation Point	RCP	Circular	30	No	Unlikely	Good	Stony Creek	No issues.
74	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues. Outfall is non-point source.
75	Observation Point	Open Concrete	Swale	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues. Observation point is non-point source.
76	Observation Point	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
77	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues. Outfall is non-point source entering the stream.
78	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues. Outfall is non-point source.
79	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
80	Outfall	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
81	Observation Point	CMP	Circular	18	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
82	Outfall	RCP	Circular	36	Yes	Unlikely	Good	Mingo Creek-Schuylkill River	Flow due to presence of other groundwater sources.
83	Outfall	RCP	Circular	24	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
84	Outfall	RCP	Circular	24	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
85	Observation Point	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.



OUTFALL FIELD SCREENING

SUMMARY CHART

LOCATION: West Norriton Township
SCREENING DATES: 2/24/20, 3/9/20
BY: W. Hendel and A. Reitbauer

Outfall ID	Type	Pipe Type	Shape	Pipe Diameter (in)	Flow Present	Illicit Discharge Determination	Outfall Condition	Subwatershed:	Notes
86	Observation Point	CMP	Circular	12	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues. Observation point is located at private inlet.
87	Observation Point	Open	Earthen	N/A	No	Unlikely	Good	Mingo Creek-Schuylkill River	No issues.
88	Outfall	RCP	Circular	32	No	Unlikely	Good	Stony Creek	No issues.
89	Outfall	RCP	Circular	32	No	Unlikely	Good	Stony Creek	No issues.



APPENDIX B

Outfall Inspection Reports





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:52
Outfall Number: 1	Outfall or Observation Point: Observation Point
Lat/Long: -75.3766, 40.15084	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	20	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:40
Outfall Number: 2	Outfall or Observation Point: Observation Point
Lat/Long: -75.37375, 40.14447	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	16	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:33
Outfall Number: 3	Outfall or Observation Point: Observation Point
Lat/Long: -75.37499, 40.14758	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:30
Outfall Number: 4	Outfall or Observation Point: Observation Point
Lat/Long: -75.37618, 40.14865	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	12	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:27
Outfall Number: 5	Outfall or Observation Point: Observation Point
Lat/Long: -75.3778, 40.1505	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	20	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

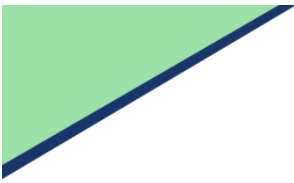


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:25
Outfall Number: 6	Outfall or Observation Point: Observation Point
Lat/Long: -75.3801, 40.15025	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	16	In water: No
				With sediment: Partially
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

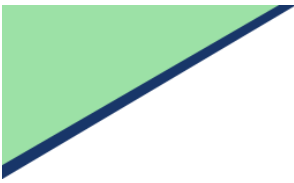


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:34
Outfall Number: 7	Outfall or Observation Point: Observation Point
Lat/Long: -75.37867, 40.15211	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:39
Outfall Number: 8	Outfall or Observation Point: Observation Point
Lat/Long: -75.3779, 40.15168	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	30	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:43
Outfall Number: 9	Outfall or Observation Point: Observation Point
Lat/Long: -75.37777, 40.1505	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:47
Outfall Number: 10	Outfall or Observation Point: Observation Point
Lat/Long: -75.37987, 40.15189	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	16	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

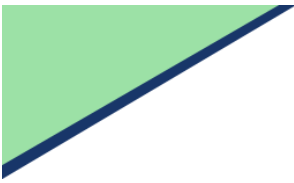


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:45
Outfall Number: 11	Outfall or Observation Point: Observation Point
Lat/Long: -75.37901, 40.15034	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:22
Outfall Number: 12	Outfall or Observation Point: Outfall
Lat/Long: -75.3814, 40.14215	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: Partially
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present): Trickle				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	140 ml	Bottle
	Time to fill	.53	Sec
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature	45	°F	Thermometer
pH	7	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow is due to presence of stream.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:24
Outfall Number: 13	Outfall or Observation Point: Outfall
Lat/Long: -75.38142, 40.14208	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

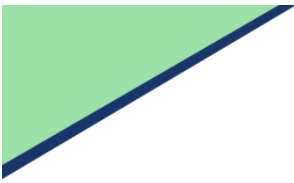


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:41
Outfall Number: 14	Outfall or Observation Point: Outfall
Lat/Long: -75.37789, 40.15167	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	16	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:01
Outfall Number: 15	Outfall or Observation Point: Observation Point
Lat/Long: -75.37622, 40.14881	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	30	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:05
Outfall Number: 16	Outfall or Observation Point: Observation Point
Lat/Long: -75.37558, 40.1481	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	12	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 09:50
Outfall Number: 17	Outfall or Observation Point: Outfall
Lat/Long: -75.39455, 40.1344	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Open Space, Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present): Moderate				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	100 mL	Bottle
	Time to fill	1.26 sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature	50	°F	Thermometer
pH	6.5	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

Flow due to natural groundwater.

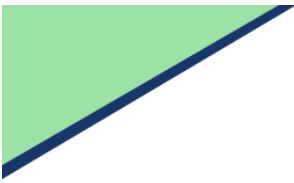


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:27
Outfall Number: 18	Outfall or Observation Point: Outfall
Lat/Long: -75.38646, 40.13098	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:28
Outfall Number: 19	Outfall or Observation Point: Observation Point
Lat/Long: -75.37638, 40.12712	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	HDPE	Circular	28	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? Yes				
Flow volume description (if present): Substantial				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	50 ml	Bottle
	Time to fill	1.11	
Flow #2	Flow depth		Tape measure
	Flow width		Tape measure
	Measured length		Tape measure
	Time of travel		Stop watch
Temperature	45	°F	Thermometer
pH	7.5	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow is from draining of residential pool.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:02
Outfall Number: 20	Outfall or Observation Point: Observation Point
Lat/Long: -75.37918, 40.12225	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	28	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:04
Outfall Number: 21	Outfall or Observation Point: Observation Point
Lat/Long: -75.37817, 40.11869	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

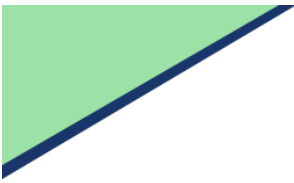


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 09:45
Outfall Number: 22	Outfall or Observation Point: Outfall
Lat/Long: -75.36328, 40.14333	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	36	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present): Moderate				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume	130 ml	Liter	Bottle
	Time to fill	.49	Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		48	°F	Thermometer
pH		7	pH Units	Test strip/Probe
Ammonia		0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow due to presence of stream.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:05
Outfall Number: 23	Outfall or Observation Point: Observation Point
Lat/Long: -75.37709, 40.11853	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

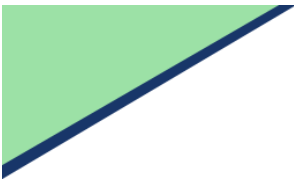


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:06
Outfall Number: 24	Outfall or Observation Point: Observation Point
Lat/Long: -75.37478, 40.11896	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:09
Outfall Number: 25	Outfall or Observation Point: Observation Point
Lat/Long: -75.3737, 40.11841	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

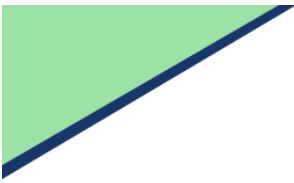


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:13
Outfall Number: 26	Outfall or Observation Point: Observation Point
Lat/Long: -75.37136, 40.12086	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:17
Outfall Number: 27	Outfall or Observation Point: Observation Point
Lat/Long: -75.3703, 40.12197	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	NA	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

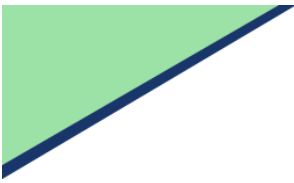


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:20
Outfall Number: 28	Outfall or Observation Point: Observation Point
Lat/Long: -75.36671, 40.12418	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	48	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:24
Outfall Number: 29	Outfall or Observation Point: Observation Point
Lat/Long: -75.3682, 40.12272	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	16	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 11:06
Outfall Number: 30	Outfall or Observation Point: Observation Point
Lat/Long: -75.36569, 40.12379	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	36	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:46
Outfall Number: 31	Outfall or Observation Point: Observation Point
Lat/Long: -75.37639, 40.1272	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	40	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 13:37
Outfall Number: 32	Outfall or Observation Point: Outfall
Lat/Long: -75.38926, 40.13614	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	HDPE	Circular	18	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 09:19
Outfall Number: 33	Outfall or Observation Point: Outfall
Lat/Long: -75.36795, 40.14178	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	36	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present): Moderate				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	40 ml	Bottle
	Time to fill	3.47	
Flow #2	Flow depth		Tape measure
	Flow width		Tape measure
	Measured length		Tape measure
	Time of travel		Stop watch
Temperature	46	°F	Thermometer
pH	6.5	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow due to presence of stream.

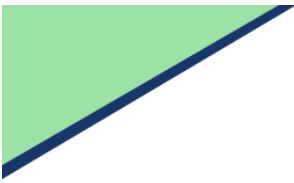


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:58
Outfall Number: 34	Outfall or Observation Point: Outfall
Lat/Long: -75.3918, 40.11959	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: Partially
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

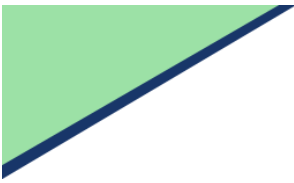


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:54
Outfall Number: 35	Outfall or Observation Point: Outfall
Lat/Long: -75.3928, 40.12159	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Open Space, Commercial, Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

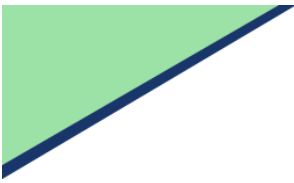


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:53
Outfall Number: 36	Outfall or Observation Point: Outfall
Lat/Long: -75.39288, 40.12154	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Open Space, Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

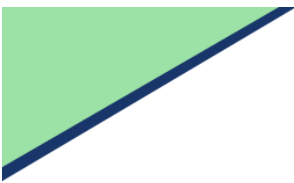


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:50
Outfall Number: 37	Outfall or Observation Point: Outfall
Lat/Long: -75.39331, 40.12516	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Open Space, Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

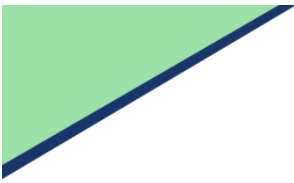


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:49
Outfall Number: 38	Outfall or Observation Point: Outfall
Lat/Long: -75.3934, 40.12517	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Open Space, Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:45
Outfall Number: 39	Outfall or Observation Point: Outfall
Lat/Long: -75.39321, 40.12671	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:46
Outfall Number: 40	Outfall or Observation Point: Outfall
Lat/Long: -75.39309, 40.12671	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:41
Outfall Number: 41	Outfall or Observation Point: Outfall
Lat/Long: -75.39338, 40.12823	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Concrete	Parabolic		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

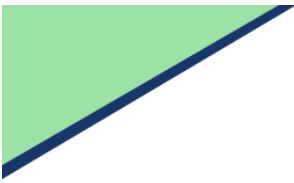


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 09:48
Outfall Number: 42	Outfall or Observation Point: Outfall
Lat/Long: -75.39443, 40.13449	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

Non-point source outfall.

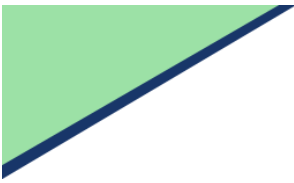


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 13:55
Outfall Number: 43	Outfall or Observation Point: Outfall
Lat/Long: -75.38458, 40.13303	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

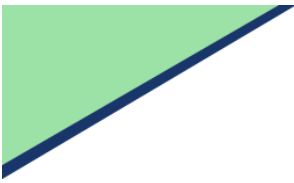


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 13:57
Outfall Number: 44	Outfall or Observation Point: Outfall
Lat/Long: -75.3846, 40.13306	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

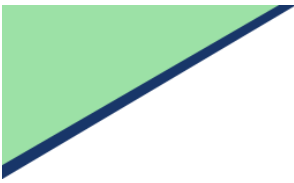


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:20
Outfall Number: 45	Outfall or Observation Point: Observation Point
Lat/Long: -75.38144, 40.14209	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Concrete	Trapezoid		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:19
Outfall Number: 46	Outfall or Observation Point: Outfall
Lat/Long: -75.38138, 40.14214	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Concrete	Trapezoid		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

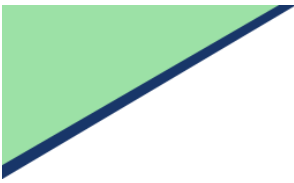


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:50
Outfall Number: 47	Outfall or Observation Point: Outfall
Lat/Long: -75.37685, 40.15172	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 09:53
Outfall Number: 48	Outfall or Observation Point: Observation Point
Lat/Long: -75.36624, 40.14295	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 09:39
Outfall Number: 49	Outfall or Observation Point: Observation Point
Lat/Long: -75.38862, 40.119	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Concrete	Trapezoid		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

Scupper.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:50
Outfall Number: 50	Outfall or Observation Point: Outfall
Lat/Long: -75.38025, 40.12138	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	NA	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? Yes				
Flow volume description (if present): Trickle				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	20 ml	Bottle
	Time to fill	1.82	
Flow #2	Flow depth		Tape measure
	Flow width		Tape measure
	Measured length		Tape measure
	Time of travel		Stop watch
Temperature	40	°F	Thermometer
pH	6.5	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow due to presence of stream.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 13:38
Outfall Number: 51	Outfall or Observation Point: Outfall
Lat/Long: -75.38932, 40.13613	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	CMP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:28
Outfall Number: 52	Outfall or Observation Point: Observation Point
Lat/Long: -75.38258, 40.14146	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	42	In water: Partially
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 12:11
Outfall Number: 53	Outfall or Observation Point: Observation Point
Lat/Long: -75.37241, 40.11931	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

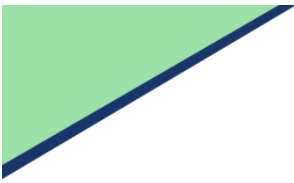


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:25
Outfall Number: 54	Outfall or Observation Point: Observation Point
Lat/Long: -75.39431, 40.12161	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Commercial, Industrial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

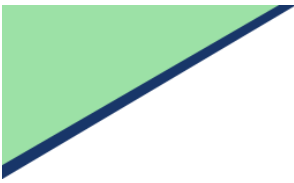


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:01
Outfall Number: 55	Outfall or Observation Point: Outfall
Lat/Long: -75.39532, 40.13143	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:23
Outfall Number: 56	Outfall or Observation Point: Outfall
Lat/Long: -75.38551, 40.13206	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	NA	In water: Partially
				With sediment: Partially
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

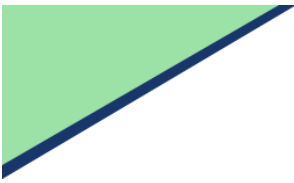


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 13:25
Outfall Number: 57	Outfall or Observation Point: Outfall
Lat/Long: -75.38339, 40.13697	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	HDPE	Circular	NA	In water: Partially
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:43
Outfall Number: 58	Outfall or Observation Point: Outfall
Lat/Long: -75.37394, 40.14442	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: Partially
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:44
Outfall Number: 59	Outfall or Observation Point: Outfall
Lat/Long: -75.37389, 40.14439	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	32	In water: Partially
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

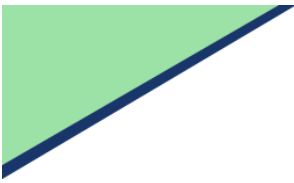


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:17
Outfall Number: 60	Outfall or Observation Point: Observation Point
Lat/Long: -75.38139, 40.15031	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	NA	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:26
Outfall Number: 61	Outfall or Observation Point: Observation Point
Lat/Long: -75.37155, 40.15399	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Industrial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	18	In water: Fully
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

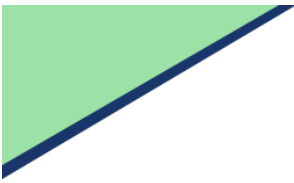


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:09
Outfall Number: 62	Outfall or Observation Point: Outfall
Lat/Long: -75.36845, 40.14581	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Elliptical	36	In water: Partially
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present): Moderate				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume	60 ml	Liter	Bottle
	Time to fill	.86	Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature		60	°F	Thermometer
pH		6.5	pH Units	Test strip/Probe
Ammonia		0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow due to presence of stream.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:40
Outfall Number: 63	Outfall or Observation Point: Observation Point
Lat/Long: -75.35682, 40.1354	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	CMP	Circular	36	In water: Partially
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present): Moderate				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	80 ml	Bottle
	Time to fill	1.2	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature	47	°F	Thermometer
pH	7	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow due to presence of stream.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 09:32
Outfall Number: 64	Outfall or Observation Point: Observation Point
Lat/Long: -75.39286, 40.12675	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	30	In water: Partially
				With sediment: No
Open				
In-stream? No				
Flow present? Yes				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

Flow due to natural ground water conveyance.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 13:59
Outfall Number: 65	Outfall or Observation Point: Observation Point
Lat/Long: -75.38357, 40.13359	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

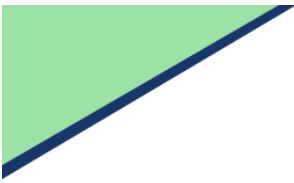


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:03
Outfall Number: 66	Outfall or Observation Point: Outfall
Lat/Long: -75.39535, 40.13139	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Commercial, Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Rip-rap	Parabolic		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

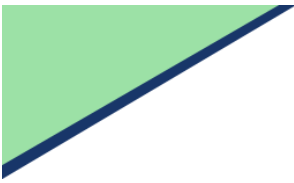


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:08
Outfall Number: 67	Outfall or Observation Point: Observation Point
Lat/Long: -75.39637, 40.13027	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Commercial, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 13:46
Outfall Number: 68	Outfall or Observation Point: Observation Point
Lat/Long: -75.38076, 40.13412	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Industrial, Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	Steel	Circular	18	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? Yes				
Flow volume description (if present): Trickle				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	110 ml	Bottle
	Time to fill	2.28	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature	39	°F	Thermometer
pH	6.5	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow due to presence of stream.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:26
Outfall Number: 69	Outfall or Observation Point: Outfall
Lat/Long: -75.3811, 40.1423	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:37
Outfall Number: 70	Outfall or Observation Point: Observation Point
Lat/Long: -75.37319, 40.14698	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	16	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 09:35
Outfall Number: 71	Outfall or Observation Point: Outfall
Lat/Long: -75.37148, 40.14533	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

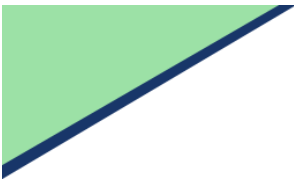


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:05
Outfall Number: 72	Outfall or Observation Point: Outfall
Lat/Long: -75.36878, 40.14593	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

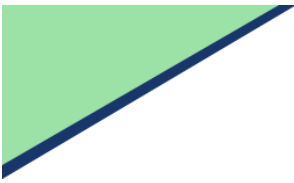


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:08
Outfall Number: 73	Outfall or Observation Point: Observation Point
Lat/Long: -75.3737, 40.14725	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	36	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

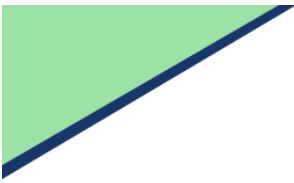


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:12
Outfall Number: 73A	Outfall or Observation Point: Observation Point
Lat/Long: -75.37311, 40.14791	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	30	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

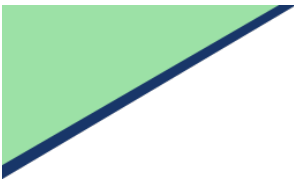


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:56
Outfall Number: 74	Outfall or Observation Point: Outfall
Lat/Long: -75.39205, 40.11983	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Outfall is non-point source.

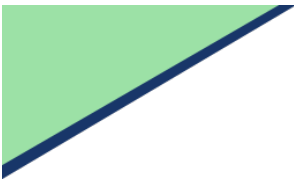


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 09:01
Outfall Number: 75	Outfall or Observation Point: Observation Point
Lat/Long: -75.39157, 40.1191	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Concrete	Parabolic	3'	
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Observation point is non-point source.

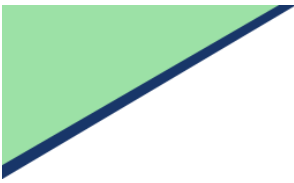


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:30
Outfall Number: 76	Outfall or Observation Point: Observation Point
Lat/Long: -75.39749, 40.1266	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Commercial, Industrial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

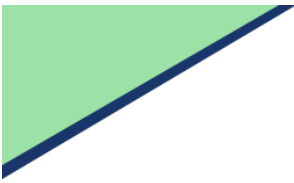


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:30
Outfall Number: 77	Outfall or Observation Point: Outfall
Lat/Long: -75.38771, 40.12995	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Outfall is non-point source.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:13
Outfall Number: 78	Outfall or Observation Point: Outfall
Lat/Long: -75.39387, 40.13804	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential, Open Space, Commercial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Outfall is non-point source.

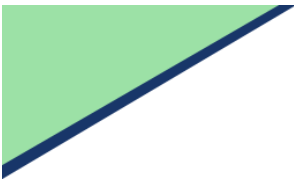


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 09:46
Outfall Number: 79	Outfall or Observation Point: Outfall
Lat/Long: -75.3944, 40.1345	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Open Space, Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

Non point source outfall

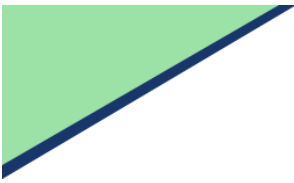


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 08:21
Outfall Number: 80	Outfall or Observation Point: Outfall
Lat/Long: -75.38548, 40.13215	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential, Open Space

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

Non-point source.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:34
Outfall Number: 81	Outfall or Observation Point: Observation Point
Lat/Long: -75.39729, 40.12584	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Commercial, Industrial

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	CMP	Circular	18	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:47
Outfall Number: 82	Outfall or Observation Point: Outfall
Lat/Long: -75.41678, 40.10869	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	36	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present): Trickle				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	30 ml	Bottle
	Time to fill	1.69	
Flow #2	Flow depth		Tape measure
	Flow width		Tape measure
	Measured length		Tape measure
	Time of travel		Stop watch
Temperature	42	°F	Thermometer
pH	6.5	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow is due to natural groundwater presence.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:54
Outfall Number: 83	Outfall or Observation Point: Outfall
Lat/Long: -75.41222, 40.11048	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: Fully
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 10:59
Outfall Number: 84	Outfall or Observation Point: Outfall
Lat/Long: -75.40678, 40.11255	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: Partially
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

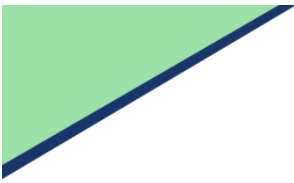


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 11:02
Outfall Number: 85	Outfall or Observation Point: Observation Point
Lat/Long: -75.40511, 40.11348	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen			
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

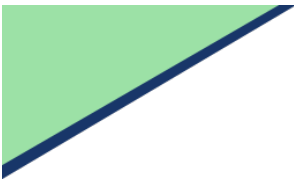


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 03/09/2020	Time Inspected: 09:37
Outfall Number: 86	Outfall or Observation Point: Observation Point
Lat/Long: -75.3867, 40.11897	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	CMP	Circular	12	In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Observation point is located at private inlet.

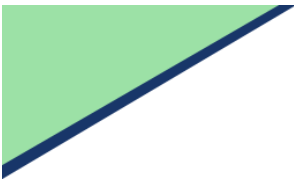


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 10:55
Outfall Number: 87	Outfall or Observation Point: Observation Point
Lat/Long: -75.36876, 40.11719	Inspector(s): WH, AR
Subwatershed: Mingo Creek – Schuylkill River	Contributing Drainage Area Land Use: Cemetary

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	NA	In water: No
				With sediment: Partially
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

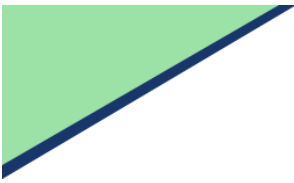


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 07:59
Outfall Number: 88	Outfall or Observation Point: Outfall
Lat/Long: -75.37529, 40.15013	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	NA	In water: No
				With sediment: Partially
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:48
Outfall Number: 89	Outfall or Observation Point: Outfall
Lat/Long: -75.37379, 40.14447	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	32	In water: Partially
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





STORMWATER MANAGEMENT PROGRAM

PRIORITY AREA OUTFALL DETERMINATION



West Norriton Township
Montgomery County, Pennsylvania

1630 W. Marshall St.
Jeffersonville, PA 19403

April 2020

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Federally Certified 8(a) EDWOSB
State Certified DBE/WBE



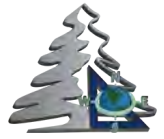
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APPENDIX A – Priority Area Analysis Map

APPENDIX B – Priority Area Determination Map

APPENDIX C – Dry Weather Outfall Field Screening Results



1. INTRODUCTION

CEDARVILLE Engineering Group, LLC (CEG) has assessed priority areas within West Norriton Township to address the requirements in MCM #3, BMP #1 of West Norriton Township's 2018 National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) General Permit PAG130006 (i.e. Permit). The Permit requires the Township include the following in their written program for Illicit Discharge Detection and Elimination (IDD&E):

- **Procedures for identifying priority areas.** These are areas with a higher likelihood of illicit discharges, illicit connections or illegal dumping. Priority areas may include areas with older infrastructure, a concentration of high-risk activities, or past history of water pollution.
- **Procedures for screening outfalls in priority areas.** The program shall include dry weather field screening of outfalls for non-stormwater flows, and sampling of dry weather discharges for selected chemical and biological parameters. Test results shall be used as indicators of possible discharge sources.

This assessment describes the above-referenced procedures specific to West Norriton Township and identifies priority areas and outfalls that drain those priority areas within the regulated MS4 (i.e. priority area outfalls). The information in this report will be incorporated into the Township's Illicit Discharge Detection and Elimination (IDD&E) Program. The first round of outfall field screening was performed for the priority area outfalls. The results of this field screening are documented in Section 5. of this report.

2. PROCEDURES FOR IDENTIFYING PRIORITY AREAS

Priority areas were identified through identifying specific areas or activities that possess a higher potential for illicit discharges to occur (as referenced in the Permit) then assessing their locations in relation to Township outfalls. In West Norriton Township, the following priority areas were identified and assessed:

- Commercial/Industrial Land Use,
- Pennsylvania Department of Environmental Protection (PA DEP) Water Contamination Complaints,
- Environmental Protection Agency (EPA) Monitored Sites/Facilities,
- Outfalls with a History of Potential, Suspect or Obvious Illicit Discharges
- Areas with Older Infrastructure.

A desktop review using GIS (Geographic Information Systems) was performed to identify outfalls that drain these priority areas within a prescribed proximity. These outfalls should then be screened per the priority area procedures below (Section 5.). The priority areas with their corresponding sources and associated potential pollutant(s) of concern are identified below in **Table 1** and described further in the subsections below, along with a description of how it was determined which outfalls should be screened per the priority area procedures (herein referred to as "priority area outfalls"). Refer to the **Priority Area Analysis Map** provided in *Appendix A* for a visual representation of this information.



Table 1: Priority Areas and Outfall Determination

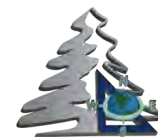
Priority Area	Outfall Distance/Criteria	Main Potential Pollutant(s) of Concern	Source
Commercial/Industrial Land Use	Within Storm Sewershed of Outfall	Heavy metals, toxic chemicals, polychlorinated biphenyl (PCBs)	Montgomery County GIS Parcel Data
PA DEP Water Contamination Complaint	Within 500 feet Downstream	Toxic chemicals, oil, gas	PA DEP eMapPA
EPA Monitored Site/Facility	Within 500 feet Downstream	Sediment, toxic chemicals	EPA ECHO
Outfalls with a History of Potential, Suspect or Obvious Illicit Discharges	n/a	Pathogens, sediment, nitrogen, phosphorus, organic material, pesticides, herbicides	Previous Dry Weather Outfall Field Screening Reports and/or Township Illicit Discharge Complaint Records
Areas with Old Infrastructure	Within Storm Sewershed of Outfall	Pathogens	Stormwater Infrastructure GIS Mapping

The Township currently has 90 outfalls, located in the urbanized area, which encompasses the entire Township based on the 2010 Census Urban Area Reference Map (www.census.gov). The storm sewersheds to these outfalls were previously delineated to meet prior MS4 requirements. In order to generate a representative sampling, outfalls that had the potential to be affected by more than one (1) priority area category were determined to be priority area outfalls through a desktop review of the outfall distance/criteria stated below and follow the outlined screening procedures for priority areas outlined in Section 5. below. However, all outfalls associated with a PA DEP Water Contamination Complaint, EPA Monitored Sites/Facilities and Outfalls with a History of Potential, Suspect or Obvious Illicit Discharge were considered priority area outfalls, due to higher potential for pollution. This assessment is described in more detail below.

2.1 COMMERCIAL/INDUSTRIAL LAND USE

Montgomery County GIS parcel data was obtained from the Montgomery County GIS Open Data HUB. Parcels that were assigned Land Use Codes (LUCs) of Industrial (I) and Commercial (C) were extracted. These LUCs were selected for this analysis due to the higher potential of illicit discharges from high-risk activities typically associated with commercial and industrial land uses, per the guidance of the Permit. Outfalls were selected for consideration to be screened per the priority area procedures if parcels with LUCs of “I” or “C” were located within their storm sewershed and were affected by at least one (1) other priority area category.

Upon review of the LUC data, West Norriton Township has 178 commercial land use parcels and 57 industrial land use parcels. Combined, commercial and industrial land use encompasses approximately 16% of the Township’s area. There are currently eight (8) MS4 outfalls whose storm sewersheds contain commercial and industrial parcels. All of these outfalls were affected by at least one (1) other priority area category; therefore, they will all be considered priority area outfalls to be monitored per the priority area screening procedures.



2.2 PA DEP WATER CONTAMINATION COMPLAINT

The PA DEP eMapPA tool was utilized to determine the locations of water-related complaints are located within the entirety of West Norriton Township. Areas of concern are logged PA DEP complaints with the “Water Contamination” description. These locations have been investigated by PA DEP. Information regarding these water contamination complaints were limited only to the description. Outfalls located within 500 feet downstream of these logged complaints were identified using ArcGIS Pro. A distance of 500 feet was used based on the likelihood for pollutants to persist via surface runoff and impact the outfall.

This search revealed that there are three (3) PA DEP complaints within the Township. Of those complaints, there are no MS4 outfalls that are within 500-feet downstream; therefore, none were considered priority area outfalls to be monitored per the priority area screening procedures.

2.3 EPA MONITORED SITE/FACILITY

The EPA’s Enforcement and Compliance History Online (ECHO) search engine was used to locate EPA-monitored sites and facilities within the Township. The ECHO search engine also indicates any violations or enforcements due to pollution performed by the EPA. Outfalls located within 500 feet downstream of these facilities were identified using ArcGIS Pro. A distance of 500 feet was used based on the likelihood for pollutants to persist via surface runoff and impact the outfall.

This search revealed that there are currently six (6) facilities located within the Township. These facilities are listed as being monitored for pollution control. Of those facilities, three (3) MS4 outfalls are located within 500-feet downstream and will all be considered priority area outfalls to be monitored per the priority area screening procedures.

2.4 OUTFALLS WITH HISTORY OF POTENTIAL, SUSPECT, OR OBVIOUS ILLICIT DISCHARGES

To identify outfalls with a history of potential, suspect, or obvious illicit discharges, two (2) sources were reviewed: 1) West Norriton Township’s 2019 dry weather outfall field screening results and 2) Township illicit discharge complaint records.

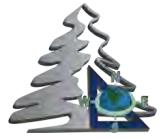
The 2019 dry weather outfall field screening results revealed fifteen (15) outfalls with dry weather flow. However, all of the outfalls with dry weather flow were determined to be a result of natural groundwater flow and unlikely to be illicit discharges. Therefore, these outfalls were not selected to be screened per the priority area procedures.

As the Township receives complaints and/or responds to illicit discharges or connections, the receiving outfalls should be considered to be added as a priority area outfall and follow the priority area screening procedures described below. If the illicit discharge is an isolated incident and unlikely to occur again, it may not be added as a priority area outfall.

Per Township staff, there are currently no known illicit discharges or connections that are ongoing; therefore, none were considered priority area outfalls to be monitored per the priority area screening procedures.

2.5 AREAS WITH OLD INFRASTRUCTURE

Areas with older infrastructure within the Township were analyzed. The possibility of the old infrastructure to fail makes these areas an indicator for priority area outfalls. This infrastructure has a higher likelihood to have an illicit connection due to less stringent regulations during the time of installation. For the purposes of this exercise, old infrastructure was defined as greater than 50 years old. This information was determined using the Township’s GIS mapping, Township staff knowledge of the infrastructure, and dated parcel history. In West Norriton, there are six (6) main areas with older infrastructure, all of which are residential areas. Refer to the *Appendix A* for a visual representation.



Outfalls were selected for consideration to be screened per the priority area procedures if old stormwater infrastructure was contained in its delineated storm sewershed and were affected by at least one (1) other priority area category. There are fourteen (14) outfalls whose storm sewershed overlaps with one of these six (6) areas with older infrastructure. Nine (9) of these outfalls were affected by at least one (1) other priority area category; therefore, they will all be considered priority area outfalls to be monitored per the priority area screening procedures.

3. PRIORITY AREA OUTFALL DETERMINATION

Outfalls that had the potential to be affected by more than one (1) priority area category were determined to be priority area outfalls through a desktop review of the outfall distance/criteria stated above and follow the outlined screening procedures for priority areas outlined in Section 5. below. All outfalls associated with a PA DEP Water Contamination Complaint, EPA Monitored Sites/Facilities and Outfalls with a History of Potential, Suspect or Obvious Illicit Discharge were considered priority area outfalls, due to higher potential for pollution.

Based upon this review, fourteen (14) priority area outfalls were identified. Refer to **Table 2** below and the **Priority Area Determination Map** provided in *Appendix B*. These outfalls should be screened per the procedures for screening outfalls in priority areas.

Table 2: Priority Area Outfalls

Priority Outfall #	2019 Dry Weather Flow Present	Areas of Old Infrastructure	PA DEP Water Contamination Complaint	Commercial/Industrial Land Use	EPA Monitored Site/Facility
18	X	X			
22	X	X			
28	X	X		X	
44	X			X	
50	X	X			
54	X			X	
57	X	X		X	
58					X
59					X
64	X	X		X	
68				X	X
82	X	X		X	
83	X	X		X	
84	X	X			

4. UPDATING PRIORITY AREA OUTFALLS

The Township's priority area outfall list is dynamic; outfalls may be added and/or removed as necessary with appropriate professional justification and documentation. If at any time an illicit discharge is recorded in the Township, the next closest downstream outfall should be considered for the priority area outfall list. Also, if an outfall has dry weather flow and an observed potential illicit connection/discharge during a routine dry weather outfall field screening, that outfall should also be considered for the priority area outfall list. If the illicit discharge is an isolated incident and unlikely to occur again, it may not be added as a priority area outfall.

A priority area outfall may be removed from the list at the discretion of the Township if the outfall has not shown any indication of potential illicit discharges/connections during routine screenings for three (3) consecutive years.



5. SCREENING PRIORITY AREA OUTFALLS

The procedure for screening priority area outfalls should follow the procedure for routine dry weather outfall field screening described in the Township's Illicit Discharge Detection and Elimination (IDD&E) Manual, dated 04/06/2020, and Permit requirements. These procedures are summarized below.

5.1 PROCEDURES

Priority area outfalls should be screened annually, during dry weather. Dry weather is defined as "a continuous time interval without stormwater producing events that immediately follows an initial 48-hour period with no stormwater producing events." The presence of flow in an outfall or inlet during dry weather indicates a potential illicit discharge. Other potential explanations for the presence of such flow may include infiltrating groundwater or the diversion of a surface stream into the MS4.

If the field screening reveals dry weather (i.e. non-stormwater) flow, the discharge from the outfall and the area around the outfall shall be inspected visually for the following:

- Color
- Sheen
- Floating or submerged solids
- Turbidity
- Odor
- Condition of plants or animals in the vicinity

This information can help identify contaminants present in the discharge and/or the likely nature of the discharge (i.e. sanitary, industrial, etc.). If any of the characteristics listed above are observed in the dry weather flow, then samples should be collected for field and/or laboratory testing to determine if the flow is illicit. The following parameters may be considered for testing, depending on the results of the field screening:

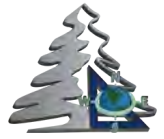
- pH
- E. coli bacteria
- Conductivity
- Fecal coliform
- Suspended solids
- Metals
- Dissolved solids
- Ammonia
- Hydrocarbons
- Surfactants
- Fluoride
- Chlorine

Proper quality assurance and quality control procedures should be followed when collecting, transporting, and analyzing water samples. If an outfall does not have dry weather flow, no testing is required. Observations of each outfall should be recorded each time an outfall is screened, regardless of the presence of dry weather flow. All outfall screening information should be recorded on the Outfall Reconnaissance Inventory/Sample Collection field sheet provided by PA DEP (or equivalent). Adequate written documentation is required to justify a determination that a dry weather flow is not illicit. Sampling is not required if an illicit discharge is determined unlikely in outfalls with dry weather flow.

The results of the outfall field screenings, any water testing, and any actions taken to remove, or correct illicit discharges should be summarized in the Annual MS4 Status Reports required as part of the Permit and submitted to PA DEP.

5.2 FREQUENCY

The main difference between the procedures for screening outfalls in priority areas and general outfall screening is frequency. Priority area outfalls should be screened **annually**. All other outfalls are only required to be screened once per five (5) year Permit term.



5.3 SAMPLING PROGRAM DEVELOPMENT

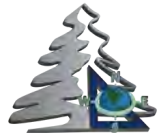
If it is confirmed that an outfall has an illicit discharge through sampling, measures should be taken to eliminate the discharge through the compliance and enforcement process as outlined in the IDD&E Program. In addition, a sampling program should be developed to monitor the illicit discharge at a particular outfall(s) for a specific pollutant(s). This may include dry and wet weather sampling at an established frequency until it can be ascertained that the issue has been resolved. This program should be developed in consultation with PA DEP.

6. 2020 PRIORITY AREA OUTFALL SCREENING RESULTS

CEG conducted dry weather field screening of the fourteen (14) priority area outfalls on 1/2/20, 1/16/20, and 2/24/20. The screening revealed three (3) outfalls with dry weather flow. The outfalls with dry weather flow did not possess illicit discharge characteristics, and therefore no samples were taken. **Table 3** below displays the priority area outfalls, their correlating justification(s), and the 2020 dry weather field screening results. Refer to the **Dry Weather Outfall Field Screening Results** provided in *Appendix C*

Table 3: Priority Outfall Dry Weather Field Screening Results

Priority Outfall #	Pipe Type	Pipe Diameter (in)	Shape	Illicit Discharge Determination	Outfall Condition	Subwatershed	2020 Dry Weather Flow Present
18	RCP	36	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow
22	RCP	36	Circular	Unlikely	Good	Stony Creek	Flow (due to presence of a stream)
28	RCP	48	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow
44	Open Concrete	N/A	Swale	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow
50	RCP	36	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow
54	Open Earthen	N/A	Swale	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow
57	HDPE	18	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow
58	RCP	24	Circular	Unlikely	Good	Stony Creek	No Flow
59	RCP	32	Circular	Unlikely	Good	Stony Creek	No Flow
64	CMP	24	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	Flow (due to presence of a stream)
68	Steel	18	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	Flow (due to presence of a stream)
82	RCP	36	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow
83	RCP	24	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow
84	RCP	24	Circular	Unlikely	Good	Mingo Creek-Schuylkill River	No Flow



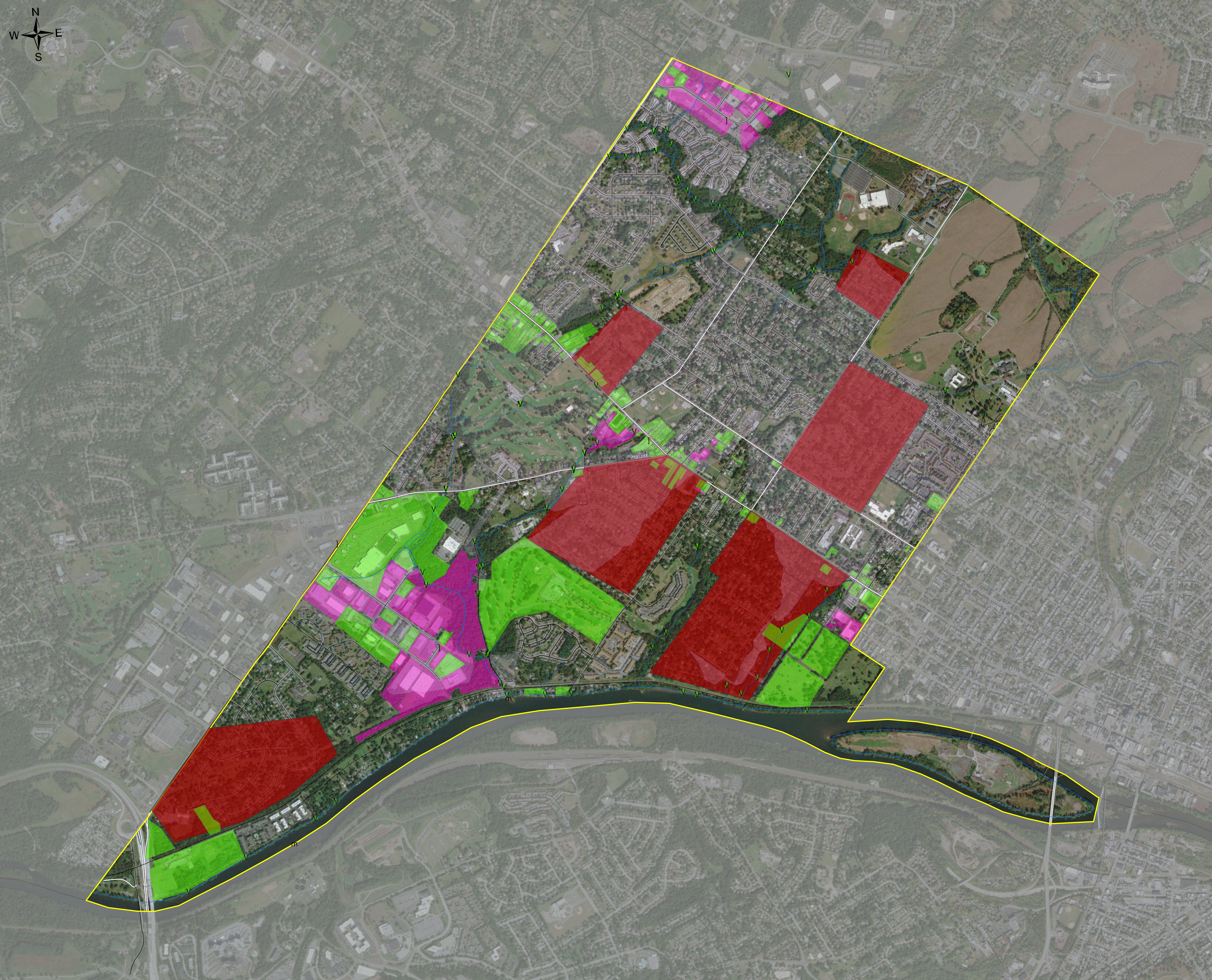
7. CONCLUSION

This assessment identifies procedures specific to West Norriton Township for identifying priority areas and screening outfalls in priority areas. Fourteen (14) outfalls were identified as priority area outfalls. The first round of outfall field screening was performed for the priority area outfalls. Three (3) of the fourteen (14) outfalls had dry weather flow due to the presence of a stream. No further investigation is recommended at this time.

The priority area outfalls should continue to be monitored and screened annually and the list updated accordingly.

APPENDIX A
Priority Area Analysis Map





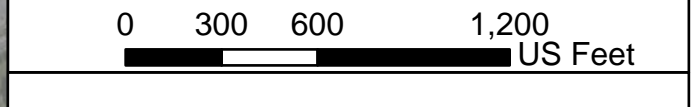
NOTES:
 1. The entire municipality is covered by the 2010 Urbanized Area.
 2. The purpose of this map is to analyze areas and outfalls for the 2020 priority area outfall determination.
 3. Monitored Facilities/Sites layer was derived from EPA's ECHO database (12/2019).
 4. Recent DEP Complaints layer was derived from DEP eMapPA database (12/2019).
 5. Commercial and Industrial parcel areas was derived from Montgomery County parcel data's Land Use Codes (12/2019).
 6. Old Infrastructure layer was created by CEG from historic neighborhood mapping data from West Norriton Township.
 7. Storm Sewersheds layer was created by CEG.

DISCLAIMER:
 This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. It may not be accurate and is not legal or definitive.

DRAWN BY: AR

DATE: 4/14/20

1 inch equals 600 feet



WEST NORRITON TOWNSHIP
PRIORITY AREA ANALYSIS MAP
 MONTGOMERY COUNTY, PENNSYLVANIA

- Legend
- MS4 Outfalls
 - Monitored Facilities/Sites
 - Recent DEP Complaints
 - Commercial Land Use Parcels
 - Industrial Land Use Parcels
 - Areas of Old Infrastructure
 - Township Boundary
 - Private Road
 - State Road
 - Township Road
 - Streams
 - Located Tributaries

APPENDIX B
Priority Area Determination
Map





Priority Outfall #	2019 Dry Weather Flow Present	Areas of Old Infrastructure	PA DEP Water Contamination Complaint	Commercial/Industrial Land Use	EPA Monitored Site/Activity
18	X	X			
22	X	X			
26	X	X		X	
44	X			X	
50	X	X			
54	X			X	
57	X	X		X	
58					X
59					X
64	X	X		X	
68				X	X
82	X	X		X	
83	X	X		X	
84	X	X			

NOTES:
1. The entire municipality is covered by the 2010 Urbanized Area.
2. This map displays the priority area outfalls for the 2020 priority area outfall determination.
3. Storm Sewersheds layer was created by CEG.

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DRAWN BY: AR

DATE: 4/14/20

1 inch equals 600 feet



WEST NORRITON TOWNSHIP
PRIORITY AREA & OUTFALL DETERMINATION MAP
MONTGOMERY COUNTY, PENNSYLVANIA

Legend

- MS4 Priority Outfalls
- Priority Areas
- Township Boundary
- Streams
- Located Tributaries
- Private Road
- State Road
- Township Road



APPENDIX C
**Dry Weather Outfall Field
Screening Results**





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/02/2020	Time Inspected: 10:44
Outfall Number: 18	Outfall or Observation Point: Outfall
Lat/Long: -75.38623, 40.13123	Inspector(s): NM, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use:

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular		In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/02/2020	Time Inspected: 09:52
Outfall Number: 22	Outfall or Observation Point: Outfall
Lat/Long: -75.36311, 40.14338	Inspector(s): NM, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use:

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular		In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	120 ml	Bottle
	Time to fill	0.5 seconds	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature	46 F	°F	Thermometer
pH	6.5	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow? No

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow was determined to be a result of ground water.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/16/2020	Time Inspected: 08:19
Outfall Number: 28	Outfall or Observation Point: Observation Point
Lat/Long: -75.36669, 40.12418	Inspector(s): WH, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use:

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular		In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

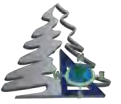
Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

Water flow is natural conveyance of stream. No overland flow is contributing to flow at observation point (inlet).



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/02/2020	Time Inspected: 10:39
Outfall Number: 44	Outfall or Observation Point: Outfall
Lat/Long: -75.38457, 40.13314	Inspector(s): NM, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use:

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Concrete	Parabolic		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Roadside swale outfall.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/16/2020	Time Inspected: 07:45
Outfall Number: 50	Outfall or Observation Point: Observation Point
Lat/Long: -75.38025, 40.12138	Inspector(s): WH, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular		In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:

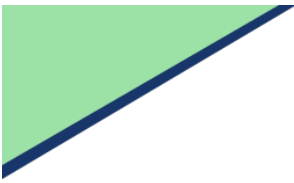


Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/16/2020	Time Inspected: 08:48
Outfall Number: 54	Outfall or Observation Point: Outfall
Lat/Long: -75.39437, 40.1217	Inspector(s): WH, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water: No
				With sediment: No
Open	Earthen	Parabolic		
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Roadside swale outfall.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/02/2020	Time Inspected: 10:26
Outfall Number: 57	Outfall or Observation Point: Outfall
Lat/Long: -75.38276, 40.13688	Inspector(s): NM, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use:

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP			In water: Partially
				With sediment: No
Open				
In-stream? No				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Ponding water at the outfall.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:44
Outfall Number: 59	Outfall or Observation Point: Outfall
Lat/Long: -75.37389, 40.14439	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	32	In water: Partially
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 02/24/2020	Time Inspected: 08:44
Outfall Number: 59	Outfall or Observation Point: Outfall
Lat/Long: -75.37389, 40.14439	Inspector(s): WH, AR
Subwatershed: Stony Creek	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	32	In water: Partially
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/16/2020	Time Inspected: 09:01
Outfall Number: 64	Outfall or Observation Point: Observation Point
Lat/Long: -75.39285, 40.12675	Inspector(s): WH, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular		In water: No
				With sediment: No
Open				
In-stream? No				
Flow present? Yes				
Flow volume description (if present): Trickle				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow? No

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Screening occurred at the observation point. Could not access the flowing water to get flow parameters due to inlet grate restraints. Flow was determined to be a result of ground water.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/02/2020	Time Inspected: 10:31
Outfall Number: 68	Outfall or Observation Point: Outfall
Lat/Long: -75.38054, 40.13424	Inspector(s): NM, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use:

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	Cast iron	Circular		In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? Yes				
Flow volume description (if present): Trickle				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	120 ml	Bottle
	Time to fill	2 seconds	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature	36 F	°F	Thermometer
pH	6.4	pH Units	Test strip/Probe
Ammonia	0	mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow? No

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

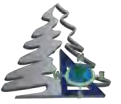
Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Flow was determined to be a result of ground water.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/16/2020	Time Inspected: 10:06
Outfall Number: 82	Outfall or Observation Point: Outfall
Lat/Long: -75.4168, 40.10868	Inspector(s): WH, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP		36	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/16/2020	Time Inspected: 10:13
Outfall Number: 83	Outfall or Observation Point: Outfall
Lat/Long: -75.41226, 40.1105	Inspector(s): WH, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: Fully
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes: Outfall was filled with sediment.



Photograph 1



Photograph 2





Dry Weather Outfall Field Screening

West Norriton Township

NPDES ID: PAG130006

Date: 01/16/2020	Time Inspected: 10:19
Outfall Number: 84	Outfall or Observation Point: Outfall
Lat/Long: -75.40676, 40.11253	Inspector(s): WH, AR
Subwatershed: Mingo Creek-Schuylkill River	Contributing Drainage Area Land Use: Suburban Residential

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed	RCP	Circular	24	In water: No
				With sediment: No
Open				
In-stream? Yes				
Flow present? No				
Flow volume description (if present):				

Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Flow #1	Volume	Liter	Bottle
	Time to fill	Sec	
Flow #2	Flow depth	In	Tape measure
	Flow width	Ft, In	Tape measure
	Measured length	Ft, In	Tape measure
	Time of travel	S	Stop watch
Temperature		°F	Thermometer
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			



Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? No

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall outfall characterization for an illicit discharge: Unlikely

Data Collection

1. Sample for the lab?	No
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?

Notes:



Photograph 1



Photograph 2





STORMWATER MANAGEMENT PROGRAM ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM



West Norriton Township
Montgomery County, Pennsylvania

1630 West Marshall Street
Jeffersonville, PA 19403

Updated: April 2020

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Federally Certified 8(a) EDWOSB
State Certified DBE/WBE



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Appendix A Dry Weather Outfall Field Screening Form



1. INTRODUCTION

West Norriton Township has developed and is implementing an Illicit Discharge Detection & Elimination (IDD&E) program as part of the Township's Stormwater Management Program. The IDD&E program provides for the detection, elimination, and prevention of illicit discharges into the Municipal Separate Storm Sewer System (MS4).

An illicit discharge is generally any discharge to an MS4 that is not composed entirely of stormwater. Examples of illicit discharges include dumping of motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, animal wastes, or unauthorized discharges of sewage, industrial waste, restaurant wastes, or any other non-stormwater waste into the sewer system.

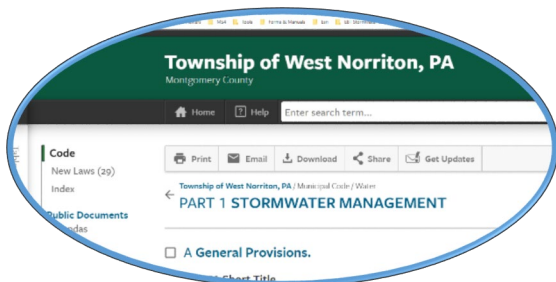
The IDD&E program is designed to comply with West Norriton Township's 2018 National Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES-MS4) General Permit No. PAG130006 issued by the Pennsylvania Department of Environmental Protection (PA DEP) and has been developed based on the Special Conditions listed in the 2018 PAG-13 NPDES MS4 Permit (3800-PM-BCW0100d 5/2016). More specifically, it will meet the measurable goals and criteria outlined in Minimum Control Measure (MCM) No. 3 – Illicit Discharge Detection & Elimination – Best Management Practice (BMP) #1 of the NPDES MS4 Permit.

The **IDD&E program** includes the following:

- Priority areas;
- Outfall field screening;
- Identifying the source of an illicit discharge;
- Eliminating an illicit discharge;
- Potential for illicit discharges caused by the interaction of sewage disposal systems;
- Gaining access to private properties;
- Program documentation, evaluation, and assessment; and
- Addressing information or complaints received from the public



2. WEST NORRITON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE



The Township enacted an ordinance (No. 04-595) on July 13, 2004 that fulfills the requirements of the Pennsylvania Act 167 Stormwater Management Plan. This ordinance includes language that prohibits non-stormwater discharges to the MS4 (Section 701).



3. PRIORITY AREAS

Priority areas can be defined as areas with a higher likelihood of illicit discharges, illicit connections or illegal dumping. Potential priority areas include outfalls that could be impacted by:

- Concentration of high-risk activities (i.e. commercial/industrial areas, etc.).
- Areas with older infrastructure (i.e. areas that may have deteriorating sewer and/or storm sewer infrastructure that can lead to infiltration problems).
- Areas with a past history of water pollution problems.

3.1. PROCEDURES FOR IDENTIFYING PRIORITY AREAS

West Norriton Township has identified priority areas through identifying specific areas or activities that possess a higher potential for illicit discharges to occur (as referenced in the Permit) then assessing their locations in relation to Township outfalls. In West Norriton Township, the following priority areas were identified and assessed:

- Commercial/Industrial Land Use,
- Pennsylvania Department of Environmental Protection (PA DEP) Water Contamination Complaints,
- Environmental Protection Agency (EPA) Monitored Sites/Facilities,
- Outfalls with a History of Potential, Suspect or Obvious Illicit Discharges
- Areas with Older Infrastructure.

A desktop review using GIS (Geographic Information Systems) was performed to identify outfalls that drain these priority areas within a prescribed proximity. These outfalls should then be screened per the priority area procedures below (Section 4.2). The priority areas with their corresponding sources and associated potential pollutant(s) of concern are identified below in **Table 1** and described further in the subsections below, along with a description of how it was determined which outfalls should be screened per the priority area procedures (herein referred to as “priority area outfalls”).

The storm sewersheds to Township outfalls were previously delineated to meet prior MS4 requirements. Outfalls that had the potential to be affected by more than one (1) priority area were determined to be priority area outfalls through a desktop review of the outfall distance/criteria stated above and follow the outlined screening procedures for priority areas outlined in Section 4.2. below. All outfalls associated with EPA Monitored Sites/Facilities and Outfalls with a History of Potential, Suspect or Obvious Illicit Discharge were considered priority area outfalls, due to higher potential for pollution.

The Township’s priority area outfall list is dynamic; outfalls may be added and/or removed as necessary with appropriate professional justification and documentation. Therefore, it is maintained separately from this document. If at any time an illicit discharge is recorded in the Township, the next closest downstream outfall should be considered for the priority area outfall list. Also, if an outfall has flow and an observed potential illicit connection/discharge during a routine dry weather outfall field screening, that outfall should also be considered



for the priority area outfall list. If the illicit discharge is an isolated incident and unlikely to occur again, it may not be added as a priority area outfall.

A priority area outfall may be removed from the list if the outfall has not shown any indication of potential illicit discharges/connections during routine screenings for three (3) consecutive years.

Table 1: Priority Areas and Outfall Determination

Priority Area	Outfall Distance/Criteria	Main Potential Pollutant(s) of Concern	Source
Commercial/Industrial Land Use	Within Storm Sewershed of Outfall	Heavy metals, toxic chemicals, polychlorinated biphenyl (PCBs)	Montgomery County GIS Parcel Data
PA DEP Water Contamination Complaint	Within 500 feet Downstream	Toxic chemicals, oil, gas	PA DEP eMapPA
EPA Monitored Site/Facility	Downstream Within 500 feet Downstream	Sediment, toxic chemicals	EPA ECHO
Outfalls with a History of Potential, Suspect or Obvious Illicit Discharges	n/a	Pathogens, sediment, nitrogen, phosphorus, organic material, pesticides, herbicides	Previous Dry Weather Outfall Field Screening Reports and/or Township Illicit Discharge Complaint Records
Areas with Old Infrastructure	Within Storm Sewershed of Outfall	Pathogens	Stormwater Infrastructure GIS Mapping

4. OUTFALL FIELD SCREENING

4.1. DRY WEATHER OUTFALL FIELD SCREENING & TESTING

All outfalls are required to be screened during dry weather at least once during the 5-year permit coverage term. Dry weather is defined as “a continuous time interval without stormwater producing events that immediately follows an initial 48-hour period with no stormwater producing events.” Areas where there have been past problems or continual dry weather flow documented should be screened annually (refer to Sections 3.1 and 4.2 for Priority Areas).

For outfalls that cannot be accessed due to safety or other reasons, West Norriton Township has established “observation points” at appropriate locations prior to the outfall where outfall field screening shall be performed. These locations are identified on Township stormwater mapping.



The presence of flow in an outfall or observation point during dry weather could indicate a potential illicit discharge. Other potential explanations for the presence of such flow may include infiltrating groundwater or the diversion of a surface stream into the MS4.

If the field screening reveals dry weather (i.e. non-stormwater) flow, the discharge from the outfall and the area around the outfall shall be inspected visually for the following:



COLOR

Collect a sample of the discharge in a clear test tube or sampling bottle. Note: do not try to assess water color by looking directly into the waterway. Water depth, substrate composition, aquatic plants, and sky conditions can all influence your perception of the water color. See Table 1 to assist in identifying illicit discharge sources based on color.

Table 1. Guide to Detecting Potential Sources of Illicit Discharges by Observing Water Color

COLOR	POSSIBLE SOURCES
Tan to light brown	<ul style="list-style-type: none"> Suspended sediments common after rainfall Runoff from construction, roads, agricultural/range land Soil erosion caused by vegetation removal
Pea green, bright green, yellow, brown, brown-green, brown-yellow, blue-green	<ul style="list-style-type: none"> Algae or plankton bloom - color depends on type of algae or plankton Sewage, fertilizer runoff, vehicle wash water
Tea/coffee	<ul style="list-style-type: none"> Dissolved or decaying organic matter from soil or leaves. Commonly associated with tree overhangs, woodlands, or swampy areas
Milky white	<ul style="list-style-type: none"> Paint, lime, milk, grease, concrete, swimming pool filter backwash
Clear black	<ul style="list-style-type: none"> Caused from turnover of oxygen depleted waters or sulfuric acid spill
Dark red, purple, blue, black	<ul style="list-style-type: none"> Fabric dyes, inks from paper and cardboard manufacturers
Orange-red	<ul style="list-style-type: none"> Leachate from iron deposits Deposits on stream beds often associated with oil well operations (check for petroleum odor)
White crusty deposits	<ul style="list-style-type: none"> Common in dry/arid areas or during periods of low rainfall where evaporation of water leaves behind salt deposits Also found in association with brine water discharge from oil production areas (a petroleum odor or an oily sheen may be present along banks)



Turbidity

High Turbidity can be caused from soil erosion, runoff from a rain event, algae blooms, bottom sediment disturbances by aquatic life and construction or dredging.

If highly turbid (cloudy) water is observed, make sure to look upstream and downstream to see if anything around the site has changed since the last field inspection. An illicit discharge may be present if a highly turbid flow exists.

Note: to measure turbidity, collect a water sample and use a Secchi tube, turbidity meter, or turbidity comparator in the field sampling kit.

Sheens, sewage and surface scum

Contaminated flows may contain floatable solids or liquids. Sewage, oil sheen, and suds/foam are examples of floatable indicators. Trash and debris, although more typically known as “floatables,” are not generally indicators of illicit flow. See Figures 1, 2, and 3 for examples.

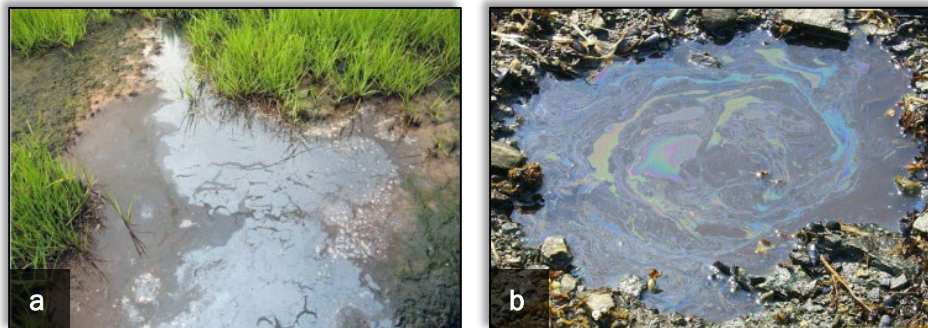


Figure 1 - Sheens. Sheens can be naturally-produced (a) or synthetic; oil sheens are often mistaken for naturally-produced sheen. Sheen from bacteria forms a sheet-like film that breaks if disturbed.



Figure 2 - Sewage. A strong organic or sewage-like odor can indicate a sanitary sewer leak or overflow. Indicators of sewage discharge can include (a) sewage fungus and (b) bacteria growth in outfall.

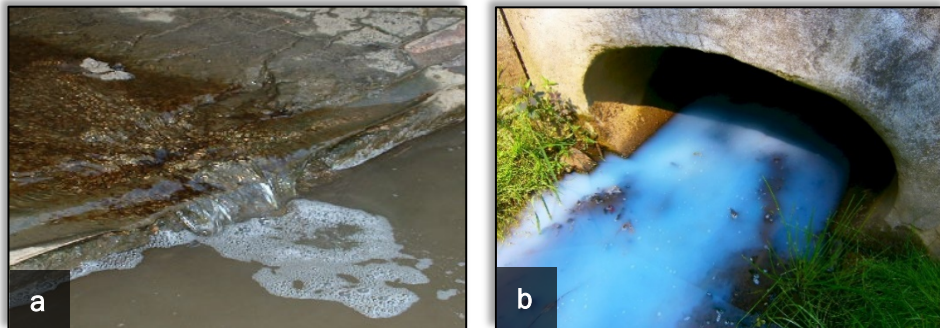


Figure 3 - Suds. Suds should be rated based on their foaminess and staying power. Picture (a) shows a low severity, naturally occurring suds. Suds that travel several feet before breaking up should be considered as high severity suds and a possible illicit discharge (b). In some cases, foam and suds can give off an odor. A fragrant or sweet-smelling odor can indicate the presence of laundry water or similar wash waters.

Odor

Fill sample bottle at least halfway with sample water and hold about six inches away from your nose. Use your free hand to fan the scent to your nose.

Note: never inhale the air directly off the top of a sample as many potential contaminants are harmful to nasal membranes and lung tissue. Make sure that the origin of the odor is at the outfall. Sometimes shrubs, trash, or even spray paint used to mark the outfalls can confuse the nose. See Table 2 to assist in identifying illicit discharge sources based on the water's odor.

Table 2. Guide to Detecting Potential Sources of Illicit Discharges by the Odor of Water Sample

ODOR	GENERAL CAUSES
Rotten eggs/hydrogen sulfide (septic)	<ul style="list-style-type: none"> Raw sewage, decomposing organic matter, lack of oxygen
Chlorine	<ul style="list-style-type: none"> Algae Wastewater treatment plant discharges, swimming pool overflow, industrial discharges
Sharp, pungent odor	<ul style="list-style-type: none"> Chemicals or pesticides
Musty Odor	<ul style="list-style-type: none"> Presence of raw or partially treated sewage, livestock waste
Gasoline, petroleum	<ul style="list-style-type: none"> Industrial discharge, illegal dumping of wastes, wastewater
Sweet, fruity	<ul style="list-style-type: none"> Commercial wash water, wastewater

The information above (color, turbidity, odor) can help identify contaminants present in the discharge and/or the likely nature of the discharge (i.e. sanitary, industrial, etc.). If any of the characteristics listed above are observed in the dry weather flow, then samples should be collected for field and/or laboratory testing to determine if the flow is illicit. The parameters indicated in Table 3 may be considered for testing, depending on the results of the field screening:



Table 3. Common Water Quality Parameters that Can Serve as Indicators of Presence or Absence of Specific Discharges

WATER QUALITY TEST	ILLICIT DISCHARGE INDICATOR
pH	<ul style="list-style-type: none"> • Extreme pH values (low or high) may indicate commercial or industrial flows; not useful in determining the presence of sanitary wastewater
Conductivity	<ul style="list-style-type: none"> • Used to measure total dissolved solids (TDS); TDS can increase as a result of wastewater discharges, irrigation, and overuse of fertilizers
Bacteria (E. coli bacteria/Fecal Coliform)	<ul style="list-style-type: none"> • Can be found in the feces of human and other animals from direct discharge
Metals	<ul style="list-style-type: none"> • Can indicate waste from manufactures/construction/pipes
Oils	<ul style="list-style-type: none"> • Spills and dumping of motor vehicle fluids
Ammonia	<ul style="list-style-type: none"> • Microbial decomposition of animal and plant proteins, sanitary wastewater, raw or partially-treated sewage, petroleum refining and chemical industries, synthetic fibers and dyes, drugs, pesticides, and fertilizer
Surfactants	<ul style="list-style-type: none"> • Can indicate a discharge from wash water or laundry
Chlorine	<ul style="list-style-type: none"> • Used to indicate inflow from potable water sources; used as disinfectant in water and wastewater treatment process
Fluoride	<ul style="list-style-type: none"> • Potable water

Proper quality assurance and quality control procedures should be followed when collecting, transporting, and analyzing water samples.

If an outfall does not have dry weather flow, no testing is required. Observations of each outfall should be recorded each time an outfall is screened, regardless of the presence of dry weather flow. If an outfall has dry weather flow, but it can be ascertained that it is from a naturally occurring source (i.e. groundwater, etc.), sampling may not be required.

The physical condition of an outfall can provide strong clues about the history of discharges passing through it. Over time, intermittent discharges can cause outfall damage (Figure 4) or leave behind remnants in the form of deposits or stains which can help an inspector determine what type of discharge traveled through the area. Field inspectors should document that a deposit or stain is present even if there is no dry weather discharge observed.



Figure 4. Outfall pipe damage (could indicate the presence of contaminated discharges).

All outfall screening information should be recorded on the West Norriton Township Illicit Discharge Field Screening Program Data Collection Form (see Appendix A). Adequate written documentation is required to justify a determination that a dry weather flow is not illicit.

The results of the outfall field screenings, any water testing, and any actions taken to remove or correct illicit discharges should be summarized in the Annual MS4 Status Reports required as part of the NPDES MS4 Permit and submitted to PA DEP.



4.2. SCREENING PROCEDURES IN PRIORITY AREAS

The procedure for screening priority area outfalls should follow the procedure for routine dry weather outfall field screening described in Section 4.1 and per the NPDES MS4 Permit requirements.

The main difference between the procedures for screening outfalls in priority areas and general outfall screening is frequency. Priority area outfalls should be screened **annually**. All other outfalls are only required to be screened once per five (5) year Permit term.

If it is confirmed that an outfall has an illicit discharge through sampling, measures should be taken to eliminate the discharge through the compliance and enforcement process as outlined in the IDD&E Program. In addition, a sampling program should be developed to monitor the illicit discharge at a particular outfall(s) for a specific pollutant(s). This may include dry and wet weather sampling at an established frequency until it can be ascertained that the issue has been resolved. This program should be developed in consultation with PA DEP.

5. IDENTIFYING THE SOURCE OF AN ILLICIT DISCHARGE

Once an illicit discharge has been discovered, various methods can be used to pinpoint the exact source of the discharge. These techniques, many of which are already used by municipal sewer departments, include manhole observation, video inspection, smoke testing, dye testing, aerial infrared and thermal photography, and tracking illegal dumping. Refer to Table 4 below for the list of techniques that may be used to identify the source of an illicit discharge.

Table 4: Techniques to Identify Sources of Illicit Discharges

TECHNIQUE	BACKGROUND	ADDITIONAL INFORMATION
MANHOLE/INLET OBSERVATIONS	A key tracing technique is to follow dry weather flows upstream along the conveyance system to bracket the location of the source. This should be attempted prior to implementing the other techniques below.	<ul style="list-style-type: none"> • Consult the drainage system map. • Check the next upstream manhole with a junction to see if there is evidence of discharge. It may be helpful to sample each manhole that has a discharge. • Repeat these steps until a junction is found with no evidence of discharge; the discharge source is likely to be located between the junction with no evidence of discharge and the next downstream junction.
AERIAL INFRARED AND THERMAL PHOTOGRAPHY	Aerial infrared and/or thermal photography can be used to locate illicit discharges from outfalls and failing septic systems using temperature and vegetation as markers. This technique requires knowledge of aerial photo interpretation but can easily be reviewed for any and all illicit discharges and should be a routine step in tracking sources (primarily in the detection of failing septic systems contributing to an illicit discharge).	<ul style="list-style-type: none"> • For outfalls: <ul style="list-style-type: none"> ○ Note if discharge has a higher temperature than that of the stream. ○ Note if algae growth is concentrated near an outfall. • For potentially failing septic system: <ul style="list-style-type: none"> ○ Note evidence of increased moisture in surrounding soil. ○ Observe vegetation located close to the potentially failing septic system and note any increase in vegetation compared to the surrounding area.
VIDEO INSPECTION	This technique is time-consuming and expensive but thorough and usually definitive, and it does not require the intrusion on members of the public that some of the other methods do.	<ul style="list-style-type: none"> • Mobile video cameras can be guided remotely through storm sewer lines to observe possible illegal connections into storm sewer systems and record observations electronically. Township staff can observe the videos and note any visible illegal connections.



TECHNIQUE	BACKGROUND	ADDITIONAL INFORMATION
SMOKE TESTING	<p>This technique involves injecting non-toxic smoke into storm sewer lines and then noting the emergence of smoke from sanitary sewer vents in illegally connected buildings or from cracks and leaks in the storm sewer lines.</p>	<ul style="list-style-type: none"> • The injection is accomplished by placing a smoke bomb in the storm sewer manhole below ground and forcing air in after it. Smoke-generating machines can also be used. Test personnel should be stationed at points of suspected illegal connections or cracks/leaks, noting any escape of smoke (indicating an illicit connection or damaged storm sewer infrastructure). • Prior to performing this test, it is necessary to inform building owners and occupants in the area in advance. It is also advisable to inform the police and fire departments. For a more thorough smoke-test program, the sanitary sewer lines can also be smoked. For houses that do not emit smoke during either the sanitary sewer or the storm sewer system tests, sewer gas may be venting inside, which is hazardous. Interviews with various IDDE program staff suggest that the smoke-test method is more effective in infiltration/inflow investigations of the sanitary sewer system than in detecting illegal connections to the storm sewer system. • Smoke may cause minor irritation of respiratory passages; residents with respiratory conditions should receive special attention to determine if it is safe for them to be present for the testing. Smoke testing is typically used to survey an area all at once, in contrast to dye testing, which tests one building at a time.
DYE TESTING	<p>This technique involves flushing non-toxic dye into toilets, sinks, or other suspected illicit discharge sources and observing storm sewer and sanitary sewer manholes and storm sewer outfalls for the presence of the dye.</p>	<ul style="list-style-type: none"> • Prior to performing this test, it is necessary to inform building owners and occupants in advance and gain permission for entry. Local public health and state water quality staff should also be notified so that they will be prepared to respond to citizens calling about any dye observed in surface waters. • To perform the test, a crew of two or more people (ideally, all with two-way radios) is required. One person is inside the building; the others are stationed at the appropriate storm sewer and sanitary sewer manholes (which should be opened) and/or outfalls. The inside person drops dye into a plumbing fixture (i.e., toilet or sink) and runs a sufficient amount of water to move the dye through the plumbing system. The inside person then radios to the outside crew that the dye has been dropped, and the outside crew watches for the dye in the storm sewer and sanitary sewer, recording the presence or absence of the dye. • The test is relatively quick (about 30 minutes per test), effective (results are usually definitive), and cheap. Dye testing is best used when the likely source of an illicit discharge has been narrowed down to a few specific houses or businesses.
TRACKING ILLEGAL DUMPING	<p>Developing a coordinated system for collecting and tracking reports of illegal dumping can help pinpoint this difficult-to-find source of illicit discharges.</p>	<ul style="list-style-type: none"> • Illegal dumping can be tracked by: <ul style="list-style-type: none"> ○ Creating a hotline that can be used to report any illegal-dumping behavior (i.e., who illegally dumped and where illegal dumping occurred). ○ Observing the materials that have been illegally dumped and trace the potential sources of the materials. ○ Noting where dumping occurs most often, record patterns of time of day and day of the week and note common responsible parties.



6. ELIMINATING AN ILLICIT DISCHARGE

Because there are various sources of illicit discharges to the storm sewer system, there are different kinds of actions that may have to take to remove those sources and prevent future illicit discharges, including:

- ✓ Voluntary compliance;
- ✓ Enforcement;
- ✓ Proper construction and maintenance of MS4s; and
- ✓ Responding to and preventing illegal dumping.

Typically, the process of eliminating an illicit discharge should be pursued in a graduated manner. The Township should begin with efforts to obtain voluntary compliance and escalate to increasingly severe enforcement actions if compliance is not obtained.

6.1. VOLUNTARY COMPLIANCE

The responsible party may be unaware of the existence of illegal connections between their buildings and the storm sewer systems or other illicit discharge. Because of this, in most cases, the Township should first seek voluntary compliance by providing the responsible party with following information:

- Inform them of the presence of the connection or other violation;
- Environmental consequences of their illicit discharge;
- Applicable regulations; and
- How to remedy it.



6.2. ENFORCEMENT

In the event that voluntary compliance cannot be secured, the Township may pursue enforcement action by taking the following steps in consultation with the Township Solicitor:

- Send the property owner a Notice of Violation (NOV), which may require the violator to take steps such as monitoring, elimination of an illicit connection or discharge, or payment of a fine.
- The person receiving the NOV may appeal it.
- If the person receiving the NOV does not appeal or loses the appeal and fails to correct the violation, the Township may “take any and all measures necessary to abate the violation and/or restore the property.” The Township then may require reimbursement from the violator for the cost of the abatement, including administrative costs.
- The Township may also seek an injunction against the violator “restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.”



As much as possible, the Township will seek to gain compliance by enforcement of the stormwater ordinance. However, in some cases it may be necessary to seek additional enforcement action from state or federal authorities. Depending on the nature of the illicit discharge, the jurisdictional agencies may include one or more of the following:

- PA DEP
- Montgomery County Conservation District (MCCD)
- Pennsylvania Fish and Boat Commission (PFBC)
- U.S. EPA

Involvement of state or federal authorities may also be necessary if the source of an illicit discharge is located outside of the Township's boundaries.

6.3. PROPER CONSTRUCTION AND MAINTENANCE OF MS4s

Contamination can infiltrate into a cracked or leaking MS4 from leaking sanitary sewer pipes, failing septic systems, or contaminated groundwater. To help prevent this, both MS4s and sanitary sewer systems should be inspected periodically and maintained properly to keep them in good repair. Inspection and maintenance of MS4s is required through MCM #6 Pollution Prevention and Good Housekeeping and documented in the Township's Operations and Maintenance for Municipal Operations and Facilities Program. Annual review and update of the MS4 mapping and sanitary sewer system mapping is integral in preventing and addressing infrastructure deficiencies.

6.4. EDUCATIONAL OUTREACH

The Township will provide educational outreach concerning IDD&E program to the target audiences identified in the Public Education and Outreach Program (PEOP) through the methods outlined in the PEOP (and below), in order to help detect, eliminate, and prevent illicit discharges.

The Township is required to establish and promote a stormwater pollution reporting mechanism (e.g., a complaint line with message recording) for the public to use to notify the Township of illicit discharges, illegal dumping, or outfall pollution. The Township utilizes the main phone line for the Township Building for illicit discharge complaints. This is publicized it on the stormwater page on the Township website. Refer to section 9 below for details on responding to complaints received.

Methods of educational outreach are detailed below.



Educational Outreach Methods

- Educating the target audience about the environmental and legal consequences of illegally disposing of waste into the storm sewer system through the Township website, brochures, posters, etc.
- Publish a pamphlet with IDD&E educational information to be distributed with the issuance of building permits;
- Programs to encourage and facilitate public reporting of illicit discharges;
- Publicizing ways for citizens to properly dispose of waste (i.e. used oil recycling and household hazardous waste collections);
- Outreach to business sectors that handle hazardous materials and/or have a history of illegal-dumping problems; outreach should include information on Best Management Practices for spill prevention and proper waste disposal;
- Surveillance of known illegal-dumping locations;
- Providing opportunities for volunteers to get involved in preventing and reporting illegal dumping;
- Storm drain stenciling;
- Visual outfall inspections; or
- Training of Township employees, police officers, and other local entities on IDD&E.

7. PRIVATE PROPERTIES

Mechanisms for gaining access to private properties for outfall field screening, water quality testing, tracking illicit discharges, etc. will be pursued on a case-by-case basis, as needed. Some mechanisms for gaining access include notification letters, land easements, consent agreements, or search warrants. The Township's Ordinance No. 595, 7/13/2004, §502 Section §142, includes language that describes the Township's right of entry to properties, as necessary, to conduct monitoring and/or sampling of discharges from stormwater facilities. The Township Solicitor should be consulted regarding appropriate measures to be taken for access to private properties in each situation.

8. PROGRAM DOCUMENTATION, EVALUATION, & ASSESSMENT

All outfall field screening, water quality testing, illicit discharges, and related correspondence should be thoroughly documented and submitted to PA DEP with each progress report. Incident locations should be tracked and statistics (i.e. annual cleanup costs, facility compliance, arrests, convictions, fines, complaints) compiled.

The program will be evaluated and assessed annually and revised as necessary to improve upon the effectiveness of illicit discharge detection and elimination within the Township.



8.1. ANNUAL GOALS

The Township's goals each year is to implement and enforce an IDD&E program with the following goals:

ANNUAL GOALS
<ol style="list-style-type: none">1. Implement and review the IDD&E program and update as necessary.2. Review and update the MS4 mapping, as necessary, to contain:<ol style="list-style-type: none">a. Municipal boundaryb. Urbanized areac. Location of all outfallsd. Observation points (if applicable)e. Surface watersf. Entire municipal storm sewer collection system (including privately-owned components when the MS4 drains into it)3. Complete dry weather field screening on all outfalls once per five (5)-year permit period.4. Enact a Stormwater Management Ordinance to implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to the MS45. Provide educational outreach to target audiences regarding the program to detect and eliminate illicit discharges

9. ADDRESSING INFORMATION OR COMPLAINTS RECEIVED FROM THE PUBLIC

Members of the public may report environmental complaints including illegal dumping, spills and suspicious discharges to the Township by calling the Township Building at 610-631-0450, as directed on the stormwater page of the Township website. Township staff that receive these calls are trained to direct them to the Township Manager, Director of Public Works, and other appropriate personnel.

Responses to complaints should be in a timely and appropriate manner. Investigative responses will range from a site visit that fails to confirm a problem to full scale advanced investigation to identify the source of the illicit discharge. When responding to complaints, staff will follow the protocols listed in Sections 4 and 5. Responses, the action taken, the time required to take the action, whether the complaint was resolved, and any other coordination should be documented and reported to PA DEP each year in the Annual MS4 Status Report.



10. REFERENCES


- Center for Watershed Protection & Robert Pitt. October 2004. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments.
http://www.epa.gov/npdes/pubs/idde_manualwithappendices.pdf
- New England Interstate Water Pollution Control Commission. January 2003. Illicit Discharge Detection and Elimination Manual: A Handbook for Municipalities.
<http://water.epa.gov/polwaste/npdes/stormwater/upload/iddmanual.pdf>
- North Central Texas Council of Governments (NCTCOG). 2011. Illicit Discharge Detection & Elimination (IDDE) Field Investigation Guide.
http://www.nctcog.org/envir/seecclean/stormwater/program-areas/illicit-discharge/documents/IDDEFieldGuide_Final.pdf

APPENDIX A
**Dry Weather Outfall Field
Screening Form**



Outfall Field Screening Survey123 Form

Location:

 40°15'N 75°39'W ± 108 m



Outfall Number:

Outfall or Observation Point:

- Outfall
 Observation Point

Condition:


- Dry Weather
 Wet Weather

Subwatershed:

Date:

 Friday, April 10, 2020

Time:

 3:31 PM

Inspectors:

CEG

Outfall Field Screening Survey123 Form

Land Use in Drainage Area:

- Suburban Residential
 Industrial
 Open Space
 Commercial
 Ultra-Urban Residential
 Agricultural
 Institutional
 Other

Pipe Type:

- Open
 Closed

Submerged in Water

- No
 Partially
 Fully

With Sediment:

- No
 Partially
 Fully

In-Stream:

- Yes
 No

Flow Present?

- Yes
 No



Outfall Field Screening Survey123 Form

Flow Description:

- Trickle
- Moderate
- Substantial

▽ Flow #1

Volume:

Time to Fill:

▽ Flow #2

Flow Depth:

Flow Width:

Measured Length:

Time of Travel:

Temperature:

pH:



Outfall Field Screening Survey123 Form

Ammonia:

▽ Physical Indicators for Flowing Outfalls

Physical Indicators Present in Flow?

- Yes
- No

Color:

- Clear
- Green
- Brown
- Orange
- Gray
- Red
- Yellow
- Other

Color Severity:

- Faint colors in sample bottle
- Clearly visible in sample bottle
- Clearly visible in outfall flow

Odor:

- Sewage
- Sulfide
- Rancid/sour
- Petroleum/gas
- Other

Odor Severity:

- Faint



Outfall Field Screening Survey123 Form

Odor Severity:

- Faint
- Easily detected
- Noticeable from a distance

Turbidity Severity:

- Slight Cloudiness
- Cloudy
- Opaque

Floatables:

- Sewage
- Petroleum
- Suds
- Other

Floatables Severity:

- Few/slight
- Some
- Origin Clear

Are any Physical Indicators Present?

Outfall damage, stains, vegetation, etc.

- Yes
- No

Characterization:

- Unlikely
- Potential (2+ indicators)
- Suspect (1+ indicators with high severity)
- Obvious

Sample for Lab?



Outfall Field Screening Survey123 Form

Are any Physical Indicators Present?

Outfall damage, stains, vegetation, etc.

- Yes
- No

Characterization:

- Unlikely
- Potential (2+ indicators)
- Suspect (1+ indicators with high severity)
- Obvious

Sample for Lab?

- Yes
- No

Any non-illicit discharge concerns?

Photograph 1:

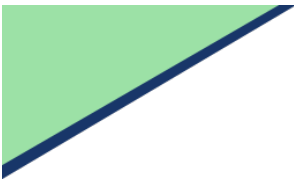


Photograph 2:



Photograph 3:





Dry Weather Outfall Field Screening

NPDES ID:

Date:	Time:
Number:	Outfall/Observation Point:
Lat/Long:	Inspector(s):
Subwatershed:	Land Use:

Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
Closed				In water:
				With sediment:
Open				
In-stream?				
Flow present?				
Flow description (if present):				

Quantitative Characterization

(field data for flowing outfalls)

Parameter		Result	Unit	Equipment
Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
Flow #2	Flow depth		In	Tape measure
	Flow width		Ft, In	Tape measure
	Measured length		Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mG/L	Test strip



Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Present?	Description	Relative Severity
Odor			
Color			
Turbidity			
Floatables			

Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present?

Indicator	Present?	Description	Comments
Outfall Damage			
Deposits/Stains			
Abnormal Vegetation			
Poor pool quality			
Pipe benthic growth			

Overall Outfall Characterization

Data Collection

1. Sample for the lab?	
2. If yes, collected from:	
3. Intermittent flow trap set?	
4. Flow trap type:	

Any non-illicit discharge concerns?



Photograph 1

Photograph 2

Photograph 3



Annual MS4 Status Report

APPENDIX D

MCM #4 Construction Site Runoff Control

- 1. DEP Complaint Info**
- 2. Erosion and Sediment Control Standard Operating Procedures
(August 2020)**

From: [Jason Bobst](#)
To: [Brown, Krista](#); cschmoyer@montgomeryconservation.org; [Eric Konzelmann](#)
Cc: [Mahoney, Elizabeth](#); [Henning-Dudley, Desiree](#); [Eric Konzelmann](#); [Defrancesco, Frank](#); [Michael Valyo](#); [Beth Uhler](#)
Subject: RE: [External] RE: 56 West Indian Lane
Date: Friday, January 24, 2020 3:37:29 PM
Attachments: [image002.png](#)
[W. Indian Lane Stormwater Improvements - E&S Control Plan.pdf](#)

Cory and Eric,

Attached, please find the E&S Control plan prepared by our Township Engineer. Right now, everything is in place except for the silt fencing in front of the inlet structures. This fencing is being installed as I type this email and should be completed by the end of business today.

If you have any questions, please let me know.

Thanks,

Jason

Jason Bobst
Township Manager

From: Brown, Krista <kristbrown@pa.gov>
Sent: Friday, January 24, 2020 2:10 PM
To: cschmoyer@montgomeryconservation.org; Eric Konzelmann <ekonzelmann@montgomeryconservation.org>
Cc: Mahoney, Elizabeth <emahoney@pa.gov>; Henning-Dudley, Desiree <dhenningdu@pa.gov>; Eric Konzelmann <ekonzelmann@montgomeryconservation.org>; Defrancesco, Frank <fdefrances@pa.gov>; Michael Valyo <mvalyo@wntwp.com>; Jason Bobst <jbobst@wntwp.com>; Beth Uhler <buhler@cedarvilleeng.com>
Subject: Re: [External] RE: 56 West Indian Lane

Hi Cory/Eric,

Would you guys work with Frank and the township to let them know when they are in compliance and start working again.

Thanks

Krista

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From: Beth Uhler <buhler@cedarvilleeng.com>
Sent: Friday, January 24, 2020 11:01:46 AM
To: Brown, Krista <kristbrown@pa.gov>
Cc: Mahoney, Elizabeth <emahoney@pa.gov>; Henning-Dudley, Desiree <dhenningdu@pa.gov>; Eric

Konzelmann <ekonzelmann@montgomeryconservation.org>; DeFrancesco, Frank <fdefrances@pa.gov>; Mike Valyo - West Norriton Township (mvalyo@wntwp.com) <mvalyo@wntwp.com>; Jason Bobst (jbobst@wntwp.com) <JBobst@wntwp.com>

Subject: [External] RE: 56 West Indian Lane

ATTENTION: *This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.*

Hi Krista,

I spoke with Jason and Mike Valyo, Public Works Director, this morning. Yes, this is Township drainage improvement project involving the maintenance of an existing swale and replacement of an existing 24" pipe with a 36" pipe to address flooding of nearby private properties as well as stormwater entering the Township's wastewater system. J&K Excavating has been contracted to complete the work.

It is my understanding that the Township received an inspection report from MCCD in November 2019 and implemented proper E&S controls at that time. The Township also indicated that a representative from DEP visited the site around then and confirmed that there were no regulated wetlands or streams within the project area. The E&S controls were temporarily removed to allow the contractor to complete the necessary work with the intention of reinstalling them once the work was complete and prior to a rain event. They were hoping to finish this afternoon prior to the forecasted heavy rains tomorrow.

The Township has ceased earth disturbance and is currently in the process of coordinating the reinstallation of the E&S controls per items #1 and #2 from your email below. This will include silt sock and silt fence downslope of the earth disturbance, and the placement of inlet filter bags in the inlets surrounded by the earth disturbance. The Township will provide photographs of the E&S controls as well as an E&S Control Plan to you via email asap.

We will also begin the development of an SOP per item #3 below. Is there a specific timeline for this item?

Please let us know if the above actions will sufficiently address items #1 and #2 below, and when compliance with Chapter 102 regulations have been achieved so that the Township may recommence work on this project.

If you have any questions or would like to discuss further, please contact me on my cell phone at 484-680-0806.

Thanks,
Beth

Beth Uhler

**Project Manager**

CEDARVILLE Engineering Group, LLC
159 E. High Street, Suite 500
Pottstown, PA 19464
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Federally Certified 8(a), EDWOSB, State Certified DBE/WBE
NAICS Codes: Primary 541330
236116 236210 236220 237110 237310 237990 541340 541350 541360 541370 541380 541420 541430 541490
541512 541611 541618 541620 541690 541715 541990 561210 561499 561790 561990
DUNS No.: 962659947

From: Brown, Krista <kristbrown@pa.gov>
Sent: Friday, January 24, 2020 7:06 AM
To: Jason Bobst (jbobst@wntwp.com) <JBobst@wntwp.com>
Cc: Beth Uhler <buhler@cedarvilleeng.com>; Mahoney, Elizabeth <emahoney@pa.gov>; Henning-Dudley, Desiree <dhenningsdu@pa.gov>; Eric Konzelmann <ekonzelmann@montgomeryconservation.org>; Defrancesco, Frank <fdefrancesco@pa.gov>
Subject: 56 West Indian Lane

Hi Jason/Beth,

We were notified by the Montgomery County Conservation District that there is a work site located near 56 West Indian Lane without any E&S controls. It is believed the work is being performed by the township.

If it is, then I would advise that:

1. The township immediately install the proper E&S controls
2. Stop any further work from being performed at the site until those controls are in place and you are in compliance with all Chapter 102 regulations.
3. Develop an SOP for your staff and contractors identifying that E&S controls must be installed prior to any work being performed at sites. At a minimum the SOP should follow the townships own ordinances regarding E&S. Those ordinances should be as stringent or more stringent than the Chapter 102 regulations.

If the work is being performed by a non-municipal entity, then West Norriton Township should be enforcing their E&S ordinances against this entity.

Please note that failure of the township to comply with the E&S requirements and/or to enforce its own E&S ordinances would constitute not only violations of Chapter 102 regulations but it would also be a violation of the municipalities MS4 permit and therefore the Clean Streams Law.

You will also be hearing from our Wetlands and Waterways section, whom I have cc'd on this email.

Please provide an update to me regarding who is performing the work, why it is being performed without E&S controls and what steps were taken to address this issue no later COB 1/24/2020.

Please feel free to contact me with any questions. I will be in the field today so email will be the best way to contact me.

Beth, I know I owe you a phone call but I have been in the field a lot recently. I will try to give you a call Monday. I apologize for the delay.

Thanks

Krista

Krista Brown | Environmental Protection Compliance Specialist
Department of Environmental Protection | Southeast Regional Office
2 East Main Street | Norristown, PA 19401
Phone: 484.250.5183 | Fax: 484.250.5971
www.depweb.state.pa.us



STORMWATER MANAGEMENT PROGRAM

EROSION AND SEDIMENT CONTROL STANDARD OPERATING PROCEDURES



West Norriton Township
Montgomery County, Pennsylvania

1630 West Marshall Street
Jeffersonville, PA 19403

August 2020

CEDARVILLE Engineering Group, LLC
159 E. High Street, Suite 500
Pottstown, PA 19464
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f @cedarvilleeng



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1. INTRODUCTION

West Norriton Township has developed Standard Operating Procedures (SOP) for Erosion and Sediment (E&S) Control as part of the Township's Stormwater Management Program. The SOP was established at the request of the Pennsylvania Department of Environmental Protection (PA DEP) to address earth disturbance activities undertaken by the Township.

The E&S Control SOP is designed to comply with the West Norriton Township's NPDES – Municipal Separate Storm Sewer System (MS4) General Permit No. PAG130006 issued by the Pennsylvania Department of Environmental Protection (DEP), and is consistent with the Township Ordinance (Stormwater Management § 121 Erosion and Sediment Control During Regulated Earth Disturbance Activities) and Chapter 102 of the Pennsylvania Code.

The procedures set forth in this document are separated based on the total earth disturbance of the individual project. Included with the operator procedures are descriptions of typical E&S Control measures [i.e. Best Management Practices (BMPs)] that should be utilized as well as information regarding other permits and approvals that may be required for certain activities. If projects requiring earth disturbance are contracted out, the Township shall ensure these contractors follow this SOP as applicable.

2. E&S CONTROL PROCEDURES FOR ACTIVITIES UNDERTAKEN BY TOWNSHIP STAFF

The follow E&S control procedures should be followed for all activities undertaken by Township staff. These procedures are broken out based on the total earth disturbance of the area affected by the individual activity.

2.1. Activities that Require a NPDES Permit for Stormwater Discharges Related to Construction Activities

NPDES Permits for Stormwater Discharges Associated with Construction Activities Projects are required for projects with **greater than or equal to 1.0-acre of earth disturbance**. It is not anticipated that Township staff will typically undertake projects or activities that involve greater than or equal to 1.0-acre of earth disturbance. However, if it does occur, the Township (or the Township's consultant) will prepare a NPDES Permit for Stormwater Discharges Associated with Construction Activities application and associated required information for review and approval by Montgomery County Conservation District (MCCD) and PA DEP in accordance with Chapter 102 of the Pennsylvania Code. The Township will follow the requirements of the approved plans and conditions of the Permit upon project implementation.

The Township (or their consultant) will be required to conduct weekly inspections of the installed E&S Controls at the site as well as inspections after rain events greater than 0.25-inch of total rainfall. Inspections should be completed using the "Chapter 102 Visual Site Inspection Report" form, located in **Appendix A**. Upon completion of each inspection, the inspector will generate a report documenting the condition of each E&S Control BMP installed, including any deficiencies, and action items to repair/replace any damaged, missing, or deficient BMPs. A photo log of the inspection including visual documentation of each BMP should be included. Repairs to BMPs should be conducted as soon as feasible. A copy of each inspection report and a log of inspections must be kept at the project site for the duration of the project along with the approved E&S Control Plans.



2.2. Activities Requiring an E&S Control Plan

A greater portion of activities undertaken by the Township will consist of earth disturbances **between 5,000 square feet and 1.0-acre** and any projects involving less than 1.0-acre of earth disturbance that discharge to streams with a designated or existing uses of High Quality (HQ) or Exceptional Value (EV) as listed in Chapter 93 of the Pennsylvania Code. There are no streams with a designated use of HQ or EV and currently no streams with an existing use of HQ or EV in which West Norriton Township may discharge.

For projects with earth disturbance between 5,000 square feet and 1.0-acre, Chapter 102 of the Pennsylvania Code requires a written E&S Control Plan. The E&S Control Plan must be developed by a member of the Township staff or their consultant who, in accordance with Chapter 102 requirements, is “a person trained and experienced in E&S control methods and techniques applicable to the size and scope of the project being designed.” As part of the E&S Control Plan development, a site visit will first be conducted to document site characteristics. The E&S Control Plan must be properly implemented, kept on-site, and available upon request. However, it does not need to be submitted for approval by MCCD or PA DEP.

For earth disturbance activities between 5,000 square feet and 1.0 acres, inspection and maintenance of BMPs will be conducted under the same guidelines as sites greater than 1.0 acres of earth disturbance. Though self-inspection is not required for the project size, the Township (or their stormwater consultant) will still follow the Chapter 102 protocol and conduct weekly inspections of the installed E&S controls at the site as well as inspections after rain events greater than 0.25-inch of total rainfall. Inspections should be completed using the “Chapter 102 Visual Site Inspection Report” form, located in **Appendix A**. Upon completion of each inspection, the inspector will generate a report documenting the condition of each E&S Control BMP installed, including any deficiencies, and action items to repair/replace any damaged, missing, or deficient BMPs. A photo log of the inspection including visual documentation of each BMP should be included. Repairs to BMPs should be conducted as soon as feasible. A copy of each inspection report and a log of inspections should be kept at the project site for the duration of the project along with the approved E&S Control Plans

2.3. Activities that Require E&S Control BMPs Only (<5,000 Square Feet of Earth Disturbance)

The majority of the projects of activities undertaken by the Township fall into this category. Earth disturbance activities consisting of **less than 5,000 square feet** require E&S Control BMPs but do not require an E&S Control Plan unless the activities have the potential to discharge to any stream classified as HQ or EV under Chapter 93 (as indicated in Section 2.2).

For all earth disturbances less than 5,000 square feet that do not discharge to High Quality or Exceptional Value waters, the following E&S BMP Controls listed in Table 1.0 will typically be utilized; however, this is not an exhaustive list. These BMPs are described in more detail in Section 3.0.

Table 1.0 – Commonly Used E&S Control BMPs

BMP	Description	E&S Manual Reference*
Compost Filter Sock (CFS)	Compost filter socks shall be placed inside of the limit of disturbance across any slopes downgradient from disturbed areas prior to surface disruption. Ends of CFS should turn 45° upslope a minimum of 8 feet. CFS shall	<u>Chapter 4: Sediment Barriers and Filters</u> Standard Construction Detail #4-1



	not be removed until disturbed areas have been stabilized.	
Silt Fence	Silt Fence may be utilized in a similar fashion to the CFS. The fabric of the silt fence must meet the minimum requirements of table 4.3 of the PA DEP Erosion Control Manual. Fabric width shall be 30-inches minimum, with 18-inches minimum extending above the ground. A 6-inch deep by 6-inch wide anchor trench is required along the base of the fence to anchor the fabric in place.	<u>Chapter 4: Sediment Barriers and Filters</u> Standard Construction Detail #4-7
Inlet Filter Bag (or other Inlet Protection)	Any inlets located within the limit of disturbance and immediately adjacent to the LOD shall have inlet protection installed. Inlet protection may consist of an inlet filter bag installed below the grate of the inlet.	<u>Chapter 4: Sediment Barriers and Filters</u> Standard Construction Detail #4-15 and #4-16
Rock Construction Entrance (RCE)	A RCE shall be constructed for any earth disturbance where vehicles will be entering and exiting the disturbed area and returning to public roads.	<u>Chapter 3: Site Access</u> Standard Construction Detail #3-1
Pumper Water Filter Bag	A pumped water filter bag shall be utilized whenever disturbed areas require pumping due to standing water. Pumped filter bags should be constructed of a woven geotextile material and replaced when they become ½ full of sediment. The bag should be placed on a stabilized area and dewater to stabilized area prior to enter waters of the Commonwealth or the MS4.	<u>Chapter 3: Site Access</u> Standard Construction Detail #3-16
Stabilization	Temporary or permanent seeding and mulching shall be done on disturbed areas where work is complete or will be put on hold for a timer period greater than 4 days. If work is being done in a special protection watershed, stabilization must be done immediately upon completion of work or temporary cessation of earth disturbance	<u>Chapter 11: Stabilization Methods and Standards</u>
Erosion Control Blanket (ECB)	ECB will be used in place of mulch on slopes greater than 3:1 and all areas within 50 feet of a surface water – 100 feet of a special protection water – regardless of slope.	<u>Chapter 11: Stabilization Methods and Standards</u> Standard Construction Detail #11-1

*PA DEP Erosion and Sediment Pollution Control Program Manual (March 2012)



2.4. MS4 Infrastructure Maintenance Activities

For the purposes of this SOP, MS4 infrastructure maintenance activities that *may* require E&S control measures are defined as the following:

- Removal of sediment and/or debris from inlets, pipes, swales, BMPs and outfalls.
- Repairs to inlets, pipes, swales, BMPs and outfalls that require earth disturbance.

Any sediment and/or debris removed from MS4 infrastructure should be properly disposed of at the Waste Management landfill in Norristown. Please refer to the Township's "Operations & Maintenance for Municipal Operations & Facilities" Program from more details.

Repairs to MS4 infrastructure should follow the above outlined earth disturbance guidelines and stabilized as soon as complete. Extra precautions should be taken when MS4 infrastructure maintenance activities are to be conducted at locations where sediment could potentially bypass water quality BMPs such as maintenance on outfall structures at or in proximity to surface waters.

2.5. Stream Maintenance Activities

Proposed stream maintenance activities should be reviewed by Township staff, the Township Engineer, and/or Stormwater Consultant in accordance with the PA DEP Bureau of Waterways Engineering and Wetlands "Guidelines for Maintaining Streams in Your Community" publication (November 2018), **along with PA DEP and U.S. Army Corps Engineers permitting requirements** prior to the start of work.

The review process will determine if PA DEP needs to be notified prior to the commencement of the proposed stream maintenance activities or if the activity requires permitting for potential impacts to streams, wetlands, and/or floodways. If it is determined that PA DEP does not need to be notified or a permit applied for, work may commence, following the E&S Control procedures outlined in this SOP. A list of typical projects that require permitting is located below and should be reviewed prior to proceeding.

- Repair, rehabilitation, replacement, or removal of a culvert or bridge with a drainage area greater than 100 acres.
- Streambank stabilization/rehabilitation on streams with drainage areas greater than 100 acres.
- Removing gravel bars from stream channel with heavy equipment.
- Any disturbance to a stream, wetland, within 50 feet of a stream, or within a FEMA-mapped floodway.
- Redirecting or relocating the flow of a stream.
- Damming a stream.
- Building a new culvert or bridge.

3. E&S CONTROL BEST MANAGEMENT PRACTICES (BMP)

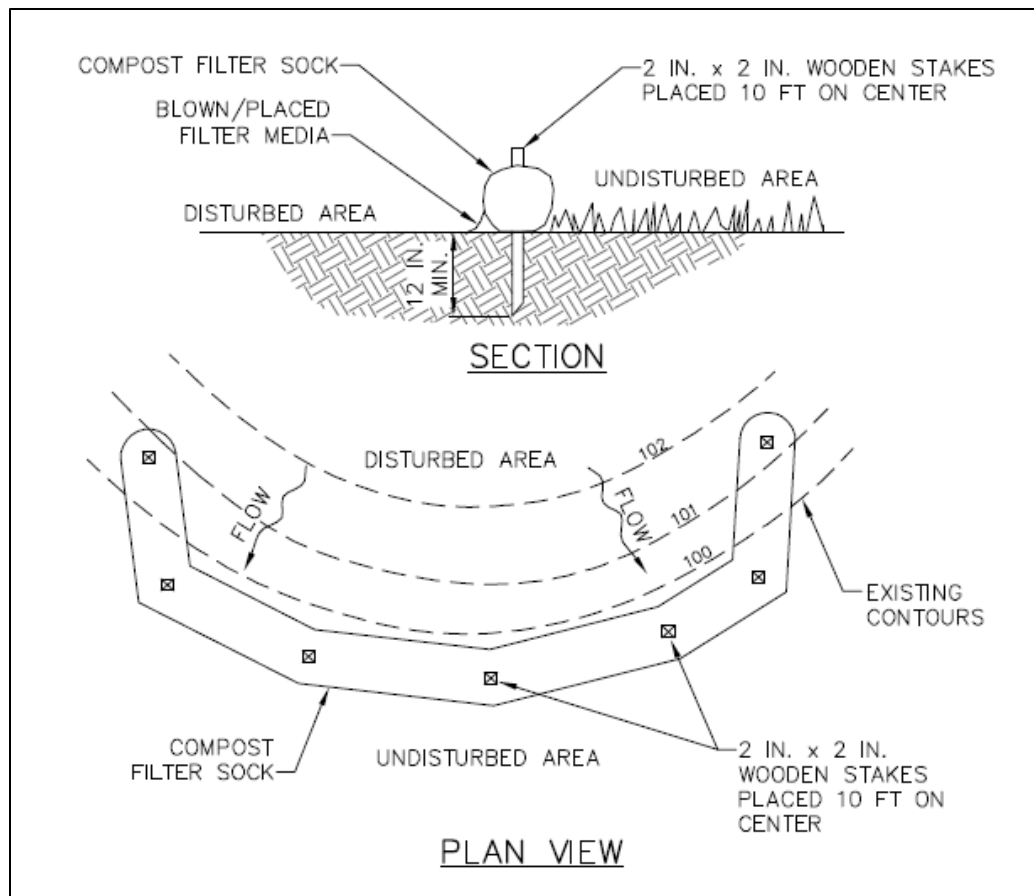
Selection of correct Best Management Practices is critical to proper E&S control. This section provides descriptions and details of the primary E&S controls that will be utilized by Township Employees for managing earth disturbances. PA DEP standard construction details for these selected E&S control BMPs are included with their descriptions. **Appendix B** contains the complete PA DEP Erosion and Sediment Control Best Management Practices Standard Construction Details.



3.1. Compost Filter Socks (CFS)

Compost filter socks or CFS, will be the primary E&S control BMP utilized by Township employees. Key to the correct usage of a CFS is the selection of locations. CFS shall be placed along the downslope side of the limit of disturbance and extend 8-feet upslope on each end at a 45° angle.

Standard Construction Detail #4-1: Compost Filter Sock

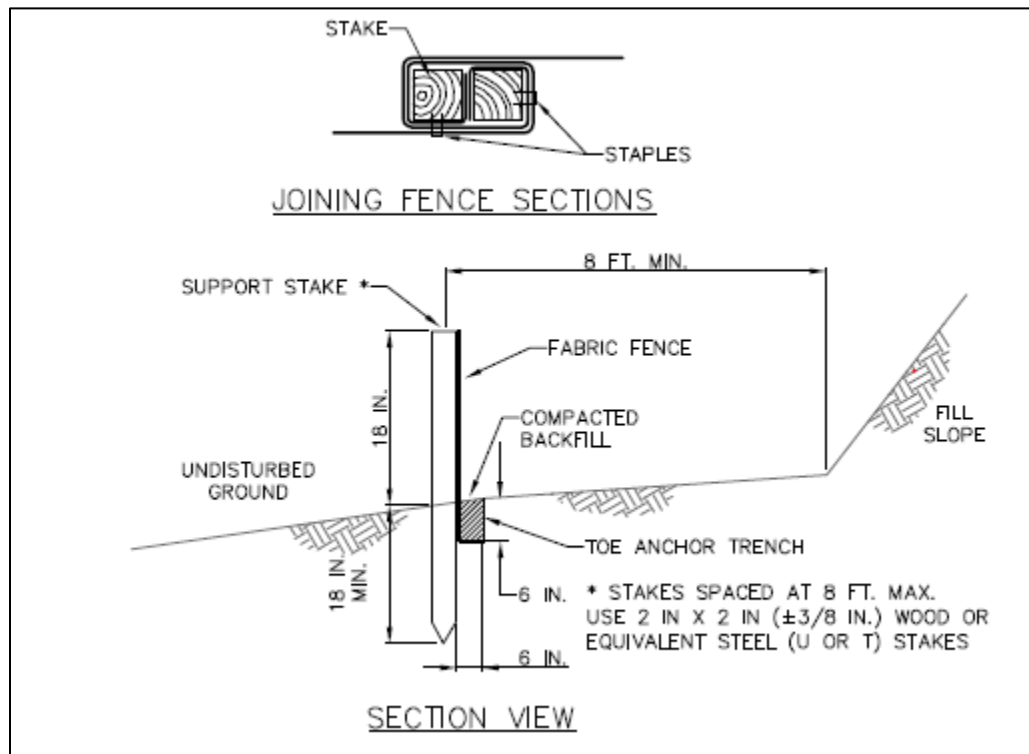




3.2. Silt Fence

Silt Fence may be used in place of compost filter socks. Silt fence fabric shall meet the requirements of Table 4.3 in the PA DEP Erosion Control Manual. Silt Fence fabric must be 30-inches wide with 18-inches of fabric extending upright from the ground surface. A toe anchor trench must be excavated to anchor the bottom 12-inches of the fabric below the surface. The toe anchor trench shall extend 6-inches below the surface and 6-inches inward of the disturbed area. Toe anchor trench shall be backfilled and compacted once fabric is in place. Support stakes shall consist of 2-inch x 2-inch wood stakes spaced at a maximum distance of 8-feet apart. Similar to CFS, the ends of the silt fence shall extend 8-feet upslope at 45° angles. Sediment shall be removed from behind the silt fence when it reaches half the height. Silt fence shall be removed and properly disposed of when the tributary area has been stabilized.

Standard Construction Detail #4-7: Standard Silt Fence (18-inches high)

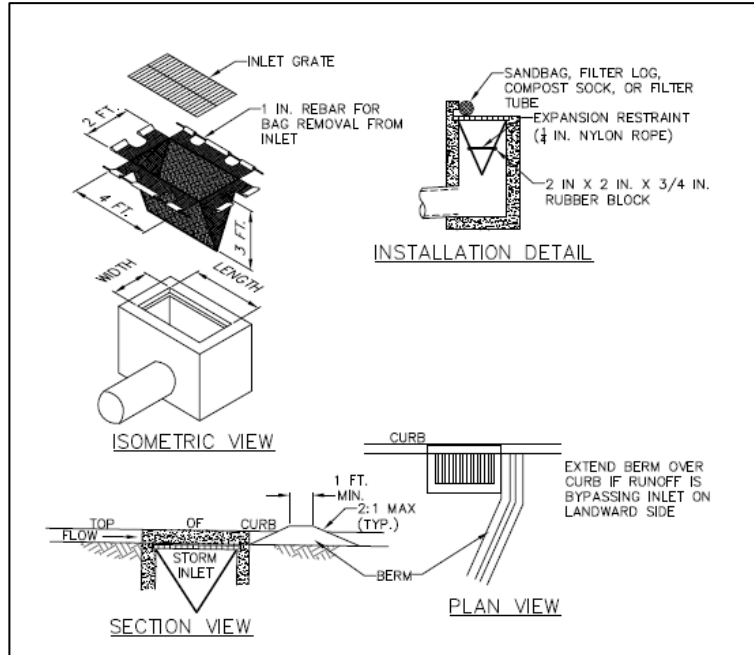




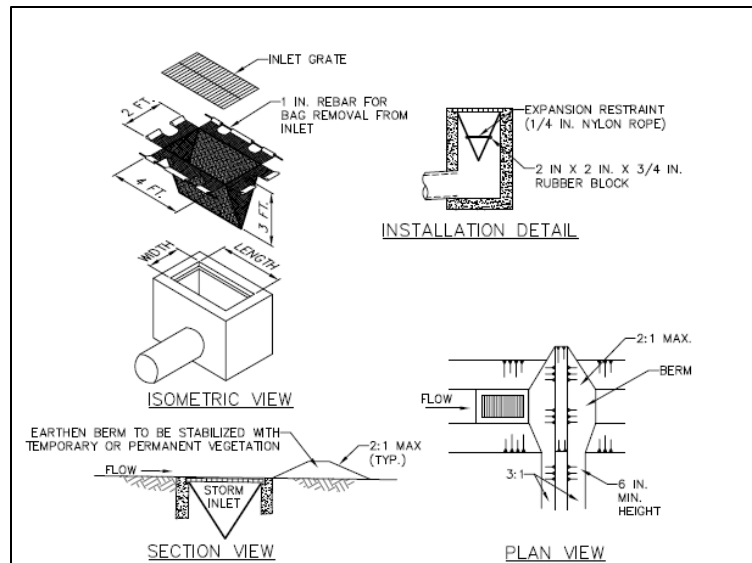
3.3. Inlet Protection (Filter Bag)

Inlet protection shall be provided in the form of a filter bag at all inlets within the limit of disturbance and immediately adjacent to disturbed areas where there is a potential for sediment to enter the inlet. However, if the inlet drains to a sediment basin or sediment trap, inlet protection is not required. Bags should be inspected weekly and cleaned or replaced when half full. Maximum drainage area per bag is 0.5 acres.

Standard Construction Detail #4-15: Filter Bag Inlet Protection – Type C Inlet



Standard Construction Detail #4-16: Filter Bag Inlet Protection – Type M Inlet

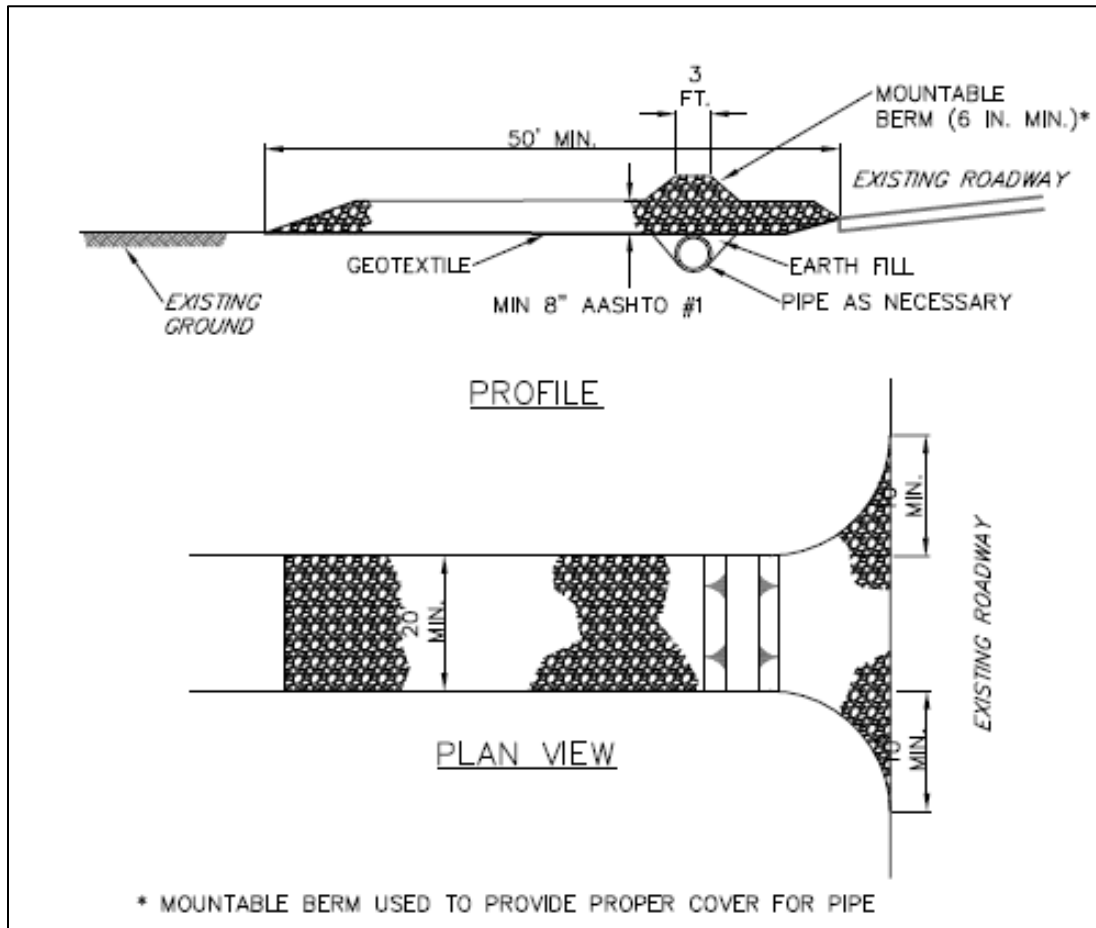




3.4. Rock Construction Entrance (RCE)

Rock construction entrances shall be utilized when equipment and vehicles will be entering roadways directly from the disturbed area. Dimensions shown in the detail below may not be achievable. In cases where RCE is needed but space is limited, the RCE should be constructed as large of feasible.

Standard Construction Detail #3-1: Rock Construction Entrance

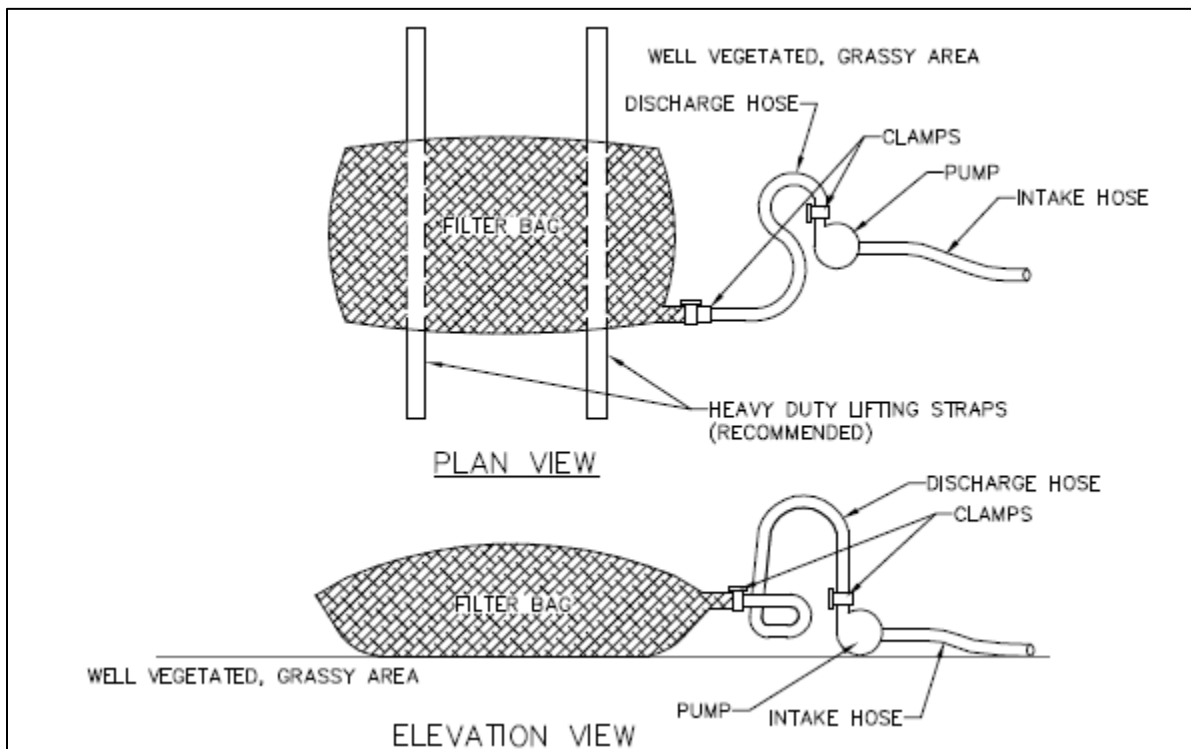




3.5. Pumped Water Filter Bags

Pumped water filter bags may be used to filter water pumped from disturbed areas prior to discharging to surface water. They may also be used to filter water from sediment storage areas of sediment basins and sediment traps. If pumped water filter bags are to be used within a special protection watershed or within 50-feet of receiving surface waters, they must be surrounded by a compost filter sock ring or operated in conjunction with a sump pit. Filter bags shall be replaced when they are half full of sediment, with spare bags being kept on-site. The bags should be placed on well vegetated areas, however if this is not possible a geotextile underlayment and flow path shall be provided. Pumped water filter bags should not be placed on slopes greater than 5%.

Standard Construction Detail #3-16: Pumped Water Filter Bag

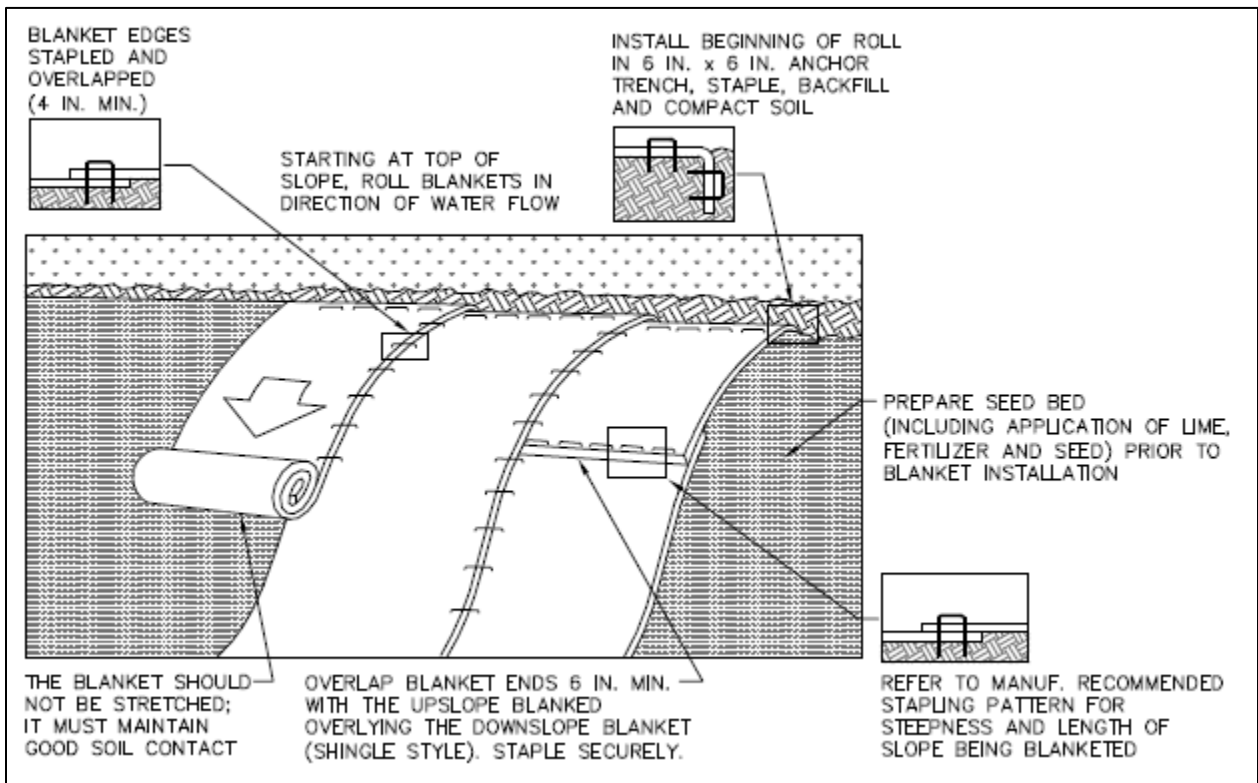




3.6. Erosion Control Blanket

Erosion Control Blankets must be utilized on all slopes that are greater than 3H:1V or steeper and where potential exists for sediment pollution to receiving surface waters. Erosion control blankets shall also be used for all seeded areas within 50 feet of surface water and 100 feet of special protection water regardless of slope. Erosion control blankets should also be used in areas where poor soil conditions may make establishment of new vegetation difficult. Erosion control blankets must be installed per the manufacturer's recommendations. Seed and soil amendments noted on E&S Plans must be applied prior to the placement of the erosion control blanket. Anchor trenches for the blanket must be provided at both the top and toe of the slope. Blanketed areas should be inspected on a weekly basis until 70% coverage of perennial vegetation is achieved.

Standard Construction Detail #11-1: Erosion Control Blanket Installation





4. REFERENCES

1. Pennsylvania Department of Environmental Protection (2012), Erosion and Sediment Pollution Control Program Manual, Technical Guidance Number 363-2134-008.
2. Pennsylvania Code, Chapters 93 and 102.
3. Pennsylvania Department of Environmental Protection (2018), Guidelines for Maintaining Streams in Your Community.



APPENDIX A

Chapter 102 Visual Site Inspection Report (Blank Form)



CHAPTER 102 VISUAL SITE INSPECTION REPORT

GENERAL INFORMATION

Inspection Date: _____ Inspection Time: _____ AM / PM Inspection No.: _____

Inspection Type: _____ Precipitation in Previous 24 hours: _____ inches

Current Site Conditions: Active Earth Disturbance Fully Stabilized Snow Covered

Current Weather Conditions: Rain/Sleet/Snow Overcast Sunny/Partly Sunny

Permittee Name: _____ Inspector Name: _____

Permittee Address: _____ Inspector Phone: _____

City, State, ZIP: _____ Inspector Firm: _____

Project Name: _____ Inspector Title: _____

Municipality: _____ County: _____

Permit Type: PAG-02 IP ESCGP ESP Permit No.: _____

INSPECTION INFORMATION

Areas for Inspection	Check if Inspected	Problems Observed
1. Areas that have been cleared and grubbed, graded, excavated, or otherwise disturbed and are not yet stabilized.	<input type="checkbox"/>	
2. BMPs installed to comply with permit.	<input type="checkbox"/>	
3. Material, waste, borrow and equipment storage and maintenance areas covered by permit or E&S Plan approval.	<input type="checkbox"/>	
4. Areas where stormwater flows within the site, including drainageways designed to divert, convey and/or treat stormwater.	<input type="checkbox"/>	
5. Discharge points on-site.	<input type="checkbox"/>	
6. Locations where stabilization measures have been implemented.	<input type="checkbox"/>	
Questions	Check One	
7. Are the approved E&S Plan and drawings available on-site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
8. Are the approved PCSM Plan and drawings available on-site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
9. Are E&S BMPs properly installed, operational, and working as intended?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
10. Are PCSM BMPs properly installed, operational, and working as intended?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
11. Has a PPC Plan been prepared, implemented, and available on-site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
12. Is all earth disturbance within the permitted limit of disturbance?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
13. Have all disturbed areas in which disturbance has ceased for more than 4 days been stabilized?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

Questions	Check One
14. Is the approved construction sequence being followed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
15. Are areas intended for PCSM BMPs being protected from compaction and sediment laden runoff?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
16. For Questions 7 through 15, explain any answers of "No" in the space below or on a separate sheet.	
17. Are there signs of visible accelerated erosion and sedimentation due to discharges from the site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
18. Are there any unauthorized non-stormwater discharges occurring from the site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
19. Do stormwater discharges, if occurring during inspection, contain floating solids, foam, scum, sheen, or substances that result in observed deposits or produce an observable change in the color, taste, odor or turbidity of the receiving water?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
20. Were any instances of non-compliance observed during the inspection?	<input type="checkbox"/> Yes <input type="checkbox"/> No
21. For Questions 17 through 20, explain any answers of "Yes" in the space below or on a separate sheet.	
22. Are critical stages of implementation of the PCSM Plan occurring at the time of inspection?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
23. If No. 22 is "Yes", is or was a licensed professional present on-site and responsible?	<input type="checkbox"/> Yes <input type="checkbox"/> No
24. Has any fill material excavated on-site, imported to the site, or exported from the site been tested for clean fill since the last inspection? (if "Yes" attach Form FP-001 to this report)	<input type="checkbox"/> Yes <input type="checkbox"/> No
25. Identify the names and addresses of all new operators that have commenced work on the project site since the last inspection was conducted (see 25 Pa. Code § 102.1 for the definition of "operator").	
Name: _____	Name: _____
Address: _____	Address: _____
City, State, ZIP: _____	City, State, ZIP: _____
For new operators listed above, has the Transferee/Co-Permittee Application been completed and submitted?	<input type="checkbox"/> Yes <input type="checkbox"/> No
26. Corrective Action – Describe any corrective actions that should be taken by the permittee to comply with the permit.	
27. Have photograph(s) been taken during the inspection and are attached to this report?	<input type="checkbox"/> Yes <input type="checkbox"/> No
28. Are additional pages attached to this report?	<input type="checkbox"/> Yes <input type="checkbox"/> No

I certify under penalty of law (see 18 Pa.C.S. § 4904 (relating to unsworn falsification)) that the information reported herein 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 information, 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.

 Inspector Signature

 Date of Signature



APPENDIX B

Regulatory Agency Contact Information



Montgomery County Conservation District

143 Level Road
Collegeville, PA 19426
610-489-4506

PA DEP: Southeast Regional Office

2 East Main Street
Norristown, PA 19401
484-250-5900

U.S. Army Corp of Engineers: Philadelphia District

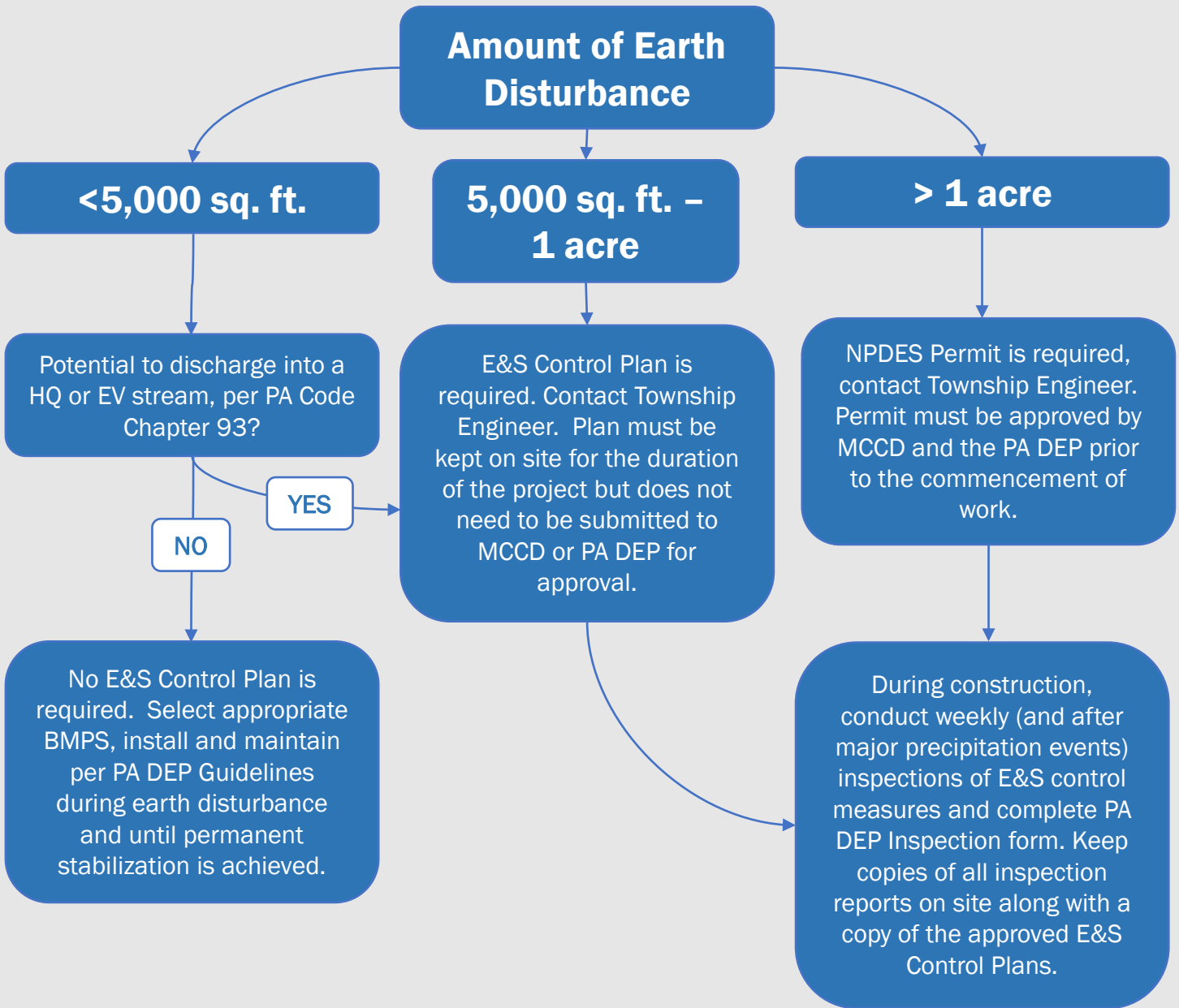
The Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
Public Affairs: 215-656-6515
Regulatory Branch: 215-656-6728
Technical Library: 215-656-6821



APPENDIX C

E&S Control Flow Chart

E&S Control Flow Chart





Annual MS4 Status Report

APPENDIX E

MCM #5 Post Construction Stormwater Management

- 1. PCSM BMP Inventory**
- 2. PCSM BMP Inspection Report**
- 3. PCSM BMP Inspection Program (Updated March 2020)**



West Norriton Township
PCSM BMP Inventory

7/13/2020

BMP #	BMP Type	BMP Address	Responsible Entity	Latitude	Longitude	Date of Last Inspection	2020 Compliance
1	Underground Detention Facility	2112 W. Main St	Public Storage, Inc.	40.13439941	-75.38150024	6/16/2020	In-compliance
3A	Detention Basin	2530 Stinson Ln	Church of Jesus Christ of Latter-Day Saints	40.11949921	-75.40779877	6/16/2020	In-compliance
3B	Snout	2530 Stinson Ln	Church of Jesus Christ of Latter-Day Saints	40.11970139	-75.40750122	6/16/2020	In-compliance
4A1	Rain Garden	1911 W. Marshall St	Jubilee Presbyterian Church	40.13460159	-75.37129974	6/16/2020	In-compliance
4A2	Rain Garden	1911 W. Marshall St	Jubilee Presbyterian Church	40.1344986	-75.37110138	6/16/2020	In-compliance
4A3	Rain Garden	1911 W. Marshall St	Jubilee Presbyterian Church	40.13439941	-75.37090302	6/16/2020	In-compliance
4B1	Infiltration Trench	1911 W. Marshall St	Jubilee Presbyterian Church	40.13420105	-75.37180328	6/16/2020	In-compliance
4B2	Infiltration Trench	1911 W. Marshall St	Jubilee Presbyterian Church	40.13370132	-75.37239838	6/16/2020	In-compliance
4C	Porous Paving	2530 Stinson Ln	Jubilee Presbyterian Church	40.134843	-75.371549	6/16/2020	Not in-compliance
6	Detention Basin	101 Fairway Ln	Fairways Residential LP	40.13199997	-75.39070129	6/16/2020	Not in-compliance
7	Detention Basin	2 Liberty Av	Liberty 2 LLC	40.13280106	-75.37529755	6/16/2020	In-compliance
8	Underground Basin	431 Burnside Av	Roderick Williams	40.14839935	-75.36630249	6/16/2020	In-compliance
9	Detention Basin	48 S. Trooper Rd	Frank Yocum	40.14039993	-75.38999939	6/16/2020	In-compliance
10	Detention Basin	1525 W. Marshall St	West Norriton School Authority	40.12870026	-75.36109924	6/16/2020	In-compliance
11A	Detention Basin	900 S. Trooper Rd	St Sophia Greek Orthodox Church	40.12310028	-75.4088974	6/16/2020	In-compliance
11B1	Bioretention Area	900 S. Trooper Rd	St Sophia Greek Orthodox Church	40.12319946	-75.40869904	6/16/2020	In-compliance
11B2	Bioretention Area	900 S. Trooper Rd	St Sophia Greek Orthodox Church	40.1230011	-75.40910339	6/16/2020	Not in-compliance
12	Constructed Wetland Basin	1900 Eagle Dr	Norristown Area School District	40.14580154	-75.36430359	6/16/2020	In-compliance
13	Infiltration Trench	2575 Industry Ln	Ray Gross	40.15359879	-75.37419891	6/16/2020	In-compliance
14	Detention Basin	2544 W. Main St	Wawa Inc.	40.14039993	-75.38950348	6/16/2020	Not in-compliance
15	Seepage Bed	519 Port Indian Rd	George Chad Springer	40.13069916	-75.3914032	6/16/2020	In-compliance
17	Underground Stone Infiltration Pit	137 Clemens Cir	Joseph Logue	40.14199829	-75.38439941	6/16/2020	In-compliance
16	Underground Stone Infiltration Pit	139 Clemens Cir	Jaylene Penrod	40.14199829	-75.38430023	6/16/2020	In-compliance
18	Underground Stone Infiltration Pit	135 Clemens Cir	Mary Howard	40.14179993	-75.38469696	6/16/2020	In-compliance
19	Seepage Bed	455 Burnside Av	Couchara John and Karen	40.14960098	-75.3655014	6/16/2020	In-compliance
21	Detention Basin	Sterigere St	Commonwealth of Pennsylvania	40.13359833	-75.35269928	6/16/2020	Not in-compliance
22	Seepage Bed	51 S. Montgomery Ave	Cook Matthew and Eileen	40.12269974	-75.36779785	6/16/2020	In-compliance
23A	Underground Detention Facility	416 & 432 Egypt Road	Delval Properties Associates	40.13040161	-75.39949799	6/16/2020	In-compliance
23B	Seepage Bed	416 & 432 Egypt Road	Delval Properties Associates	40.13069916	-75.39969635	6/16/2020	In-compliance
24	Detention Basin	Sterigere St	West Norriton Twp	40.1414727	-75.368028	6/16/2020	In-compliance

*For Operation & Maintenance requirements, refer to the PA Stormwater BMP Manual.



PCSM BMP INSPECTION REPORT



West Norriton Township
Montgomery County, Pennsylvania

1630 W. Marshall St.
Jeffersonville, PA 19403

July 2020

Prepared By:

CEDARVILLE Engineering Group, LLC
159 E. High Street, Suite 500
Pottstown, PA 19464
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www.cedarvilleeng.com
@cedarvilleeng



Federally Certified 8(a) EDWOSB
State Certified DBE/WBE



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2. TOWNSHIP INSPECTION PROTOCOL	2
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Appendix A: PCSM BMP Inventory

Appendix B: PCSM BMP Location Map

Appendix C: Inspection Forms



1. INTRODUCTION

CEDARVILLE Engineering Group, LLC (CEG) completed inspections for Post Construction Stormwater (PCSM) Best Management Practices (BMPs) on behalf of West Norriton Township on June 16, 2020. West Norriton Township has developed and is implementing a PCSM BMP Inspection Program as part of the Township’s Stormwater Management Program. The PCSM BMP Inspection Program ensures that all PCSM BMPs installed as part of an NPDES Permit for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003 are properly operated and maintained. West Norriton Township has thirty (30) total PCSM BMPs listed on the Township’s inventory, which are located on private and Township-owned property.

The PCSM BMP Inspection program is designed to comply with West Norriton Township’s National Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES-MS4) General Permit No. PAG130006 issued by the Pennsylvania Department of Environmental Protection (DEP) (3800-PM-BCW0100). More specifically, it will meet the measurable goals and criteria outlined in Minimum Control Measure (MCM) No. 5 – Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities, Best Management Practice (BMP) #3 of the NPDES-MS4 permit.

2. TOWNSHIP INSPECTION PROTOCOL

As part of this program, the Township has developed a BMP inspection protocol that follows the *Post Construction Stormwater BMP Operation & Maintenance Inspection Manual*. BMP #3, under MCM #5 of the NPDES MS4 permit, states that the permittee (West Norriton Township) is responsible to “ensure adequate operation and maintenance 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.”

West Norriton Township has established an inspection frequency goal of a minimum of one (1) time per year. The annual BMP inspection of 2020 occurred on June 16th and followed the protocol outlined in the most recent *Post Construction Stormwater BMP Operation & Maintenance Inspection Manual*, that was updated in March 2020.

2.1. INSPECTION PROCESS

The inspection consisted of a site visit, including a visual inspection of the BMP of features that are visible from the surface, the completion of the applicable section(s) of the PCSM BMP Inspection Form, and photographs. The approved PCSM BMP Plans and/or As-Built Plans were referenced during the site visit to ensure the BMPs are functioning as designed. Any deficiencies were noted, and appropriate corrective action recommended.



The PCSM BMP Inspection Form is all-encompassing and was utilized for the inspection of any type of BMP (both structural and non-structural). During the inspections, the inspector looked for inconsistencies with the approved plan, accelerated erosion, excess sediment and/or debris accumulation, structural integrity, and unstabilized areas.

3. PCSM BMPs INSPECTED

The PCSM BMP Inventory and a PCSM BMP Location Map are included in Appendix A and Appendix B, respectively. The BMP inventory includes all PCSM BMPs that have been approved after March 10, 2003, and that have been installed at development or redevelopment projects that disturb greater than or equal to one (1) acre, including projects less than one (1) acre that are part of a larger common plan of development or sale (i.e. those installed as part of projects requiring an NPDES Permits for Stormwater Discharges Associated with Construction Activities). These BMPs were inspected per the approved PCSM plans, manufacturer specifications and Pennsylvania Stormwater BMP Manual considerations.

4. SUMMARY OF INSPECTION RESULTS AND RECOMMENDED ACTIONS

The BMP inspections conducted on June 16, 2020, revealed that the following BMPs require additional attention from the entities responsible for the BMP operations and maintenance. Thirty (30) total BMPs were inspected. Five (5) of these BMPs exhibited violations.

The inspection results and recommended remedial actions for the five (5) BMPs with violations are shown in **Table 1.0 – BMPs in Violation**. A letter should be sent to notify the owner(s) of the offense. Note, if a specific BMP is not listed below, the BMP past inspection and no further action is required. The completed Inspection Forms have been included in Appendix C.

Table 1.0 – BMPs in Violation

BMP ID	BMP Name	Location Address	O & M Responsibility	Inspection Results & Action	Status	Last Contact with Owner
4C	Porous Pavement	1911 W. Marshall St	Jubilee Presbyterian Church	<ul style="list-style-type: none"> Excessive sediment accumulation due to overland runoff. A letter should be sent to owner requesting to remove sediment accumulation and implement control measures to prevent this issue in the future. 	Ongoing Violation	<ul style="list-style-type: none"> Spoke with the property owner regarding addressing the 2019 violations on 6/11/19. Left a follow-up message on 11/19/19 to check the progress. The same violation was noted for the 2020 inspection.



BMP ID	BMP Name	Location Address	O & M Responsibility	Inspection Results & Action	Status	Last Contact with Owner
6	Detention Basin	101 Fairway Ln	Fairways Residential LP	<ul style="list-style-type: none"> Accelerated erosion at the inflows. A letter should be sent to owner requesting to address overall erosion within the BMP. 	Ongoing Violation	<ul style="list-style-type: none"> Spoke with the property owner regarding addressing the 2019 violations on 11/21/19. Property owner reached out on 4/6/20 regarding the 2020 inspection notification to update that they are working on getting the 2019 violations addressed. The same violation was noted for the 2020 inspection.
11B2	Bioretention	900 S. Trooper Rd	St Sophia Greek Orthodox Church	<ul style="list-style-type: none"> Excessive debris accumulation observed at inlet. Excessive vegetation A letter should be sent to owner requesting to remove debris and vegetation from inlet. 	Not in Compliance	<ul style="list-style-type: none"> The property owner addressed this violation from the 2019 inspections. The same violation was noted again for the 2020 inspection.
14	Detention Basin	2544 W. Main St	Wawa Inc.	<ul style="list-style-type: none"> Excessive vegetation at inflow. A letter should be sent to owner requesting to remove excessive vegetation at inflow. 	Ongoing Violation	<ul style="list-style-type: none"> Spoke to the property owner and sent a follow-up email on 11/19/19 where the owner mentioned that he would communicate when the violations were addressed. The same violation was noted for the 2020 inspection.
21	Basin	1001 Sterigere St	Commonwealth of Pennsylvania	<ul style="list-style-type: none"> Excessive vegetation in basin. A letter should be sent to owner requesting to remove excessive vegetation. 	Not in Compliance	<ul style="list-style-type: none"> First-time violation observed.

5. BMP INSPECTION CONCLUSIONS

Thirty (30) PCSM BMPs were inspected on June 16, 2020. Of these BMPs, five (5) BMPs were noted to have items that need to be addressed. All of the five (5) BMPs in need of corrective measures are located on private property.

Letters should be sent to BMP owners addressing the corrective measures necessary for proper operation and maintenance of the BMP located on their property.



Appendix A: PCSM BMP Inventory





BMP INVENTORY

BMP ID	BMP Name	Site	# of BMPs	Site Address	Owner
1	Underground Detention Facility	West Norriton Self Storage	1	2112 W. Main Street	Public Storage, Inc.
3A	Detention Basin	The Church of Jesus Christ of Latter-Day Saint	1	2530 Stinson Lane	The Church of Jesus Christ of Latter-Day Saint
3B	Snout	The Church of Jesus Christ of Latter-Day Saint	1	2530 Stinson Lane	The Church of Jesus Christ of Latter-Day Saint
4A	Rain Garden	Jubilee Presbyterian Church	3	1911 W. Marshall Street	Jubilee Presbyterian Church
4B	Infiltration Trench	Jubilee Presbyterian Church	2	1911 W. Marshall Street	Jubilee Presbyterian Church
4C	Porous Paving	Jubilee Presbyterian Church	1	1911 W. Marshall Street	Jubilee Presbyterian Church
5	Detention Basin	Visitation BVM Parish	1	196 N. Trooper Road	Archdiocese of Philadelphia
6	Detention Basin	Fairways at Green Meadows	1	101 Fairway Lane	Fairways Residential LP
7	Detention Basin	Mobile Lifts Inc.	1	2 Liberty Avenue	Jean Holt
8	Underground Basin	Mikelen, LLC	1	431 Burnside Avenue	Roderick Williams
9	Detention Basin	Yocum Roofing	1	48 S. Trooper Rd	Frank Yocum
10	Detention Basin	Marshall Street Elementary School	1	525 W Marshall St	West Norriton School Authority
11A	Detention Basin	St. Sophia's Church	1	900 S Trooper Rd	St Sophia Greek Orthodox Church
11B	Bioretention	St. Sophia's Church	2	900 S Trooper Rd	St Sophia Greek Orthodox Church
12	Constructed Wetland Basin	Norristown High School	1	1900 Eagle Dr	Norristown Area School District
13	Infiltration Trench	Transply Inc.	1	2575 Industry Ln	Ray Gross
14	Detention Basin	Wawa	1	2544 W. Main St	Wawa Inc.
15	Seepage Bed	Durante Tract	1	519 Port Indian Rd	George Chad Springer
16	Underground Stone Infiltration Pit	Chestnut Woods- Lot 1	1	139 Clemens Circle	Jaylene Penrod
17	Underground Stone Infiltration Pit	Chestnut Woods- Lot 2	1	137 Clemens Circle	Joseph Logue
18	Underground Stone Infiltration Pit	Chestnut Woods- Lot 3	1	135 Clemens Circle	Mary Howard
19	Seepage Bed	455 Burnside Avenue	1	455 Burnside Avenue	Couchara John and Karen
21	Detention Basin	State Police Dispatch Center	1	1001 Sterigere St.	Commonwealth of Pennsylvania
22	Seepage Bed	Cooke Subdivision	1	51 S. Montgomery Ave	Cook Matthew and Eileen
23A	Underground Detention Facility	Valley Forge Marketplace	1	416 & 432 Egypt Road	DeVal Properties Associates
23B	Seepage Bed	Valley Forge Marketplace	1	416 & 432 Egypt Road	DeVal Properties Associates
24	Detention Basin	Burnside Village	1	Sterigere St	West Norriton Twp



Appendix B: PCSM BMP Location Map



BMP Number	Project Name	BMP Type	Responsible Party
1	West Norriton Self Storage	Underground Detention Facility	Public Storage, Inc.
3A	The Church of Jesus Christ of Latter-Day Saint	Detention Basin	Church of Jesus Christ of Latter-Day Saints
3B	The Church of Jesus Christ of Latter-Day Saint	Snout	Church of Jesus Christ of Latter-Day Saints
4B1	Jubilee Presbyterian Church	Infiltration Trench	Jubilee Presbyterian Church
4B2	Jubilee Presbyterian Church	Infiltration Trench	Jubilee Presbyterian Church
4A1	Jubilee Presbyterian Church	Rain Garden	Jubilee Presbyterian Church
4A2	Jubilee Presbyterian Church	Rain Garden	Jubilee Presbyterian Church
4A3	Jubilee Presbyterian Church	Rain Garden	Jubilee Presbyterian Church
6	Fairways at Green Meadows	Detention Basin	Fairways Residential LP
7	Mobile Lifts Inc.	Detention Basin	Jean Holt
8	Miklen, LLC	Underground Basin	Roderick Williams
9	Yocum Roofing	Detention Basin	Frank Yocum
10	Marshall Street Elementary School	Detention Basin	West Norriton School Authority
11A	St. Sophia's Church	Detention Basin	St. Sophia Greek Orthodox Church
11B1	St. Sophia's Church	Bioretention Area	St. Sophia Greek Orthodox Church
11B2	St. Sophia's Church	Bioretention Area	St. Sophia Greek Orthodox Church
12	Norristown High School	Constructed Wetland Basin	Norristown Area School District
13	Transply Inc.	Infiltration Trench	Ray Gross
14	Wawa	Detention Basin	Wawa Inc.
15	Durante Property	Seepage Bed	George Chad Springer
17	Chestnut Woods- Lot 2	Underground Stone Infiltration Pit	Joseph Logue
16	Chestnut Woods- Lot 1	Underground Stone Infiltration Pit	Jaylene Penrod
18	Chestnut Woods- Lot 3	Underground Stone Infiltration Pit	Mary Howard
19	455 Burnside Avenue	Seepage Bed	Couchara John and Karen
21	State Police Dispatch Center	Detention Basin	Commonwealth of Pennsylvania
22	Cook Subdivision	Seepage Bed	Cook Matthew and Eileen
23A	Valley Forge Marketplace	Underground Detention Facility	Delval Properties Associates
23B	Valley Forge Marketplace	Seepage Bed	Delval Properties Associates
4C	Jubilee Presbyterian Church	Porous Paving	Jubilee Presbyterian Church
24	Burnside Village Basin	Detention Basin	West Norriton Township

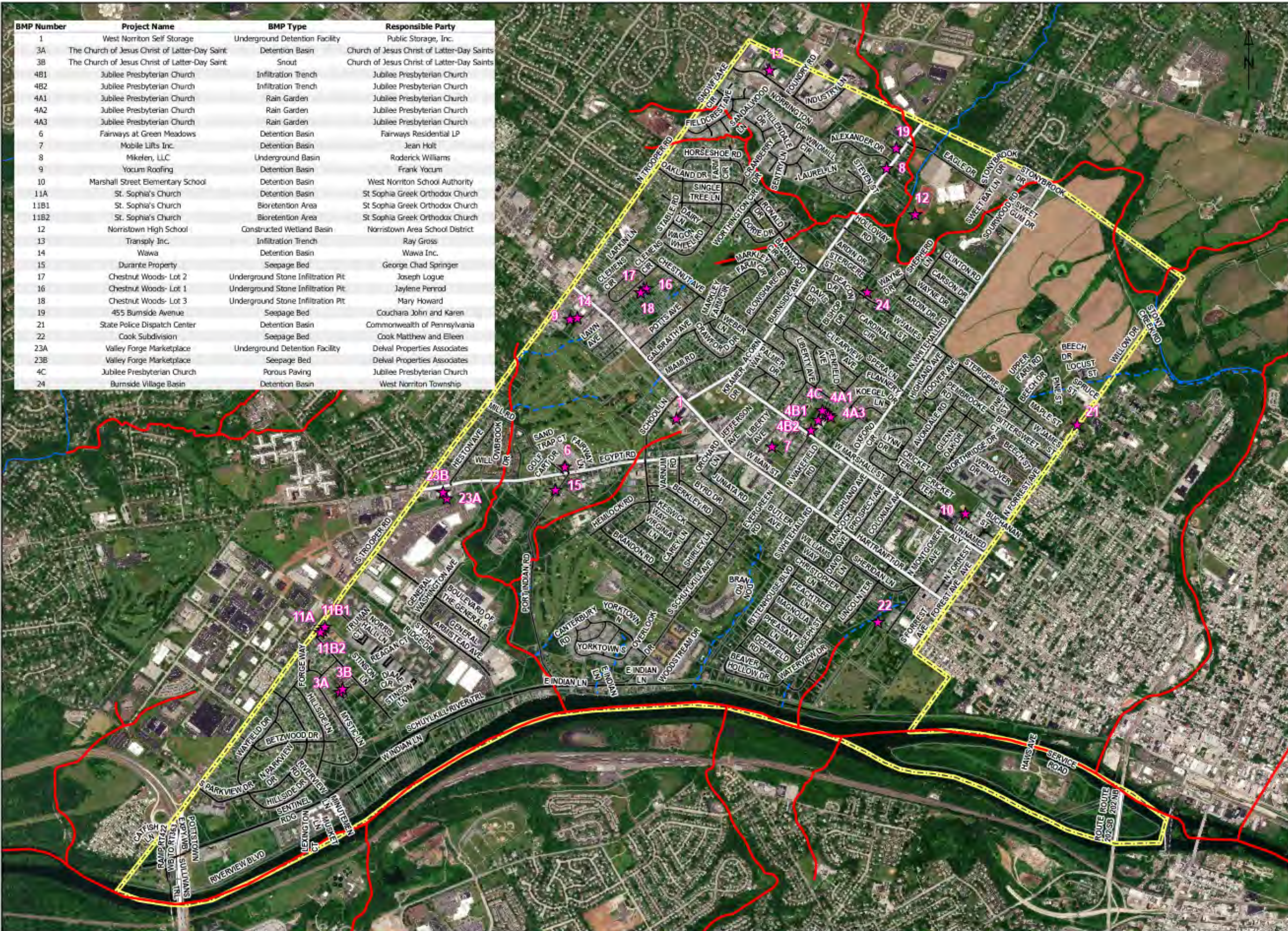
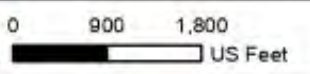
DISCLAIMER:
 This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. It may not be accurate and is not legal or definitive.

**WEST NORRITON TOWNSHIP
 POST CONSTRUCTION
 STORMWATER MANAGEMENT
 BEST MANAGEMENT PRACTICES
 LOCATION MAP**
 MONTGOMERY COUNTY, PENNSYLVANIA

DATE: 6/23/20

DRAWN BY: WH

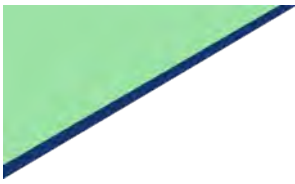
- Legend**
- ★ PCSM BMPs
 - Impaired Streams
 - Non-Impaired Streams
 - - - Located Tributaries
 - ▭ Parcels
- Road Owner**
- Township
 - State
 - Private
 - ▭ Township Boundary





Appendix C: Inspection Form





West Norriton Township PCSM BMP Inspection

BMP Number:	1
Owner:	Public Storage, Inc.
Property Address:	2112 W Main St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR, WH
Location:	-75.38239 , 40.13455
Type:	Underground drainage facility
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

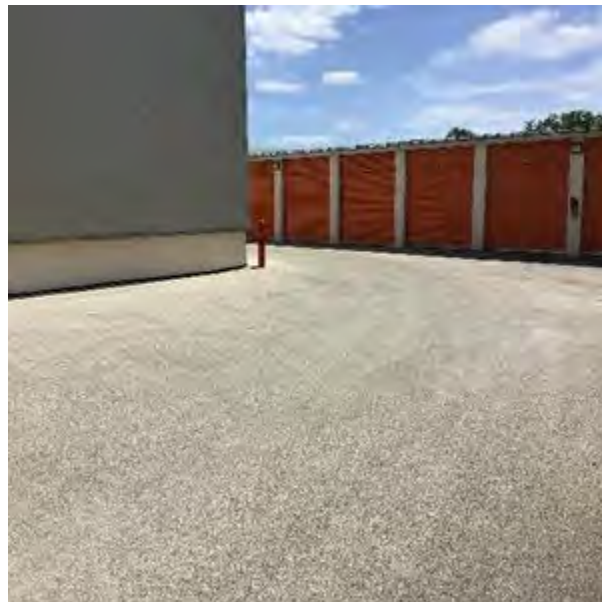
No violations present at the time of inspection.



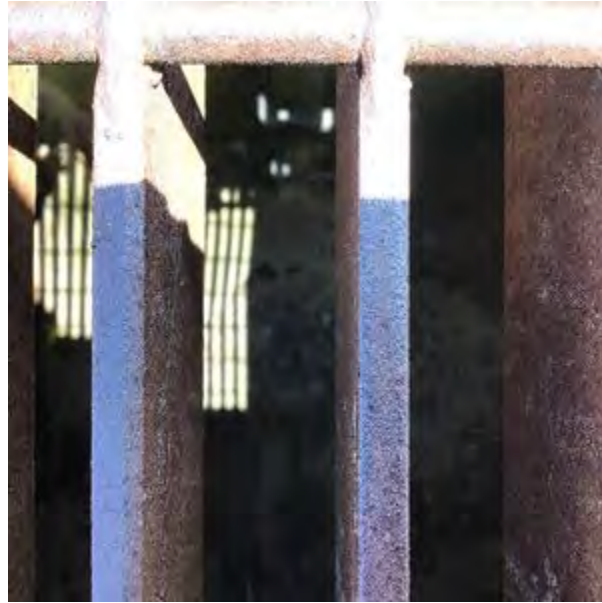
Photographs:



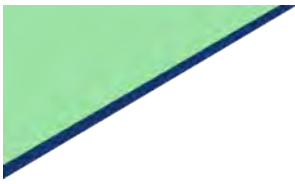
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	3A
Owner:	Church of Jesus Christ of Latter-Day Saints
Property Address:	2500 Stinson Ln, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.40775 , 40.11952
Type:	Basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



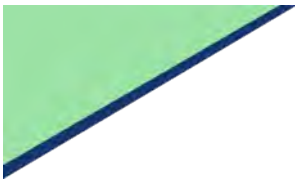
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	3B
Owner:	Church of Jesus Christ of Latter-Day Saints
Property Address:	2500 Stinson Ln, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.40753 , 40.1197
Type:	Snout
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



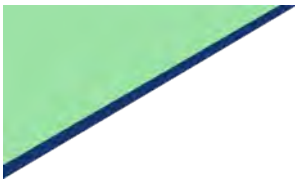
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	4A1
Owner:	Jubilee Presbyterian Church
Property Address:	1911 W. Marshall St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.37127 , 40.13464
Type:	Rain garden
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



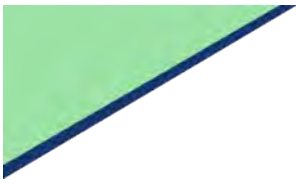
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	4A2
Owner:	Jubilee Presbyterian Church
Property Address:	1911 W. Marshall St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.37108 , 40.13451
Type:	Rain garden
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



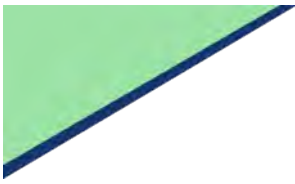
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	4A3
Owner:	Jubilee Presbyterian Church
Property Address:	1911 W. Marshall St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.3709 , 40.13441
Type:	Rain garden
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



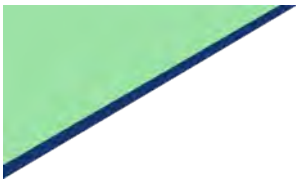
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	4B1
Owner:	Jubilee Presbyterian Church
Property Address:	1911 W. Marshall St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR, WH
Location:	-75.37183 , 40.13427
Type:	Infiltration trench
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Remove the erosion and sediment control filter bag from inlet.



Photographs:



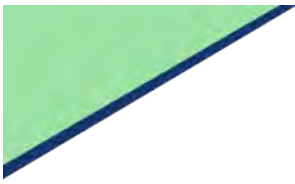
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	4B2
Owner:	Jubilee Presbyterian Church
Property Address:	1911 W. Marshall St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR, WH
Location:	-75.3724 , 40.13368
Type:	Infiltration trench
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

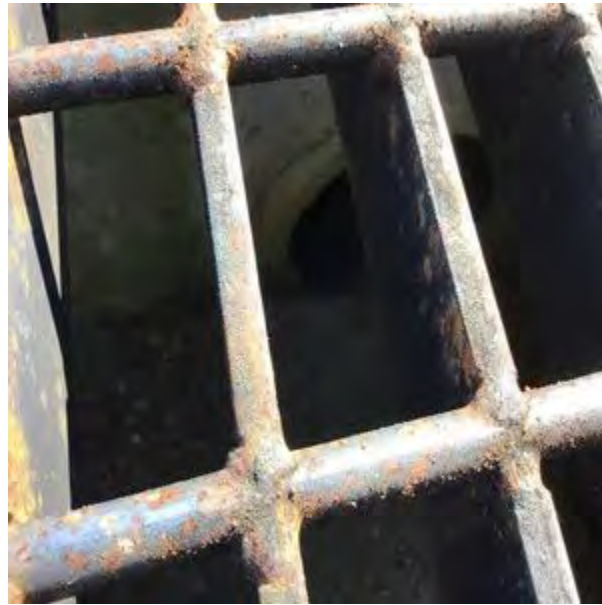
Yes

Additional Comments

Stone bed needs minor weeding/vegetation control.



Photographs:



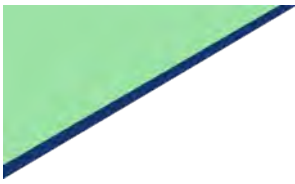
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	4C
Owner:	Jubilee Presbyterian Church
Property Address:	1911 W. Marshall St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR, WH
Location:	-75.3715 , 40.13478
Type:	Porous pavement
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

No

Additional Comments

Excessive sediment accumulation that needs to be removed.



Photographs:



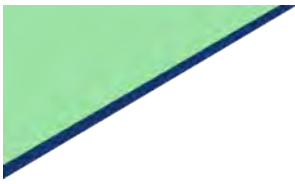
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	6
Owner:	Fairways Residential LP
Property Address:	Fairway Ln, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.39067 , 40.13199
Type:	Detention basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Waiting for additional maintenance to be performed on basin. Re-inspection to come. Prior communication with owner.



Photographs:



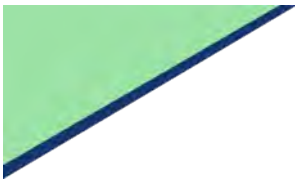
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	7
Owner:	Jean Holt
Property Address:	2 Liberty Ave, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH, AR
Location:	-75.37529 , 40.13283
Type:	Detention basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other: Ponding due to erosion.

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Mosquitos present in ponding.



Photographs:



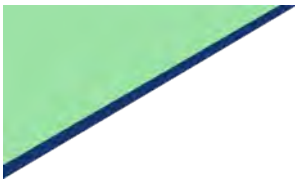
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	8
Owner:	Roderick Williams
Property Address:	2171 Alexander Dr, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH, AR
Location:	-75.36632 , 40.14845
Type:	Underground basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



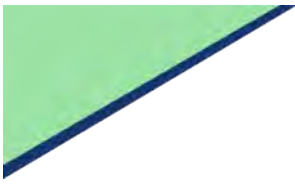
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	9
Owner:	Frank Yocum
Property Address:	48 S. Trooper Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.38999 , 40.14037
Type:	Detention basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Minor grass accumulation around inflows and outlet pipes.



Photographs:



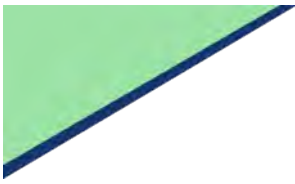
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	10
Owner:	West Norriton School Authority
Property Address:	401 N. Whitehall Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH, AR
Location:	-75.36121 , 40.12871
Type:	Detention basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



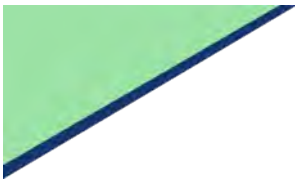
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	11A
Owner:	St Sophia Greek Orthodox Church
Property Address:	900 S. Trooper Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.4089 , 40.12309
Type:	Detention basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



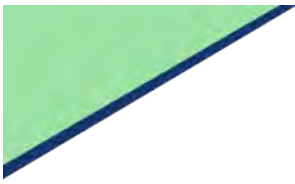
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	11B1
Owner:	St Sophia Greek Orthodox Church
Property Address:	900 S. Trooper Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.40872 , 40.12326
Type:	Bio-retention area
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



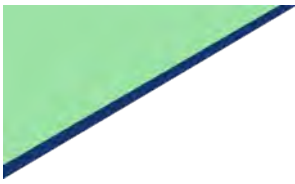
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	11B2
Owner:	St Sophia Greek Orthodox Church
Property Address:	900 S. Trooper Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.40907 , 40.12296
Type:	Bioretention
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

No

Additional Comments

Excessive vegetation at inflow.



Photographs:



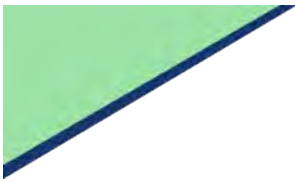
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	12
Owner:	Norristown Area School District
Property Address:	401 N. Whitehall Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR, WH
Location:	-75.36421 , 40.14581
Type:	Wet basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Inflow and outflow pipes were partially filled with water. Potential evidence of poor dewatering.



Photographs:



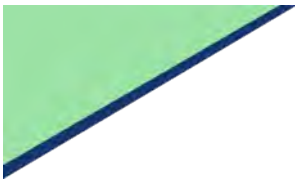
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	13
Owner:	Ray Gross
Property Address:	2583 Industry Ln, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.37476 , 40.15418
Type:	Infiltration trench
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Water flowing in observation well due to conveyance of naturally flowing water.



Photographs:



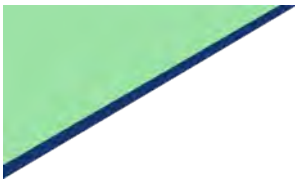
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	14
Owner:	Wawa Inc.
Property Address:	2540 W Main St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.38946 , 40.14043
Type:	Wet basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

No

Additional Comments

Excessive vegetation in the inflows. Excessive trash and debris accumulation In the basin.



Photographs:



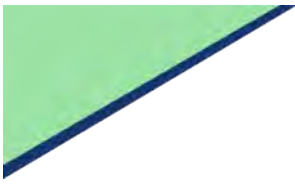
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	15
Owner:	George Chad Springer
Property Address:	519 Port Indian Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH, AR
Location:	-75.39135 , 40.13072
Type:	Underground infiltration pit
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Sump pump was disconnected from infiltration pit.



Photographs:



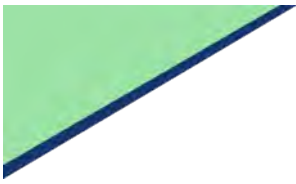
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	16
Owner:	Jaylene Penrod
Property Address:	139 Clemens Cir, Jeffersonville, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.38427 , 40.14198
Type:	Underground infiltration pit
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



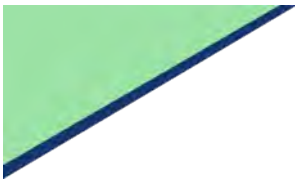
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	17
Owner:	Joseph Logue
Property Address:	137 Clemens Cir, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.38444 , 40.14196
Type:	Underground infiltration pit
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



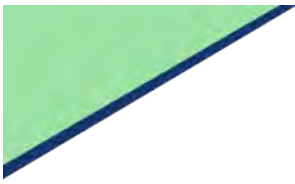
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	18
Owner:	Mary Howard
Property Address:	135 Clemens Cir, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH
Location:	-75.38471 , 40.14178
Type:	Underground infiltration pit
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



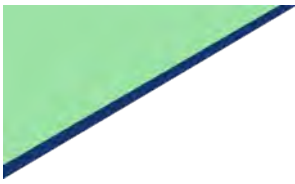
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	19
Owner:	Couchara John and Karen
Property Address:	455 Burnside Ave, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	WH, AR
Location:	-75.36552 , 40.14959
Type:	Seepage bed
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



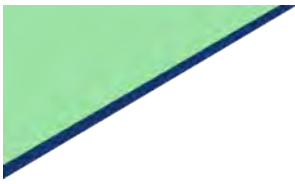
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	21
Owner:	Commonwealth of Pennsylvania
Property Address:	1001 Sterigere St, Norristown PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.3527 , 40.13359
Type:	Basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

No

Additional Comments

Excessive vegetation in the basin. Could not access basin due to fence.



Photographs:



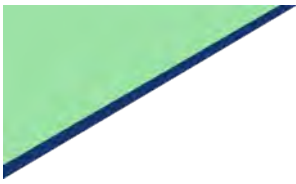
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	22
Owner:	Cook Matthew and Eileen
Property Address:	51 S. Montgomery Ave, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.36786 , 40.12272
Type:	Seepage bed
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Slight standing water in the inlet.



Photographs:



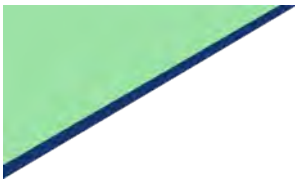
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	23A
Owner:	Delval Properties Associates
Property Address:	416 Egypt Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.39946 , 40.13036
Type:	Underground facility
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



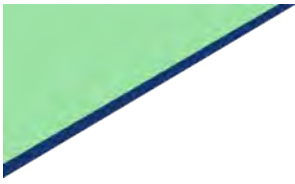
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	23B
Owner:	Delval Properties Associates
Property Address:	416 Egypt Rd, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR
Location:	-75.39972 , 40.13073
Type:	Seepage bed
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

Minor water was spotted at the bottom of the inlet. BMP appears to be functioning at the time of the inspection.



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Photographs:



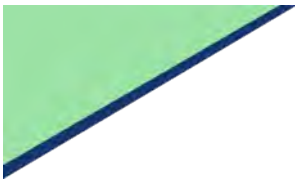
Photograph 1



Photograph 2



Photograph 3



West Norriton Township PCSM BMP Inspection

BMP Number:	24
Owner:	West Norriton Township
Property Address:	Sterigere St, Norristown, PA 19403
NPDES Permit #:	PAG130006
Date:	Jun 16, 2020
Inspector:	AR, WH
Location:	-75.36817 , 40.1413
Type:	Detention basin
Structural/Non-Structural:	<input checked="" type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion
- No violation present
- Other:

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked
- No violation present
- Other:



Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bluging, sloughing or seepage
- Evidence of animal burrows
- No violation present
- Other:

Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair
- No violation present
- Other:

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil
- No violation present
- Other:

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil
- No violation present
- Other:

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation
- No violation present
- Other:

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil
- No violation present
- Other:



Insects & Rodents

- Insects and rodents presence impacting functionality of BMP
- No violation present
- Other:

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs
- No violation present
- Other:

Access

- BMP not accessible/access blocked
- No violation present
- Other:

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color
- BMP appears to be functioning per design
- Other:

Is BMP in Compliance?

Yes

Additional Comments

No violations present at the time of inspection.



Photographs:



Photograph 1



Photograph 2



Photograph 3



STORMWATER MANAGEMENT PROGRAM POST CONSTRUCTION STORMWATER BMP INSPECTION PROGRAM



West Norriton Township
Montgomery County, Pennsylvania

1630 West Marshall Street
Jeffersonville, PA 19403

Updated: March 2020

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State Certified DBE/WBE



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APPENDIX A – PCSM BMP Inspection Form



1. INTRODUCTION

West Norriton Township has developed and is implementing a Post Construction Stormwater (PCSM) Best Management Practice (BMP) Inspection Program as part of the Township's Stormwater Management Program. The PCSM BMP Inspection Program ensures that all PCSM BMPs installed to meet requirements in the National Pollutant Discharge Elimination System (NPDES) Permits for Stormwater Discharges Associated with Construction Activities (i.e., ≥ 1 acre of earth disturbance) approved since March 10, 2003 are properly operated and maintained.



The **PCSM BMP Inspection Program** includes the following:

- West Norriton Township Stormwater Management Ordinance;
- PCSM BMP inventory;
- Township inspection protocol;
- PCSM BMP types, components, and maintenance activities;
- prohibitions; and
- an overview of the compliance process.

The PCSM BMP Inspection Program is designed to comply with the West Norriton Township's NPDES – Municipal Separate Storm Sewer System (MS4) General Permit No. PAG130006 issued by the Pennsylvania Department of Environmental Protection (DEP). More specifically, it will meet the measurable goals and criteria outlined in Minimum Control Measure (MCM) No. 5 – PCSM in New Development and Redevelopment, Best Management Practice (BMP) #3 of the NPDES MS4 Permit.

2. WEST NORRITON TOWNSHIP STORMWATER MANAGEMENT ORDINANCE

The Township adopted a stormwater ordinance as part of the Township Code on July 13, 2004. The ordinance may be cited as the “West Norriton Township Stormwater Management Ordinance” and is Ordinance 04-595. The adoption of this ordinance followed the advertising requirements set forth in the Pennsylvania General Assembly Second Class Township Code (1933 Act 69), Section 1601 to provide the opportunity for public review, input, and feedback. The ordinance can be found on the Township's website.

Sections of the Township ordinance that relate to the operations and maintenance (O&M) of PCSM BMPs are located under Chapter 26 (Water), Part 1 (Stormwater Management) and are detailed in **Table 1** below.

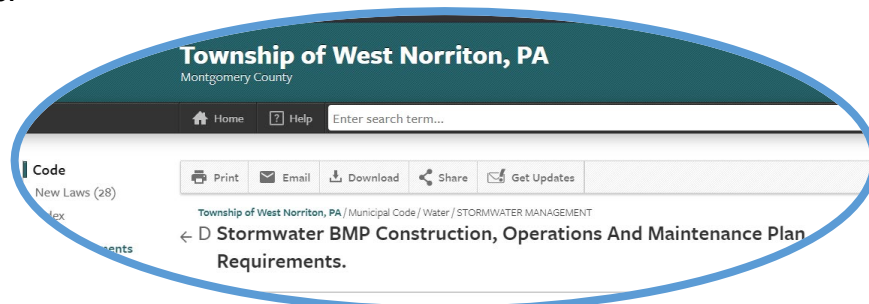




Table 1: West Norriton Township Stormwater Ordinance – PCSM BMP O&M

Ordinance Section Number	Ordinance Section Title
§132	Responsibilities for Operations and Maintenance of Stormwater Management Facilities
§133	Adherence to Approved BMP Operations and Maintenance
§134	Operations and Maintenance Agreements for Privately Owned Stormwater Management Facilities
§135	Stormwater Management Easements
§136	Recording of Approved Stormwater Management Facilities Operations and Maintenance Plan and Related Agreements
§137	Municipal Stormwater Management Facilities Operation and Maintenance Fund

These sections of the ordinance require the O&M responsibilities of all permanent BMPs, conveyances, or other stormwater management facilities to be reviewed and approved by the Township and recorded as public record. The ordinance describes both general and specific requirements for the O&M plan and agreement to be addressed during the Township review and approval process.

The O&M plan and agreement are required to establish an owner of proposed PCSM BMPs during the review and approval process. The owner is responsible for operation, repair, and maintenance of BMPs and/or conveyances following the completion of construction. The ordinance grants duly authorized representatives of the Township right of entry and access to inspect the O&M of stormwater management facilities per Chapter 26, §142 (Right of Entry).

In accordance with Section 4-401 of the West Norriton Township Stormwater Ordinance titled “Adoption of International Property Maintenance Code”, the Township has adopted this code to supplement the municipal ordinance and aid in the legal enforcement of BMP violations. Section 302.2 of the International Property Maintenance Code titled “Grading and drainage” is the most applicable reference for Notice of Violation Letters. The full compliance process is detailed in **Section 8**.

3. PCSM BMP INVENTORY

MCM #5, BMP #3 requires permittees to develop and continually update an inventory of PCSM BMPs, as development projects are reviewed, approved, and constructed. The inventory is required to include all PCSM BMPs installed to meet requirements in the NPDES Permits for Stormwater Discharges Associated with Construction Activities (i.e., ≥ 1



acre of earth disturbance) approved since March 10, 2003. A copy of the current BMP inventory should be maintained and submitted to DEP each year with the Annual MS4 Status Report. The PCSM BMP Inventory requirements are detailed in **Table 2** below. Because the inventory is dynamic, it is maintained as a separate document independently of this Program.

Table 2: NPDES MS4 Permit Requirements

Inventory Requirements
<ul style="list-style-type: none">• All PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003;• BMP location (i.e., latitude and longitude, with street address);• BMP owner (and responsible party for O&M) name, address, and phone number;• Type of BMP and the year it was installed;• Maintenance required for the BMP type (according to the Pennsylvania Stormwater BMP Manual and/or other resources);• Actual inspection/maintenance activities for each BMP; and• An assessment by the permittee if proper O&M occurred during the year; and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements.

4. PRIVATE PROPERTY OWNER NOTIFICATION

Prior to conducting site inspections, property owners must be notified prior to personnel entering the private property to conduct the inspection. A letter should be sent to the property owner including an approximate timeframe within which the inspection will be conducted and for what purpose. However, the property owner does not need to be present during the inspection.

5. TOWNSHIP INSPECTION PROTOCOL

The general PCSM BMP inspection protocol is described below. The protocol can be applied to all PCSM BMPs listed in the Township Inventory.

5.1. Frequency

BMP #3, under MCM #5 of the NPDES MS4 permit, states that the permittee (West Norriton Township) is responsible to “ensure adequate operation and maintenance 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.” The NPDES MS4 permit does not specify a required inspection frequency. However, the Annual MS4 Status Report



requires the permittee (West Norriton Township) to ensure proper O&M of all applicable BMPs occurs during the reporting period and, if not, what actions were taken to achieve compliance.

West Norriton Township has established an inspection frequency goal of a minimum of one (1) time per reporting period (i.e., once per year) in order to address the Annual MS4 Status Report requirements. The frequency may be reduced based on past performance or increased in cases of repeat non-compliance. Follow-up inspections will be required when non-compliance is documented. In some instances (i.e. minor violations), photograph documentation provided by the owner may suffice in lieu of a follow-up inspection.

5.2. Inspector

PCSM BMPs will be inspected by a qualified Township employee or authorized sub-contractor. Inspectors should have a general knowledge on the functionality of PCSM BMPs from both a design and construction standpoint, and/or receive training from a qualified individual.

5.3. Inspection Process

The inspection will consist of a site visit and completion of the applicable section(s) of the PCSM BMP Inspection Form based on a visual inspection of the BMP from the surface. The **PCSM BMP Inspection Form** has been provided in *Appendix B*. The approved PCSM BMP Plans and/or As-built Plans should be referenced during the site visit to ensure the BMPs are functioning as designed. Any deficiencies should be noted, and appropriate corrective action recommended. Appropriate tools should be brought to and utilized at the inspections. These tools may include a flashlight to inspect pipe interiors, tape measure to ensure the infrastructure matches the design dimensions, camera to obtain photo documentation, and a manhole hook to lift the covers inspect stormwater infrastructure (as needed). The inspector should also provide photographic documentation of BMP condition at the time of the inspection.

The PCSM BMP Inspection Form is all-encompassing and can be utilized for the inspection of any type of BMP (both structural and non-structural). Consequently, the inspector must be aware that not all inspection elements will be applicable for each BMP. It is integral that the O&M requirements specified on the approved PCSM Plans are referenced in conjunction with the Pennsylvania Stormwater BMP Manual (December 2006) to complete the form appropriately.

The inspector should look for inconsistencies with the approved plan, accelerated erosion, excess sediment and/or debris accumulation, structural integrity, and unstabilized areas. In the event that the PCSM or O&M Plan does not contain specific





maintenance requirements, the Township should inspect each BMP per the Pennsylvania Stormwater BMP Manual recommendations.

6. PCSM BMP TYPES

The PCSM BMP inventory includes all PCSM BMPs installed to meet requirements in the NPDES Permits for Stormwater Discharges Associated with Construction Activities (i.e., ≥ 1 acre of earth disturbance) approved since March 10, 2003. These BMPs should be inspected per the approved PCSM plans, manufacturer specifications, and Pennsylvania Stormwater BMP Manual (The Manual) considerations. O&M protocol for each BMP type, as specified in The Manual are summarized in the subsequent sections. These common BMPs include the following:

- Subsurface Infiltration Beds
- Infiltration Basin
- Dry Extended Detention Basin
- Rain Garden/Bioretenion Basin
- Wet Pond/Retention Basin
- Level Spreader
- Pervious Pavement with Infiltration Bed

6.1. Subsurface Infiltration Bed

A subsurface infiltration bed consists of a vegetated, highly pervious soil media underlain by a uniformly graded aggregate bed for temporary storage and infiltration of stormwater runoff. It provides temporary storage and infiltration of runoff in subsurface storage media. However, in some cases, runoff may also be temporarily stored on the surface to enhance volume capacity of the system. Maintenance activities required for subsurface infiltration beds focus on regular sediment and debris removal. The Manual recommends regular maintenance be conducted by the BMP owner/responsible party, as detailed in **Table 3** below.





Table 3: Subsurface Infiltration Bed

Primary Components	Recommended Maintenance by Responsible Party
<ul style="list-style-type: none"> • Uncompacted subgrade; • 12 to 36 inches clean washed uniformly graded coarse aggregate bed; • Perforated pipe along bed bottom for distribution as necessary; • Stone bed wrapped in non-woven geotextile fabric; • 12 to 18 inches of permeable soil cover on top of the stone bed; • Native grass or meadow plantings (or other dense low-growing vegetation); • Flow entrance (e.g. inlets, swales, etc.); and • Positive overflow. 	<ul style="list-style-type: none"> • All catch basins and inlets should be inspected and cleaned at least 2 times per year. • The overlying vegetation of subsurface infiltration beds should be maintained in good condition, and any bare spots revegetated as soon as possible. • Vehicular access on subsurface infiltration beds should be prohibited, and care should be taken to avoid excessive compaction by mowers (unless it is located under a designed parking area that has been designed accordingly, as shown above).



6.2. Infiltration Basin

An infiltration basin is an impoundment designed to store and infiltrate stormwater runoff. Maintenance activities required for infiltration basins focus on regular sediment and debris removal. The Manual recommends regular maintenance be conducted by the BMP owner/responsible party, as detailed in **Table 4** below.



Table 4: Infiltration Basin

Primary Components	Recommended Maintenance by Responsible Party
<ul style="list-style-type: none"> • Uncompacted subgrade; • Soil amendments / subsurface beds; • Underdrain in basin floor; • Native grass, meadow, tree and/or shrub plantings; • Flow entrance (e.g., inlets and swales); • Forebay; • Positive overflow through engineered outlet structure; • Stable outflow (e.g., rip-rap apron); and • Emergency Spillway. 	<ul style="list-style-type: none"> • Catch basins and inlets (upgradient of infiltration basin) should be inspected and cleaned at least two (2) times per year and after runoff events. • The vegetation along the surface of the Infiltration basin should be maintained in good condition, and any bare spots revegetated as soon as possible. • Vehicles should not be parked or driven on an infiltration basin, and care should be taken to avoid excessive compaction by mowers. • Inspect the basin after runoff events and make sure that runoff drains down within 72 hours. • Inspect for accumulation of sediment, damage to outlet control structures, erosion control measures, signs of water contamination/spills, and slope stability in the berms. • Mow only as appropriate for vegetative cover species. • Accumulated sediment should be removed from the basin as required. The original cross section and infiltration rate should be restored. The sediment removed should be disposed of properly.

6.3. Dry Extended Detention Basin

A dry extended detention basin is a surface stormwater structure that provides for the temporary storage of stormwater runoff to prevent downstream flooding impacts. Water quality benefits may be achieved with extended detention of the runoff volume from the design storm. The Manual recommends regular maintenance be conducted by the BMP owner/responsible party, as detailed in **Table 5** below.





Table 5: Dry Extended Detention Basin

Primary Components	Recommended Maintenance by Responsible Party
<ul style="list-style-type: none"> • One (1) or more forebays; • Inflow (e.g., pipe, swale, overland flow); • Vegetated bottom; • Engineered outlet structure; • Micro pool/aquatic bench surrounding outlet structure; • Stable outflow (e.g., rip-rap apron); and • Emergency spillway. 	<ul style="list-style-type: none"> • Maintenance should take place on a quarterly basis. • Owners should inspect all structures for clogging and excessive debris and sediment accumulation at least four (4) times per year, as well as after every storm greater than one (1) inch. • Structures include basin bottoms, trash racks, outlets structures, riprap or gabion structures, and inlets. • Sediment removal should be conducted when the basin is completely dry. Sediment should be disposed of properly. Disturbed areas should be immediately stabilized and revegetated. • Mowing and/or trimming of vegetation should be performed as necessary to sustain the system, and all detritus should be removed from the basin. • Owners should inspect vegetated areas annually for erosion and invasive species. • Vegetative cover should be maintained at a minimum of 95 percent. If vegetative cover has been reduced by 10 percent, vegetation should be reestablished.



Seepage Pit

6.4. Rain Garden/Bioretention

A rain garden, or bioretention, is an excavated shallow surface depression planted with specially selected native vegetation to capture and treat runoff. Rain gardens allow water to pool on the surface which provides filtering and settling of suspended solids. The main functions of rain gardens are to reduce runoff volume, filter pollutants, recharge groundwater by infiltration, reduce stormwater temperature impacts, enhance evapotranspiration, enhance aesthetics, and provide habitat. The Manual recommends regular maintenance be conducted by the BMP owner/responsible party, as detailed in **Table 6** below.



Table 6: Rain Garden/Bioretention

Primary Components	Recommended Maintenance by Responsible Party
<ul style="list-style-type: none"> • Pretreatment (optional); • Flow entrance; • Ponding area; • Plant material; • Organic layer or mulch; • Planting soil/volume storage bed; and • Positive overflow. 	<ul style="list-style-type: none"> • Pruning and weeding of vegetation may be required until vegetation is established; • Yearly removal of detritus; • Cutting down of perennial plants at the end of the growing season, if applicable; • Mulch should be re-spread when erosion is evident and be replenished as needed. Complete mulch replacement may be necessary every 2-3 years; • Bioretention areas should be inspected at least two (2) times per year for sediment buildup, erosion, vegetative conditions, etc.; • Watering may be necessary during extended periods of drought; and • Trees and shrubs should be inspected twice per year to evaluate health.

6.5. Wet Pond/Retention Basin

A wet pond/detention basin is a stormwater basin that includes a substantial permanent pool for water quality treatment and additional capacity above the permanent pool for temporary runoff storage. While they do not achieve significant groundwater recharge or volume reduction, they can be effective for pollutant removal and peak rate mitigation. Wet ponds can also provide aesthetic and wildlife benefits. The Manual recommends regular maintenance be conducted by the BMP owner/responsible party, as detailed in **Table 7** below.





Table 7: Wet Pond/Retention Basin

Primary Components	Recommended Maintenance by Responsible Party
<ul style="list-style-type: none"> • One or more forebays that trap coarse sediment, prevent short-circuiting, and facilitate maintenance; • The pond perimeter should generally be covered by a dense stand of emergent wetland vegetation; • An adequate source of inflow to maintain the permanent water surface; • Natural high groundwater table; • Relatively impermeable soils; and • Dewatering mechanism. 	<ul style="list-style-type: none"> • Wet Ponds should have a maintenance plan and privately-owned facilities should have an easement, deed restriction, or other legal measure to prevent neglect or removal. • During the first growing season or until established, vegetation should be inspected every 2 to 3 weeks. • Wet ponds should be inspected at least 4 times per year and after major storms (greater than 2 inches in 24 hours) or rapid ice breakup. • Inspections should access the vegetation, erosion, flow channelization, bank stability, inlet/outlet conditions, embankment, and sediment/debris accumulation, if applicable. • The pond drain should also be inspected and tested 4 times per year. Problems should be corrected as soon as possible. • Wet pond and buffer vegetation may need support (i.e., watering, weeding, mulching, and replanting) during the first 3 years. Undesirable species should be carefully removed, and desirable replacements planted, if necessary. • Once established, properly designed and installed wet ponds should require little maintenance. • Vegetation should maintain at least an 85 percent cover of the emergent vegetation zone and buffer area. • Annual harvesting of vegetation may increase the nutrient removal of wet ponds; if performed, it should generally be done in the summer so that there is adequate regrowth before winter. Care should be taken to minimize disturbance, especially of bottom sediments, during harvesting. The potential disturbance from harvesting may outweigh its benefits unless the wet ponds receives a particularly high nutrient load or discharges to a nutrient sensitive waterbody. • Sediment should be removed from the forebay before it occupies 50 percent of the forebay. This typically occurs every 5 to 10 years.



Level Spreader

6.6. Level Spreader

Level spreaders are BMPs that reduce the erosive energy of concentrated flows by distributing runoff as sheet flow to stabilized vegetated surfaces. Level spreaders can be located at any point source discharge but are typically utilized in conjunction with basin outflows. Examples include concrete sills, curbs, earthen berms, and level perforated pipes. The Manual recommends regular maintenance be conducted by the BMP owner/responsible party, as detailed in **Table 8** below.



Table 8: Level Spreader

Primary Components	Recommended Maintenance by Responsible Party
<ul style="list-style-type: none"> • Level spreaders must be level and installed along a contour. • May be constructed as a concrete sill, concrete trough, half pipe, perforated pipe, curb, earthen berm, aggregate trench, etc. • Area around the level spreader should be densely vegetated and not susceptible to erosion. Erosion control measures may be needed (i.e., rip rap, geotextile fabric, etc.). • Level spreaders should safely diffuse at least the 10-year storm peak rate. • Multiple outfalls/level spreaders are preferable to a single outfall/level spreader to divide and distribute the flow as evenly as possible. • Uncompacted subgrade around the level spreader to promote infiltration. 	<ul style="list-style-type: none"> • Catch basins and inlets draining to a level spreader should be inspected and cleaned annually. • The owner should inspect the area below a level spreader for clogging, density of vegetation, damage by foot or vehicular traffic, excessive accumulations, and channelization. • Inspections should be made on a quarterly basis for the first two (2) years following installation, and then on a semiannual basis and after every storm event greater than one (1) inch, thereafter. • Sediment and debris should be routinely removed (but never less than semiannually), or upon observation, when buildup occurs in the clean-outs. Re-grading and re-stabilizing may be necessary in the areas below the level spreader. Re-grading may also be required when pools of standing water are observed along the slope. (In no case should standing water be allowed for longer than 72 hours). • Biweekly inspections are recommended for at least the first growing season, or until the vegetation is permanently established. Once the vegetation is established, the owner should conduct inspections of health, diversity, and density at least two (2) times per year, during both the growing and non-growing season. Vegetative cover should be sustained at 85% and replaced if damage greater than 50% is observed. Unwanted or invasive growth should be removed on an annual basis.

6.7. Pervious Pavement with Infiltration Bed

Pervious, or porous, pavement consists of a permeable surface course underlain by a uniformly graded stone bed which provides temporary storage for peak rate control and promotes infiltration. The surface course may consist of porous asphalt, porous concrete, or various porous structural pavers laid on uncompacted soil. There are numerous variations of porous pavement, such as pervious bituminous asphalt (as shown in the photo), pervious concrete, pervious paver blocks, and reinforced turf and gravel filled grids. The Manual recommends regular maintenance be conducted by the BMP owner/responsible party, as detailed in **Table 9** below.

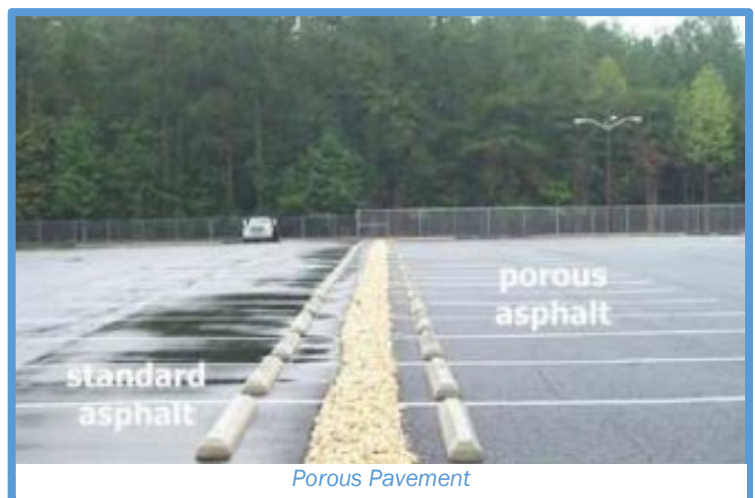




Table 9: Pervious Pavement with Infiltration Bed

Primary Components	Recommended Maintenance by Responsible Party
<ul style="list-style-type: none"> • Pervious paving surface course on top. • Clean uniformly graded coarse aggregate in the middle (i.e., stone bed). • Uncompacted subgrade at the bottom. • The middle and bottom layers should be separated by a non-woven geotextile fabric lining. • The infiltration bed should be sloped to an outlet to accommodate heavy flow volumes. 	<p>Prevent Clogging of Pavement Surface with Sediment</p> <ul style="list-style-type: none"> ◦ Vacuum pavement 2 or 3 times per year; ◦ Maintain planted areas adjacent to pavement; ◦ Immediately clean any soil deposited on pavement; ◦ Do not allow construction staging, soil/mulch storage, etc. on unprotected pavement surface; and ◦ Clean inlets draining to the subsurface bed twice per year. <p>Winter Maintenance</p> <p>Winter maintenance for a pervious parking lot may be necessary but is usually less intensive than that required for a standard impervious surface. By its very nature, a pervious pavement system with subsurface aggregate bed has superior snow melting characteristics than standard pavement. The underlying stone bed tends to absorb and retain heat so that freezing rain and snow melt faster on pervious pavement. Therefore, ice and light snow accumulation are generally not as problematic. However, snow will accumulate during heavier storms. Abrasives such as sand or cinders should not be applied on or adjacent to the pervious pavement. Snow plowing is fine, provided it is done carefully (i.e., by setting the blade slightly higher than usual, about an inch). Salt is acceptable for use as a deicer on the pervious pavement, though nontoxic, organic deicers, applied either as blended, magnesium chloride-based liquid products or as pretreated salt, are preferable.</p> <p>Repairs</p> <p>Potholes in the pervious pavement are unlikely; though settling might occur if a soft spot in the subgrade is not removed during construction. For damaged areas of less than 50 square feet, a declivity could be patched by any means suitable with standard pavement, with the loss of porosity of that area being insignificant. The declivity can also be filled with pervious mix. If an area greater than 50 sq. ft. needs repair, approval of patch type should be sought from either the engineer or owner. Under no circumstance should the pavement surface ever be seal coated. Any required repair of drainage structures should be done promptly to ensure continued proper functioning of the system.</p>

7. PROHIBITIONS

The West Norriton Township Stormwater Management Ordinance provides for restrictions on the alteration of BMPs; specifically, in Chapter 26, Part 1, §164 (Alterations of BMPs). Refer to the ordinance language below.

The alteration of BMPs is prohibited in the ordinance (Chapter 26, Part 1, §164 [Alteration of BMPs]) as follows:

- a) No person shall modify, remove, fill, landscape or alter any existing stormwater management facility, unless it is part of an approved maintenance program, without the written approval of the Township.
- b) No person shall place any structure, fill, landscaping or vegetation into a stormwater management facility or within a drainage easement, which would limit or alter the functioning of the BMP stormwater management facility, without the written approval of the Township.

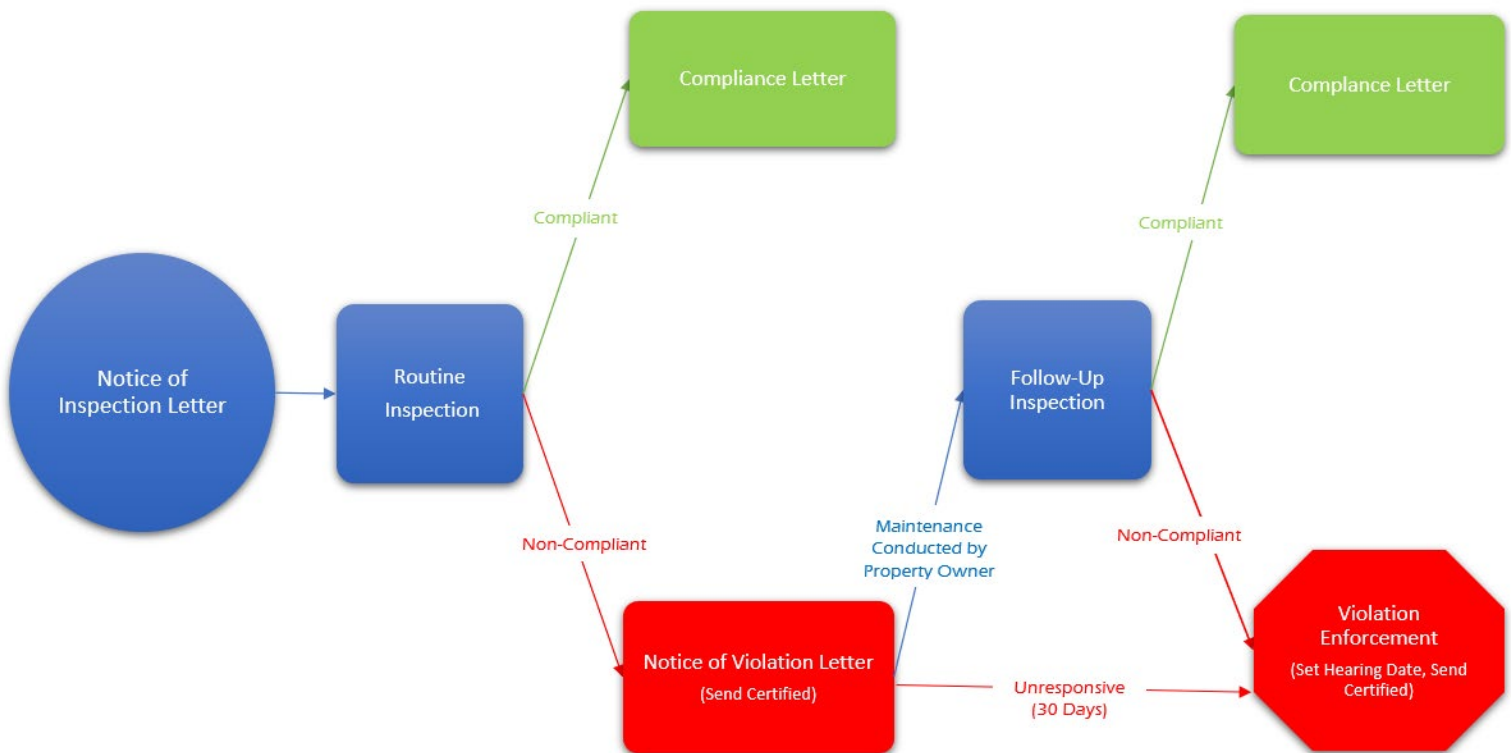


8. COMPLIANCE PROCESS

If deficiencies are noted during the municipal inspection process that require addressing, the BMP owner should be notified. Due to the varying severity of deficiencies, there are different kinds of actions that may need to be taken, including **voluntary compliance** and **enforcement** (Violations and Penalties). Notices of violation, enforcement and related official Township correspondence should be reviewed by the Township Solicitor.

Typically, the process of obtaining compliance should be pursued in a graduated manner. The Township should begin with efforts to obtain voluntary compliance and escalate to increasingly severe enforcement actions if compliance is not obtained. However, depending on the severity of the violation and/or if the violation is ongoing, the enforcement action should be more stringent. Specific guidance on the Township process for obtaining compliance if violation(s) are observed is illustrated in **Figure 1** below and described further in **Section 8.1**.

Figure 1: Compliance Process Flow Chart





8.1. Notice of Violation

In some cases, the responsible party or owner may be unaware of the violation. When appropriate, the Township should first seek voluntary compliance by providing the responsible party with a certified Notice of Violation Letter. This letter will inform the owner of the presence of the violation, the environmental consequences of the violation, applicable regulations, how to remedy the violation, and a timeframe to complete the activity. The timeframe to remedy the violation may vary depending upon its severity but will typically be 30 days. After the 30-day period has elapsed, a follow-up inspection should be conducted. If compliance is still not achieved and/or the responsible party is unresponsive, enforcement may be pursued.

8.2. Enforcement

In the event that voluntary compliance cannot be secured, or the responsible party is unresponsive, the Township should send a certified Enforcement Notice. The West Norriton Township Stormwater Management Ordinance (Chapter 26, Part 1, §171 [Enforcement Violations and Penalties]), in conjunction with Chapter 4 (Buildings), Part 4 (Property Maintenance Code), Section 401 (Adoption of International Property Maintenance Code), enlists the International Property Code to assist in the legal enforcement of O&M violations. The Enforcement Notice should contain the same information as the Notice of Violation with additional enforcement provisions. Failure to comply with or appeal the Enforcement Notice within 15 days of the date of the letter may subject the responsible party to the penalty provisions (see excerpt below).

Any person who shall violate a provision of this code, or fail to comply therewith, or with any of the requirements thereof, shall, upon conviction before a District Magistrate, pay a fine of not more than \$1,000, plus costs of prosecution. In default of such payment, such person shall be imprisoned for a period not to exceed 30 days. Each day during which any violation of this code continues shall constitute a separate offense.

In addition, the Township, through its Solicitor, may institute injunctive, mandamus or any other appropriate action or proceeding at law or in equity for the enforcement of this Part. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus or other appropriate form of remedy or relief.



ENFORCEMENT NOTICE



8.3. County, State, of Federal Authorities

In certain cases, it may also be possible, helpful, or necessary to seek additional enforcement action from state or federal authorities. Depending on the nature of the violation, the jurisdictional agencies may include one or more of the following:

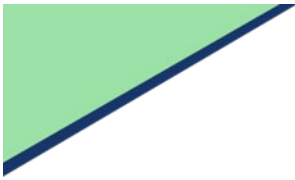
- Pennsylvania Department of Environmental Protection (DEP)
- Pennsylvania Fish and Boat Commission (PFBC)
- Environmental Protection Agency (EPA)
- Montgomery County Conservation District (MCCD)



**MONTGOMERY COUNTY
CONSERVATION DISTRICT**

APPENDIX A
PCSM BMP Inspection Form





West Norriton Township

PCSM BMP Inspection Form

BMP Number:	
Owner:	
Property Address:	
Installation Date:	
NPDES Permit #:	
Date:	
Inspector:	
Location:	
Type:	
Structural/Non-Structural:	<input type="checkbox"/> Structural <input type="checkbox"/> Non-Structural

Contributing Drainage Area

- Excessive trash/debris
- Exposed/bare soil
- Evidence of accelerated erosion

Pretreatment: Inlets, Forebays & Inflows

- Excessive trash/debris/sediment accumulation
- Evidence of clogging
- Dead vegetation, exposed/bare soil
- Evidence of accelerated erosion
- Evidence of ponding, noticeable odors, water stains, presence of floating aquatic
- Maintenance access in need of repair
- Structural deterioration of inlets, outfalls or pretreatment overflow weirs into facility
- Gutters, downspouts and inflow devices
- Screens, first flush diverters or vents blocked

Berm/Embankment

- Overgrown/unmaintained vegetation
- Sparse vegetative cover or exposed/bare soil
- Woody vegetation threatening structure
- Evidence of accelerated erosion
- Cracking, bulging, sloughing or seepage
- Evidence of animal burrows



Outlet

- Evidence of accelerated erosion
- Excessive trash/debris/sediment accumulation
- Structural components in need of repair
- Hydraulic control components in need of repair

Overflows or Emergency Spillways

- Evidence of accelerated erosion or instability
- Excessive trash/debris/sediment accumulation
- Exposed/bare soil

Bio-Filter Media

- Excessive trash/debris/sediment
- Filter is blocked/clogged
- Evidence of accelerated erosion
- Exposed/bare soil

Stone bed/underdrain

- Perforated pipe is not functioning as designed
- Not dewatering per design
- Evidence of blockage/clogging
- Excessive trash/debris/sediment accumulation

Vegetation

- Vegetation is dying or dead
- Mowing requirements not being followed/vegetation unmaintained
- Plant composition inconsistent
- Exposed/bare soil

Insects & Rodents

- Insects and rodents presence impacting functionality of BMP

Spill Prevention

- Hazardous/toxic substances are located or used near BMPs

Access

- BMP not accessible/access blocked

Overall

- Excessive trash/debris/sediment accumulation
- Evidence of accelerated erosion
- Evidence of oil/chemical accumulation, odor, algae or color

Additional Comments



Photos:

Photo 1

Photo 2

Photo 3



Annual MS4 Status Report

APPENDIX F

MCM #6 Pollution Prevention and Good Housekeeping

- 1. Employee Training Documentation**
- 2. Employee Training Program (Updated March 2020)**
- 3. Operations & Maintenance for Municipal Operations and Facilities Program (Updated May 2020)**



MS4 TRAINING



WEST NORRITON TOWNSHIP SIGN-IN SHEET

Date: December 18, 2019

Location: West Norriton Township Building, 1630 W Marshall Street, Jeffersonville, PA 19403

Trainer: CEDARVILLE Engineering Group, LLC

NAME	TITLE	E-MAIL	SIGNATURE
JOHN BERGSTRESSER		john.bergstresser@wntrwp.com	<i>John Bergstresser</i>
JOHN MARDEK			<i>John Mardek</i>
Mark Pinchok			<i>Mark Pinchok</i>
Kenny Krauer			<i>Kenny Krauer</i>
Johnathan Kennedy			<i>Johnathan Kennedy</i>
GORDON MCKEEN			<i>Gordon McKee</i>
Michael Vailyo		m.vailyo@wntrwp.com	<i>Michael Vailyo</i>

The MS4 Program

CEG
CEDARVILLE

Amanda Reitbauer
Environmental Scientist

1

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.)

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2

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
- **Permit Round 3 – 2018 - 2023**
 - Continuation of MCMs
 - Added Pollutant Reduction Plans & Pollutant Control Measures (PCMs) Requirements

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Pollutant Reduction Plan (PRP)

Planning

5-year Implementation Period will not begin until PRP is approved.

Design & Construction

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

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Minimum Control Measures

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

Annual Status Report

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5

Public Education & Outreach (MCM #1)

Permit Requires:

- **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!

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6

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!




7



Illicit Discharge Detection & Elimination (MCM #3)

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 an NPDES permit.

EXAMPLES:

- Motor vehicle fluids
- Household hazardous wastes
- Grass clippings
- Leaf litter
- Animal wastes
- Unauthorized sewage discharges, industrial waste, or restaurant waste






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Illicit Discharge Detection & Elimination (MCM #3)

Permit requires:

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

9


Priority Outfall Area Identification (MCM #3)

✓ 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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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.

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


Permit requires:

- 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)



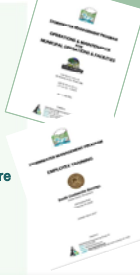

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Pollution Prevention/Good Housekeeping (MCM #6)



Permit Requires:

- **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 (**you are completing this requirement as we speak!**)

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Now, let's learn more about illicit discharges and good housekeeping!




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IDD&E and Good Housekeeping

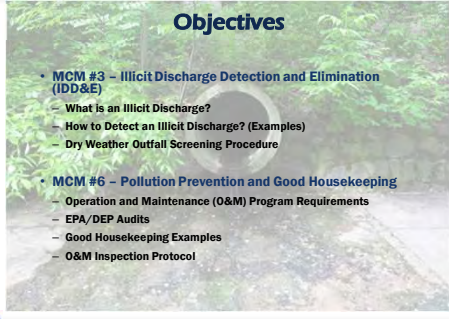




Nicole Martin
Environmental Scientist

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Objectives

- **MCM #3 – Illicit Discharge Detection and Elimination (IDD&E)**
 - What is an Illicit Discharge?
 - How to Detect an Illicit Discharge? (Examples)
 - Dry Weather Outfall Screening Procedure
- **MCM #6 – Pollution Prevention and Good Housekeeping**
 - Operation and Maintenance (O&M) Program Requirements
 - EPA/DEP Audits
 - Good Housekeeping Examples
 - O&M Inspection Protocol






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MCM #3 - IDD&E

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.





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MCM #3 - IDD&E

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.)

Color: Rainbow sheen
Odor: Petroleum or gasoline smell



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Soaps, detergents

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




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Sediment

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



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Sewage

Color: Grey
Odor: Sulfur, fecal matter



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Restaurant Grease

Color: Yellow, golden, brown
Odor: Cooking grease, petroleum



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MCM #3 - IDD&E Permit Requirements

Permit requires:

- Written IDD&E Program
- Mapping
- **Outfall Field Screening**
- Ordinance Prohibiting Non-Stormwater Discharges into the MS4
- Educational outreach specific to IDD&E




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MCM #3 - IDD&E Outfall Field Screening

- What is an Outfall?
 - "A 'Point Source' as defined by 40 CFR § 122.2 is the point where an MS4 discharges stormwater to other surface waters of the Commonwealth..."
- How often?
 - Once per permit term
 - Priority Areas: 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.



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MCM #3 - IDD&E Outfall Field Screening-SECTION 1

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Substation	Outlet ID:		
Study Area	Flow (Mileage):		
Investigator	Form completed by:		
Temperature (°F)	Relative Hum. Last 24 hours	Last 48 hours	
Latitude	Longitude	EPS User	EPS Mileage
Flow Date	Flow To	Flow From	

Flow Date is Drainage Date (Check off that apply):

<input type="checkbox"/> Industrial	<input type="checkbox"/> Open Space
<input type="checkbox"/> Urban-Other Residential	<input type="checkbox"/> Commercial
<input type="checkbox"/> Suburban Residential	<input type="checkbox"/> Other
<input type="checkbox"/> Commercial	<input type="checkbox"/> Other Industrial


Notes (e.g., origin of outfall, if known):

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MCM #3 - IDD&E Outfall Field Screening-SECTION 2

Section 2: Outfall Description


LOCATION	MATERIAL	SHAPE	DIMENSIONS (IN.)	SUBMERGED
<input type="checkbox"/> In-lined Pipe	<input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Metal <input type="checkbox"/> Other	<input type="checkbox"/> Round <input type="checkbox"/> Square <input type="checkbox"/> Oval <input type="checkbox"/> Other	Overall Dimensions: Flow Width: _____ Bottom Width: _____	<input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully With Substrate: <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> Gravel <input type="checkbox"/> Other	<input type="checkbox"/> Trapezoidal <input type="checkbox"/> Rectangular <input type="checkbox"/> Other	Flow Width: _____ Bottom Width: _____	



Submerged: More than 1/2 below water
Partially submerged: Bottom is below water
Fully submerged: Can't see outfall

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MCM #3 - IDD&E Outfall Field Screening-SECTION 2 cont.



Trickle Flow: Very narrow stream of water
Moderate Flow: Steady stream, but very shallow depth
Significant flow (Source is a fire hydrant discharge)

<input type="checkbox"/> Flow drainage	<input type="checkbox"/> Spring <input type="checkbox"/> Other	<input type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Other	Flow Width: _____ Bottom Width: _____
<input type="checkbox"/> No flow	Applicable when collecting samples		
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If No, Skip to Section 3	
Flow Description (if present)	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Submerged		

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MCM #3 - IDD&E Outfall Field Screening-SECTION 3

Section 3: Quantitative Characterization

PARAMETER	RESULT	UNIT	EQUIPMENT
<input type="checkbox"/> Flow #1 <i>OR</i>	Volume	Liter	Bucket
	Time to fill	Sec.	
<input type="checkbox"/> Flow #2	Flow depth	In.	Tape measure
	Flow width	ft, in.	Tape measure
	Manhole length	ft, in.	Tape measure
	Flow of travel	S	Stop watch
	Temperature	°F	Thermometer
	pH	pH Units	Tour step Probe
	Ammonia	mg/L	Tour step

illicit Discharge Detection and Elimination: Technical Appendices D-3

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MCM #3 - IDD&E Outfall Field Screening-SECTION 4

Section 4: Physical Indicators for Flowing Outfalls Only

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)
Odor	<input type="checkbox"/>	<input type="checkbox"/> Strong <input type="checkbox"/> Mild <input type="checkbox"/> None	<input type="checkbox"/> 1 - None <input type="checkbox"/> 2 - Earthy/decayed <input type="checkbox"/> 3 - Noticeable from a distance
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Green <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> Grey	<input type="checkbox"/> 1 - Clear (only in sample bottle) <input type="checkbox"/> 2 - Clearly visible in sample bottle <input type="checkbox"/> 3 - Clearly visible to watch face
Floating Solids	<input type="checkbox"/>	No severity	<input type="checkbox"/> 1 - Single leaf/litter <input type="checkbox"/> 2 - Clearly <input type="checkbox"/> 3 - Heavy
Sheen (Other than hydrocarbon based?)	<input type="checkbox"/>	<input type="checkbox"/> Sheen (Fuel, Paint, oil, etc.) <input type="checkbox"/> Petroleum (oil, grease) <input type="checkbox"/> Other	<input type="checkbox"/> 1 - Heavy (visible) oil (e.g., oil slick) or other hydrocarbon based sheen <input type="checkbox"/> 2 - Clearly visible <input type="checkbox"/> 3 - Heavy

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MCM #3 - IDD&E Outfall Field Screening-SECTIONS 5-8

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls
Are physical indicators that are not related to flow present? Yes No *See Section 5.1*

INDICATOR	CHECK IF PRESENT	DESCRIPTION	COMMENTS
Health Hazards	<input type="checkbox"/>	<input type="checkbox"/> Spilling <input type="checkbox"/> Leaking <input type="checkbox"/> Overflowing <input type="checkbox"/> Pooling from <input type="checkbox"/> Overflow	
Resuspensions	<input type="checkbox"/>	<input type="checkbox"/> Oil <input type="checkbox"/> Mud <input type="checkbox"/> Sludge <input type="checkbox"/> Silt <input type="checkbox"/> Sand	
Unusual Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Algae <input type="checkbox"/> Mosses <input type="checkbox"/> Weeds	
Flow Anomalies	<input type="checkbox"/>	<input type="checkbox"/> Flow <input type="checkbox"/> Turbidity <input type="checkbox"/> Fluctuation <input type="checkbox"/> High Flow	
Particulate Matter	<input type="checkbox"/>	<input type="checkbox"/> Solids <input type="checkbox"/> Sludge <input type="checkbox"/> Silt <input type="checkbox"/> Sand	

Section 6: Overall Outfall Characteristics
 Unstable Potential (presence of rock or loose sediments) Neglect (none or more established with a priority of 1) Other:

Section 7: Best Collection
1. Handle in the MS4? Yes No
2. All pipe collection lines? Yes No
3. Appropriate flow direction? Yes No *If Yes, how?* Other Check later

Section 8: Are There Other Discharge Concerns (e.g., truck or aerial infrastructure reports)?

D-4 *Illicit Discharge Detection and Elimination Technical Appendix*

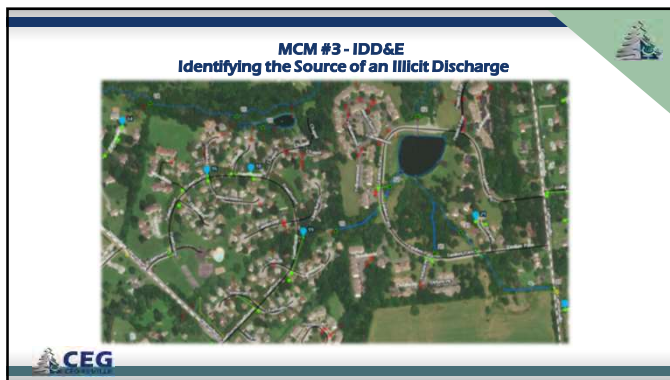
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What Do You Do When You See An Illicit Discharge?

- **Resident:** Call Municipality
- **Public Works:** Report to MS4 point person




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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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MCM #3 - IDD&E STORMWATER MANAGEMENT ORDINANCE

Prohibited Discharges
"Any drain or conveyance, whether on the surface or subsurface, that allows any nonstormwater 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 nonstormwater 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 inlets or drains and silt-ers."
"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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MCM #3 - IDD&E STORMWATER MANAGEMENT ORDINANCE

Authorized Discharges

- Discharges allowed under a state or federal permit;
- **Discharges from firefighting activities;**
- Potable water sources including waterline and fire hydrant flushings;
- Irrigation drainage;
- Air-conditioning condensate;
- Springs;
- Water from crawl space pumps;
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used;
- Diverted stream flows;
- Flows from riparian habitats and wetlands;
- Uncontaminated water from foundations or from footing drains;
- **Lawn watering;**
- **Dechlorinated swimming pool discharges;**
- Uncontaminated groundwater;
- **Water from individual residential car washing;** and
- Routine external building washdown (which does not use detergents or other compounds).



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How can you prevent illicit discharges from municipal facilities?



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MCM #6 Pollution Prevention and Good Housekeeping

- Goal of the Operation & Maintenance (O&M) Program is:
 - to prevent/reduce pollutants from municipal operations to the maximum extent practical




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Good Housekeeping

- Maintain a clean and orderly work environment.
- Prevent pollutant discharges into floor drains.
- Regularly inspect and maintain equipment.
- Proper chemical storage.
- Have spill clean-up materials present and accessible.



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Opps...



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Hazardous Spill Cleanup Sheet

Inventory Sheet No: _____ Date of Spill: _____
 Storage Facility Name & Address: _____
 Preparer Name(s): _____ Time of Spill: _____

What was spilled and how much?
 Approximately 1/2 gallon of oil.

How long after the spill occurred did clean-up operations commence?
 Within 5 minutes.

How was the spill contained, cleaned up, and disposed of?
 The spill was contained with a spill kit and given time to absorb. The powder was swept up and disposed of in a sealed bag.

Are there any other actions that need to be undertaken regarding this spill?
 No.

Contractor/Public Works Personnel Contact Information
 Employee: _____
 Name: _____
 Phone Number: _____
 Address: _____

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Materials Storage & Handling

- Containers, drums, and bags stored away.
- All chemicals stored in a designated cabinet.
- Chemical, fluids and supplies kept indoors.
- If outside, containers to be covered and placed on platforms.
- Contain spill with dike, berm, or absorbent materials and dispose of properly after use.



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Materials Log

Year: _____
Municipality: _____

Material	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Salt (amount collected)												
Tiret Waste (amount collected)												
Street Sweeping (amount collected)												
Other:												

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Stormwater Inspections

- What to inspect:**
 - BMPs
 - Storm Drain Inlets
 - Storm Sewer Piping, Drainage Channels, and Outfalls

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Stormwater BMPs

- Inspect after severe weather to ensure proper functioning.
- All inspections, results, and recommendations are to be documented.

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Storm Drain Inlets

- Inspect to determine trash/sediment load and overall condition of the structure.
- Check for evidence of illegal dumping or illicit discharges.
- Document!!!**

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Storm Sewer Piping, Drainage Channels, and Outfalls

- Inspect for:
 - Trash, debris, sediment build-up, obstructions, and water quality
- Document!!!**

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Storm Sewer System Operation & Maintenance Form

Date of inspection: _____ Facility Name: _____
Inspector: _____ Facility Location: _____

Component/Items to Check	Defective Observed	Inspection/Repair Status			Comments	Location (Address & Coordinates)
		Yes	No	N/A		
Catchment/Impervious	<input type="checkbox"/> Detachment of Structure					
	<input type="checkbox"/> Drugged Inlets/Outlets or other Storm Inlets					
Storm Manhole	<input type="checkbox"/> Debris in Structure					
	<input type="checkbox"/> Detachment of Structure					
Storm Sewer Piping	<input type="checkbox"/> Drugged Pipe					
	<input type="checkbox"/> Detached Pipe					
Ditches/Canals	<input type="checkbox"/> Excessive Vegetation					
	<input type="checkbox"/> Debris (branches, tires, garbage, etc.)					
Roadside/Cross Culverts	<input type="checkbox"/> Excessive Erosion					
	<input type="checkbox"/> Drugged Pipe					
	<input type="checkbox"/> Detached Pipe					

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Municipal Vehicle Maintenance

- Store oils, grease, and lubricants **indoors**.
- Use **dry cleanup methods** for spills instead of hosing down work areas.
- **Recycle** materials when possible.
 - Antifreeze, used oil, mineral spirits, solvents, etc.
- **Inspect** vehicles for leaks.






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Municipal Vehicle Operation & Maintenance Form


Category	Compliance Items to Review	Violations Observed	Comments	Signature & Initials Date
Operational Safety	Prohibit unsafe storage areas	Unapproved storage areas		
	Prohibit work areas	Unapproved work areas		
	Prohibit unapproved equipment	Unapproved equipment		
	Prohibit unapproved personnel	Unapproved personnel		
Maintenance	Prohibit unsafe storage areas	Unapproved storage areas		
	Prohibit work areas	Unapproved work areas		
	Prohibit unapproved equipment	Unapproved equipment		
	Prohibit unapproved personnel	Unapproved personnel		
Vehicle and Equipment	Prohibit unsafe storage areas	Unapproved storage areas		
	Prohibit work areas	Unapproved work areas		
	Prohibit unapproved equipment	Unapproved equipment		
	Prohibit unapproved personnel	Unapproved personnel		
Storage and Handling	Prohibit unsafe storage areas	Unapproved storage areas		
	Prohibit work areas	Unapproved work areas		
	Prohibit unapproved equipment	Unapproved equipment		
	Prohibit unapproved personnel	Unapproved personnel		



50

Surprise! EPA is here!






51

EPA/DEP Audits

- **Non-compliance is costly**
 - Four central PA communities were fined in 2010 for stormwater violations. One community was fined \$177,500.
- **What do they want to see?**
 - Clean work spaces
 - Labeled chemicals/containers
 - Signage
 - Preparedness for spills
 - **DOCUMENTATION!**



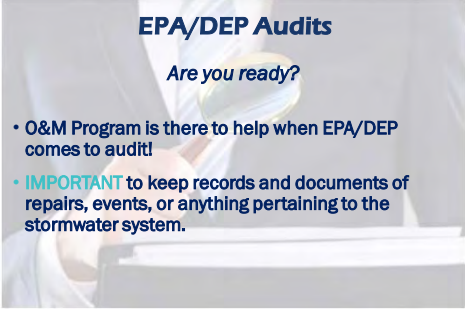



52

EPA/DEP Audits

Are you ready?

- O&M Program is there to help when EPA/DEP comes to audit!
- **IMPORTANT** to keep records and documents of repairs, events, or anything pertaining to the stormwater system.





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QUESTIONS?



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STORMWATER MANAGEMENT PROGRAM EMPLOYEE TRAINING PROGRAM



West Norriton Township
Montgomery County, Pennsylvania

1630 West Marshall Street
Jeffersonville, PA 19403

Updated: March 2020

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Federally Certified 8(a) EDWOSB
State Certified DBE/WBE



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APPENDIX A – Training and Education Tracking Sheet



1. INTRODUCTION

West Norriton Township has developed an Employee Training Program that focuses on educating Township employees as part of the Township's Stormwater Management Program.

The Employee Training Program was developed to further the goal of preventing or reducing the discharge of pollutants from municipal operations to the regulated Municipal Separate Storm Sewer System (MS4).

The Employee Training Program is designed to comply with West Norriton Township's National Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES MS4) General Permit No. PAG130006 issued by the Pennsylvania Department of Environmental Protection (PA DEP). More specifically, it will meet the measurable goals and criteria outlined in Minimum Control Measure (MCM) No. 6 – Pollution Prevention/Good Housekeeping – Best Management Practice (BMP) #3 of the NPDES MS4 permit.

2. TRAINEES

Education and training are important to help prevent stormwater pollution. West Norriton Township has developed procedures for the education and training of all relevant employees and contractors (i.e., public works staff, building, zoning, and code enforcement staff, engineering staff, police and fire responders, etc.).

3. TRAINERS

The trainings may be conducted by West Norriton Township staff or outside personnel, depending on the nature of the topics covered. The person(s) conducting the trainings must be familiar with the NPDES MS4 permit requirements, along with the regular activities of the Township. The trainer's ability to contextualize the information to West Norriton Township will increase its applicability and aid in information retention for all trainees.

4. FREQUENCY

The trainings should be held at least annually. A higher frequency of trainings is recommended in order to heighten the awareness of stormwater management all year-round. With new hires and seasonal employees, it is recommended to implement employee training throughout the year strategically.





5. DOCUMENTATION

Each training must be documented in writing to be reported in the Annual MS4 Status Reports. *Appendix A* provides a training and education tracking sheet for record keeping. Documentation of trainings is important in order to demonstrate that the trainings officially occurred. In the event of an audit from the US EPA (United States Environmental Protection Agency) or an inspection by PA DEP, documentation will need to be presented to support the training requirements of the permit.

Table 1: Documentation Requirements

Documentation Items	✓ Date of the training
	✓ Attendee name(s)
	✓ Training presenter(s)
	✓ Topic(s) covered
	✓ Handouts (if applicable)

6. LOCATION

Trainings may be held at the Township building, on-site/in the field, or a combination of both; whichever is most appropriate for the topics that are covered. A classroom setting may be the ideal place to begin a training session, as it would allow for the easy distribution of NPDES MS4 permit information, background, and context in a controlled setting. Incorporation of a field component to supplement the classroom information would be valuable, as it would engage the trainees and allow them to actively participate in and practice what they have learned or reviewed. Refer to **Table 2** for suggestions.



Table 2: Potential Field Training Locations

Training Locations	Suggested Training Activities
BMPs (i.e., basins)	Conduct mock inspections.
Municipal Facilities	Conduct mock inspections.
Residential Neighborhoods (i.e., inlets)	Walk around and discuss and/or locate potential sources of illicit discharge.
Outfalls	Conduct mock outfall field screening.



7. TOPICS

Training topics will focus on how stormwater pollution can be prevented or reduced with operation, inspection, maintenance, and repair activities associated with the municipal operations and facilities. These topics will take into consideration the types of activities the Township engages in and the extent to which such activities are performed in-house or contracted.

The NPDES MS4 permit requires the Township to implement a series of measurable goals. The education and training activities designed to meet those goals include:

- Recognizing, reporting, and locating the source of illicit dumping into the Township’s stormwater conveyance system;
- Identification and removal procedures for yard waste dumping in and adjacent to streams and the Township’s stormwater conveyance system;
- Proper disposal of waste removed during stormwater facility maintenance; and
- Training all relevant employees and contractors on the proper handling, storage, and disposal of hazardous materials.

Each of the activities listed above will identify:

- The individual responsible for implementation and oversight of the activities;
- The Department or Group conducting the activities;
- Methods to be used to measure compliance;
- Records that must be maintained; and
- Whom to report activities and submit tracking records.



New municipal employees should be trained on reporting protocols and forms, and current applicable technologies, including GIS applications. Existing staff should receive annual refreshers on reporting procedures and the software to ensure consistent and uniform documentation within the Township.

Table 2: Training Topics

Pollution Prevention & Reduction Topics
<ul style="list-style-type: none"> • Street sweeping; • Snow removal/de-icing; • Inlet/outfall cleaning; • Lawns/ground care; • General storm sewer system inspections and maintenance/repairs; • Park and open space maintenance; • Municipal building maintenance; • New construction and land disturbances; • Right-of-way maintenance; • Vehicle operation, fueling, washing, and maintenance; • Material transfer operations (leaf yard debris pickup and disposal procedures); • Streets, roads, highways, parking lots, maintenance and storage yards, waste transfer stations, parks, fleet or maintenance shops, wastewater treatment plants, stormwater conveyances (open and closed pipe), riparian buffers, and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, constructed wetlands, etc.); • Illicit discharge detection and elimination; • Construction sites; • Hazardous materials; and • Ordinance requirements.



8. ANNUAL GOALS


The Township aims to ensure all current and incoming municipal employees are introduced to the NPDES MS4 permit requirements and the numerous municipal activities that contribute to the Township's compliance. All applicable trainees must be trained annually, and all applicable topics mentioned above must be covered.



9. ANNUAL REPORTING AND ACCOMPLISHMENTS

The Township is required to submit Annual MS4 Status Reports to PA DEP by September 30th each year. These reports are available to the public by request at the Township building. Employee Training Program accomplishments will be reported in the Annual MS4 Status Reports.

Storm Sewer System Operation & Maintenance Form						
Date of inspection:			Facility Name:			
Inspector:			Facility Location:			
Components/Items to Check	Problems Observed	Maintenance/Repairs Necessary			Comments	Location (House #, distance from intersection)
		Yes	No	N/A		
Catch Basin/Drop Inlet	<input type="checkbox"/> Deterioration of Structure					
	<input type="checkbox"/> Clogged Inlets During or After Storm Event					
	<input type="checkbox"/> Deposits in Structure					
Storm Manhole	<input type="checkbox"/> Deterioration of Structure					
	<input type="checkbox"/> Deposits in Structure					
Storm Sewer Piping	<input type="checkbox"/> Clogged Pipe					
	<input type="checkbox"/> Deteriorated Pipe					
Ditches/Swailes	<input type="checkbox"/> Excessive Vegetation					
	<input type="checkbox"/> Debris (branches, litter, garbage, etc.)					
	<input type="checkbox"/> Excessive Siltation					
Roadside/Cross Culverts	<input type="checkbox"/> Clogged Pipe					
	<input type="checkbox"/> Deteriorated Pipe					
BMPs	<input type="checkbox"/> Excessive Vegetation					
	<input type="checkbox"/> Debris (branches, litter, garbage, etc.)					
	<input type="checkbox"/> Excessive Siltation					



APPENDIX A
Training and Education
Tracking Sheets



STORMWATER MANAGEMENT PROGRAM

OPERATIONS & MAINTENANCE

FOR

MUNICIPAL OPERATIONS & FACILITIES



West Norriton Township
Montgomery County, Pennsylvania

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Updated: May 2020

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APPENDIX A – Municipal Facilities Inventory

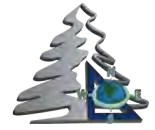
APPENDIX B – Municipal Facility Operations and Maintenance Form

APPENDIX C – Materials Inventory Log

APPENDIX D – Hazardous Spill Clean-up Sheet

APPENDIX E – Storm Sewer System Operation and Maintenance Form

APPENDIX F – Municipal Owned Facilities Map



1. INTRODUCTION

West Norriton Township has developed an Operations & Maintenance (O&M) Program as part of the Township's Stormwater Management Program.

The O&M Program was developed to provide methods of pollution prevention and good housekeeping measures for all municipal operations and facilities that may contribute to the discharge of pollutants from the Municipal Separate Storm Sewer System (MS4). The goal of the O&M Program is to prevent or reduce pollutants to the maximum extent practical. This O&M manual will be reviewed annually and updated as necessary.

Specifically, the O&M Program identifies:

O&M Program

- Management practices, policies, and procedures to reduce or prevent the discharge of pollutants to the MS4;
- Maintenance activities and schedules and inspection procedures to reduce the potential for pollutants to the MS4;
- Controls for reducing or eliminating the discharge of pollutants from municipal facilities; and
- Procedures for the proper disposal of waste.

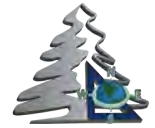
The O&M Program is designed to comply with West Norriton Township's National Pollution Discharge Elimination System – Municipal Separate Storm Sewer System (NPDES-MS4) General Permit No. PAG130006 issued by the Pennsylvania Department of Environmental Protection (DEP). More specifically, it will meet the measurable goals and criteria outlined in Minimum Control Measure (MCM) No. 6 – Pollution Prevention/Good Housekeeping – Best Management Practice (BMP) #2 of the NPDES-MS4 permit.

Pollution prevention and good housekeeping are the simplest and least costly methods to implement to help protect stormwater quality from municipal facilities. These are integral components to an effective stormwater management policy because it is easier to prevent pollution from entering waterways than to clean it up later.

If work on any part of the Township's stormwater system is conducted by outside contractors, they will also be required to follow the procedures outlined in this manual.

2. GOOD HOUSEKEEPING

Good housekeeping practices are designed to maintain a clean and orderly work environment. Often the most effective first step towards preventing pollution in the stormwater collection system simply involves using good common sense to improve basic housekeeping methods. A clean and orderly work area reduces the possibility of accidental spills



caused by mishandling of chemicals or equipment and should reduce safety hazards to Township personnel. In the event of a spill, Township personnel should fill out the hazardous Spill Clean-Up Sheet (Appendix D) to record the details of the spill and how it was remediated. In addition to maintaining an organized work-area, Township employees will:

- Maintain clean, dry floors and ground surfaces by using brooms, shovels, vacuum cleaners or cleaning machines. Sweeping shall be conducted as needed to remove dirt and other debris, as well as immediately following loading/unloading activities, when practical.
- Regularly pickup garbage and waste materials and place all trash, dirt, and other debris in the dumpster. The Township's recycling program shall be utilized to collect and properly dispose of paper, plastic, cans, and bottles.

3. MATERIALS STORAGE & HANDLING

3.1 Materials Storage Practices

Improper storage can result in the release of materials or chemicals that can cause stormwater runoff pollution. Keep storage areas clean and well organized and provide adequate aisle space to facilitate material transfer and easy access for inspections.

- All containers, drums, and bags shall be stored away from direct traffic routes to prevent accidental spills.
- All chemicals shall be stored in a designated cabinet to be easily located when necessary or for inspections.
- When practical, chemical, fluids, and supplies should be kept indoors.
- If containers containing chemicals are stored outside, they must be covered when not being used and placed on spill platforms.
- All containers shall be properly labeled or marked and kept in good condition and tightly closed when not in use.
- Perform regular inspections of all indoor and outdoor storage locations.
- Maintain the Materials Inventory Log (Appendix C) for record-keeping of materials.



The Township currently stores the following materials at the Public Works Garage:

- Oil containers
- Petroleum products
- Fuel additives



- Paints (spray and cans)
- De-icing materials
- Household cleaning supplies

3.2 Materials Handling Practices

Absorbent material, spill kits and drip pans must be kept near any potential spill hazard and protected from rainfall. If spills or accidents occur, contain with dikes, berms, or appropriate absorbent materials and dispose of properly after use. Spills of hazardous materials require special care and should only be attempted by trained Township or contracted personnel. Collect all waste fluids in properly labeled containers and dispose of properly.

4. STORMWATER FACILITIES

4.1 Stormwater BMPs

The Township owns the following two (2) Post Construction Stormwater Management (PCSM) BMPs, which inspected and maintained under MCM No. 5 – Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment – BMP #3 of the NPDES MS4 Permit.

- Oakland Farms Detention Basin (Wagon Wheel Rd) – BMP #2
- Burnside Village Detention Basin (Sterigere St) – BMP #24

These BMPs are to be inspected at least annually to check for sediment accumulation and overall conditions and they should be inspected after large rain events to evaluate overall performance and drainage characteristics. Inspections are to be conducted by West Norriton Township Public Works personnel (or other Township representatives) to evaluate the performance of the stormwater facilities and to determine the potential amounts of pollutants, trash and debris entering and discharging from the stormwater collection system. These inspections should occur as part of regular job duties.



- Inspections will check for excessive silt build-up, erosion, collapsed pipes, misaligned joints and water quality concerns such as unusual algae growth, discolored water, water with a sheen, and suspect odors.
- Inspections will occur after severe weather conditions, such as heavy rains, to ensure they are working properly and are clear of debris. Inspection frequencies will depend on a variety of factors including weather conditions and type and function of the stormwater structures.



- All inspections activities, results and recommendations are to be documented in writing and kept on file with the Township. Typical records to be retained for future reference include a log of all inspections, repairs and maintenance performed at the site, copies of inspection reports, invoices for work performed, and a photograph of facilities.

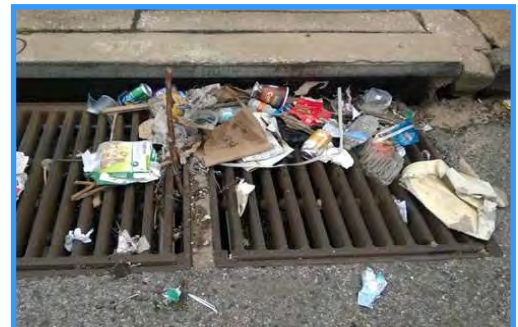
All municipally owned stormwater facilities will be operated per their design specifications and in a manner, that prevents or reduces adverse environmental or public health and safety impacts.

West Norriton Township's stormwater facility O&M program is structured to provide inspections of all facilities and to provide maintenance as needed. All maintenance activities are to be documented in writing and kept on file with the Township. When possible, photos will be taken of various storm sewer system components to document before and after maintenance conditions.

4.2 Storm Drain Inlets

West Norriton Township owns and maintains seven-hundred and fifty (750) storm drain inlets located along roadways and in parking lots throughout the Township. To maintain the integrity of the Township's stormwater system, the Township personnel will:

- Inspect all Township storm drain inlets at least annually to determine the trash and sediment load and overall condition of the structure. If the depth of deposits is greater than or equal to one-third the depth from the basin, cleaning will be scheduled.
- Storm drain inlets that accumulate trash and deposits quickly will be inspected more frequently and the drainage area will also be inspected to determine possible causes.
- Inlet grates will be inspected to ensure that there is no trash blocking the inlets, especially before heavy rains are forecast.
- While inspecting storm drains inlets, Township staff will check for evidence of illegal dumping or illicit discharges. If evidence of illegal dumping or illicit discharges is found, efforts are to be made to identify the source of these discharges.
- West Norriton Township personnel shall schedule cleaning of municipal storm drain inlets when inspections reveal an excessive accumulation of sediment or debris. Structural repairs to any part of storm drain inlets will be performed as needed including replacement of damaged or deficient piping.





4.3 Storm Sewer Piping, Drainage Channels, and Outfalls

The Township owns many miles of underground storm sewer piping ranging in size from 2 to 48 inches. The age of the piping ranges from 40 years old to new pipe that was recently installed. The piping is constructed of reinforced concrete pipe, corrugated metal pipe, cast iron/ductile iron pipe, PVC pipe and polyethylene pipe. The Township maintains several ditches, culverts and swales that function as storm drainage channels. To maintain the storm sewer system, Township public works personnel will:

- Open conveyances will be inspected annually by public works personnel to check for trash, debris, sediment build-up, obstructions and general water quality conditions.
- Piping will be inspected as needed to check for structural integrity, blockages, or any other unusual conditions such as improper cross-connections or excessive inflow/infiltration.
- Stormwater outfalls will be periodically inspected to check for any unusual conditions such as excessive erosion or illicit discharges.

If inspections of storm sewer piping reveal structural deficiencies, cross-connections, tree roots, sediment build-up or obstructions, then the appropriate maintenance solution will be selected and implemented as soon as possible. These solutions may include excavation and repair, tree root removal, and physical cleaning. Chemical agents will not be utilized. For cleaning techniques, such as jet/vactor use, rodding or bucketing, the downstream end of the pipe will be blocked off and the debris will be captured and removed from the system.

- For storm culverts, ditches and swales, maintenance of free-flowing conditions will be achieved by physical removal of any debris, sediment or overgrown vegetation.
- For storm sewer easements, the Township will remove any obstruction that is identified.
- Trash/obstructions will be removed at the outfalls to maintain free flowing conditions.
- Velocity reducers will be maintained or replaced as needed.

5. ROADWAYS

West Norriton Township owns and maintains approximately 38 miles of Township roadways.



- The overall condition and cleanliness of Township roads and parking lots shall constantly be inspected and evaluated during routine travels by public works personnel.
- Those areas with excessive staining, trash or sediment will be investigated and scheduled for cleaning or repairs as necessary.
- Appropriate corrective actions shall be considered for any areas exhibiting flooding or poor drainage patterns.



The following roads within the Township are State owned and maintained:

- Burnside Avenue
- West Main Street
- Marshall Street
- Whitehall Road
- Egypt Road
- Trooper Road
- Highway 202
- Highway 422

West Norriton Township is responsible for repairs and maintenance of all Township owned roadways. If outside contractors perform road paving or repairs, the following guidelines should be followed:

5.1 Roadway Paving Repair

Roadway paving repairs have the potential to generate stormwater pollution due to the materials and equipment needed to perform the repairs. To avoid and/or minimize stormwater pollution, the Township will follow the guidelines provided below:

- Avoid paving activities during wet weather.
- Ensure that storm drain inlets and open manholes are protected during road repair work to prevent slurry mixes, dust, and debris from entering the storm sewers.
- Avoid using water to clean up. Mechanically sweep and/or vacuum dust and debris following all activities. DO NOT wash residue into the storm drain system.
- Place stockpiles away from waterways and stormwater inlets to prevent materials from being washed into streams. Cover stockpiles or contain with berms.



- Contain water and wastes generated during cleaning and flushing of spray equipment and field servicing of equipment. Use inlet protection and allow area to dry before uncovering storm drain inlets.
- Recycle used materials such as asphalt. Store these materials properly.
- Use drip pans to contain leaks from vehicles and equipment parked at the site overnight.

5.2 Traffic Line Painting

During routine traffic line painting, the Township will follow the guidelines provided below to reduce the potential for stormwater pollution to the MS4:

- Develop painting-handling procedures for proper use, storage and disposal of paints to keep the material contained.
- Protect storm drain inlet, open manholes and roadside ditches during grinding and pressure washing activities.
- Avoid using water to clean up. Mechanically sweep and/or vacuum grindings and dust following all activities. DO NOT wash residue into the storm drain system.
- Contain water and wastes generated during cleaning and flushing of equipment and field servicing of equipment. Use inlet protection and allow area to dry before uncovering storm drain inlets.

5.3 Snow Removal and De-Icing

The storage and application of materials used for roadway de-icing or traction control shall be conducted in a manner that reduces the impact to the storm sewer system and the environment. West Norriton Township uses salt for de-icing. All road salt is stored indoors at the public works maintenance facility with a storage cap of 400 tons. All salt storage is to be protected from precipitation.



- During loading and unloading of salt, prevent and/or minimize spills by utilizing safe work practices and sound judgment.
- If any material is spilled, promptly collect it using dry cleaning methods. All collected materials shall be either reused or properly discarded.
- Minimize the tracking of materials from the storage area and the distance that road salt is transported during the loading/unloading operations.
- All operators of snow plows/salt spreaders are to be trained in the proper application rates of road salt. The salt spreaders are to be examined before operating to ensure that they are functioning properly.
- The application of road salt to roads or parking lots will be only enough to accomplish the task and will take into consideration site specific characteristics such as road width and design, traffic concentration, and proximity to surface waters.



6. LEAF COLLECTION

As mandated by Act 101, the Township developed a comprehensive leaf collection recycling program. On average, the Township collects an approximate average of 4,500 cubic yards of leaves from the middle of October to the 2nd week of December each year.

The Township collects leaves and transport them to Norristown Farm Park. These leaves are composted, then distributed on the farm fields to supplement farming operations. The final composted product is also available for pickup by residents of the Township. The farming operation is operated by Montgomery County on grounds owned by the State. The Township must fill out the Material Inventory Log (Appendix C) to keep a record of materials collected.



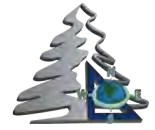
7. DISPOSAL OF DEBRIS

Any materials recovered from any part of the storm sewer collection system will be handled and disposed of in accordance with all applicable state and federal disposal regulations. Recovered materials are currently sent to the Waste Management landfill in Norristown. The Township must fill out the Material Inventory Log (Appendix C) to keep a record of materials collected. All recovered materials, especially those from storm drain inlets, piping, or basins, will be evaluated to determine if it is municipal, residual or hazardous waste.

8. FERTILIZERS, HERBICIDES & PESTICIDES

Herbicide or pesticide use is only applied and stored at the Jeffersonville Golf Course. Any herbicide and pesticide use on Township lands or around any part of the storm sewer collection system will be reviewed by West Norriton personnel to comply with all applicable regulations and to prevent adverse water quality impacts.

- Applications will only be conducted by Township personnel or contractors who have an appropriate applicators license from the PA Department of Agriculture.
- Fertilizers, herbicides, and pesticides shall be applied exactly according to manufacture guidelines, as more is not always better in the case of chemical applications. The use of these chemicals will be limited as much as possible and non-hazardous alternatives shall be encouraged.
- Fertilizers, herbicides, and pesticides shall be stored in a covered location to avoid any chemicals from entering into the municipal separate storm system.



9. MUNICIPAL FACILITIES

The Township owns and maintains the nine (9) facilities listed below. An inventory of equipment and materials for each facility is located in Appendix A. The locations of these facilities are illustrated on the Municipal Facilities Location Map in Appendix F. These properties will be operated and maintained in a manner that reduces the potential for pollution to enter the municipal storm sewer system or to the environment using the Municipal Facility Operation & Maintenance Form, located in Appendix B. A table that lists the municipal facilities and correlating activities and BMPs is located in Appendix G.



- **Municipal Complex** (1630 W. Marshall Street)
The Municipal Complex includes the public works garage, administrative offices, and the police department. The Public Works garage is used for general vehicle and equipment maintenance and vehicle and material storage.

- **Jeffersonville Golf Club** (2400 W. Main St.)
The Golf Club is an 18-Hole, par 70 public course, owned and operated by West Norriton Township. The facility also contains a banquet facility, pro shop, practice putting green, and restaurant/snack bar with a full-service bar.

- **Parks** - The following list of parks are determined to not have a potential for generating pollution to stormwater runoff:
 - Jeffersonville Firehouse Recreation Site (85 School Ln)
 - Oxford Circle Park (Park Dr.)
 - Padden Park (2101 Oakland Dr)
 - Squire Croft Park (W. James St.)
 - Betzwood Park (Hillside Dr.)
 - Centennial Park

10. MUNICIPAL FACILITIES

All Township vehicles will be operated in a manner that reduces the potential for pollution to enter the municipal storm sewer system or to the environment. This includes obeying all road and traffic rules and being alert at all times.

West Norriton Road Department owns the following vehicles and large equipment used for maintenance, repairs, and mowing:



-
- 4 Dump Trucks
 - 6 Pickup Trucks
 - 2 Backhoes
 - 1 Sweeper
 - 2 Chippers
 - 4 Leaf machines
 - 2 Lawn Mowers
 - 1 Street Roller
 - 2 Trailers

In the event of an accident involving vehicle fluids or cargo, all attempts will be made to prevent the spilled material(s) from entering the storm sewer system or nearby waterways. This could include diking, damming, absorbing, or removing the material from the affected area. All recovered materials will be disposed of in accordance with all applicable state and federal waste disposal regulations. Appropriate spill containment and recovery equipment will be maintained at the public works facility and on vehicles, when possible.

For any spill beyond the Township's ability to address, emergency responders or local contractors will be contacted to provide assistance. An up-to-date list of appropriate contactors as well as other entities to be contacted (PA DEP, PA Fish & Boat Commission, water users/intakes, etc.) will be maintained at the Township and made readily available.

10.1 Maintenance

Vehicle maintenance, such as oil change, regular maintenance, inspection, etc., is performed at the public works facility located at 1630 W. Marshall Street. Major repairs are performed at Black Horse Auto Body. Within the maintenance garage is a continuous floor drain that discharges to the sanitary sewer system. Vehicles, to the maximum extent possible, are stored inside our public works garage. Vehicles are to be periodically checked for leaks. Drip pans, Oil-Dri, and absorbent pads are to be used to capture leaks.

All products such as oils, grease and lubricants will be stored indoors. All products of maintenance activities, such as greasy rags, oil filters, air filters, batteries, tires and degreasers will be placed in appropriate containers within the maintenance building. These receptacles should be in a level area away from municipal stormwater drains. The waste oil and filters are taken to Planet Earth for recycling and proper disposal.



Township employees will avoid hosing down work areas and will not wash areas containing spillage or contaminants with water to avoid runoff entering the floor drains within the maintenance building. Instead, dry cleanup methods will be utilized whenever possible. Suitable materials will be maintained on site for the cleanup and disposal of oils, chemicals, or other hazardous materials.



Non-hazardous cleaners and solvents will be utilized whenever possible. Recycle antifreeze, used oil, mineral spirits and solvents when possible. Label and track the recycling of waste material. Drain oil filters before disposal or recycling. Place oil filters in a funnel over the waste oil recycling or disposal collection container to drain excess oil before disposal, then crush and recycle oil filters. Keep waste streams separate (i.e. waste oil and solvents).

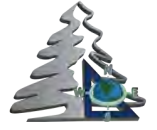
The Township will regularly inspect municipal vehicles and vehicle storage facilities. Municipal vehicles will be inspected for the presence of leaks at least four times per year. These inspections will reflect the general state of each vehicle and identify if there is a problem with the vehicle that should be repaired. Vehicle storage facilities will be inspected at least twice per year, with an initial inventory at the beginning of the year. Inspections will reflect the general state of the facility and identify if there is a systemic problem with cleanliness by municipal employees.

In the event of a spill, efforts should be made to isolate the spill and ensure that it will not enter the municipal stormwater conveyance system. The recording program will aim to identify those areas that are prone to spills so the areas may be improved in the future to reduce the potential for future spills. The Hazardous Spill Clean-up Sheet (Appendix D) should be used to record any spills.

10.2 Fueling

The Township maintains a 500-gallon aboveground diesel storage tank facility. The aboveground tank is double-walled and has a spill berm surrounding the perimeter of the tank.

Observe proper safety techniques and constantly monitor all fuelling operations to prevent or react to spillage. Do not leave a fueling operation or a storage tank delivery unattended. Discourage “topping off” of vehicle fuel tanks through training and signage. Clearly post, in a prominent area of the facility, instructions for safe operation of fueling equipment, and appropriate contact information for the person(s) responsible for spill response.



The fuel delivery company is responsible to assure proper delivery procedures are followed. Any spills are to be reported to the responsible person immediately.

Any spillage from fueling activities will be controlled and cleaned up immediately. Appropriate clean up materials such as Oil-Dri or absorbent pads will be maintained at the maintenance facility and will be used to prevent spillage from migrating away from the area. Small spills can be cleaned up with rags and larger spills can be cleaned with dry absorbent materials such as kitty litter, straw, or sawdust. Dispose of collected waste properly. Water will not be used to wash or cleanup fuel spillage.

The fueling area and storage tank will be routinely monitored for general housekeeping conditions and signs of possible leakage. Any fueling equipment found to be leaking or in disrepair will be repaired or replaced as soon as possible.

10.3 Vehicle/Equipment Washing

All police vehicles and administration vehicles are washed off site at a commercial car wash. The public works trucks are rinsed off on site in the Township wash bay or at Jeffersonville Golf Course. There are times when vehicles may be covered in mud, salt, snow, or grass clippings that need to be washed from the vehicle. In these instances, the vehicle should be washed on a grassed or gravel area as opposed to an impervious surface such as blacktop or concrete. All efforts should be made to avoid any water from entering the municipal stormwater system.

APPENDIX A

Municipal Facilities Inventory

WEST NORRITON TOWNSHIP - MUNICIPAL FACILITIES INVENTORY

ACTIVITIES & BEST MANAGEMENT PRACTICES (BMPs)	MUNICIPAL FACILITIES								
	Municipal Complex (public works)	Jeffersonville Golf Club	Jeffersonville Firehouse Recreation Site	Oxford Circle Park	Padden Park	Squire Croft Park	Betzwood Park	Centennial Park	Township Roads & ROW
Landscaping & Lawncare									
Fertilizer Application/Storage		X							
Pesticide Application/Storage		X							
Herbicide Application/Storage		X							
<i>Outside Contractor Used</i>									
Limit Purchase/Storage to One Year Supply									
Slow Release Fertilizers									
Zero/Low Input Lawns									
Alternative Landscaping Techniques									
Use Compost/Natural Fertilizers									
Grass Clippings Left on Lawn									
Integrated Pest Management									
Recordkeeping Fertilizer & Pesticide Use									
Spill Response & Prevention									
Aboveground Storage Tanks	X	X							
Drums for Liquid Storage	X	X							
Chemical Storage	X	X							
Secondary Containment Systems	X	X							
Oil/Water Separator	X	X							
Spill Berm	X								
Roof/Overhang	X								
Vehicle/Equipment Washing									
Vehicle Washing	X	X							
Washwater Drains to MS4									
Vehicle Washing Inside; Single Purpose Bay		X							
Biodegradable Soaps	X	X							
Washwater Drains to Oil/Water Separator	X	X							
Washwater Drains to Sanitary Sewer	X	X							



MUNICIPAL FACILITIES									
ACTIVITIES & BEST MANAGEMENT PRACTICES (BMPs)	Municipal Complex (public works)	Jeffersonville Golf Club	Jeffersonville Firehouse Recreation Site	Oxford Circle Park	Padden Park	Squire Croft Park	Betzwood Park	Centennial Park	Township Roads & ROW
Equipment Rinsed on Vegetated Area	X								
Commercial Carwash Used (for police & admin.)	X								
Roadway & Bridge Maintenance									
Roadway Patching, Resurfacing, Sealing									X
Maintenance of Unpaved Roads									X
Bridge & Structure Maintenance									X
Painting/Paint Removal									X
Dry Weather Paving									X
Cover Storm Drain Inlets Prior to Paving									X
Fluid Leaks/Spills from Paving Cleaned ASAP									X
Cover Storm Drain Inlets When Painting									X
Sweeping/Vacuuming After Task is Done									X
Hazardous & Waste Materials Management									
Oil/Antifreeze Use and/or Storage	X	X							
Paints, Thinners, Solvents Use and/or Storage	X	X							
Cleaning Agents Use and/or Storage	X	X							
Illegal Dumping Occurs									
Recycle Drop Off Location									
Limit Purchase/Storage to One Year Supply	X	X							
Proper Storage; Away from Floor/Storm Drains	X	X							
Oil & Antifreeze Recycling	X	X							
Household Hazardous Waste Collected	X								
Litter Control Program									
Inspection of Material Storage Areas	X	X							
Building Maintenance									
Household Cleaning Performed	X	X							
Exterior Building Washing Performed	X	X							
Sidewalk Cleaning	X	X							
Roof Drainage Systems	X	X							
Walkway Salt Application	X	X							



ACTIVITIES & BEST MANAGEMENT PRACTICES (BMPs)	MUNICIPAL FACILITIES									
	Municipal Complex (public works)	Jeffersonville Golf Club	Jeffersonville Firehouse Recreation Site	Oxford Circle Park	Padden Park	Squire Croft Park	Betzwood Park	Centennial Park	Township Roads & ROW	
Direct Washwater Away from MS4	X	X								
Minimize Salt Use	X	X								
Direct Roof Drain(s) to Grass, Rain Garden, etc.	X	X								
Fluorescent/Other Light Recycling	X									
Paper/Plastic Recycling	X									
Stormwater Infrastructure Maintenance										
Stormwater Infrastructure Present	X	X							X	
Stormwater is Treated on Site		X								
Stormwater Drains to MS4	X								X	
Structure Inspection	X								X	
Structure Maintenance, Repair & Cleaning	X								X	
Open Ditch Maintenance	X								X	
Dispose/Store Vector Waste Properly	X								X	
Structural BMP on Site										
Non-Structural BMP on Site										
Street Cleaning									X	
Street Cleaning & Maintenance										
Street Sweeping									X	
Disposal of Sweeper Waste									X	
Sweeps in a Pattern to Avoid Inlets									X	
Maintain Roadside Vegetation									X	
Dispose/Store Sweeper Waste Properly									X	
Road Salt Storage & Application										
Road Salt Performed									X	
Salt Storage On-Site	X									
Covered Salt Storage Facility	X									
Spreaders Calibrated & Maintained	X									
Diversion Berms to Reduce Run-On to Storage										
Alternative Materials Used (identify:)										
Establish Low Salt for Sensitive Areas									X	



ACTIVITIES & BEST MANAGEMENT PRACTICES (BMPs)	MUNICIPAL FACILITIES								
	Municipal Complex (public works)	Jeffersonville Golf Club	Jeffersonville Firehouse Recreation Site	Oxford Circle Park	Padden Park	Squire Croft Park	Betzwood Park	Centennial Park	Township Roads & ROW
Vehicle & Equipment Maintenance									
Repairs Done Outside									
General Repairs Performed	X	X							
General Maintenance Performed	X	X							
Repairs Done Inside	X	X							
Protect Inlets During Outside Maintenance		X							
Use Dry Clean Up Methods (Oil Dri, Kitty Litter)	X	X							
Oil/Water Separator	X	X							

Comments:

APPENDIX B

Municipal Facility Operation and Maintenance Form



Municipal Facility Operation & Maintenance Form

Date of Inspection: _____

Inspector: _____

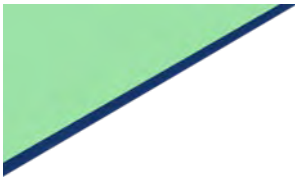
Category	Components/Items to Check	Problems Observed	Maintenance/Repairs Necessary			Comments / Actions Taken
			Yes	No	N/A	
Hazardous Spill Response and Prevention	Products/waste storage areas	<input type="checkbox"/> Uncovered/deteriorating containers <input type="checkbox"/> Materials spilled, leaks				
	Equipment storage areas	<input type="checkbox"/> Fluid Leaks				
	Secondary containment systems	<input type="checkbox"/> Structural deterioration <input type="checkbox"/> Leakage of fluids				
	Floor drains, storm receiver inlets and outlets	<input type="checkbox"/> Accumulation of contaminants				
Hazardous and Waste Materials Management	Outside storage areas	<input type="checkbox"/> Weathering				
	Salt piles	<input type="checkbox"/> Salt staining				
	Soil staging areas	<input type="checkbox"/> Silt runoff				
	Aboveground storage tanks	<input type="checkbox"/> Deterioration				
	Inside storage areas	<input type="checkbox"/> Potential for discharges				
Vehicle and Equipment Maintenance/Storage Area	Drums, other containers	<input type="checkbox"/> Deterioration <input type="checkbox"/> Uncovered				
	Truck/equipment	<input type="checkbox"/> Leak/spills				
	Salt/sand spreader	<input type="checkbox"/> Improper amounts of product applied				
Vehicle and Equipment Washing Area	Lawn care equipment	<input type="checkbox"/> Improper operation				
	Designated "wash only" area	<input type="checkbox"/> No impermeable pad with wastewater collection system				
	Wastewater discharge location	<input type="checkbox"/> Does not flow to either a holding tank or to sanitary sewers				
Road Salt Storage and Application	Washing/degreasing compounds	<input type="checkbox"/> Solvent based				
	Storage shed	<input type="checkbox"/> Salt outside of shed				
	Truck loading area	<input type="checkbox"/> Salt on ground				
	Roads - (sites of application)	<input type="checkbox"/> Excessive salt on ground				
Pest Control	Salt spreader	<input type="checkbox"/> Excessive salt on ground				
	Pesticide storage area	<input type="checkbox"/> Excessive amounts of pesticides <input type="checkbox"/> Spilled pesticides <input type="checkbox"/> Empty containers				
	Application equipment	<input type="checkbox"/> Improper amounts of pesticides applied				

APPENDIX C

Materials Inventory Log

APPENDIX D

Hazardous Spill Clean-up Sheet



Hazardous Spill Clean-up Sheet

Inventory Sheet No.: _____ Date of Spill: _____

Storage Facility Name & Address: _____

Preparer Name(s): _____ Time of Spill: _____

What was spilled and how much?

How long after the spill occurred did clean-up operations commence?

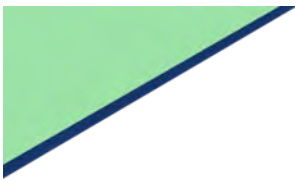
How was the spill cleaned up and how was the material disposed of?

Are there any other actions that need to be undertaken regarding this spill?

Additional Comments:

APPENDIX E

Storm Sewer System Operation and Maintenance Form

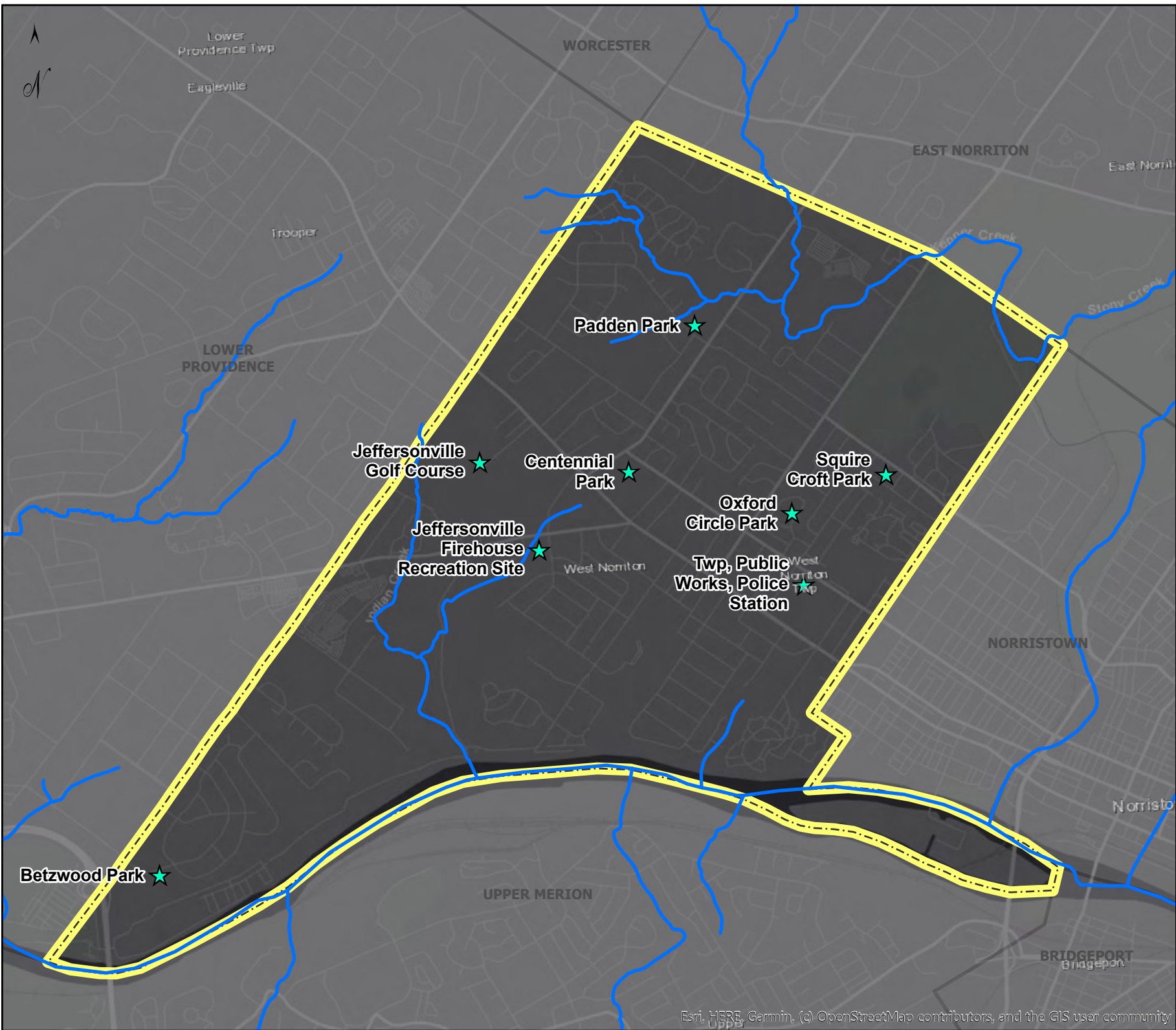


Storm Sewer System Operation & Maintenance Form

Date of Inspection:				Facility Name:			
Inspector:				Facility Location:			
Components/Items to Check	Problems Observed	Maintenance/ Repairs Necessary			Comments	Location (House #, distance from intersection)	
		Yes	No	N/A			
Catch Basin/Drop Inlet	<input type="checkbox"/> Deterioration of Structure						
	<input type="checkbox"/> Clogged Inlets During or After Storm Event						
	<input type="checkbox"/> Deposits in Structure						
Storm Manhole	<input type="checkbox"/> Deterioration of Structure						
	<input type="checkbox"/> Deposits in Structure						
Storm Sewer Piping	<input type="checkbox"/> Clogged Pipe						
	<input type="checkbox"/> Deteriorated Pipe						
Ditches/Swales	<input type="checkbox"/> Excessive Vegetation						
	<input type="checkbox"/> Debris (branches, litter, garbage, etc.)						
	<input type="checkbox"/> Excessive Siltation						
Roadside/Cross Culverts	<input type="checkbox"/> Clogged Pipe						
	<input type="checkbox"/> Deteriorated Pipe						
BMPs	<input type="checkbox"/> Excessive Vegetation						
	<input type="checkbox"/> Debris (branches, litter, garbage, etc.)						
	<input type="checkbox"/> Excessive Siltation						

APPENDIX F

Municipal Owned Facilities Map



DISCLAIMER:
 This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. Infrastructure ownership information is displayed for general planning purposes. It may not be accurate and is not legal or definitive.

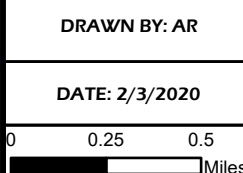
WEST NORRITON TOWNSHIP
 LOCATION MAP

MUNICIPAL OWNED FACILITIES

MONTGOMERY COUNTY, PENNSYLVANIA

DRAWN BY: AR

DATE: 2/3/2020





Annual MS4 Status Report

APPENDIX G

Pollutant Control Measures

1. Pollutant Control Measures Source Inventory Report



STORMWATER MANAGEMENT PROGRAM

POLLUTANT CONTROL MEASURES

SOURCE INVENTORY REPORT



West Norriton Township
Montgomery County, Pennsylvania

1630 W. Marshall St.
Jeffersonville, PA 19403

August 2020

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Federally Certified 8(a) EDWOSB
State Certified DBE/WBE



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APPENDIX A –PCB Source Inventory Analysis

APPENDIX B – Photographic Log



1.0 INTRODUCTION

CEDARVILLE Engineering Group, LLC (CEG) has performed a source inventory for polychlorinated biphenyl's (PCBs) on behalf of West Norriton Township as part of the Township's 2018 National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) General Permit (PAG130006) requirements issued by the Pennsylvania Department of Environmental Protection (DEP) (3800-PM-BCW0100d). West Norriton Township must implement Pollutant Control Measures (PCMs) within the storm sewersheds of each outfall that discharges to a waterbody impaired due to PCBs.

In order to comply with the requirements specified in *Appendix C – Pollutant Control Measures for Waters Impaired by Priority Organic Compounds* of the NPDES MS4 permit, the Township must complete the following steps:

1. Develop a Pollutant Control Measures (PCM) Storm Sewersheds Map for all regulated MS4 outfalls that discharge to the PCB-impaired Schuylkill River.
2. Develop an inventory of all known and suspected anthropogenic sources of priority organic compounds (i.e., PCBs) within the delineated storm sewersheds.
3. Complete a source investigation and potential sampling of each suspected source.
4. Notify DEP in writing for any confirmed PCB sources, if applicable.

Each component of this process must be submitted to DEP with the Annual MS4 Status Report by the date listed in **Table 1** below.

Table 1: PCM Requirements & Due Dates

Requirement	Due Date	Status
STEP 1 – Storm Sewershed Map	September 30, 2019	Complete
STEP 2 – Source Inventory	September 30, 2020	This report addresses this requirement and will be submitted with the Annual MS4 Status Report by September 30, 2020.
STEP 3 – Source Investigation	September 30, 2022	<i>Pending</i>
STEP 4 – DEP Written Notification	Within 90 days of findings	<i>Pending</i>
PCM Progress	With each Annual MS4 Status Report	<i>Ongoing</i>

2.0 BACKGROUND

Polychlorinated biphenyls (PCBs) are harmful chemicals that often result from industrial activities, electrical and hydraulic equipment coolant or lubricant fluid (i.e., transformers), along with byproducts from the production of the following products: paints, plastics, rubber, pigments, dyes, and carbonless copy paper. PCBs have historically been sprayed on dirt roads to manage dust before the harmful effects of these chemicals became known. According to the United States Environmental Protection Agency (EPA), exposure to these chemicals can negatively affect the immune, reproductive, endocrine, and neurological system functions and has been proven to cause cancer in animals.



The production of PCBs was banned in 1979, however, PCBs may still be present in products and materials that were produced prior to that date. The EPA states that items such as transformers, fluorescent light ballasts, oil-based paint, floor finished, and caulking may still contain PCBs. These chemicals do not readily break down in the environment, cycle between air, water, and soil, and can be transported long distances from the contamination source. It should also be noted that this chemical has various trade names, the most common of which is Aceclor.

The NPDES MS4 permit ultimately requires analysis and sampling of suspected PCB sources with the goal of identifying and eliminating PCBs into impaired waterways to protect environmental quality and public health. The purposes of this report and analysis is to create an inventory of the outfalls should be investigated further based on the potential that the outfall is contributing to the PCB impairment.

3.0 METHODOLOGY

The Township has eighty-eight (88) outfalls, sixty (60) of which discharge to PCB-impaired waters (i.e. the Schuylkill River), which includes the outfalls discharging to and within five (5) stream miles of the Schuylkill River. The focus area for the source inventory is bound to the storm sewersheds associated with these outfalls. Storm sewersheds are defined in the NPDES MS4 permit as “land area that drains to an individual MS4 outfall from within the jurisdiction of the MS4 permittee.” The storm sewersheds associated with the 60 outfalls that discharge to PCB-impaired waters were previously delineated to address Step 1 of the PCMs. The total area of the PCM storm sewersheds is 1,831 acres, which is roughly 47% of the Township.

An initial desktop review was performed to narrow down the potential sites of concern using online resources detailed in **Section 3.1. Desktop Review**. A field reconnaissance was performed to supplement the desktop review, as detailed in **Section 3.2. Field Reconnaissance**.

3.1. DESKTOP REVIEW

A desktop review was performed utilizing ArcGIS Pro to identify specific locations of potential sources of PCBs. The following resources were analyzed for the desktop review:

- Industrial Land Use
- EPA MyProperty Tool
- NPDES Permitted Facilities

Table 1: PCM Analysis Resources

Resource	Location Criteria	Source
Industrial Land Use	Within Storm Sewershed of Outfall	Montgomery County GIS Parcel Data
EPA MyProperty Tool	Within Industrial Land Use of PCM Storm Sewershed	EPA Facility Registry System (FRS)
NPDES Permitted Facilities	Within Industrial Land Use of PCM Storm Sewershed	PA Environment Facility Application Compliance Tracking System (eFACTS)



The **PCB Source Inventory Investigation map** in *Appendix A* provides a visual representation of this desktop review. The sites and information obtained from these resources located within the PCM storm sewersheds are displayed. The desktop review is described in more detail below.

3.2. Industrial Land Use

The industrial parcels within the PCM sewersheds were taken into account during this desktop review. Parcel data for the Township was obtained from Montgomery County Open Data Portal. Industrial parcels were identified by referencing Montgomery County Land Use Codes (LUCs), which have a LUC range of 3000-3999.

There are forty-eight (48) industrial parcels within the Township. Twenty-six (26) of the parcels are located within the PCM storm sewersheds. The **PCB Source Inventory Analysis map** provided in *Appendix A*, provides a visual representation of the industrial parcels used in this review.

There is a high concentration of industrial properties in the northwest corner of West Norriton Township along Industry Lane. However, the storm sewersheds in this area drain to a storm sewer system that conveys most of the stormwater outside of Township boundary to the north, while the remainder of the outfalls in this area discharge to non-impaired waterways within the Township located greater than five (5) stream miles from the Schuylkill River. Therefore, these sites were excluded from this review.

The twenty-six (26) industrial parcels were further investigated to determine the potential for these sites/facilities to generate and discharge PCBs based on research of the company, what they produce, and what activities occur at the site/facility.

The additional resources reviewed and described below will provide more detail if any of the twenty-six (26) industrial parcels are a potential source of PCBs.

3.3. EPA MyProperty Tool

The MyProperty tool pulls from the data within the EPA Facility Registry System (FRS), which identifies facilities, sites, or places of environmental interest that are subject to regulation. This database was utilized as part of this analysis by searching for compliance records at the identified industrial parcels within the Township. Examples of places of interest that would be included on this site are brownfields, superfunds, hazardous waste sites, NPDES sites, toxics release inventory (TRI) sites that may produce and/or have the potential to generate and discharge PCBs.

The addresses of the twenty-six (26) industrial parcels located within the PCM storm sewersheds were entered into the MyProperty tool to obtain additional information on the potential for the sites/facilities to generate and discharge PCBs. Records exist for ten (10) of the twenty-six (26) properties. All available recorded environmental conditions and pollutants in the detailed facility report were reviewed for PCB concerns and indicated no evidence of PCB concerns. Refer to **Table 2** below for a summary of results.

No sites or facilities were identified as a potential source of PCBs within the PCM storm sewersheds.

3.4. NPDES Permitted Facilities

NPDES permitted facilities that have the potential to discharge PCBs were identified within the Township. The following NPDES permit types were reviewed:

- NPDES General Permits for Discharge of Stormwater Associated with Industrial Activities (PAG-03)
- NPDES Individual Permits to Discharge Industrial Stormwater
- NPDES Individual Permits to Discharge Industrial Wastewater



Industrial facilities with these types of permits have authorized stormwater (or wastewater) discharges to surface waters; and therefore, are resources to be investigated for PCB concerns.

Information regarding the presence of facilities with above-referenced permit coverages was obtained from the PA Environment Facility Application Compliance Tracking System (eFACTS). There are eight (8) PAG-03 permit records within the Township. Seven (7) of these PAG-03 permit records are either located outside of the PCM storm sewersheds, a transfer permit, and/or a renewal permit. One (1) of these PAG-03 permits is located on an industrial parcel within the PCM storm sewersheds identified in Section 3.1.1. This facility has a history of no violations and is currently inactive, therefore, there are no concerns for PCBs.

Table 2 in **Section 4 Findings and Opinions** provides parcel data, along with a summary of the desktop review results.

Additional research, utilizing another EPA search engine, Envirofacts, reveals that there are no superfund sites, electrical substations, or landfills that could contain polluted transformers within West Norriton Township. Barbadoes Island in the Schuylkill River was historically used as a PECO/Exelon power station but was demolished in 2009 and is not located with any storm sewersheds of the Township's regulated outfalls.

No NPDES-permitted facilities were identified as a potential source of PCBs within the PCM storm sewersheds.

4.0 FIELD RECONNAISSANCE

Two (2) CEG Environmental Scientists, Nicole Martin and Amanda Reitbauer, performed a field reconnaissance on November 14, 2019, within the Township to assess the Township's electrical distribution transformers, visually observe the 26 industrial parcels identified in Section 2.1.1., and identify any other potential sources of PCBs. Refer to the **Photographic Log** provided in *Appendix B*.

4.1. ELECTRICAL TRANSFORMERS

Since PCBs are known to be used in electrical transformers, ArcGIS QuickCapture application was utilized while driving all Township roads within and directly adjacent to the delineated storm sewersheds to map the approximate transformer locations. Given the diversity of electrical transformer types, shapes, and sizes, the field mapping focused on pad mounted residential transformers (refer to **Photo 1** below) and cylindrical pole mounted transformers (refer to **Photo 2** below) which appeared to be most prevalent throughout the Township.

With some inherent degree of GPS inaccuracy, 199 transformers were located. The condition of the electrical transformers were noted. Transformers with stains and leak marks are an indication of potential PCB pollution. None of the transformers located within the storm sewersheds were observed to show signs of leaking or stains at the time of the inspection. Refer to the **PCB Source Inventory Investigation** map provided in *Appendix A* for electrical transformer locations.

No electrical transformers were identified as a potential source of PCBs within the PCM storm sewersheds.



Photo 1



Photo 2

4.2. INDUSTRIAL PARCELS

All 26 industrial parcels were observed from the public roadway to assist in the determination of their potential to contain and/or release PCBs. Observations included the exterior of the facility, company name(s), and any notable characteristics. With the observations, cursory review of the company website and other readily available information was performed to determine the primary product of the facility and whether that product is associated with PCBs or if they do not actually produce anything at that location. These items are listed in Table 2 below.

No industrial parcels were identified as a potential source of PCBs within the PCM storm sewersheds based on the field reconnaissance.

4.3. OTHER POTENTIAL SOURCES OF PCBs

No other potential sources of PCBs were observed during the field reconnaissance.

5.0 FINDINGS AND OPINIONS

Based on the desktop review and field reconnaissance, it was determined that there are **no** known or suspected sources of PCBs within the PCM storm sewersheds.

Table 2 below summarizes the results of the Source Inventory.

Table 2: PCB Source Inventory Results

Map #	Site/Owner Name	Site Address	Parcel Number	EPA MyProperty Database	Product(s) Produced	NPDES Permitted Facility?	Known or Suspected Source?
1	Richard Romano	16 School Lane	630007444008	No records.		No	No
2	Wayne Automation Corporation	605 General Washington Ave	630002589012	Records found	Packing Machinery Manufacture	No	No
3	Donato & Lucy Spaventa	2505 Blvd of the Generals	630002589003	No records.		No	No
4	Western Valley Forge	603 General	630002589309	No records.		Yes	No



Map #	Site/Owner Name	Site Address	Parcel Number	EPA MyProperty Database	Product(s) Produced	NPDES Permitted Facility?	Known or Suspected Source?
	Business Center, LLC	Washington Ave					
5	2500 Boulevard of the Generals Assoc.	2500 Blvd of the Generals	630000462528	No records		No	No
6	Vygon Corp.	2495 General Armistead Ave	630002587401	No records		No	No
7	Western Valley Forge Business Center, LLC	2564 Blvd of the Generals	630008323011	Records found	Computer Automation Technology	No	No
8	Western Valley Forge Business Center, LLC	2495 Blvd of the Generals	630002589507	No records		No	No
9	Forest Business Center, LLC	9 S Forrest Ave	630002473002	Records found	334511/Nautical Instrument Manufacture - Component Manufacture	No	No
10	2580 General Armistead Boulevard Assoc, LLC	2580 General Armistead Ave	630002587851	Records found	51331	No	No
11	2560 Associates, LLC	2560 Blvd of the Generals	630000462402	No records		No	No
12	2250 Norristown Realty Venture, LLC	2550 Blvd of the Generals	630000462501	Records found	Computer Technicians	No	No
13	Lafayette Forrest Realty, LLC	1401 W Lafayette St	630002470005	No records		No	No
14	Pro Penn Properties, LP	2420 Blvd of the Generals	630000462573	No records		No	No
15	Globus Medical, Inc	2550 General Armistead Ave	630002587752	Records found	Windows and Doors	No	No
16	Omnipoint Communications Enterprises, Inc	30 S Montgomery Ave	630005335002	Records found	541921, 511199/Graphic & Decal Manufacture	No	No
17	Edward & Elizabeth Barboni	50 S Montgomery Ave	630005338008	No records		No	No
18	Piazza Family, LP	741 Port Indian Rd	630006286005	No records		No	No



Map #	Site/Owner Name	Site Address	Parcel Number	EPA MyProperty Database	Product(s) Produced	NPDES Permitted Facility?	Known or Suspected Source?
19	Wheb Enterprises, LP	2430 Blvd of the Generals	630000462564	Records found	Medical Equipment Manufacture	No	No
20	Harry & Seda Mirabile	2092 W Main St	630007123005	No records		No	No
21	Gerald Tiedeken	1 S Schuylkill Ave	630007681005	No records		No	No
22	Dea Assoc., LLC	55 N Schuylkill Ave	630007654005	No records		No	No
23	Western Valley Forge Business Center, LLC	2562 Blvd of the Generals	630000462303	Records found	Laboratory Supply & Biotechnology	No	No
24	Liberty 2, LLC	2 Liberty Ave	630004399002	No records		No	No
25	Globus Medican, Inc.	2560 General Armistead Ave	630002587806	Records found	335312/Aerospace Equipment Manufacture - 325411/Medical Technology Manufacture	No	No
26	Sharon G Corp.	2562 Industry Ln	630003625353	No records		No	No

6.0 CONCLUSION

As indicated above, **no** known or suspected active sources of PCBs were identified within the PCM storm sewersheds. In accordance with the next step for PCMs detailed in **Table 1**, a source investigation must be conducted prior to September 30, 2022. This involves sampling discharges at outfalls that contain suspected sources of PCBs within their delineated storm sewershed and having the samples tested by a laboratory for PCBs. Based on the results of this assessment, there are no outfalls recommended for sampling at this time.

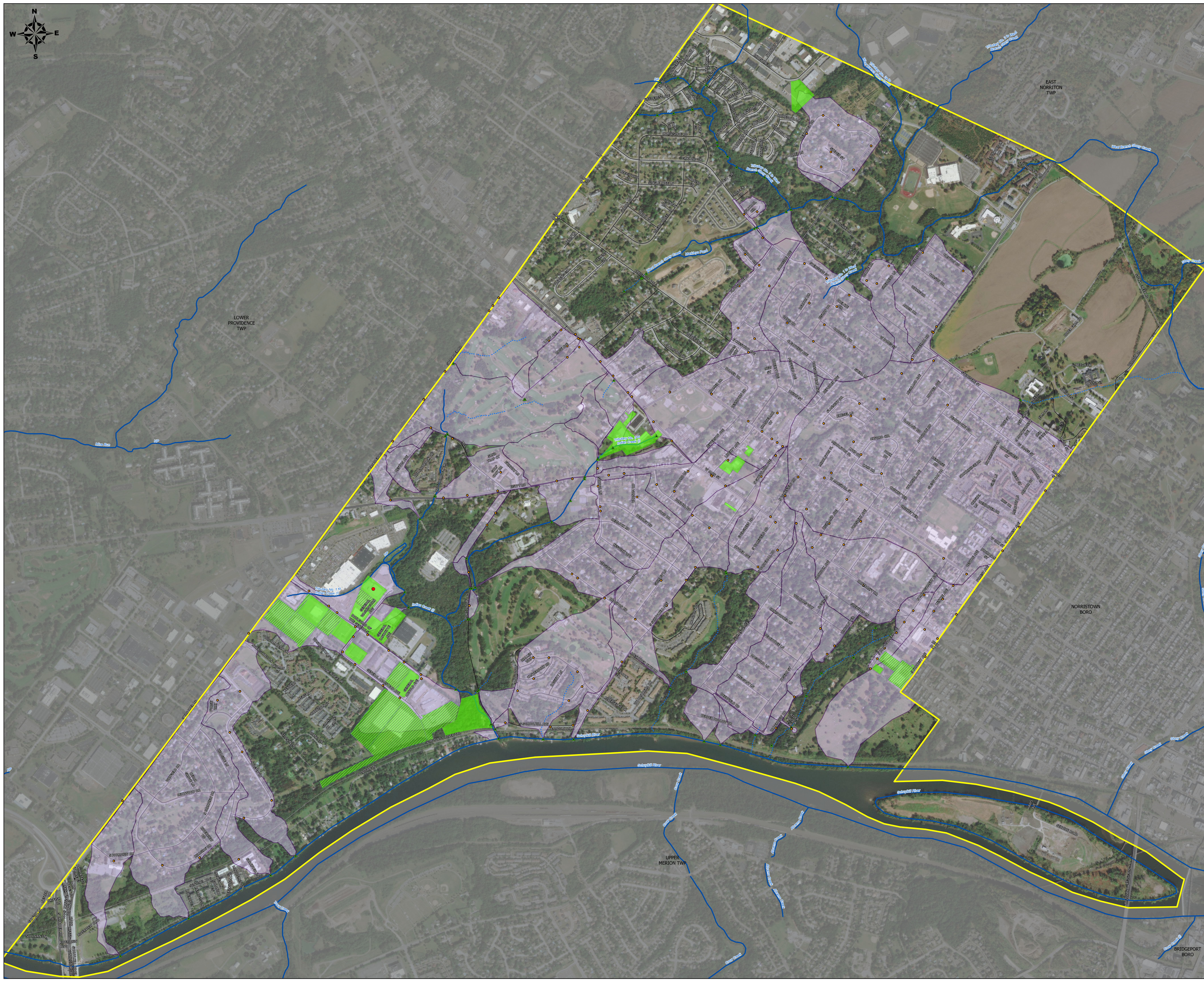


3. REFERENCES

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APPENDIX A

PCB Source Inventory
Investigation



NOTES:
 1. Parcels layer provided Montgomery County Open Data (2020).
 2. The entire municipality is covered by the 2010 Urbanized Area.
 3. This map only reflects stream impairments that require Pollutant Control Measures (i.e. metals and/or acidity due to abandoned mine drainage, pathogens, and priority organic compounds- PCBs). West Norriton Township has outfalls that discharge to stream segments listed as impaired for PCBs. This map does not show all stream impairments within the MSA.
 4. Electrical transformers layer was created by CEG using ArcGIS QuickCapture.
 5. Industrial Land Use layer consists of 26 parcels that are located within the Township's PCH storm sewersheds and were used as the basis of research for the EPA MyProperty Tool. This tool is derived from the EPA MyProperty Tool that are subject to regulation. None of these sites/facilities were identified as a potential source of PCBs.
 6. NPDES Permitted Facilities layer consists of sites that are recorded in PA eFACTS for environmental compliance tracking. No NPDES-permitted facilities were identified as a potential source of PCBs.
 7. Refer to the "Pollutant Control Measures Source Inventory Report" (7/2020) for more information.

DATE: 7/8/2020
 DRAWN BY: AR
 1 Inch = 500 Feet
 0 250 500 1,000 US Feet



WEST NORRITON TOWNSHIP
PCB SOURCE INVENTORY ANALYSIS
 MONTGOMERY COUNTY, PA

- Legend**
- Industrial Parcels
 - MyPropertyDatabase
 - No Records Found
 - Records Found
 - Outfalls
 - NPDES Permitted Facilities
 - Electrical Transformers
 - Sewersheds
 - Streams
 - Located Tributaries
 - Private Roads
 - State Roads
 - Township Roads
 - Township Boundary

DISCLAIMER:
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APPENDIX B

Photographic Log



PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
1

Date:
11/14/19

Direction Photo Taken:

Southwest

Description:

View of industrial site #7 at 2564 Boulevard of the Generals.



Photo No.
2

Date:
11/14/19

Direction Photo Taken:

Southeast

Description:

View of industrial site #23/26 at 2562 Boulevard of the Generals.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
3

Date:
11/14/19

Direction Photo Taken:

Southwest

Description:

View of industrial site #11/25 at 2560 Boulevard of the Generals.



Photo No.
4

Date:
11/14/19

Direction Photo Taken:

Southwest

Description:

View of industrial site #12 at 2550 Boulevard of the Generals.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
5

Date:
11/14/19

Direction Photo Taken:

Southwest

Description:

View of industrial site #5 at 2500 Boulevard of the Generals.



Photo No.
6

Date:
11/14/19

Direction Photo Taken:

Northeast

Description:

View of industrial site #8 at 2495 Boulevard of the Generals.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
7

Date:
11/14/19

Direction Photo Taken:

Northwest

Description:

View of industrial site #3 at 2505 Boulevard of the Generals.



Photo No.
8

Date:
11/14/19

Direction Photo Taken:

Northwest

Description:

View of industrial site #2 at 605 Boulevard of the Generals.





PHOTOGRAPHIC LOG

Client Name: West Norriton Township	Site Location: West Norriton Township, Montgomery County, PA	Project No. WNR-20-002
---	---	----------------------------------

Photo No. 9	Date: 11/14/19
-----------------------	--------------------------

Direction Photo Taken:

Northwest

Description:

View of industrial site #4 at 603 Boulevard of the Generals.



Photo No. 10	Date: 11/14/19
------------------------	--------------------------

Direction Photo Taken:

East

Description:

View of industrial site #6 at 2495 Boulevard of the Generals.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
11

Date:
11/14/19

Direction Photo Taken:

North

Description:

View of industrial site #19 at 2430 Boulevard of the Generals.



Photo No.
12

Date:
11/14/19

Direction Photo Taken:

Northeast

Description:

View of industrial site #14 at 2420 Boulevard of the Generals.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
13

Date:
11/14/19

Direction Photo Taken:

South

Description:

View of industrial site #15 at 2550 General Armistead Avenue.



Photo No.
14

Date:
11/14/19

Direction Photo Taken:

Southwest

Description:

View of industrial site #11 at 2560 General Armistead Avenue.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
15

Date:
11/14/19

Direction Photo Taken:

Northeast

Description:

View of industrial site at General Armistead Avenue.



Photo No.
16

Date:
11/14/19

Direction Photo Taken:

Southeast

Description:

View of industrial site #10 at 2580 General Armistead Avenue.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
17

Date:
11/14/19

Direction Photo Taken:

Southeast

Description:

View of industrial site #16 at 30 South Montgomery Avenue.



Photo No.
18

Date:
11/14/19

Direction Photo Taken:

Southeast

Description:

View of industrial site #17 at 50 South Montgomery Avenue.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
19

Date:
11/14/19

Direction Photo Taken:

Southwest

Description:

View of industrial site #9 at 9 South Forrest Avenue.



Photo No.
20

Date:
11/14/19

Direction Photo Taken:

Southwest

Description:

View of industrial site #22 at 55 North Schuylkill Avenue.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
21

Date:
11/14/19

Direction Photo Taken:

Northeast

Description:

View of industrial site #20 at 2092 West Main Street.



Photo No.
22

Date:
11/14/19

Direction Photo Taken:

Southeast

Description:

View of industrial site #26 at 2562 Industry Lane.





PHOTOGRAPHIC LOG

Client Name:
West Norriton Township

Site Location: West Norriton Township, Montgomery County, PA

Project No.
WNR-20-002

Photo No.
23

Date:
11/14/19

Direction Photo Taken:

Southwest

Description:

View of industrial site #21 at 1 South Schuylkill Avenue.



Photo No.
24

Date:
11/14/19

Direction Photo Taken:

Northeast

Description:

View of industrial site #24 at 2 Liberty Avenue.





Annual MS4 Status Report

APPENDIX H

MS4 Infrastructure Map



NOTES:
 1. Parcels layer provided by the County (2020).
 2. The entire Township is covered by the 2010 Urbanized Area.

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DATE: 07/07/20

DRAWN BY: WH

1 Inch = 550 Feet
 0 250 500 1,000 US Feet



WEST NORRITON TOWNSHIP
MS4 INFRASTRUCTURE MAP
 MONTGOMERY COUNTY, PA



- Legend**
- Outfalls
 - Observation Points
 - PCIM BAPI
 - Township Stormwater Structures:**
 - Culvert
 - Inflow
 - Inlet
 - Manhole
 - Outfall
 - River
 - Unknown
 - Township Stormwater Conveyances:**
 - Pipe
 - Culvert
 - Substation Trench
 - Soak
 - State Stormwater Structures:**
 - Culvert
 - Inlet
 - Manhole
 - Outfall
 - River
 - Unknown
 - State Stormwater Conveyances:**
 - Pipe
 - Culvert
 - Private Stormwater Structures:**
 - Culvert
 - Inlet
 - Manhole
 - Outfall
 - River
 - Unknown
 - Private Stormwater Conveyances:**
 - Pipe
 - Culvert
 - Soak
 - Streams
 - Local Tributaries
 - HUC12 Watersheds
 - Township Road
 - State Road
 - Private Road
 - Parcels
 - Township Boundary
 - Surrounding Municipalities