THE EADS GROUP
ENGINEERING ARCHITECTURE AND DESIGN SERVICES

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
BRADDOCK HILLS BOROUGH, ALLEGHENY COUNTY

ANNUAL REPORT
PAG 136257

For

BRADDOCK HILLS BOROUGH
1300 Brinton Road
Pittsburgh, PA 15221

September 30, 2026

Prepared by:
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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT

FOR THE PERIOD JULY 1, 2025 TO JUNE 30, JUNE 30, 2026

GENERAL INFORMATION			
Permittee Name:	**Braddock Hills Borough**	NPDES Permit No.:	PA**G136257**
Mailing Address:	**1300 Brinton Road**	Effective Date:	**03/16/2018**
City, State, Zip:	**Pittsburgh, PA 15221**	Expiration Date:	
MS4 Contact Person:	**Cheryl Sorrentino**	Renewal Due Date:	
Title:	**Borough Manager**	Municipality:	**Braddock Hills Borough**
Phone:	**412-241-5080**	County:	**Allegheny**
Email:	**braddockhills1300@gmail.com**		

Co-Permittees (if applicable): **N/A**

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

☐ Appendix A ☒ Appendix B ☒ Appendix C ☐ Appendix D ☒ Appendix E ☐ Appendix F

WATER QUALITY INFORMATION

Are there any discharges to waters within the Chesapeake Bay Watershed? ☐ Yes ☒ No

Identify all surface waters that receive stormwater discharges from the permittee's MS4 and provide the requested information (see instructions).

Receiving Water Name	Ch. 93 Class.	Impaired?	Cause(s)	TMDL?	WLA?
UNT to Monongahela River	WWF	Yes	Streambank Modifications/ Destabilization – Siltation	No	No
UNT to Turtle Creek	WWF	Yes	Channelization – Habitat Alterations	No	No

GENERAL MINIMUM CONTROL MEASURE (MCM) INFORMATION

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

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

MCM	Entity Responsible	Contact Name	Phone
#1 Public Education and Outreach on Storm Water Impacts	Borough Manager	Cheryl Sorrentino	412-241-5080
#2 Public Involvement/Participation	Borough Manager	Cheryl Sorrentino	412-241-5080
#3 Illicit Discharge Detection and Elimination (IDD&E)	Engineer	Tyler Mincin	412-754-0801
#4 Construction Site Storm Water Runoff Control	Public Works	James Ponzetti	412-241-5080
#5 Post-Construction Storm Water Management in New Development and Redevelopment	Public Works	James Ponzetti	412-241-5080
#6 Pollution Prevention / Good Housekeeping	Public Works	James Ponzetti	412-241-5080

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: **09/30/2026** Were updates made? ☒ Yes ☐ No

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

   To distribute information to the public via the Borough's website and Borough issued newsletter. The Borough's website includes several links to stormwater-related websites for the public to view at their leisure. The one link directs residents to 'The Homeowner's Guide to Stormwater' which appears to be a favorable resource for Borough residents to reference. The Borough newsletter, which is distributed to all Borough residents, provides short segments on MS4 and stormwater information and updates.

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

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

   The Borough plans to continue providing stormwater management and general MS4 information on the Borough's website. The Borough plans to add links on the website to the Borough's MS4 Permit and Annual Status Report. Additional information / updates to the MS4 program will be included in the Borough's newsletter as applicable.

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: **09/30/2026** 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: **09/30/2026** Were updates made? ☐ Yes ☒ No

3. Do you have a municipal website? ☒ Yes ☐ No (URL: **http://www.braddockhillspa.com/home.html**)

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

The Borough's website includes several links to stormwater-related websites for the public to view at their leisure. The one link directs residents to 'The Homeowner's Guide to Stormwater' which appears to be a favorable resource for Borough residents to reference. The other two links references PADEP's website and 3 Rivers Wet Weather's website with stormwater information.

4. Describe any other method(s) used during the reporting period to provide information on stormwater to the public:
   The Borough newsletter is published and distributed several times each year. The previous newsletter contained an article related to stormwater, which emphasizes rainwater runoff and the impact of chemicals and other pollutants and how they will affect stream quality. It is the Borough's goal to continue to publish MS4 related articles in the Borough's newsletter.

5. Identify specific plans for the publication of stormwater materials for the upcoming year:
   The Borough plans to continue providing stormwater management and general MS4 information on the Borough's website. Additional information / updates to the MS4 program will be distributed in the Borough's newsletter as applicable.

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).

Pamphlets and posters are available to the public in the Borough office. Informative announcements and updates regarding MS4 are made at public meetings as applicable.

MCM #1 Comments:

The Borough received an MS4 inspection report from DEP on 08/17/2026. Issues were identified and the Borough is actively working to address DEP's comments and resolve the issues listed in the inspection 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: **09/30/2026** 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: **MS4 updates are given by the Borough engineer as applicable at monthly council meetings with opportunity for public comment. Cleanup Days with an invitation to residents to participate are also announced at public meetings.**

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

   Street Sweeping - The Borough coordinates with Steel Rivers Council of Governments for street sweeping services. Street sweeping is conducted in the Borough every 2nd and 4th Wednesday from April through October. Information can be found on the Borough's website.

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.

   Cleanup Day - The Borough announces cleanup days at public meetings inviting residents to volunteer and participate in the removal of trash and litter from public spaces and roadways. Information on the cleanup day is posted on the Borough's website.

MCM #2 Comments:

The Borough received an MS4 inspection report from DEP on 08/17/2026. Issues were identified and the Borough is actively working to address DEP's comments and resolve the issues listed in the inspection report.

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: **09/30/2026** 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): **09/30/2026**

3. Total No. of Outfalls in MS4: **9** Total No. of Outfalls Mapped: **9**

4. Total No. of Observation Points: **N/A** Total No. of Observation Points Mapped: **N/A**

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): **09/30/2026**

BMP #4: Conduct dry weather screenings of MS4 outfalls to evaluate the presence of illicit discharges. If any illicit discharges are present, the permittee shall identify the source(s) and take appropriate actions to remove or correct any illicit discharges. The permittee shall also respond to reports received from the public or other agencies of suspected or confirmed illicit discharges associated with the storm sewer system, as well as take enforcement action as necessary. The permittee shall immediately report to DEP illicit discharges that would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property.

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

1. How many unique outfalls (and if applicable observation points) were screened during the reporting period? **100**

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: **67**%

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: **11/13/2018 - (Ord. 3-2018) Braddock Hills Stormwater Management Ordinance**

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
07/09/2026	**Earth disturbance without E&S plan and controls. Sediment runoff clogged Borough storm basin.**	**Property owner (Parcel: 235-H-243)**	**Property owner was notified by building inspector and Borough to halt earth disturbance activities. ACCD was notified by the Borough.**

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? **Newsletters with stormwater information were distributed to residents and are available on the Borough website to all target audiences including employees, businesses, and the general public.**

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 Borough received an MS4 inspection report from DEP on 08/17/2026. Issues were identified and the Borough is actively working to address DEP's comments and resolve the issues listed in the inspection report.

MCM #4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

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

☒ Yes ☐ No

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

BMP #1: The permittee may not issue a building or other permit or final approval to those proposing or conducting earth disturbance activities requiring an NPDES permit unless the party proposing the earth disturbance has valid NPDES Permit coverage (i.e., not expired) under 25 Pa. Code Chapter 102.

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

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

BMP #2: A municipality or county which issues building or other permits shall notify DEP or the applicable CCD within 5 days of the receipt of an application for a permit involving an earth disturbance activity consisting of one acre or more, in accordance with 25 Pa. Code § 102.42.

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

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

BMP #3: Enact, implement and enforce an ordinance or SOP to require the implementation and maintenance of E&S control BMPs, including sanctions for non-compliance, as applicable.

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

   If Yes, indicate the date of the ordinance or SOP: **11/13/2018 - (Ord. 3-2018) Braddock Hills Stormwater Management Ordinance**

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:

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: **11/13/2018 - (Ord. 3-2018) Braddock Hills Stormwater Management Ordinance**

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: **11/13/2018 - (Ord. 3-2018) Braddock Hills Stormwater Management Ordinance**

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

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

BMP #3: Ensure adequate O&M of all post-construction stormwater management BMPs that have been installed at development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

1. Do you have an inventory of all PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003? ☐ Yes ☒ No

   If Yes to #1, complete Table 1 on the next page.

2. Has proper O&M occurred during the reporting period for all PCSM BMPs? ☐ Yes ☒ No

3. If No to #2, explain what action(s) the permittee has taken or plans to take to ensure proper O&M.

   Municipal inspections are the only means of verifying that stormwater BMPs are properly operated and maintained.

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				° ' "	° ' "			
2				° ' "	° ' "			
3				° ' "	° ' "			
4				° ' "	° ' "			
5				° ' "	° ' "			
6				° ' "	° ' "			
7				° ' "	° ' "			
8				° ' "	° ' "			
9				° ' "	° ' "			
10				° ' "	° ' "			
11				° ' "	° ' "			
12				° ' "	° ' "			
13				° ' "	° ' "			
14				° ' "	° ' "			
15				° ' "	° ' "			
16				° ' "	° ' "			

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:

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 permitee that have the potential to generate stormwater runoff into the MS4? ☒ Yes ☐ No

2. When was the inventory last reviewed? **09/30/2026**

3. When was it last updated? **09/30/2026**

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: **09/30/2026**

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: **09/30/2026** Date of latest training:

3. Training topics covered:

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

5. Names of training attendees:

MCM #6 Comments:

A section in the attached PEOP plan identifies educational outreach to Borough employees. Borough employees are encouraged to review educational information provided at the Borough office and to attend the MS4 workshops held in Allegheny County. The Borough received an MS4 inspection report from DEP on 08/17/2026. Issues were identified and the Borough is actively working to address DEP's comments and resolve the issues listed in the inspection report.

POLLUTANT CONTROL MEASURES (PCMs)

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

Task	Date Completed	Attached	Anticipated Completion Date
Storm Sewershed Map(s)	**09/28/2020**	☒	**Updated 09/30/2026**
Source Inventory		☐	
Investigation of Suspected Sources	**09/24/2026**	☒	**Continued Investigations**
Ordinance/SOP for Controlling Animal Wastes	**07/09/1992**	☒	

PCM Comments:

There are no known sources of pathogens within the Borough other than possibly animal waste. There are also no known sources of priority organic compounds within the Borough other than possibly pesticides and herbicides. All known sources of pathogens and priority organic compounds are subject to Braddock Hills Stormwater Management Ordinance and Braddock Hills Solid Waste Ordinance. The Borough will continue efforts to investigate and identify suspected sources of illicit discharges.

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
☐ Chesapeake Bay PRP (Appendix D)			Chesapeake Bay
☒ Impaired Waters PRP (Appendix E)	**11/29/2018**	**12/10/2018**	**Monongahela River & Turtle Creek**
☐ TMDL Plan (Appendix F)			
☐ Combined Chesapeake Bay / Impaired Waters PRP			Chesapeake Bay,
☐ 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)
☐ Chesapeake Bay PRP (Appendix D)			
☒ Impaired Waters PRP (Appendix E)	**13,226.70**		
☐ TMDL Plan (Appendix F)			
☐ Combined Chesapeake Bay / Impaired Waters PRP			
☐ Combined PRP / TMDL Plan			

3. Date Final Report Demonstrating Achievement of Pollutant Load Reductions Due: **12/09/2023**

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.

A Watershed Restoration and Protection Program Grant application was submitted May 27th, 2021 and a CDBG grant application was submitted October 27th, 2022 through Steel Rivers Council of Governments. The Borough was not awarded funding by either grant. The Borough submitted a Watershed Restoration and Protection Program Grant application again on May 29th, 2026 and is awaiting a decision. The Borough intends to complete the Streambank Restoration Project with a combination of grant funding and local money by the end of 2027 and is in the process of working through the design and construction specifications. Based on discussions with Allegheny County Conservation District, this project will require a joint permit involving the U.S. Army Corps of Engineers which could take significant time to receive the permit. A pre-application meeting was held with the DEP on March 19th, 2025 to discuss the project. A point raised by the DEP was addressing possible sources of siltation upstream of the project. The Borough is involved in a street sweeping program through Steel Rivers Council of Governments and has a stormwater operation and maintenance plan in place to inspect, maintain, and address any issues in the Borough's MS4 system. The Borough plans to continue its efforts to improve the water quality of its impaired streams as detailed in its Pollutant Reduction Plan and possibly pursue additional or alternative best management practices to meet or surpass its pollutant reduction goal.

6. Anticipated activities for next reporting period.

Complete the Stream Bank Restoration Project in 2027. Continue the Street Sweeping Program and following the Borough Stormwater Operation and Maintenance Plan. Look into additional or alternative best management practices for sedimentation load reduction.

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)
						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	

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 Inspect -ion	Satis-factory?
						° ' "	° ' "				☐
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CERTIFICATION

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

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

Cheryl Sorrentino, Borough Manager	
Name of Responsible Official	Signature
412-241-5080	09/30/2026
Telephone No.	Date

EXHIBIT 1 - MCM #1

Public Education and Outreach Plan

BRADDOCK HILLS BOROUGH

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
SEPTEMBER 30, 2026

MINIMUM CONTROL MEASURE #1
PUBLIC EDUCATION AND OUTREACH PLAN (PEOP)

TARGET AUDIENCES

Municipal Employees, Residents, Schools, Businesses, and Developers

EDUCATION AND OUTREACH PLANS AND GOALS

Municipal Employees - Plan:

The Borough of Braddock Hills currently has four (4) municipal employees; there are three (3) Public Works employees, and one (1) Borough Manager. The Borough Manager and Public Works Director maintain responsibility for stormwater related issues.

At this time, the Borough does not issue regular publications to municipal employees related to stormwater. However, educational information on stormwater, such as the "When It Rains, It Drains" pamphlet, is available in the Borough office.

Applicable Borough employees are encouraged by Council to attend MS4 workshops hosted by organizations of Allegheny County.

The Borough does not hold regular staff meetings for all employees. No stormwater-related groups reside within the Borough limits and to date no Borough employees are active in such groups.

Municipal Employees - Goal:

PEOP for Municipal Employees: Educational information is available at the Borough office, as well on the Borough's website, for all employees to review. Borough representatives are encouraged to attend MS4 Workshops or related events when available.

Residents - Plan:

Based upon the 2020 census, there are 1,730 people and 923 households located in the Borough. The local weekly newspaper is the Pittsburgh Post-Gazette. The Borough issues a newsletter several times throughout the year to all residents.

Residents - Goal:

PEOP for Residents: Educational information is available at the Borough office, as well as on the Borough's website, for residents to obtain and review. A Borough issued newsletter is distributed to all Borough residents; the Borough attempts to include an article on stormwater/MS4-related information and updates in each newsletter.

Schools - Plan:

There are two (2) schools located within the Borough: the Propel BRADDOCK HILLS Elementary School, which opened in 2010 and serves grades K-8; and the Propel BRADDOCK HILLS High School, which also opened in 2010 and serves grades 9-12. The Propel schools are located in the same building.

The Borough does not currently participate in involvement with the Propel schools. It is unknown as to how often the students at the Propel Schools gather for assemblies and/or guest speaker related events.

Schools - Goal:

PEOP for Schools: Educational information is available at the Borough office for Propel school's representatives to obtain for their use. The Propel schools are encouraged to view additional stormwater information via the links provided on the Borough's website.

Businesses - Plan:

There are thirty-three (33) businesses located in the Borough. The Borough does not currently participate in actively distributing publications to these businesses regarding stormwater. No groups or associations that the businesses could belong to are located in the Borough.

Businesses - Goal:

PEOP for Businesses: Educational information is available at the Borough office for business representatives to obtain for their use. These individuals are encouraged to view additional stormwater information via the links provided on the Borough's website.

Developers - Plan:

Developers looking to develop new or re-develop existing property must obtain the appropriate permits from the Borough. If applicable, the developer must abide by the proper rules and regulations set forth by the County and State in regard to stormwater. The Borough contracts a Building Inspector and Code Enforcement Agency to implement building regulations in the Borough.

Developers - Goal:

PEOP for Developers: Developers looking to develop within the Borough must follow the regulations set forth by the Building Inspector. The Building Inspector is encouraged to provide information to developers regarding stormwater regulations. Stormwater management permits are typically regulated by Allegheny County Conservation District.

All Groups - Goal:

PEOP for All Groups: Public announcement at borough council meeting January and July of each year. Public Announcement will be "The Borough of Braddock Hills is an MS4 Community. We recognize that the local rivers and streams are an important part of our community's fabric. Borough Council wants to remind everyone that our storm sewers flow directly to Turtle Creek and the Monongahela River. Please be aware that items such as oil, chemicals, pet waste, litter, and trash should all be disposed of properly. These items should not be placed into the storm sewers. Help us keep our rivers and streams clean. For more information, please visit the Borough's web site at www.braddockhillspa.com."

BRADDOCK HILLS BOROUGH

ANNUAL REVIEW - MCM #1 CHECKLIST
PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

For the period: July 1, 2025 to June 30, 2026

TARGET AUDIENCES
MUNICPAL EMPOLYEES, RESIDENTS, SCHOOLS, BUSINESSES, & DEVELOPERS

BMP #1: Develop, implement and maintain a written Public Education and Outreach Program (PEOP)

Date of annual review of PEOP: 09/30/2026 Were updates made? Yes

If yes, Identify any changes to the PEOP.
- Completed revisions and updates to PEOP Plan.
- Identified target audiences and established goals for audiences.
- _____

Did the PEOP achieve its goal(s)? (Yes) No

Identify any goals not achieved.
- _____
- _____
- _____

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

Date of annual review of target audience: 09/30/2026 Were updates made? No
If yes, Identify any changes not achieved?
- _____
- _____

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

Date of annual review of educational item: 09/30/2026 Were updates made? No

Does the municipal website contain MS4-related material? Yes

What specific plans do you have for publication of stormwater materials for the upcoming year?
- Create links on the borough's website to the borough's MS4 permit and annual status report.
- _____

Reviewed By:
Cheryl Sorrentino – Braddock Hills Borough

Tyler Mincin – The EADS Group, Inc.

Checklist Completed By: Tyler Mincin – The EADS Group, Inc. Date: 09/30/2026

01-2026

Kurt Henkel, Mayor

COUNCIL

Cassandra Schaffer, President

Thomas Evans, Vice President

Marguerite Bolton

Jacqueline Cunic

Angela Hood

Pamela Lang

Ed Mohan

PHONE NUMBERS

Police

Emergency 9-1-1

Non-emergency
412-271-6666

Borough Offices

412-241-5080

Cheryl Sorrentino, Manager Ext. 100

Betty Ann Horvath, Tax Collector Ext. 101

Terry Ryan
Public Works Ext. 102

BOROUGH OF BRADDOCK HILLS

NEWSLETTER



We are celebrating 80 years and need your help!

Our planning committee is working on our Borough's 80th Birthday Celebration & have big things planned. However, we need help from our residents and business owners. Please contact our councilwoman Penny Lang, if you are able to help in any of these capacities:

- Pre-planning/organizing event
- Historical contribution (stories, artifacts, pictures, etc.)
- Set up, cleaning and/or working actual events

You can contact Penny at plang122@gmail.com and submit your interests.

Let's get ready for Spring...



As the weather gets warmer, we want to share some information that may be helpful.

- Building permits are needed for home improvement projects. If you are not sure if your project applies, you can call the Borough office for further information.
- Make sure your trash is in a secured container and bring your containers back onto your property and away from curbside
- Grass can not be more than six (6) inches high and vegetation must be kept maintained so that it does encroach on neighboring properties, roadways or walkways.
- Street sweeping will begin in April, so please adhere to the parking signs posted on your street to avoid a parking citation.
- If your spring cleaning includes items that are considered Household Hazardous Waste (t.v.'s, electronics, batteries, fluids, etc.), you can contact Waste Management at 1-800-449-7587 to schedule a pickup.
- Do not feed wildlife as it is an Ordinance violation and could attract unwanted wildlife/rodents.

braddockhillspa.com

- Meeting dates
- Meeting agendas
- Events
- Borough directory
- Forms
- Tax information
- Trash service
- Hard-to-recycle items
- Animal control
- Wildlife control
- Borough updates

2026 COUNCIL MEETING SCHEDULE

January 13
February 10
March 10
April 14
May 12
June 16
July 14
August 11
September 8
October 13
November 10
December 8

All monthly meetings will be held on the second Tuesday of each month at 7:00 p.m. at the Borough Administration Building, 1300 Brinton Road.

Any person requiring special accommodations should notify Borough Manager as early as possible.

MS4 STORMWATER MANAGEMENT



Ideas and tips for the upcoming spring season to help manage stormwater runoff and provide cleaner drinking water for the environment:

- Create a rain garden and/or rain barrel to prevent water runoff
- Do NOT dump anything into a storm drain (i.e. chemicals, animal feces, etc.)
- Wash your vehicles at a professional carwash or in an area that does not enter sanitary sewers (soap and dirty water that enter these sewers are untreated that eventually end up in rivers, streams, etc.)
- Minimize or cease the use of fertilizer, herbicides and pesticides for lawn care
- Do NOT dump grass clippings into any nearby streams or creeks
- Properly dispose of fluids that may be Household Hazardous Waste (HHW) products by calling 1-800-449–7587 to schedule a pick (there is no extra cost for this service)



SATURDAY, APRIL 18

10:00 a.m.

Meet at 2794 Columbia Avenue

A message from your Tax Collector:

BOROUGH REAL ESTATE TAX FOR 2026 has been mailed. The 2026 millage has not gone up.; it is the same as 2025. If you do not receive a tax statement by March 15, please let me know (412-241-5080 Ext. 2). If you have a mortgage, the bill was sent to the company. Also, I would like you to provide your contact information (phone, email, etc.) when returning your tax and payment. This helps me to contact you if there is a problem with your payment (no signature, incorrect amount, etc.). I do not want anyone missing the discount amount because I could not reach you.

WOODLAND HILLS SCHOOL DISTRICT TAXES FOR 2025: The third installment is due on March 31, 2026. If no payment has been made on your school taxes, you must send it to Jordan Tax Service, 102 Rahway Road, McMurray, PA 15317-3349.

TRASH BILLINGS will be mailed out after March 1. If you do not receive a physical bill, check your email (including spam folder). If you have not received a bill from Jordan Tax Service via mail or email by the end of March please contact them directly at 724-731-2300.

ANIMAL/WILDLIFE CONTROL FOR BOROUGH RESIDENTS

Animal control/humane officer for all domestic pet matters
Gaydos-Behanna Kennel 412-720-9477

Wildlife control for trapping and removing wildlife from properties
Zach Cain 412-304-2099

BOROUGH OF BRADDOCK HILLS

NEWSLETTER

02-2026

Visit our website at

braddockhillspa.com

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PHONE NUMBERS

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Non-emergency
412-271-6666

Chief David Zacchia

Borough Offices

412-241-5080

Cheryl Sorrentino,
Manager Ext. 100

Betty Ann Horvath,
Tax Collector Ext. 101

James Ponzetti
Public Works Ext. 102

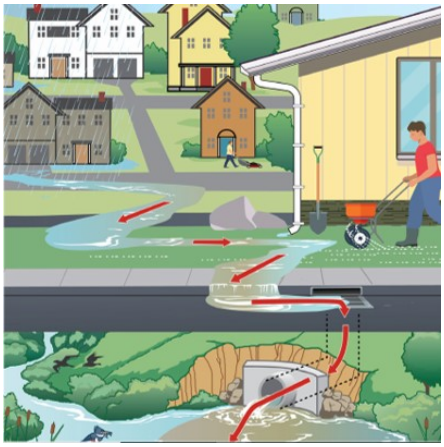
BOROUGH MEETINGS

SWISSVALE-BRADDOCK HILLS REGIONAL POLICE DEPT.	2nd Monday of each month	6:00 p.m.
COUNCIL MEETINGS	2nd Tuesday of each month	7:00 p.m.
SAFE STREETS*	1st Monday of each month	7:00 p.m.

*Safe Streets meets at the Community / Sr. Center (2794 Columbia Avenue) and plan to hold some future meetings at Brinton Towers. Braddock Hills Safe Streets is a community organization dedicated to improving our road conditions for walking, biking, bus riding, wheelchair and walker use, and driving for the benefit of all residents. Contact Council Member Angie Hood via email at bhcouncilhood@gmail.com with any questions.

MS4 INFORMATION

What Is a Watershed? Every lawn lies in a land area that drains stormwater into a stream, river, lake, or bay. This land area is called a watershed. When lawns develop bare spots, are overfertilized, suffer from soil compaction, or produce runoff after it rains, they are more likely to release stormwater pollution into local waterways. On the other hand, when lawns are managed in ways that increase turf density, optimize fertilizer application, and limit runoff, they can reduce stormwater flows and improve water quality in nearby waterbodies and even groundwater.



Tips from Penn State Extension for best management practices:

- Rain barrels for watering vegetation
- Fertilize your lawn late spring and late summer
- Plant various vegetation to reduce lawn areas
- Do not overwater your grass to avoid runoff
- Lawn aeration helps irrigation and reduces runoff

Kurt Henkel, Mayor

COUNCIL

Cassandra Schaffer, President

Thomas Evans, Vice President

Marguerite Bolton

Jacqueline Cunic

Angela Hood

Pamela Lang

Ed Mohan

2026 COUNCIL MEETING SCHEDULE

January 13
February 10
March 10
April 14
May 12
June 16
July 14
August 11
September 8
October 13
November 10
December 8

All monthly meetings will be held on the second Tuesday of each month at 7:00 p.m. at the Borough Administration Building, 1300 Brinton Road.

Any person requiring special accommodations should notify Borough Manager as early as possible.

BOROUGH UPDATES

- At the July meeting of the Swissvale-Braddock Hills Regional Police Department, David Zacchia was sworn in as the new police chief. Chief Zacchia has been working as interim chief for several months and has impressed everyone with his work ethic, experience and initiatives for the newly regionalized department. Please welcome Chief Zacchia along with the newly hired officers that were sworn in at the same meeting.
- Starting August 1, Braddock Hills will have a new building inspector and code enforcement. North Braddock Borough will be providing the following services: Occupancy Inspections, Building Permits, and Code Enforcement. Until everything is in place, you can contact the Borough Manager at 412-241-5080 or braddockhills1300@gmail.com for assistance.
- A letter of interest was submitted to the Pittsburgh Diocese for the purchase of Sacred Heart Church located at 1600 Brinton Road. Council is looking into the property for the future location of the Borough's administration and community center. Council and staff are working with County and State elected officials to secure grants for the purchase and renovations.
- James Ponzetti has been appointed interim Public Works Foreman. Upon a successful probation period, his appointment will be permanent.

A message from your Tax Collector:

WOODLAND HILLS SCHOOL DISTRICT TAXES: The 2026 tax statements have been mailed out July 1. If you have not received your statement, please contact my office at 412-241-5080 Ext. 2

BRADDOCK HILLS REAL ESTATE TAXES: All payments for 2026 Borough taxes are now at the penalty rate listed on your statement. Any questions, please call 412-241-5080 Ext. 2

GARBAGE FEES: The Borough uses Jordan Tax Service to collect garbage fees. If you have any questions regarding your bill please call them at 412-835-5243.

DELINQUENT TAXES OR GARBAGE: Jordan Tax Service provided collection services for all delinquent taxes and garbage fees. If you have a question regarding your delinquent bills, please call them at 412-835-5243.

Tax Collector office hours are Wednesdays from 12:00 noon to 4:00 p.m.

Betty Ann Horvath, Tax Collector

ANIMAL/WILDLIFE CONTROL FOR BOROUGH RESIDENTS

Animal control/humane officer for all domestic pet matters
Gaydos-Behanna Kennel 412-720-9477

Wildlife control for trapping and removing wildlife from properties
Zach Cain 412-304-2099

What is Storm Water?

Storm water is water from precipitation that flows across the ground and pavement when it rains or when snow and ice melt. The water seeps into the ground or drains into what we call storm sewers. These are the drains you see at street corners or at low points on the sides of streets. Collectively, the draining water is called storm water runoff.

Why is Storm Water "Good Rain Gone Wrong?"

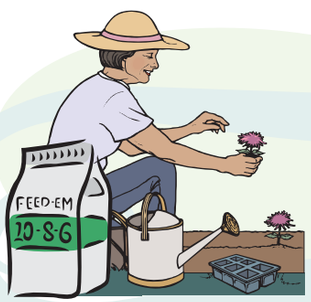
Storm water becomes a problem when it picks up debris, chemicals, dirt, and other pollutants as it flows or when it causes flooding and erosion of stream banks. Storm water travels through a system of pipes and roadside ditches that make up storm sewer systems. It eventually flows directly to a lake, river, stream, wetland, or coastal water. All of the pollutants storm water carries along the way empty into our waters, too, because storm water does not get treated!



Pet wastes left on the ground get carried away by storm water, contributing harmful bacteria, parasites and viruses to our water.



Vehicles drip fluids (oil, grease, gasoline, antifreeze, brake fluids, etc.) onto paved areas where storm water runoff carries them through our storm drains and into our water.



Chemicals used to grow and maintain beautiful lawns and gardens, if not used properly, can run off into the storm drains when it rains or when we water our lawns and gardens.

Waste from chemicals and materials used in construction can wash into the storm sewer system when it rains. Soil that erodes from construction sites causes environmental degradation, including harming fish and shellfish populations that are important for recreation and our economy.



Where To Go To Continue the Information Flow

Your community is preventing storm water pollution through a storm water management program. This program addresses storm water pollution from construction, new development, illegal dumping to the storm sewer system, and pollution prevention and good housekeeping practices in municipal operations. It will also continue to educate the community and get everyone involved in making sure the only thing that storm water contributes to our water is . . . water! Contact your community's storm water management program coordinator or the Pennsylvania Department of Environmental Protection for more information about storm water management.

Pennsylvania Department of Environmental Protection
www.dep.state.pa.us

Answers to Test Your Storm Sewer System Savvy:

1. Ditch – Part of the storm sewer system. Most people think that the system is just a series of underground pipes. It can also include ditches used to convey storm water from the land to a receiving lake, river, or stream.

2. Fire Hydrant – Not part of the storm sewer system. Water sprayed from fire hydrants is not storm water, but is allowed by law to enter the storm sewer system.

3. Curb with Storm Drain Inlet – Part of the storm sewer system. Many people do not realize that this is an opening leading to the storm sewer system. Anything going into this inlet (e.g., trash, leaves, improperly disposed of hazardous materials) travel directly to a receiving lake, river, or stream without being treated first. Many communities stencil storm drains with "Do Not Dump" messages to let people know.

4. Storm Sewer Outfall – Part of the storm sewer system. An outfall is where storm water drains from the storm sewer system into a receiving lake, stream, or river. If there is a flow from an outfall when it isn't raining, there could be a problem with the system or someone has used a storm drain for illegally disposing of materials.

5. Toilet – Not part of the storm sewer system. Wastewater from sinks and toilets in houses and businesses travel through a sewer system constructed to carry sanitary wastes. In some instances, older communities may have a combined sewer system designed to carry both storm water and sanitary waste.

6. Septic System – Not part of the storm sewer system. Homeowners use septic tanks to manage sanitary wastes on-site. Improperly maintained septic systems can leak and contribute pollutants to the storm sewer system, as well as directly to lakes, rivers, and streams.

7. Roads and Other Paved Areas – Not part of the storm sewer system. Roads and other hardened surfaces such as parking lots and sidewalks can accumulate pollutants (e.g., oil, grease, dirt, leaves, trash, pet wastes) that storm water eventually washes into the storm sewer system.

8. Storm Drain Inlet – Part of the storm sewer system. This is another example of what a storm drain may look like. Like the storm drain inlet shown in picture #3, anything that enters this drain will go directly to streams, rivers, and lakes without being treated first. It is important to recognize this as a storm drain to prevent it from being used as a trash can.

When It Rains, It Drains

Understanding Storm Water and How It can Affect Your Money, Safety, Health, and the Environment



What Happens When It Rains?



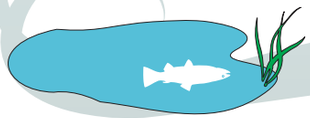
Rain is an important part of nature's water cycle, but there are times it can do more damage than good. Problems related to storm water runoff can include:



Flooding caused by too much storm water flowing over hardened surfaces such as roads and parking lots, instead of soaking into the ground.

Increases in spending on maintaining storm drains and the storm sewer system that become clogged with excessive amounts of dirt and debris.





Decreases in sportfish populations because storm water carries sediment and pollutants that degrade important fish habitat.

More expensive treatment technologies to remove harmful pollutants carried by storm water into our drinking water supplies.





Closed beaches due to high levels of bacteria carried by storm water that make swimming unsafe.

We can help rain restore its good reputation while protecting our health and environment while saving money for ourselves and our community. Keep reading to find out how. . .

Test Your Storm Sewer System Savvy!

What does the storm sewer system look like in your community? See if you can identify which pictures are part of the storm sewer system. (Answers are on the back.)

















Restoring Rain's Reputation: What Everyone Can Do To Help

Rain by nature is important for replenishing drinking water supplies, recreation, and healthy wildlife habitats. It only becomes a problem when pollutants from our activities like car maintenance, lawn care, and dog walking are left on the ground for rain to wash away. Here are some of the most important ways to prevent storm water pollution:

- Properly dispose of hazardous substances such as used oil, cleaning supplies and paint—never pour them down any part of the storm sewer system and report anyone who does.
- Use pesticides, fertilizers, and herbicides properly and efficiently to prevent excess runoff.
- Look for signs of soil and other pollutants, such as debris and chemicals, leaving construction sites in storm water runoff or tracked into roads by construction vehicles. Report poorly managed construction sites that could impact storm water runoff to your community. (See the back of this brochure for contact information.)
- Install innovative storm water practices on residential property, such as rain barrels or rain gardens, that capture storm water and keep it on site instead of letting it drain away into the storm sewer system.
- Report any discharges from storm water outfalls during times of dry weather—a sign that there could be a problem with the storm sewer system.
- Pick up after pets and dispose of their waste properly. No matter where pets make a mess—in a backyard or at the park—storm water runoff can carry pet waste from the land to the storm sewer system to a stream.
- Store materials that could pollute storm water indoors and use containers for outdoor storage that do not rust or leak to eliminate exposure of materials to storm water.

EXHIBIT 2 - MCM #2

Public Involvement and Participation Plan

BRADDOCK HILLS BOROUGH

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
SEPTEMBER 30, 2026

MINIMUM CONTROL MEASURE #2
PUBLIC INVOLVEMENT AND PARTICIPATION PLAN (PIPP)

TARGET AUDIENCES

Municipal Employees, Residents, Schools, Businesses, and Developers

INVOLVEMENT AND PARTICIPATION PLANS AND GOALS

Plan:

Offer public participation events

Goals/Events:

- **Target Audience: Residents** – Cleanup Days – The Borough announces cleanup days at public meetings inviting residents to volunteer and participate in the removal of trash and litter from public spaces and roadways. Information on the cleanup day is posted on the Borough's website. Residents can participate by meeting at the specified time and location for the cleanup day. **Goal: Reduce waste from entering the Borough's MS4 System.**

- **Target Audience: All Groups** – Trash and Hazardous Waste Service – Information on proper waste disposal for collection by Waste Management is posted on the Borough's website. Instructions on the handling and containment of hazardous waste for collection are also posted on the website. **Goal: Reduce the improper disposal of garbage and hazardous waste.**

- **Target Audience: All Groups** – Recycling – The Borough's website lists local recycling centers and their contact information for disposal of recyclables. **Goal: Reduce waste and improper disposal of waste.**

- **Target Audience: All Groups** – Public Meeting – The Borough holds a public council meeting every month where the public is invited to comment and ask questions. There is an agenda setting meeting that takes place right before the council meeting that the public can sit in and listen to council discussions of agenda items. The Borough engineer will provide updates regarding MS4 as appropriate during the agenda setting meeting and during the council meeting as part of the engineer's report to educate and solicit participation and feedback from all target audiences. **Goal: Educate all target audiences on MS4 topics and increase public participation.**

- **Target Audience: Residents and Businesses** – Street Sweeping – The Borough is part of the Steel Rivers Council of Governments' Street Sweeping Program. Street sweeping takes place within the Borough every 2nd and 4th Wednesday from April through October. Information on street sweeping is posted on the Borough's website. **Goal: Reduce debris and other waste from entering the Borough's MS4 System.**

BRADDOCK HILLS BOROUGH

ANNUAL REVIEW - MCM #2 CHECKLIST
PUBLIC INVOLVEMENT/PARTICIPATION

Report Year: July 1, 2025 to June 30, 2026

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

Date of annual review of PIPP: 09/30/2026 Were updates made? Yes

Identify specific plans and goals for PIPP for the upcoming year?

- Continue efforts to involve public participation.
- Public announcement and support of a organized cleanup day.

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

Not applicable

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

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 there public meeting or event held during the reporting period?

X Yes _____ No If Yes, Date of Meeting or Event: MS4 updates are given by the Borough engineer as applicable at monthly council meetings with opportunity for public comment. Cleanup Days with an invitation to residents to participate are also announced at public meetings.

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.

- Steel Rivers Council of Governments provides a street sweeping service to the Borough. Street sweeping takes place within the Borough every 2nd and 4th Wednesday from April through October.

Report activities in which members of the public assisted or participated in the meetings and in the implementation of the SWMP, including education activities or efforts such as cleanups, monitoring, storm drain stenciling, or others.

- The Borough announces cleanup days at public meetings inviting residents to volunteer and participate in the removal of trash and litter from public spaces and roadways. Information on the cleanup day is posted on the Borough's website.

Date of review: 09/30/2026

Reviewed By:
Cheryl Sorrentino – Braddock Hills Borough

Tyler Mincin – The EADS Group, Inc.

Checklist Completed By: Tyler Mincin – The EADS Group, Inc. Date: 09/30/2026

EXHIBIT 3 - MCM #3

Illicit Discharge Detection and Elimination Plan

BRADDOCK HILLS BOROUGH

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
SEPTEMBER 30, 2026

MINIMUM CONTROL MEASURE #3
ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN (IDD&E)

Dry weather field screening of outfalls will be conducted annually. It is recommended that the Borough utilize the DEP issued inspection form for all screenings. Completed forms are to be kept on file at the Borough municipal building.

Braddock Hills Borough has a total of nine (9) outfalls. All outfalls shall be screened during dry weather at least once each current permit cycle (5 year period). For areas where past problems have been reported or known sources of dry weather flows occur on a continual basis, outfalls shall be screened annually. Borough personnel will keep record of screenings conducted each year for submission to PA DEP with the Annual MS4 Status Report.

Dry weather screening and sampling shall proceed only when no precipitation, snowmelt, drainage, or other events producing a stormwater discharge have occurred in the previous 48-hour period. Borough personnel shall follow instructions of the attached flowchart (**Figure 1**) for conducting dry weather screenings. When an illicit discharge is observed, Borough personnel shall locate, identify and document the discharge's source. If no dry weather flow is observed, the Borough shall record the condition of the outfall and other relevant information. If no flow is observed, but evidence of dry weather flow exists, the Borough shall revisit the outfall during dry weather within 30 days of the initial observation, if practicable, to perform a second dry weather screening and attempt to determine the source of the discharge.

If an illicit discharge is suspected and an investigation does not determine the cause/source of the discharge, sampling and laboratory analysis is recommended. A sample may be collected using a clean plastic sealable container. The sample(s) may be sent to the following DEP-accredited laboratory for analysis or DEP-accredited facility that provides water sampling analysis at the discretion of the Borough:

Pace Analytical Services
220 William Pitt Way
Pittsburgh, PA 15238
(412) 826-5245

Pace Analytical Services – Greensburg Office
1638 Roseytown Road; Suite 2, 3 and 4
Greensburg, PA 15601
(724) 850-5600

Where samples are taken, they shall be analyzed for the following parameters:

- Ammonia
- Chlorine
- Conductivity
- Salinity
- E. coli
- Surfactants (e.g. MBAS)
- Temperature
- TMDL indicator pollutant, where applicable.

The cause of illicit discharge would be identified through the results of the laboratory testing. The owner(s) of the illicit discharge would be identified then notified in writing by the Borough that they are in violation of the Borough's stormwater management ordinance. The Borough would include in the notification that the owner would be granted the opportunity to remediate the illicit discharge connection. Timeframe to eliminate the illicit discharge is at the sole discretion of the Borough and will be on a case by case basis, dependent on the severity of the discharge.

Braddock Hills Borough is serviced by both a public water supply and public sanitary sewers. No known on lot septic sewer systems are still in use within the Borough; the potential for pollution caused by on lot systems is minimal.

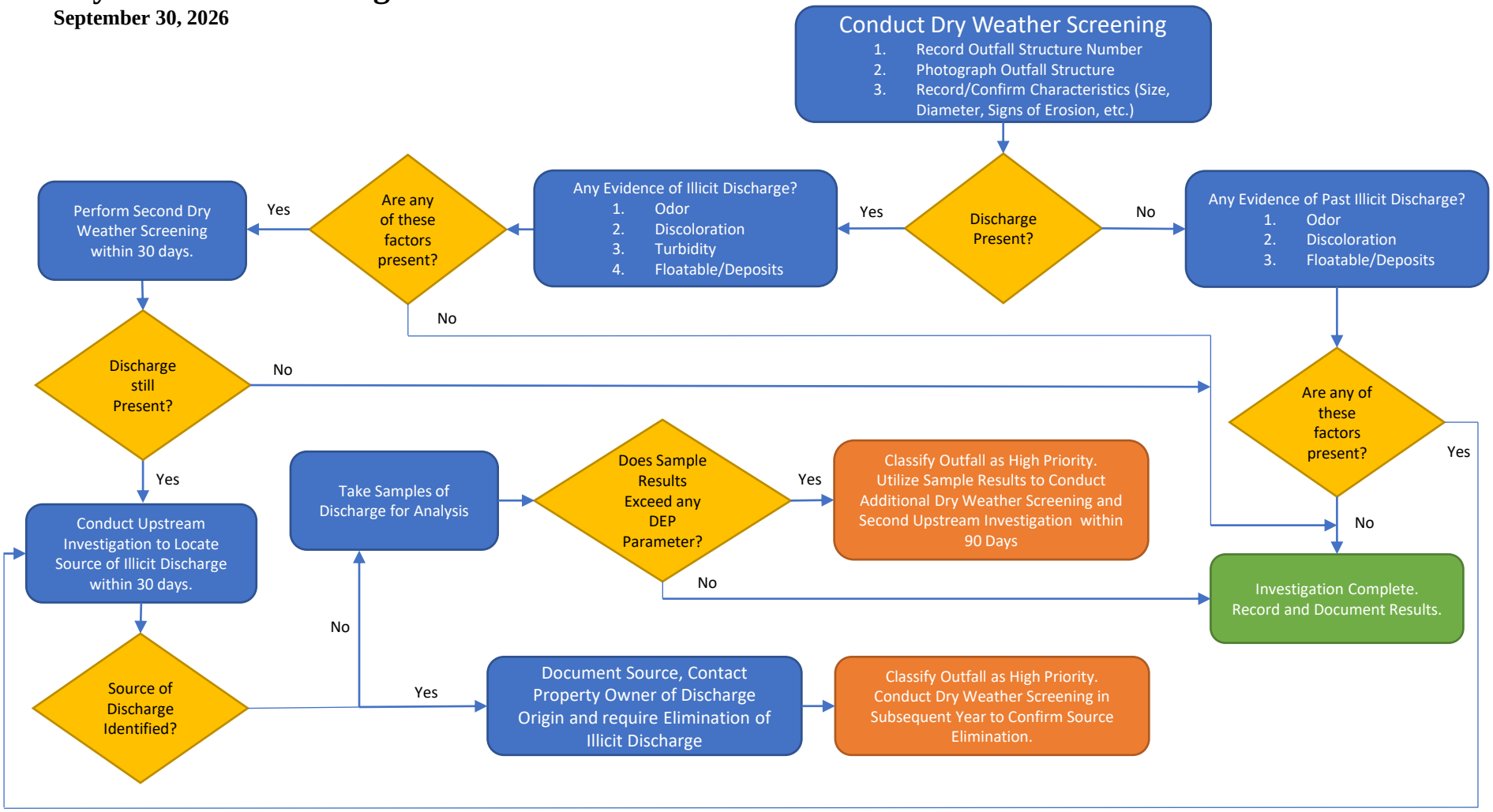
The Borough will inspect Borough owned storm sewer outfalls that have existing easements for Borough access. The Borough will obtain approval from private property owners, if necessary, for access to inspect outfalls located outside of public areas.

It is recommended that outfall inspections be conducted by the Borough's Public Works employees or designated Borough representatives.

Braddock Hills Borough
Municipal Separate Storm Sewer System (MS4)
Dry Weather Screening Flowchart

September 30, 2026

FIGURE 1



THE EADS GROUP

BRADDOCK HILLS BOROUGH

ANNUAL REVIEW - MCM #3 CHECKLIST
ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E)

Report Year: July 1, 2025 to June 30, 2026

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

Date of annual review of IDD&E: 09/30/2026 Were updates made? Yes

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).

Date of update or revision to map(s): 09/30/2026

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 within the permittee's jurisdiction that are owned or operated by the permittee including privately owned components

Have you completed a map that includes all components of BMP#3? X Yes ____ No

If yes, date of update or revision: 09/30/2026

BMP #4: Conduct dry weather screenings

How many unique outfalls were screened during the reporting period? 9

What percentage of all outfalls screened in the past five years? 100%

What percentage of outfalls screened revealed dry weather flows? 67%

Did dry weather flows reveal color, turbidity, sheen, odor, floating or submerged solids? No

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.

Were there any violations of the ordinance or SOP during the reporting period? Yes

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.

Was IDD&E-related information distributed to public employees, businesses and the general public during the reporting period? X Yes _____ No

Is there a well-publicized method for employees, businesses and the public to report stormwater pollution incidents? X Yes _____ No

Do you maintain documentation of all responses, action taken, and the time required to take action? __X__ Yes _____ No

Date of review: 09/30/2026

Reviewed By:
Cheryl Sorrentino – Braddock Hills Borough

Tyler Mincin – The EADS Group, Inc.

Checklist Completed By: Tyler Mincin – The EADS Group, Inc. Date: 09/30/2026

EXHIBIT 4 - MCM #4

Construction Site Stormwater Runoff Control

BRADDOCK HILLS BOROUGH

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
SEPTEMBER 30, 2026

MINIMUM CONTROL MEASURE #4
CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PLAN

The Borough relies on PA's statewide program for stormwater associated with construction activities enforced by the Allegheny County Conservation District. Refer to the Allegheny County Conservation District website for requirements regarding construction site stormwater runoff control.

Allegheny County Conservation District website: https://www.accdpa.org

BRADDOCK HILLS BOROUGH

ANNUAL REVIEW MCM #4 CHECKLIST
CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Report Year: July 1, 2025 to June 30, 2026

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.

Reminder: NPDES Permits are required for Earth Disturbances over one (1) acre.

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 (CDD) has approved NPDES permit coverage)?

__X__ Yes _____ No ____ Not Applicable (No building permit applications received)

BMP #2: A municipality or county which issues building, or other permits shall notify DEP or the applicable CCD within 5 days of the receipt of an application for a permit involving an earth disturbance activity consisting of one acre or more, in accordance with 25 PA. Code 102.42.

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

__X__ 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.

Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that requires implementation and maintenance of E&S control BMPs?

__X__ Yes _____ No

If yes, date of the ordinance or SOP __11/13/2018 - (Ord. 3-2018) Braddock Hills Stormwater Management Ordinance

Date of review __09/30/2026

Reviewed By:
Cheryl Sorrentino – Braddock Hills Borough

Tyler Mincin – The EADS Group, Inc.

Checklist Completed By: Tyler Mincin – The EADS Group, Inc. Date: 09/30/2026

EXHIBIT 5 - MCM #5

Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment

BRADDOCK HILLS BOROUGH

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
SEPTEMBER 30, 2026

MINIMUM CONTROL MEASURE #5
POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Provide copies of the Borough's Subdivision and Land Development Ordinance (SALDO) and Stormwater Management Ordinance to developers.

Building Code Official shall not issue the building permit until NPDES Permit is provided for sites disturbing greater than or equal to one (1) acre.

Borough shall investigate O&M issues for all post construction stormwater BMPs when complaints are received.

Complaints for an existing stormwater BMP or pond shall be directed to the building code official for investigation.

Record of the investigation and results shall be recorded and kept on file at the Borough Office.

BRADDOCK HILLS BOROUGH

ANNUAL REVIEW - MCM #5 CHECKLIST
POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) IN NEW DEVELOPMENT AND REDEVELOPMENT

Report Year: July 1, 2025 to June 30, 2026

BMP #3: Ensure adequate O&M of all post-construction stormwater management BMPs that have been installed at development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

Were O&M complaints received for any PCSM BMPs? ____ Yes _X_ No

Were any investigations completed? ____ Yes _X_ No

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.

List PCSM Plans reviewed during the reporting period (Disturbance >/= one (1) acre):

Date of Installation: _____ BMP Name: _____

Responsible Entity: _____

NPDES Permit No.: _____ Disturbed Acreage: _____

Date of Installation: _____ BMP Name: _____

Responsible Entity: _____

NPDES Permit No.: _____ Disturbed Acreage: _____

***No PCSM Plans were reviewed during the reporting period with disturbance >/= 1 acre.**

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).

Have you inspected all qualifying development and redevelopment project during the construction phases? ____ Yes ____ No __X__ Not Applicable

BMP Name: _____ Date Reviewed: _____

BMP Name: _____ Date Reviewed: _____

Checklist Completed By: Tyler Mincin – The EADS Group, Inc. Date: 09/30/2026

EXHIBIT 6 - MCM #6

Pollution Prevention / Good Housekeeping

BRADDOCK HILLS BOROUGH

MCM #6 - POLLUTION PREVENTION / GOOD HOUSEKEEPING

Revised: September 30, 2026

INVENTORY OF FACILITIES AND DESIGNATED OPERATION & MAINTENANCE PLANS

FACILITY / ACTIVITY:	IMPACT TO STORM SEWERS:	DISCHARGES TO:	O&M RESPONSIBILITIES:	REFERENCE ATTACHMENT:
Public Works Yard	• Inlets • Storm Pipes	UNT to Monongahela River	• Oil Management • Fueling • Vehicle Wash Water • Salt Storage	A
Streets	• Inlets • Swales	UNT to Monongahela River UNT to Turtle Creek	• Street Sweeping • Inlet Cleaning • Inlet Maintenance	B
Storm Sewers & Conveyance Facilities	• Storm Pipes • Swales • Ditches	UNT to Monongahela River UNT to Turtle Creek	• Inlet Cleaning • Inlet Maintenance • Storm Pipe Cleaning • Misc. Cleaning • Misc. Maintenance	C
Municipal Building	• Inlets	UNT to Monongahela River	• Inlet Cleaning • Inlet Maintenance	D
Municipal Parking Lots	• Inlets	UNT to Monongahela River	• Inlet Cleaning • Inlet Maintenance	D
Public Baseball Field and Basketball Court	• Inlets	UNT to Monongahela River	• Inlet Cleaning • Inlet Maintenance	D
Employee Training	• Employee Training	Not Applicable	• Employee Training	E

ATTACHED OPERATION AND MAINTENANCE PLANS:

ATTACHMENT A – PUBLIC WORKS YARD

ATTACHMENT B – STREETS

ATTACHMENT C – STORM SEWERS & CONVEYANCE FACILITIES

ATTACHMENT D – MUNICIPAL BUILDING, PARKING LOTS, BASEBALL FIELD & BASKETBALL COURT

ATTACHMENT E – EMPLOYEE TRAINING

ATTACHMENT A:

OPERATION AND MAINTENANCE PLAN FOR:
PUBLIC WORKS YARD

Contact: Mr. James Ponzetti, Public Works (412) 241-5080

MAINTENANCE RESPONSIBILITY	RECOMMENDED FREQUENCY	RECOMMENDED ACTIONS	NOTES
Fluids Management	Daily	• Store oil to minimize spillage. Clean up immediately if spillage occurs. • Minimize use of solvents. • Repair leaks in vehicles and equipment; use drip pans if applicable. • Stockpile spill cleanup materials in visible area. • Recycle used oil; store under cover.	
Salt Storage & Grit	Daily	• Salt shall be stored under cover away from rain and weather conditions. • Sweep up spills around storage area. • Calibrate spreaders prior to use. • Haul salt in dry weather when possible.	
Signage	Quarterly	• Ensure that signs are posted and replace as necessary.	*Recommended to keep spare signs on hand*
Storm Inlet Cleaning	Inspect inlets after each rain event *Inlets shall be cleaned annually each fall	• Haul materials removed from inlets to landfill. • Maintain stencils on inlets.	
Wash water	Daily	• Vehicle washing is recommended to occur within designated bays with drains connected to the sanitary sewer system. • Washing shall not be permitted outside of these designated areas.	

ATTACHMENT B:

OPERATION AND MAINTENANCE PLAN FOR:
BRADDOCK HILLS BOROUGH STREETS

Contact: Mr. James Ponzetti, Public Works (412) 241-5080

MAINTENANCE RESPONSIBILITY	RECOMMENDED FREQUENCY	RECOMMENDED ACTIONS	NOTES
Signage	Quarterly	• Ensure that signs are posted and replace as necessary.	*Recommended to keep spare signs on hand*
Storm Inlet Cleaning	Inspect inlets after each rain event *Inlets shall be cleaned annually each fall	• Haul materials removed from inlets to landfill. • Maintain stencils on inlets.	
Street Sweeping	Every 2nd and 4th Wednesday, April through October	• Signs for "No Parking/Street Sweeping" are recommended. • Residents to be notified in advanced of Street Sweeping schedule via the Borough's website and newsletter.	

ATTACHMENT C:

OPERATION AND MAINTENANCE PLAN FOR: STORM SEWERS AND CONVEYANCE FACILITIES

Contact: Mr. James Ponzetti, Public Works (412) 241-5080

MAINTENANCE RESPONSIBILITY	RECOMMENDED FREQUENCY	RECOMMENDED ACTIONS	NOTES
Signage	Quarterly	• Ensure that signs are posted and replace as necessary.	*Recommended to keep spare signs on hand*
Storm Inlet Cleaning	Inspect inlets after each rain event *Inlets shall be cleaned annually each fall	• Haul materials removed from inlets to landfill. • Maintain stencils on inlets.	
Storm Inlet Inspections	Annually	• Problems area recommended to be televised if possible. • Manholes and inlets to be visually inspected.	

ATTACHMENT D:

OPERATION AND MAINTENANCE PLAN FOR:
MUNICIPAL BUILDING, MUNICIPAL PARKING LOTS, BASEBALL FIELD AND BASKETBALL COURT

Contact: Mr. James Ponzetti, Public Works (412) 241-5080

MAINTENANCE RESPONSIBILITY	RECOMMENDED FREQUENCY	RECOMMENDED ACTIONS	NOTES
Signage	Quarterly	• Ensure that signs are posted and replace as necessary.	*Recommended to keep spare signs on hand*
Storm Inlet Cleaning	Inspect inlets after each rain event *Inlets shall be cleaned annually each fall	• Haul materials removed from inlets to landfill. • Maintain stencils on inlets.	

Attachment E:

OPERATION AND MAINTENANCE PLAN FOR: EMPLOYEE TRAINING

Contact: Mr. James Ponzetti, Public Works (412) 241-5080

Public Works employee training provides the Borough's staff with context and understanding of why stormwater management is important to the community. This training program is intended to increase the staff's ability to spot stormwater issues, such as illicit discharges, and how to report and record important information. The goal of employee training includes preventing or reducing the discharge of pollutants from operations to the regulated MS4 System.

Public Works employees to review "Safe Water Guide to Healthy Waters" and discuss any questions on Illicit Discharges. This information can be found at the following website: https://www.cwp.org/wp-content/uploads/2016/06/SAFE-WATERS-Guide_Final.pdf. Public Works employees will review the MS4 program material on an annual basis and document the review date. The Borough may elect to add additional review material to employee training as long as it includes MS4 topics relevant to the Borough's MS4 System.

BRADDOCK HILLS BOROUGH

ANNUAL REVIEW - MCM #6 CHECKLIST
POLLUTION PREVENTION / GOOD HOUSEKEEPING

Report Year: July 1, 2025 to June 30, 2026

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.

Borough's Facilities and Activities with Potential to Generate Stormwater Runoff:

1. Public Works Yard
2. Borough Streets
3. Storm Sewers
4. Conveyance Facilities
5. Municipal Buildings
6. Municipal Parking Lots
7. Public Baseball Field and Basketball Court

Did you conduct an inventory review? __X__ Yes ____ No Date Reviewed: _09/30/2026_

Does the inventory list need updated? ____ Yes __X__ No Date Updated: __09/30/2026___

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.

Did you review or update Borough O&M Program? __X__ Yes ____ No

Date Reviewed: __09/30/2026___

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.

Did you review or update Borough Training Program? __X__ Yes ____ No

Date Reviewed: __09/30/2026___

Training Completed during Permit Calendar Year (July 1 to June 30 for Reporting Year):

Public Works Employee: _____ Date of Training:_____

Public Works Employee: _____ Date of Training: _____

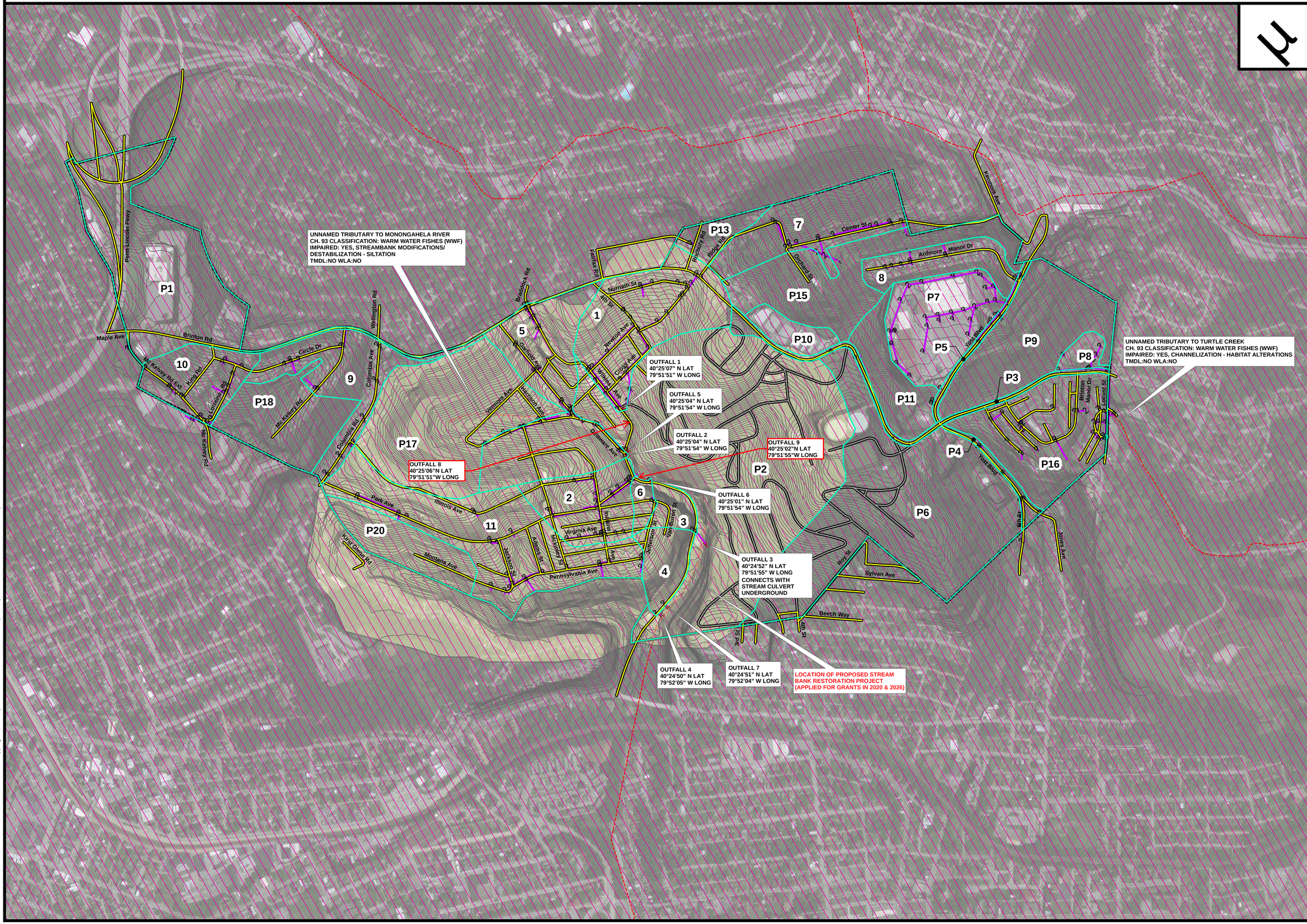
Public Works Employee: _____ Date of Training: _____

Checklist Completed By: Tyler Mincin – The EADS Group, Inc. Date: 09/30/2026

EXHIBIT 7

MS4 Outfall Index Map

STORM SEWER MS4 MAP



Path: R:\1331 Braddock Hills Boro\17101 Retainer\07 GIS and Mapping\02 GIS Map Services\MXD Files\MS4\MS4 Report Maps\20101.30 Braddok Hills Index Map - Sheet 1 - 24x36.mxd

THE EADS GROUP
ENGINEERING · ARCHITECTURE · and · DESIGN · SERVICES

11045 PARKER DRIVE
N. HUNTINGDON, PA 15642
Phone: 412-754-0801
Fax: 412-854-0860
www.eadsgroup.com

Date: 09/30/2026

Drawn By: SMC **Checked By:** TJM

REVISED

Scale

400 200 0 400

1 inch = 400 feet

Legend

- 00 MS4 Drainage Areas - Stormsheds
- k NOI Outfalls
- R Stormwater End Pipe
- ? Stormwater Inlets
- 2 Stormwater Manholes
- Stormwater Observation Point
- Stormwater Outfalls
- Stormwater Pond Perimeter
- Stormwater Ponds
- Roads
- Cemetery Roads
- Stormwater Mains
- Contours
- Urbanized_Areas_2010
- Unnamed Trib to the Monongahela River - Drainage Shed
- Municipal Boundary
- Stream
- Stream - Impaired

BRADDOCK HILLS BOROUGH MS4 REPORT

STORM SEWER MS4 MAP

BRADDOCK HILLS BOROUGH ALLEGHENY COUNTY, PA

SHEET 1

EXHIBIT 8

Outfall Screening Reports

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **1**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 25' 07"
☐ Industrial ☐ Urban Residential	Longitude: -79° 51' 51"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **24** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☒ No

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

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

Inspector Comments:

Two other outfalls present at location as seen in Figure 2. Top pipe is one single circular 20 inch RCP closed pipe with no flow. Middle pipe is one single circular 15 inch terracotta closed pipe with no flow.

RESPONSIBLE OFFICIAL CERTIFICATION

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

Cheryl Sorrentino	
Responsible Official Name	Signature
412-241-5080	09/30/2026
Telephone No.	Date

PHOTOGRAPHS



Figure 1



Figure 2

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **2**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 25' 04"
☐ Industrial ☐ Urban Residential	Longitude: -79° 51' 54"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **30** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☐ Trickle ☒ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☒ No

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

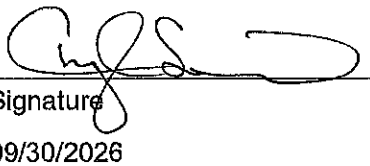
Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

Outfall flows into 10 ft wide by 6 ft tall concrete box culvert as shown in Figures 1, 2, and 3. There is a 2 ft by 4 ft inlet that drops into box culvert. Two single circular 15 inch RCP closed pipes flow into box culvert sides as seen in Figure 2 with no dry weather flow present. One single circular 15 inch RCP closed pipe is present outside box culvert as seen in Figure 4. The 15 inch pipe outside the box culvert had no dry weather flow.

RESPONSIBLE OFFICIAL CERTIFICATION

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

Cheryl Sorrentino	
Responsible Official Name	Signature
412-241-5080	09/30/2026
Telephone No.	Date

PHOTOGRAPHS



Figure 1



Figure 2

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Figure 3



Figure 4

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **3**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 24' 52"
☐ Industrial ☐ Urban Residential	Longitude: -79° 51' 55"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **15** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☒ No

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

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

Inspector Comments:

Outfall 3 connects to stream culvert underground and is inaccessible as seen in Figure 1. Dry weather flow observation conducted at upstream inlet at location in Figure 2.

RESPONSIBLE OFFICIAL CERTIFICATION

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

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Figure 1



Figure 2

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BUREAU OF CLEAN WATER

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **4**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 24' 50"
☐ Industrial ☐ Urban Residential	Longitude: -79° 52' 05"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **12** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☒ No

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

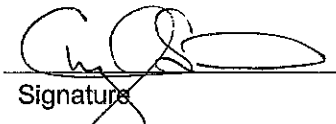
Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.

Inspector Comments:

Outfall pipe is terracotta.

RESPONSIBLE OFFICIAL CERTIFICATION

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

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Figure 1

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BUREAU OF CLEAN WATER

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **5**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 25' 04"
☐ Industrial ☐ Urban Residential	Longitude: -79° 51' 54"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☒ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **15** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☒ No

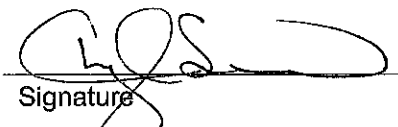
If Yes, describe efforts made to determine the source(s) of the illicit discharge.

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

Inspector Comments:

RESPONSIBLE OFFICIAL CERTIFICATION

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

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Figure 1

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **6**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 25' 01"
☐ Industrial ☐ Urban Residential	Longitude: -79° 51' 54"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **15** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

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

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

Inspector Comments:

Difficult to access.

RESPONSIBLE OFFICIAL CERTIFICATION

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

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Responsible Official Name	Signature
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Figure 1

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BUREAU OF CLEAN WATER

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MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **7**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 24' 51"
☐ Industrial ☐ Urban Residential	Longitude: -79° 52' 04"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☒ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **15** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☒ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☒ No

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

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

Inspector Comments:

Outfall pipe is terracotta.

RESPONSIBLE OFFICIAL CERTIFICATION

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

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Responsible Official Name	Signature
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PHOTOGRAPHS



Figure 1

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BUREAU OF CLEAN WATER

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **8**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 25' 06"
☐ Industrial ☐ Urban Residential	Longitude: -79° 51' 51"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☐ CMP ☐ PVC ☒ HDPE ☐ Steel ☐ Other	☒ Circular ☒ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **15** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☐ Trickle ☐ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☐ No

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

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

Inspector Comments:

RESPONSIBLE OFFICIAL CERTIFICATION

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Responsible Official Name	Signature
412-241-5080	09/30/2026
Telephone No.	Date

PHOTOGRAPHS



Figure 1

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BUREAU OF CLEAN WATER

MS4 OUTFALL FIELD SCREENING REPORT

BACKGROUND INFORMATION

Permittee Name: **Braddock Hills Borough**	NPDES Permit No.: PA**G136257**
Date of Inspection: **09/24/2026**	Outfall ID No.: **9**
Land Uses in Outfall Drainage Area (Select All):	Latitude: 40° 25' 02"
☐ Industrial ☐ Urban Residential	Longitude: -79° 51' 55"
☐ Commercial ☒ Suburban Residential	Dry Weather Inspection? ☒ Yes ☐ No
☐ Open Space ☐ Other:	Date of Previous Precipitation: **09/22/2026**
	Amount of Previous Precipitation: **0.19** in
Inspector Name(s): **Tyler Mincin**	Were Photographs Taken? ☒ Yes ☐ No
	Are Photographs Attached? ☒ Yes ☐ No

OUTFALL DESCRIPTION

TYPE	MATERIAL	SHAPE	DIMENSIONS	SUBMERGED
☒ Closed Pipe	☐ RCP ☒ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☒ Circular ☐ Single ☐ Elliptical ☒ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter: **30 & 18** in	☐ In Water ☐ With Sediment
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth: _____ in Top Width: _____ in Bottom Width: _____	

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

Description of Flow Rate: ☐ Trickle ☒ Moderate ☐ Significant ☐ N/A

DRY WEATHER FLOW EVALUATION

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

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

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

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

Appears to be a milky white foamy deposit in stream as seen in Figure 1 but is not present in dry weather flow from outfall at time of observation.

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

FIELD / LABORATORY ANALYSIS

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

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

ILLICIT DISCHARGES

Is the dry weather flow an illicit discharge? ☐ Yes ☒ No

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

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

Inspector Comments:

The 18 inch pipe had moderate flow and the 30 inch pipe had a trickle.

RESPONSIBLE OFFICIAL CERTIFICATION

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

Cheryl Sorrentino
Responsible Official Name

Signature

412-241-5080
Telephone No.

09/30/2026
Date

PHOTOGRAPHS



Figure 1

EXHIBIT 9

Braddock Hills Borough
Pollutant Reduction Plan

POLLUTION REDUCTION PLAN



BRADDOCK HILLS BOROUGH
ALLEGHENY COUNTY, PENNSYLVANIA

September, 2017
Revised June, 2018 & November 2018

TABLE OF CONTENTS

Pollution Reduction Plan Summary

Public Participation ..... Section A

Maps ..... Section B
Sheet 1 ..... Storm Sewershed Map

Pollutants of Concern ..... Section C
Summary Chart

Existing Loading of Pollutants of Concern ..... Section D
Watershed Loading Calculations

BMPs Selected ..... Section E
BMP Summary
Summary of Proposed BMP's - Calculations

Funding Sources ..... Section F
Funding Sources Summary

Responsible Parties for O&M of BMPs ..... Section G
Operation and Maintenance Summary

POLLUTION REDUCTION PLAN SUMMARY

INTRODUCTION

On behalf of Braddock Hills Borough, The EADS Group, Inc. (EADS) has prepared the following Pollutant Reduction Plan (PRP) to meet the current Department of Environmental Protection requirements. Braddock Hills Borough's MS4 has direct discharges to an unnamed tributary of the Monogahela River which is impaired for siltation.

METHODOLOGY

Urban Area – Braddock Hills Borough is part of the Pittsburgh, PA Urban Area. The urbanized area, which consists of 626.5 acres, is shown on the mapping. Of the afore-mentioned 626.5 acres, 434.86 acres were parsed out. These areas include the parkway, state and county roads and privately owned property/facilities. A table has been included that lists the areas and the reason they were parsed out. The "Planning Area", which consists of 191.7 acres, drains to unnamed tributaries of the Monogahela River and Turtle Creek.

Drainage Basin – The drainage basin for the unnamed impaired tributary of the Monogahela River is shown on the attached drawings.

Sewersheds – For calculation purposes, the "Planning Area" was divided in **11** sewersheds that contain township owned stormwater facilities that discharge to impaired streams. The acreage for each sewershed was determined from the GIS mapping. The sewersheds are shown on the attached mapping.

Calculating Existing Pollutant Loads – The DEP Simplified Method was used with the loading rates coming from the "Developed Land Loading Rates for PA Counties" table and the impervious and pervious area percentages pulled from the "Statewide MS4 Land Cover Estimates" table.

Reductions – A ten percent (10%) reduction in sediment and a five percent (5%) reduction for nutrient (TP) impairments are required. We used the presumptive approach in which it is assumed that a 10% sediment reduction will also accomplish 5% TP reduction.

Estimated Sediment Reduction – Using the percentages listed in the "BMP Effectiveness Values" table, the sediment reduction due to the proposed BMPs was calculated.

PUBLIC PARTICIPATION

The Pollution Reduction Plan was advertised in the Pittsburgh Post-Gazette on August 3rd, 2017 and was available for public comment at the Borough Building during regular business hours 9:00 am to 4:30 pm. The plan was also discussed at the public meeting on August 16th. No comments were received from the public regarding the plan.

PROPOSED BMPs

To meet the reduction requirements Braddock Hills Borough proposes the following over the next five years:

- Raingarden – The Borough has recently received a grant to partially fund a

proposed walking trail/park on Borough owned property adjacent to the Municipal Building. In addition to the walking trail the Borough proposes to construct a raingarden to treat storm water runoff from approximately 2 acres of park property. The raingarden would consist of a pit backfilled with engineered media, topsoil, mulch and vegetation to treat the runoff. The site mainly consists of C/D soils; therefore, a BMP Effectiveness Value of 55% was used in the calculations.

- Stream Restoration – The impaired unnamed tributary of the Monogahela River is a 3rd order urban stream that is experiencing bank undercutting and erosion. The borough proposes to restore approximately 300 lf of stream bank (both sides) to stabilize a local road and because of the significant pollution reduction this BMP provides. The products and method to be used have not been determined at this time.

FUNDING SOURCES

- Raingarden – The proposed improvement is in the very early conceptual stage and the Borough is currently exploring funding options.

- Stream Restoration – The estimated cost for the proposed 300 lf of stream bank restoration is $120,000.00. Braddock Hills Borough is looking at grant options through the National Fish and Wildlife Foundation. These grants are usually at a 1:1 match ratio; therefore; the Borough would apply for a grant of $60,000 from NFWF with the matching $60,000.00 coming from Borough funds and partner contributions or an as yet to be determined non-federal source.

OPERATION AND MAINTENANCE

Raingarden: Located in Borough Park

Responsible Party – Braddock Hills Borough

Frequency – See below.

Action(s)

- While vegetation is being established, pruning and weeding may be required.
- Detritus may also need to be removed every year. Perennial plantings may be cut down at the end of the growing season.
- Mulch should be re-spread when erosion is evident and be replenished as needed. Once every 2 to 3 years the entire area may require mulch replacement.
- Bioretention areas should be inspected at least two times per year for sediment buildup, erosion, vegetative conditions, etc.
- During periods of extended drought, bioretention areas may require watering.
- Trees and shrubs should be inspected twice per year to evaluate health.

Stream Restoration: Impaired unnamed tributary to the Monogahela River

Responsible Party – Braddock Hills Borough

Frequency – Two times per year or after major rain events.

Action – Remove accumulated debris/sediment which should be disposed of properly and disturbed areas need to be immediately stabilized and/or revegetated. Vegetated areas should be inspected annually for erosion. Vegetated areas should be inspected annually for unwanted growth of exotic/invasive species.

CONCLUSION

The existing sediment loading for the unnamed tributary to the Monogahela River was calculated to be 132,267.02 lb/yr; therefore, the 10% required reduction would equal 13,226.70 lb/yr. Through a combination of a new rain garden and stream restoration, the calculated reduction would be 14,222.95 lb/yr. The proposed reductions would exceed the required reductions by 996.24 lb/yr. By exceeding the 10% sediment reduction the borough will also meet or exceed the 5% reduction for nutrient (TP). See the following summary chart for a detailed breakdown.

Braddock Hills Borough
Summary

Sewershed	Waterway	Impairment	Percent Reduction	Sediment Loading w/o BMP (lb/yr)	Existing BMP (y/n)	Sediment Removed by Existing BMP (lb/yr)	Final Loading (lb/yr)	Reduction Proposed BMP (lb/yr)
1	Unnamed Tributary to Monogahela River	Siltation	10%	19,256.53	n	0.00	19,256.53	0.00
2	Unnamed Tributary to Monogahela River	Siltation	10%	10,045.68	n	0.00	10,045.68	0.00
3	Unnamed Tributary to Monogahela River	Siltation	10%	2,663.21	n	0.00	2,663.21	0.00
4	Unnamed Tributary to Monogahela River	Siltation	10%	5,105.64	n	0.00	5,105.64	13,464.00
5	Unnamed Tributary to Monogahela River	Siltation	10%	22,202.62	n	0.00	22,202.62	758.95
6	Unnamed Tributary to Monogahela River	Siltation	10%	1,545.49	n	0.00	1,545.49	0.00
7	Unnamed Tributary to Turtle Creek	Siltation	10%	14,958.13	n	0.00	14,958.13	0.00
8	Unnamed Tributary to Turtle Creek	Siltation	10%	7,410.07	n	0.00	7,410.07	0.00

9	Unnamed Tributary to Monogahela River	Siltation	10%	13,188.41	n	0.00	13,188.41	0.00
10	Unnamed Tributary to Monogahela River	Siltation	10%	9,017.66	n	0.00	9,017.66	0.00
11	Unnamed Tributary to Monogahela River	Siltation	10%	26,873.58	n	0.00	26,873.58	0.00
Total				**132,267.02**		**0.00**	**132,267.02**	
						Required Reduction	**13,226.70**	
						Proposed Reductions		**14,222.95**
						Difference	**-996.24**	

Sewershed	Waterway	Acres	Reason Area was Parsed Out
P1	UNTM	51.68	State roadway, parkway and privately owned systems
P2	UNTM	110.83	Privately owned cemetery and water storage facility
P3	UNTTC	5.80	State Roadway
P4	UNTTC	2.31	County Roadway
P5	UNTTC	2.25	County Roadway
P6	UNTM	65.60	Privately owned cemetery, water storage facility and wooded area with no township owned stormsewers
P7	UNTTC	20.86	Privately owned stormsewer facilities (school, Giant Eagle and strip mall)
P8	UNTTC	2.83	Privately owned stormsewer facilities (church)
P9	UNTTC	27.37	Wooded area with no township owned stormsewers
P10	UNTTC	5.15	Privately owned stormsewer facilities (storage facility)
P11	UNTTC	11.47	Wooded area with no township owned stormsewers
P13	UNTTC	4.84	Mixture of single family homes and wooded areas no township owned stormsewers
P15	UNTTC	26.33	Mixture of single family homes and wooded areas no township owned stormsewers
P16	UNTTC	26.80	Wooded area and privately owned stormsewer facilities (Brinton Manor)
P17	UNTM	40.00	Wooded area with no township owned stormsewers
P18	UNTM	18.33	Mixture of single family homes and wooded areas no township owned stormsewers
P20	UNTM	12.41	Mixture of single family homes and wooded areas no township owned stormsewers
Total		**434.86**	

UNTM - Unnamed Tributary to the Monogahela River
UNTTC - Unnamed Tributary to Turtle Creek

SECTION A

PUBLIC PARTICIPATION

No. _____ Term, _____

Proof of Publication of Notice in Pittsburgh Post-Gazette

Under Act No 587, Approved May 16, 1929, PL 1784, as last amended by Act No 409 of September 29, 1951

Commonwealth of Pennsylvania, County of Allegheny, ss K. Flaherty, being duly sworn, deposes and says that the Pittsburgh Post-Gazette, a newspaper of general circulation published in the City of Pittsburgh, County and Commonwealth aforesaid, was established in 1993 by the merging of the Pittsburgh Post-Gazette and Sun-Telegraph and The Pittsburgh Press and the Pittsburgh Post-Gazette and Sun-Telegraph was established in 1960 and the Pittsburgh Post-Gazette was established in 1927 by the merging of the Pittsburgh Gazette established in 1786 and the Pittsburgh Post, established in 1842, since which date the said Pittsburgh Post-Gazette has been regularly issued in said County and that a copy of said printed notice or publication is attached hereto exactly as the same was printed and published in the regular editions and issues of the said Pittsburgh Post-Gazette a newspaper of general circulation on the following dates, viz:

03 of August, 2017

Affiant further deposes that he/she is an agent for the PG Publishing Company, a corporation and publisher of the Pittsburgh Post-Gazette, that, as such agent, affiant is duly authorized to verify the foregoing statement under oath, that affiant is not interested in the subject matter of the afore said notice or publication, and that all allegations in the foregoing statement as to time, place and character of publication are true.

PG Publishing Company

Sworn to and subscribed before me this day of:
August 03, 2017

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Linda M. Gaertner, Notary Public
Findlay Twp., Allegheny County
My Commission Expires Jan. 31, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

COPY OF NOTICE OR PUBLICATION

PUBLIC NOTICE
Braddock Hills Borough
Pollution Reduction Plan
Review & Comment
NOTICE IS HEREBY GIVEN that the Borough of Braddock Hills, Allegheny County, Pennsylvania, has available for public review its Pollution Reduction Plan (PRP). A copy of the plan is available for review and inspection at the Borough Building during regular business hours 9:00 am to 4:30 pm. The Braddock Hills Borough Municipal Building is located at 1300 Brinton Road, Pittsburgh, Pennsylvania 15221.

STATEMENT OF ADVERTISING COSTS

BRADDOCK HILLS BORO-LEGAL
1300 BRINTON RD
PITTSBURGH PA 15221

To PG Publishing Company

Total ---------- $123.00

Publisher's Receipt for Advertising Costs

PG PUBLISHING COMPANY, publisher of the Pittsburgh Post-Gazette, a newspaper of general circulation, hereby acknowledges receipt of the aforsaid advertising and publication costs and certifies that the same have been fully paid.

Office
2201 Sweeney Drive
CLINTON, PA 15026
Phone 412-263-1338

PG Publishing Company, a Corporation, Publisher of
Pittsburgh Post-Gazette, a Newspaper of General Circulation

By _____

I hereby certify that the foregoing is the original Proof of Publication and receipt for the Advertising costs in the subject matter of said notice.

_____
Attorney For

PUBLIC NOTICE

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Summer 2017

BOROUGH OF BRADDOCK HILLS

NEWSLETTER

Jack Brown, Mayor

COUNCIL

Charles Arthrell, President

Thomas Evans, Vice President

Robert Henkel

Vincent Gambino

Marguerite Bolton

Michael Ursiny

Linda Yazvac

PHONE NUMBERS

Police

Emergency 9-1-1

Non-emergency
412-371-1637

Chief Dean Helinksi
Ext. 103

Officer on Duty
Ext. 104

Borough Offices
412-241-5080

Cheryl Sorrentino, Secretary Ext. 100

Betty Ann Horvath, Tax Collector Ext. 101

Terry Ryan, Public Works Ext. 102

CONSTRUCTION STORMWATER



Summer has begun and so has construction in Braddock Hills and Allegheny County. As you notice the many construction projects being done, we want you to know that even construction companies must comply with the government's regulations regarding stormwater management.

The Bureau of Clean Water administers the statewide Erosion and Sediment Control (E&S) program under 25 Pa. Code Chapter 102. Chapter 102 requires a permit from DEP for the following activities:

- Construction activities with earth disturbances greater than or equal to one acre, not I ncluding agricultural plowing or tilling, animal heavy use areas, timber harvesting activities or road maintenance activities, which require National Pollutant Discharge Elimination System (NPDES) permit coverage. If eligible, persons disturbing one or more acres may apply for coverage under the PAG-02 NPDES General Permit for Stormwater Discharges Associated with Construction Activities. If ineligible for PAG-02 coverage, persons may apply for an individual NPDES permit.

- Timber harvesting and road maintenance activities involving 25 or more acres of earth disturbance. An E&S permit is required under Pennsylvania's Clean Streams Law for these activities, rather than an NPDES permit.

- Oil and gas activities (e.g., exploration, production, processing, treatment operations or transmission facilities) involving 5 or more acres of earth disturbance. An E&S permit is required under Pennsylvania's Clean Streams Law for these activities. If eligible, persons conducting these activities may submit a Notice of Intent (NOI) for coverage under the E&S General Permit (ESCGP-2).

- Other activities involving 5 or more acres of earth disturbance not identified above require an E&S permit.

source: www.dep.pa.gov

STREET SWEEPING and MS4

Please note that street sweeping is part of our Consent Order and Agreement with Pennsylvania Department of Environmental Protection. As part of our stormwater management and best practices, we are required to make all efforts to keep unwanted debris from entering the stormwater system in our borough. We know that it's an inconvenience and hope that you understand that it is a necessary requirement which may result in a penalty for our municipality if we do not comply.. So please be patient those few hours a month that are important to our environment.

REMEMBER: No Street Parking the 1st Thursday of each month!!

For updates and information visit the Borough's website at

braddockhillspa.com

- Meeting dates
- Current borough news
- Borough directory
- Forms
- Tax information

Things to do in Allegheny County this summer

Shakespeare Theatre

Vinyasa Yoga

Guided Nature Hike

Family Fun Dat at Boyce Park Wave Pool

Greenhouse Horticultural

Owl Prowl

Pooches in the Pool at Boyce Park Wave Pool

Beaver Habitat Exploration

Signing & Stories

Car Cruise & Concert

Full Moon Hike

Bluegrass Concert

Downtown Abbey Themed Tea

Summer Concert Series at Hartwood Acres Park

and much more!

VISIT THEIR WEBSITE AT
alleghenycounty.us/events.aspx

FOR DATES, TIMES, LOCATIONS & DETAILS

PROHIBITING FEEDING OF WILDLIFE



Council has adopted Ordinance 3 of 2017 at their regular meeting on May 17, 2017, which prohibits the feeding of wild animals and deer. Any person violating this ordinance may be liable for a fine of a maximum of $600.^{00}$ per violation.

Please note that this ordinance excludes the feeding of small songbirds or other back-yard birds. *However*, such feeding must not create an unreasonable disturbance or accumulation of droppings, or become an attractant for rodents or wild animals.

WARNING: Coyotes have been sighted in the borough, so please be aware of your surroundings when outside.

GRANT MONEY AT WORK $$$$$$$

The Borough has been approved to receive monies from several grants this year! We will be busy with the following projects using grant money received from various sources:

- **Community Center Improvements Phase 2**: install new windows and security system, and renovations to the 2nd floor of administration building
- **PA Small Water & Sewer Program**; maintain and repair work to sewers
- **Paving Project**: mill and pave Garfield Avenue
- **Community Walking Trail and Park**: install a walking track, benches and greenery at the location of the current ballfield

NEW STREET LIGHTS

The Borough has added more LED lights as part of the Duquesne Light LED Street Light Program. The lights have been installed on McKelvey Road, Circle Drive, and Lorraine Road this past spring.

Also, an application for additional lights will be submitted this summer. If approved, new LED lights will be installed on Ardmore Manor Drive and Yost Boulevard.

TAX INFORMATION



Some information regarding local and school taxes:

- Borough Tax paid after July 1 will now have to pay a penalty of 10%
- School Tax bills have been mailed and the discount period is until August 31
- Delinquent borough, business privilege, and mercantile taxes are now collected by Jordan Tax Service. You can contact them at 412-835-5243 with any questions or concerns.

SECTION B

MAPS

INDEX MAP

THE EADS GROUP
ENGINEERING · ARCHITECTURE · and DESIGN SERVICES
11045 PARKER DRIVE
N. HUNTINGDON, PA 15642
Phone: 412-754-0801
Fax: 412-854-0860
www.eadsgroup.com

Date: 11/28/2018

Drawn By: SMC **Checked By:** DRC

REVISED

June 2018 - Revised
November 2018 - Revised

Scale

400 200 0 400

1 inch = 400 feet

Legend

- 00 — MS4 Drainage Areas - Stormsheds
- NOI Outfalls
- Stormwater End Pipe
- Stormwater Inlets
- Stormwater Manholes
- Stormwater Observation Point
- Stormwater Outfalls
- Stormwater Pond Perimeter
- Stormwater Ponds
- Roads
- Cemetery Roads
- Stormwater Mains
- Contours
- Urbanized_Areas_2010
- Unnamed Trib to the Monongahela River - Drainage Shed
- Municipal Boundary
- Stream
- Stream - Impaired

UNNAMED TRIBUTARY TO MONONGAHELA RIVER
CH. 93 CLASSIFICATION: WARM WATER FISHERY (WWF)
IMPAIRED: YES, BANK MODIFICATIONS-SILTATION
TMDL:NO WLA:NO

UNNAMED TRIBUTARY TO TURTLE CREEK
CH. 93 CLASSIFICATION: WARM WATER FISHERY (WWF)
IMPAIRED: YES, CHANNELIZATION-OTHER
HABITAT ALTERNATIVES
TMDL:NO WLA:NO

OUTFALL 1
40°25'07" N LONG
79°51'51" W LAT

OUTFALL 5
40°25'04" N LONG
79°51'54" W LAT

OUTFALL 2
40°25'04" N LONG
79°51'54" W LAT

OUTFALL 6
40°25'01" N LONG
79°51'54" W LAT

OUTFALL 3
40°24'52" N LONG
79°51'55" W LAT

OUTFALL 4
40°24'50" N LONG
79°52'07" W LAT

Location of Proposed Stream Bank Restoration

BRADDOCK HILLS BOROUGH MS4 REPORT AND POLLUTANT REDUCTION PLAN

STORM SEWER SHED MAP

BRADDOCK HILLS BOROUGH ALLEGHENY COUNTY, PA

SHEET 1

Path: R:\1331 Braddock Hills Boro\17101 Retainer\07 GIS and Mapping\02 GIS Map Services\MXD Files\MS4\MS4 Report Maps\Braddock Hills Index Map - Sheet 1 - 24x36.mxd

SECTION C

POLLUTANTS OF CONCERN

Braddock Hills Borough - Allegheny County			
MS4 Name	**Impaired Stream**	**Requirements**	**Other Cause(s) of Impairment**
Braddock Hills Borough	Monongahela River	Appendix C-PCB (4a), Appendix B-Pathogens (5)	
	Unnamed Tributaries to Turtle Creek		Other Habitat Alterations (4c)
	Unnamed Tributaries to Monongahela River	Appendix E-Siltation (5)	
	Turtle Creek	Appendix E-Siltation (5)	

4—Long Run	Basin, Jacks Run to Mouth	Allegheny	TSF	None
3—Unnamed Tributaries to Monongahela River	Basins, Youghiogheny River to Mouth	Allegheny	WWF; *Delete* PWS	None
3—Crooked Run	Basin	Allegheny	WWF; *Delete* PWS	None
3—Thompson Run	Basin	Allegheny	WWF; *Delete* PWS	None
3—Turtle Creek	Main Stem, Source to Brush Creek	Allegheny	TSF; *Delete* PWS	None
4—Unnamed Tributaries to Turtle Creek	Basins, Source to Brush Creek	Westmoreland-Allegheny	TSF; *Delete* PWS	None
4—Steels Run	Basin	Westmoreland	HQ-CWF *Delete* PWS	None
4—Haymakers Run	Basin	Westmoreland	HQ-CWF *Delete* PWS	None
4—Abers Creek	Basin	Allegheny	TSF; *Delete* PWS	None
4—Lyons Run	Basin	Westmoreland	TSF; *Delete* PWS	None
4—Simpson Run	Basin	Allegheny	TSF; *Delete* PWS	None
4—Brush Creek	Basin	Allegheny	TSF; *Delete* PWS	None
3—Turtle Creek	Main Stem, Brush Creek to Mouth	Allegheny	WWF; *Delete* PWS	None
4—Unnamed Tributaries to Turtle Creek	Basins, Brush Creek to Mouth	Allegheny	WWF; *Delete* PWS	None
4—Thompson Run	Basin	Allegheny	WWF; *Delete* PWS	None
3—Homestead Run	Basin	Allegheny		None

SECTION D

EXISTING LOADING FOR POLLUTANTS OF CONCERN

Braddock Hills Borough
Loading Calculations

Sewershed	Acres	Impervious Acres (27%)	Pervious Acres (73%)	Loading Rates (lbs/acre/yr)	Sediment Loading w/o BMP (lb/yr)
1	27.91	7.5357		1839	13,858.15
			20.3743	264.96	5,398.37
				Total	19,256.53
2	14.56	3.9312		1839	7,229.48
			10.6288	264.96	2,816.21
				Total	10,045.68
3	3.86	1.0422		1839	1,916.61
			2.8178	264.96	746.60
				Total	2,663.21
4	7.4	1.998		1839	3,674.32
			5.402	264.96	1,431.31
				Total	5,105.64
5	32.18	8.6886		1839	15,978.34
			23.4914	264.96	6,224.28
				Total	22,202.62
6	2.24	0.6048		1839	1,112.23
			1.6352	264.96	433.26
				Total	1,545.49
7	21.68	5.8536		1839	10,764.77
			15.8264	264.96	4,193.36
				Total	14,958.13
8	10.74	2.8998		1839	5,332.73
			7.8402	264.96	2,077.34
				Total	7,410.07
9	19.115	5.16105		1839	9,491.17
			13.95395	264.96	3,697.24
				Total	13,188.41
10	13.07	3.5289		1839	6,489.65
			9.5411	264.96	2,528.01
				Total	9,017.66
11	38.95	10.5165		1839	19,339.84
			28.4335	264.96	7,533.74
				Total	26,873.58
Total	**191.705**	**51.76035**	**139.94465**		**132,267.02**

SECTION E

SELECTED BMPs

PROPOSED BMPs

To meet the reduction requirements Braddock Hills Borough proposes the following over the next five years:

- Raingarden – The Borough has recently received a grant to partially fund a proposed walking trail/park on Borough owned property adjacent to the Municipal Building. In addition to the walking trail the Borough proposes to construct a raingarden to treat storm water runoff from approximately 2 acres of park property. The raingarden would consist of a pit backfilled with engineered media, topsoil, mulch and vegetation to treat the runoff. The site mainly consists of C/D soils; therefore, a BMP Effectiveness Value of 55% was used in the calculations.

- Stream Restoration – The impaired unnamed tributary of the Monogahela River is a 3rd order urban stream that is experiencing bank undercutting and erosion. The borough proposes to restore approximately 300 lf of stream bank (both sides) to stabilize a local road and because of the significant pollution reduction this BMP provides. The products and method to be used have not been determined at this time.

Braddock Hills Borough
Summary of Proposed BMPs

Sewershed	Waterway	BMP	Effectiveness	Tributary Area (Acre)	Loading Rates (lbs/acre/yr)	Sediment Loading (lb/yr)	Estimated Sediment Reduction (lb/yr)
4	Unnamed Tributary to Monogahela River	Stream Restoration					13,464.00
5	Unnamed Tributary to Monogahela River	Raingarden	0.55	2.00			758.95
Total							**14,222.95**

Braddock Hills Borough

Proposed Rain Garden

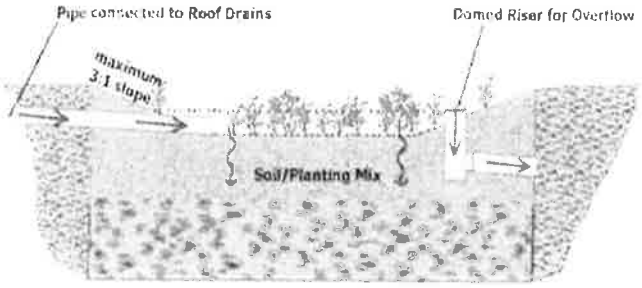
BMP	Tributary Acres	Impervious Acres (27%)	Pervious Acres (73%)	Loading Rates (lbs/acre/yr)	Sediment Loading (lb/yr)	Effectiveness (C/D Soils with underdrain)	Estimated Sediment Reduction (lb/yr)
Park Raingarden	2	0.54		1839	993.06		
			1.46	264.96	386.84		
				Total	1,379.90	0.55	758.95

Proposed Stream Restoration

BMP	Length (ft)	Effectiveness Value (lbs/ft/yr)	Estimated Sediment Reduction (lb/yr)
Stream Restoration	300	44.88	
			13,464.00

BMP 6.4.5: Rain Garden/Bioretention

RECHARGE GARDEN / BIORETENTION BED



A Rain Garden (also called Bioretention) is an excavated shallow surface depression planted with specially selected native vegetation to treat and capture runoff.

Key Design Elements

- Flexible in terms of size and infiltration
- Ponding depths generally limited to 12 inches or less for aesthetics, safety, and rapid draw down. Certain situations may allow deeper ponding depths.
- Deep rooted perennials and trees encouraged
- Native vegetation that is tolerant of hydrologic variability, salts and environmental stress
- Modify soil with compost.
- Stable inflow/outflow conditions
- Provide positive overflow
- Maintenance to ensure long-term functionality

Potential Applications

Residential:	Yes	Yes
Commercial:	Ultra	Yes
Urban:	Industrial:	Yes
	Retrofit:	Yes
	Highway/Road:	Yes

Stormwater Functions

Volume Reduction: Medium
Recharge: Med./High
Peak Rate Control: Low/Med.
Water Quality: Med./High

Water Quality Functions

TSS: TP: 85% 85%
NO3: 30%

Other Considerations

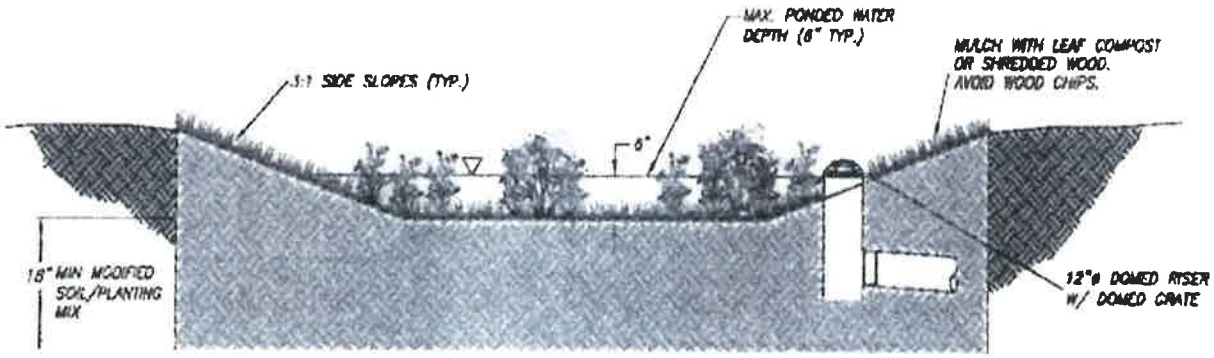
- **Protocol 1. Site Evaluation and Soil Infiltration Testing** and **Protocol 2. Infiltration Systems Guidelines** should be followed, see Appendix C

Description

Bioretention is a method of treating stormwater by pooling water on the surface and allowing filtering and settling of suspended solids and sediment at the mulch layer, prior to entering the plant/soil/microbe complex media for infiltration and pollutant removal. Bioretention techniques are used to accomplish water quality improvement and water quantity reduction. Prince George's County, Maryland, and Alexandria, Virginia have used this BMP since 1992 with success in many urban and suburban settings.

Bioretention can be integrated into a site with a high degree of flexibility and can balance nicely with other structural management systems, including porous asphalt parking lots, infiltration trenches, as well as non-structural stormwater BMPs described in Chapter 5.

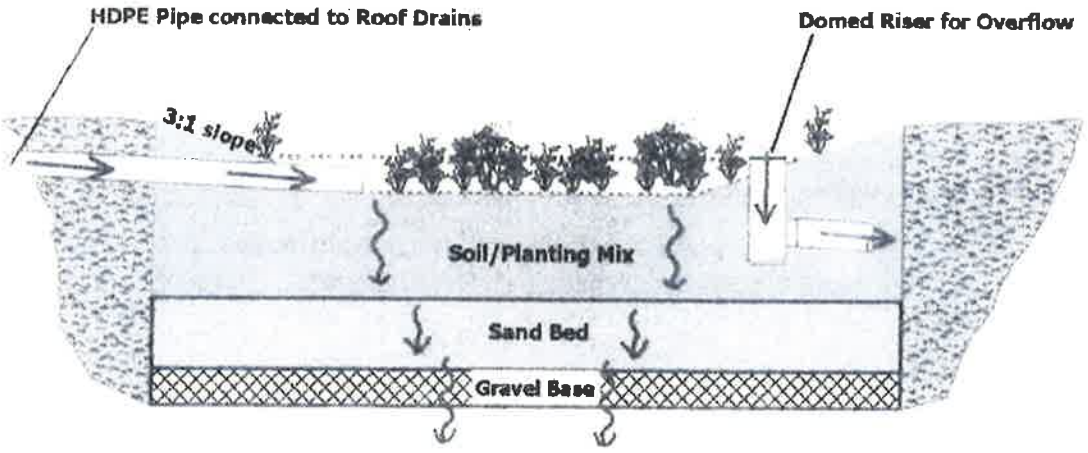
The vegetation serves to filter (water quality) and transpire (water quantity) runoff, and the root systems can enhance infiltration. The plants take up pollutants; the soil medium filters out pollutants and allows storage and infiltration of stormwater runoff; and the bed provides additional volume control. Properly designed bioretention techniques mimic natural ecosystems through species diversity, density and distribution of vegetation, and the use of native species, resulting in a system that is resistant to insects, disease, pollution, and climatic stresses.



Rain Gardens / Bioretention function to:

- Reduce runoff volume
- Filter pollutants, through both soil particles (which trap pollutants) and plant material (which take up pollutants)
- Recharge groundwater by infiltration
- Reduce stormwater temperature impacts
- Enhance evapotranspiration
- Enhance aesthetics
- Provide habitat

RAIN GARDEN / BIORETENTION BED



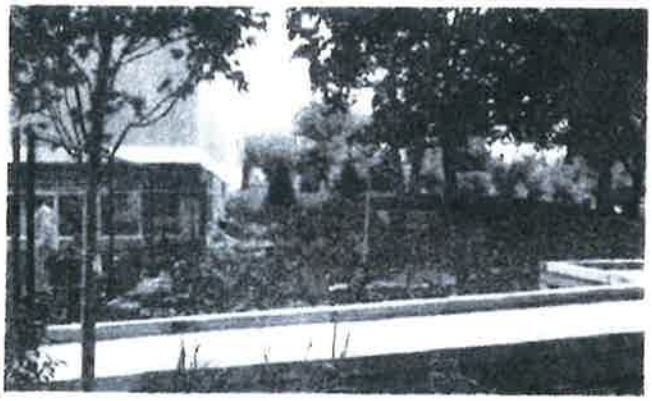
Sand Bed and Gravel Base lined with Geotextile Fabric



PSU / Centre County Visitor Center raingarden soon after construction



PSU / Centre County Visitor Center raingarden in full bloom



Raingarden at the Penn Alexander School in West Philadelphia



Domed riser for overflow

CAHILL ASSOCIATES
Environmental Engineers
Scientists, & Planners
www.thcahill.com

104 South High Street
West Chester, PA 19380
610.696.4150

What is a Rain Garden / Bioretention Area?

A Rain Garden – Bioretention area is a form of a man made ecosystem – a type of constructed bio-filter that is a vital part of the natural hydrological cycle, something we all learned about in elementary school!!! The rain garden collects and stores excess rain water from roofs of buildings or from driveways or parking lots – thus preventing this run-off from polluting our streams and causing flooding and erosion of stream banks. The rain garden uses natural means to store and process and filter and purify this water before infiltrating it into the ground water table below the rain garden bioretention area. This ground water feeds our springs and streams.

Why is it important?

Infiltration of rain water using rain gardens – bioretention – infiltration swales or trenches or various forms of pervious paving (pervious asphalt paving, pervious concrete paving, gravel pavers, grass pavers, and brick or formed concrete pavers) all help to divert water from our overloaded municipal storm water systems – and instead – emulate the forest or meadow ecosystem – and associated natural hydrological cycle that existed before your home or office or local shopping center was built. The rain garden filters, purifies and stores rain water – it supports plant life and habitat and it recharges our ground water tables – which in turn feed our natural springs (seen to your right near STATION 16) This clean purified rain water that leaves the rain garden – bioretention area – provides these springs and streams with clear clean pure pollution free water which is essential to providing base flows in our streams and rivers. Maintaining seasonal base flows – is obviously beneficial to wildlife and all plants and animals and the habitats that they live in. Water is the giver of Life – a rain garden man made way of emulating natures own water filtration process – which is part of the natural hydrological cycle. Current Best Management Practices (BPM's) for storm water management in residential, commercial and institutional development have been focused on hard engineered systems with extensive and costly concrete curbs, gutters, catch basins, manholes, concrete channels and buried concrete storm water pipes – and also in many cases large costly storm water detention basins - those unsightly craters or "dry-ponds" you see around housing developments and shopping centers and highway interchanges which fill up with water after a hard rain. Infiltration based Low Impact Development (LID) storm water strategies like the rain garden – bioretention area are a key to solving many storm water and non-point source pollution problems we have here in Pennsylvania and across the US. LID type storm water technologies area better than the previous hard engineered concrete BMPs because unlike these older BMP's – rain gardens, bioretention areas and other LID storm water technologies do the following: 1) they hold and store collected rain water more effectively and for a longer period of time; 2) they promote evapo-transpiration through pants and trees which cools the air and the environment around our towns and cities; 3) "rain-garden" bioretention areas support new plant life and create a habitat for animals and plants and helpful insects; 4) when designed properly - they DO NOT foster the growth of mosquitoes and other nuisance bugs as there is no standing water – except for a very small amount (about 6 inches) for just a few hours after a very heavy rain; 5) they filter and purify the rain water – and remove pollutants such as motor oil and antifreeze and other heavy metals that come from run-off from parking lots and driveways; 6) The plants and bio-mass, mulch and soil and plants and bugs and microbes and oth critters in the rain garden bioretention area actually process these pollutants – and help break them down naturally – thus preventing these pollutants from entering our vital ground water tables and from going straight into our streams rivers and bays and oceans.) 7) rain-garden bioretention areas also very effectively help us to recharge our local ground water tables – which are a primary source of our drinking water, and water for businesses and industry which are vital to all Pennsylvanians! Rain Gardens prevent non-point-source pollutants from being piped directly into our streams which is what current BMP's do. 8) they help replenish ground water tables – with clean purified water that then feeds our natural springs which in turn feed our streams and rivers, ponds, lakes and bays. Preserving the natural hydrological cycle using a rain garden/bioretention area is a way of copying the service nature provided us with before we started to develop our land!

How do I build a Rain-garden/Bioretention area for my home or office?

See the diagram on the other side of this flyer (Special thanks to Tom Cahill and Associates of West Chester PA for helping to design the Rain Garden / Bioretention Display found at STATION 21 at the DCNR/PA Fish and Boat Commission / PA Game Commission display at the 2003 PA Flower and Garden Show at the PA Farm Show complex in Harrisburg, PA on March 14-16, 2003. There are various strategies for making the potting mix that is the heart (and middle layer) of the rain garden - bioretention area. The potting mix for the DCNR exhibit is the same mix that is being used for the construction at several rain gardens being installed at State Parks throughout the Commonwealth. This mix – as seen at STATION 21 is ¼ soil (from your site), ¼ sand, ¼ shredded leaf mulch (or organic compost from your back-yard compost pile) and ¼ fine shredded wood chips (shredded limbs, Christmas trees, etc which you can usually find at the local county landfill or recycling center)

Where to go for more information:

Go to The Low Impact Development Center's Website at www.lowimpactdevelopment.org for great general design details, and see two helpful brochures "Builders Guide to Low Impact Development" and "Municipal Guide to Low Impact Development". (Both downloadable at no cost in pdf format) Also contact your local Landscape Architect for proper plant selection – plants must meet three requirements – they must be local indigenous species, they must be drought and disease resistant, and they must also tolerate having "wet feet" on occasion (plants must be mold and fungus resistant as the rain garden area will be both wet and dry at different times of the year! If Designing a large rain garden – bioretention area or a pervious parking area – please consult a qualified civil engineer with experience in designing infiltration LID technologies. For addition information see also: www.goprincegeorgescounty.com; www.toolbase.org; and www.epa.gov/owow/nps/urban.html

Explore the Benefits of adding a rain garden – bioretention area to your home or work place!

Primary Components of a Rain Garden/Bioretention System

The primary components (and subcomponents) of a rain garden/bioretention system are:

Pretreatment (optional)

- Sheet flow through a vegetated buffer strip, cleanout, water quality inlet, etc. prior to entry into the Rain Garden

Flow entrance

- Varies with site use (e.g., parking island versus residential lot applications)
- Water may enter via an inlet (e.g., flared end section)
- Sheet flow into the facility over grassed areas
- Curb cuts with grading for sheet flow entrance
- Roof leaders with direct surface connection
- Trench drain
- Entering velocities should be non-erosive.

Ponding area

- Provides temporary surface storage of runoff
- Provides evaporation for a portion of runoff
- Design depths allow sediment to settle
- Limited in depth for aesthetics and safety

Plant material

- Evapotranspiration of stormwater
- Root development and rhizome community create pathways for infiltration
- Bacteria community resides within the root system creating healthy soil structure with water quality benefits
- Improves aesthetics for site
- Provides habitat for animals and insects
- Reinforces long-term performance of subsurface infiltration
- Should be tolerant of salts if in a location that would receive snow melt chemicals

Organic layer or mulch

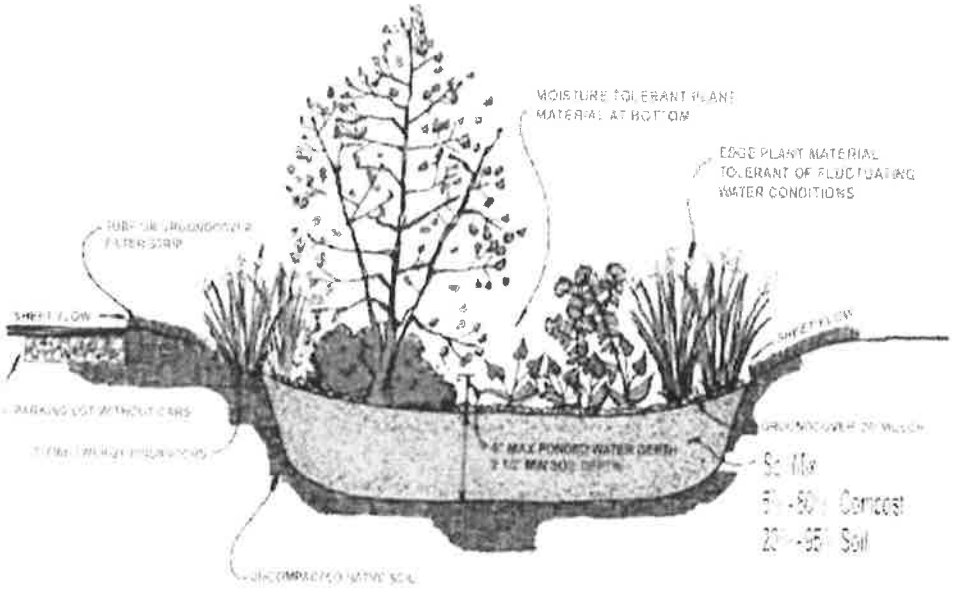
- Acts as a filter for pollutants in runoff
- Protects underlying soil from drying and eroding
- Simulates leaf litter by providing environment for microorganisms to degrade organic material
- Provides a medium for biological growth, decomposition of organic material, adsorption and bonding of heavy metals
- Wood mulch should be shredded - compost or leaf mulch is preferred.

Planting soil/volume storage bed

- Provides water/nutrients to plants
- Enhances biological activity and encourages root growth
- Provides storage of stormwater by the voids within the soil particles

Positive overflow

- Will discharge runoff during large storm events when the storage capacity is exceeded. Examples include domed riser, inlet, weir structure, etc.
- An underdrain can be included in areas where infiltration is not possible or appropriate.



Variations

Generally, a Rain Garden/Bioretention system is a vegetated surface depression that provides for the infiltration of relatively small volumes of stormwater runoff, often managing stormwater on a lot-by-lot basis (versus the total development site). If greater volumes of runoff need to be managed or stored, the system can be designed with an expanded subsurface infiltration bed or the Bioretention area can be increased in size.

The design of a Rain Garden can vary in complexity depending on the quantity of runoff volume to be managed, as well as the pollutant reduction objectives for the entire site. Variations exist both in the components of the systems, which are a function of the land use surrounding the Bioretention system.

The most common variation includes a gravel or sand bed underneath the planting bed. The original intent of this design, however, was to perform as a filter BMP utilizing an under drain and subsequent discharge. When a designer decides to use a gravel or sand bed for volume storage under the planting bed, then additional design elements and changes in the vegetation plantings should be provided.

Flow Entrance: Curbs and Curb Cuts



Flow Entrance: Trench Drain



Positive Overflow: Domed Riser



Positive Overflow: Inlet



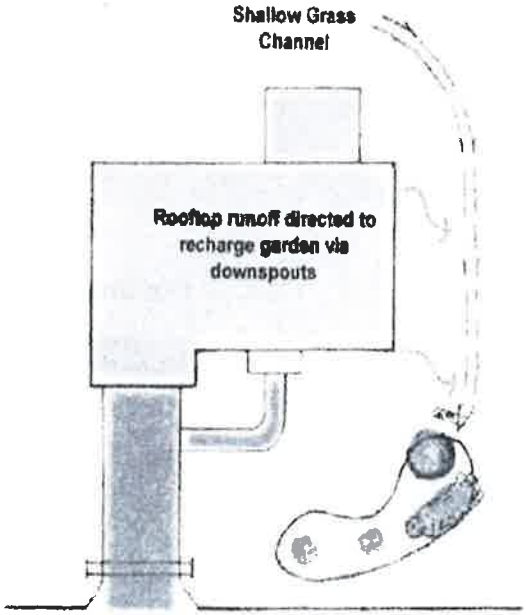
Applications

Bioretention areas can be used in a variety of applications: from small areas in residential lawns to extensive systems in large parking lots (incorporated into parking islands and/or perimeter areas).

- **Residential On-lot**

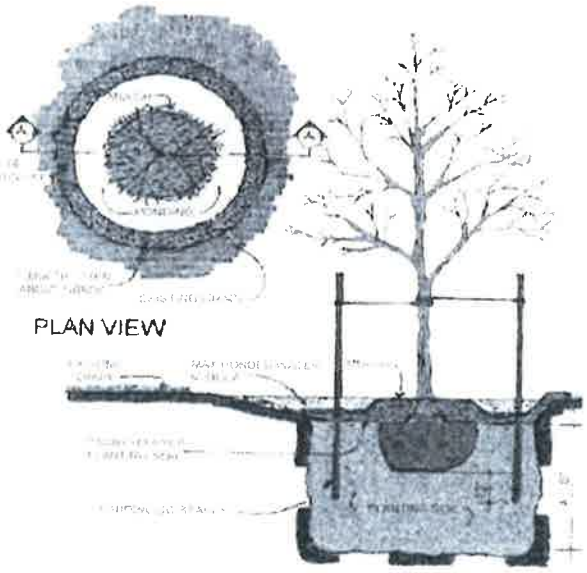
  Rain Garden (Prince George's County)
  Simple design that incorporates a planting bed in the low portion of the site





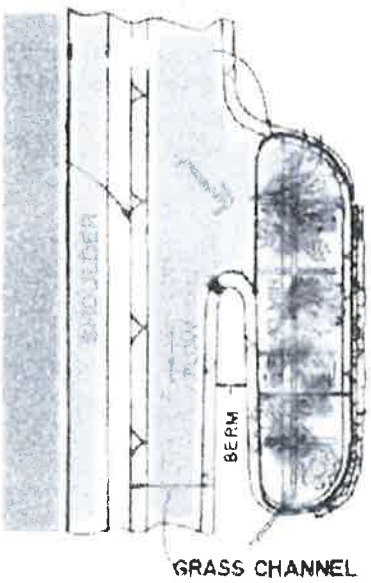
- **Tree and Shrub Pits**
  Stormwater management technique that intercepts runoff and provides shallow ponding in a dished mulched area around the tree or shrub.

  Extend the mulched area to the tree dripline



- **Roads and highways**





- **Parking Lots**
- **Parking Lot Island Bioretention**



- **Commercial/Industrial/Institutional**

In commercial, industrial, and institutional situations, stormwater management and greenspace areas are limited, and in these situations, Rain Gardens for stormwater management and landscaping provide multifunctional options.

- **Curbless (Curb cuts) Parking Lot Perimeter Bioretention**
  The Rain Garden is located adjacent to a parking area with no curb or curb cuts , allowing stormwater to sheet flow over the parking lot directly into the Rain Garden. Shallow grades should direct runoff at reasonable velocities; this design can be used in conjunction with depression storage for stormwater quantity control.



- **Curbed Parking Lot Perimeter Bioretention**



- **Roof leader connection from adjacent building**





Design Considerations

Rain Gardens are flexible in design and can vary in complexity according to water quality objectives and runoff volume requirements. Though Rain Gardens are a structural BMP, the initial siting of bioretention areas should respect the Integrating Site Design Procedures described in Chapter 4 and integrated with the preventive non-structural BMPs.

It is important to note that bioretention areas are not to be confused with constructed wetlands or wet ponds which permanently pond water. Bioretention is best suited for areas with at least moderate infiltration rates (more than 0.1 inches per hour). In extreme situations where permeability is less than 0.1 inches per hour, special variants may apply, including under drains, or even constructed wetlands.

Rain Gardens are often very useful in retrofit projects and can be integrated into already developed lots and sites. An important concern for all Rain Garden applications is their long-term protection and maintenance, especially if undertaken in multiple residential lots where individual homeowners provide maintenance. In such situations, it is important to provide some sort of management that insures their long-term functioning (deed restrictions, covenants, and so forth).

1. **Sizing criteria**

   a. **Surface area** is dependent upon storage volume requirements but should generally not exceed a maximum loading ratio of 5:1 (impervious drainage area to infiltration area; see Protocol 2. Infiltration Systems Guidelines (Appendix C) for additional guidance on loading rates.)

   b. **Surface Side slopes** should be gradual. For most areas, maximum 3:1 side slopes are recommended, however where space is limited, 2:1 side slopes may be acceptable.

   c. **Surface Ponding depth** should not exceed 6 inches in most cases and should empty within 72 hours.

   d. **Ponding area** should provide sufficient surface area to meet required storage volume without exceeding the design ponding depth. The subsurface storage/infiltration bed is used to supplement surface storage where feasible.

   e. **Planting soil depth** should generally be at least 18" where only herbaceous plant species will be utilized. If trees and woody shrubs will be used, soil media depth may be increased, depending on plant species.

2. **Planting Soil** should be a loam soil capable of supporting a healthy vegetative cover. Soils should be amended with a composted organic material. A typical organic amended soil is combined with 20-30% organic material (compost), and 70-80% soil base (preferably topsoil). Planting soil should be approximately 4 inches deeper than the bottom of the largest root ball.

3. **Volume Storage Soils** should also have a pH of between 5.5 and 6.5 (better pollutant adsorption and microbial activity), a clay content less than 10% (a small amount of clay is beneficial to adsorb pollutants and retain water), be free of toxic substances and unwanted plant material and have a 5 –10% organic matter content. Additional organic matter can be added to the soil to increase water holding capacity (tests should be conducted to determine volume storage capacity of amended soils).

4. Proper **plant selection** is essential for bioretention areas to be effective. Typically, native floodplain plant species are best suited to the variable environmental conditions encountered. If shrubs and trees are included in a bioretention area (which is recommended), at least three species of shrub and tree should be planted at a rate of approximately 700 shrubs and 300 trees per acre (shrub to tree ratio should be 2:1 to 3:1). An experienced landscape architect is recommended to design native planting layout.

5. **Planting periods** will vary, but in general trees and shrubs should be planted from mid-March through the end of June, or mid-September through mid-November

6. A maximum of 2 to 3 inches of shredded **mulch** or leaf compost (or other comparable product) should be uniformly applied immediately after shrubs and trees are planted to prevent erosion, enhance metal removals, and simulate leaf litter in a natural forest system. Wood chips should be avoided as they tend to float during inundation periods. Mulch / compost layer should not exceed 3" in depth so as not to restrict oxygen flow to roots.

7. Must be designed carefully in areas with **steeper slopes** and should be aligned parallel to contours to minimize earthwork.

8. Under drains should not be used except where in-situ soils fail to drain surface water to meet the criteria in Chapter 3.

Detailed Stormwater Functions

Infiltration Area

Volume Reduction Calculations

The storage volume of a Bioretention area is defined as the sum total of 1. and the smaller of 2a or 2b below. The surface storage volume should account for at least 50% of the total storage. Inter-media void volumes may vary considerably based on design variations.

1. Surface Storage Volume (CF) = Bed Area (ft^2) x Average Design Water Depth

2a. Infiltration Volume = Bed Bottom area (sq ft) x infiltration design rate (in/hr) x infiltration period (hr) x 1/12.
2b. Volume = Bed Bottom area (sq ft) x soil mix bed depth x void space.

Peak Rate Mitigation

See Chapter 8 for Peak Rate Mitigation methodology, which addresses link between volume reduction and peak rate control.

Water Quality Improvement

See Chapter 8 for Water Quality Improvement methodology, which addresses pollutant removal effectiveness of this BMP.

Construction Sequence

The following is a typical construction sequence; however, alterations might be necessary depending on design variations.

1. Install temporary sediment control BMPs as shown on the plans.
2. Complete site grading. If applicable, construct curb cuts or other inflow entrance but provide protection so that drainage is prohibited from entering construction area.
3. Stabilize grading within the limit of disturbance except within the Rain Garden area. Rain garden bed areas may be used as temporary sediment traps provided that the proposed finish elevation of the bed is 12 inches lower than the bottom elevation of the sediment trap.
4. Excavate Rain Garden to proposed invert depth and scarify the existing soil surfaces. Do not compact in-situ soils.
5. Backfill Rain Garden with amended soil as shown on plans and specifications. Overfilling is recommended to account for settlement. Light hand tamping is acceptable if necessary.
6. Presoak the planting soil prior to planting vegetation to aid in settlement.
7. Complete final grading to achieve proposed design elevations, leaving space for upper layer of compost, mulch or topsoil as specified on plans.
8. Plant vegetation according to planting plan.
9. Mulch and install erosion protection at surface flow entrances where necessary.



Maintenance Issues

Properly designed and installed Bioretention areas require some regular maintenance.

- While vegetation is being established, pruning and weeding may be required.
- Detritus may also need to be removed every year. Perennial plantings may be cut down at the end of the growing season.
- Mulch should be re-spread when erosion is evident and be replenished as needed. Once every 2 to 3 years the entire area may require mulch replacement.
- Bioretention areas should be inspected at least two times per year for sediment buildup, erosion, vegetative conditions, etc.
- During periods of extended drought, Bioretention areas may require watering.
-
- Trees and shrubs should be inspected twice per year to evaluate health.

Cost Issues

Rain Gardens often replace areas that would have been landscaped and are maintenance-intensive so that the net cost can be considerably less than the actual construction cost. In addition, the use of Rain Gardens can decrease the cost for stormwater conveyance systems at a site. Rain Gardens cost approximately $5 to $7 (2005) per cubic foot of storage to construct.

Specifications

The following specifications are provided for informational purposes only. These specifications include information on acceptable materials for typical applications, but are by no means exclusive or limiting. The designer is responsible for developing detailed specifications for individual design projects in accordance with the project conditions.

1Vegetation - See Appendix B

2 Execution

a. Subgrade preparation

1. Existing sub-grade in Bioretention areas shall NOT be compacted or subject to excessive construction equipment traffic.
2. Initial excavation can be performed during rough site grading but shall not be carried to within one feet of the final bottom elevation. Final excavation should not take place until all disturbed areas in the drainage area have been stabilized.
3. Where erosion of sub-grade has caused accumulation of fine materials and/or surface ponding in the graded bottom, this material shall be removed with light

equipment and the underlying soils scarified to a minimum depth of 6 inches with a York rake or equivalent by light tractor.

4. Bring sub-grade of bioretention area to line, grade, and elevations indicated. Fill and lightly regrade any areas damaged by erosion, ponding, or traffic compaction. All bioretention areas shall be level grade on the bottom.
5. Halt excavation and notify engineer immediately if evidence of sinkhole activity or pinnacles of carbonate bedrock are encountered in the bioretention area.

b. Rain Garden Installation

1. Upon completion of sub-grade work, the Engineer shall be notified and shall inspect at his/her discretion before proceeding with bioretention installation.
2. For the subsurface storage/infiltration bed installation, amended soils should be placed on the bottom to the specified depth.
3. Planting soil shall be placed immediately after approval of sub-grade preparation/bed installation. Any accumulation of debris or sediment that takes place after approval of sub-grade shall be removed prior to installation of planting soil at no extra cost to the Owner.
4. Install planting soil (exceeding all criteria) in 18-inch maximum lifts and lightly compact (tamp with backhoe bucket or by hand). Keep equipment movement over planting soil to a minimum – **do not over compact**. Install planting soil to grades indicated on the drawings.
5. Plant trees and shrubs according to supplier's recommendations and only from mid-March through the end of June or from mid-September through mid-November.
6. Install 2-3" shredded hardwood mulch (minimum age 6 months) or compost mulch evenly as shown on plans. Do not apply mulch in areas where ground cover is to be grass or where cover will be established by seeding.
7. Protect Rain Gardens from sediment at all times during construction. Hay bales, diversion berms and/or other appropriate measures shall be used at the toe of slopes that are adjacent to Rain Gardens to prevent sediment from washing into these areas during site development.
8. When the site is fully vegetated and the soil mantle stabilized the plan designer shall be notified and shall inspect the Rain Garden drainage area at his/her discretion before the area is brought online and sediment control devices removed.
9. Water vegetation at the end of each day for two weeks after planting is completed.

Contractor should provide a one-year 80% care and replacement warranty for all planting beginning after installation and inspection of all plants.

SECTION F

FUNDING SOURCES

FUNDING SOURCES

- Raingarden – The proposed improvement is in the very early conceptual stage and the Borough is currently exploring funding options.

- Stream Restoration – The estimated cost for the proposed 300 lf of stream bank restoration is $120,000.00. Braddock Hills Borough is looking at grant options through the National Fish and Wildlife Foundation. These grants are usually at a 1:1 match ratio; therefore; the Borough would apply for a grant of $60,000 from NFWF with the matching $60,000.00 coming from Borough funds and partner contributions or an as yet to be determined non-federal source.

THE EADS GROUP
ENGINEERING ARCHITECTURE AND DESIGN SERVICES

Subject: Braddock Hills Borough
Stream Restoration
Job No.:
Sheet 1 of 1
Drawn By: SMC Date: 11/29/2017 Checked By: DRC

PROPOSED IMPROVEMENTS ESTIMATE

Item No.	Description	Quantity	Units	Unit Price	Total Price
1	Stream Restoration				
A	Bank restoration to prevent channel or bank erosion both sides of stream	300	LF	$ 300.00	$ 90,000.00
B	Restoration of yards/ property	1	LS	$ 4,000.00	$ 4,000.00
C	Right-of-way acquisition for construction and maintenance	1	LS	$ 5,000.00	$ 5,000.00

SUB-TOTAL	**$**	**99,000.00**
CONTINGENCY (5%)	$	4,950.00
ESTIMATED CONSTRUCTION COST	$	103,950.00
PERMITTING (5%)	$	5,197.50
ENGINEERING FEE (10%)	$	10,395.00
TOTAL	$	119,542.50
TOTAL PROJECT COSTS, ROUND TO	**$**	**120,000.00**

SECTION G

RESPONSIBLE PARTIES FOR O&M OF BMPs

OPERATION AND MAINTENANCE

Raingarden: Located in Borough Park

Responsible Party – Braddock Hills Borough

Frequency – See below.

Action(s)

- While vegetation is being established, pruning and weeding may be required.
- Detritus may also need to be removed every year. Perennial plantings may be cut down at the end of the growing season.
- Mulch should be re-spread when erosion is evident and be replenished as needed. Once every 2 to 3 years the entire area may require mulch replacement.
- Bioretention areas should be inspected at least two times per year for sediment buildup, erosion, vegetative conditions, etc.
- During periods of extended drought, bioretention areas may require watering.
- Trees and shrubs should be inspected twice per year to evaluate health.

Stream Restoration: Impaired unnamed tributary to the Monogahela River

Responsible Party – Braddock Hills Borough

Frequency – Two times per year or after major rain events.

Action – Remove accumulated debris/sediment which should be disposed of properly and disturbed areas need to be immediately stabilized and/or revegetated. Vegetated areas should be inspected annually for erosion. Vegetated areas should be inspected annually for unwanted growth of exotic/invasive species.