

**September 30, 2024**

**NPDES Annual MS4 Status Report Reviewer**

Bureau of Clean Water  
Pennsylvania Department of Environmental Protection  
2 East Main Street  
Norristown, PA 19401  
*Submitted via DEP's OnBase Electronic Forms Upload Tool*

RE: New Hanover Township 2024 Annual MS4 Status Report  
NPDES Permit No. PAG130020  
New Hanover Township, Montgomery County, PA

**Dear Reviewer,**

On behalf of New Hanover Township, the Center for Watershed Protection is pleased to provide the enclosed Annual MS4 Status Report and associated documentation for the NPDES MS4 General Permit (PAG130020) covering the period from July 1, 2023 to June 30, 2024. The report documents the Township's compliance with the permit and continuing efforts to go above and beyond in improving their Stormwater Management Program.

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

Best Regards,  
**Center for Watershed Protection**



Beth Uhler  
**Pennsylvania Director**

cc: Jamie Gwynn, New Hanover Township Manager  
Maggie Dobbs, New Hanover Township Assistant Manager



# MUNICIPAL SEPERATE STORM SEWER SYSTEM

# ANNUAL MS4 STATUS REPORT 2024

**NEW HANOVER TOWNSHIP,**  
Montgomery County

2943 N. Charlotte Street  
Gilbertsville, PA 19525

**CENTER FOR  
WATERSHED  
PROTECTION**

Center for Watershed Protection, Inc.  
11711 East Market Place, Suite 200,  
Fulton, MD 20759  
[www.cwp.org](http://www.cwp.org)

# MUNICIPAL SEPERATE STORM SEWER SYSTEM ANNUAL MS4 STATUS REPORT



## TABLE OF CONTENTS

### **Annual Municipal Separate Storm Sewer System (MS4) Status Report Form**

#### **Attachment A - MCM #1- Public Education and Outreach Program (PEOP)**

- Public Education and Outreach Documentation
- Township Newsletters

#### **Attachment B - MCM #2- Public Involvement and Participation Program (PIPP)**

- Public Involvement and Participation Documentation
- Board of Supervisors (BOS) Meeting Minutes
- New Hanover Township NPDES MS4 Program Presentation for BOS
- Environmental Advisory Board (EAB) Meeting Minutes
- Perkiomen Watershed Conservancy Stormwater Reduction Statistics Package
- Simplified Stormwater BMP Ordinance Appendix- Public Notice/Proof of Publication

#### **Appendix C - MCM #3- Illicit Discharge Detection and Elimination (IDDE)**

- Dry Weather Priority Outfall Field Screening Memo and Summary Table
- Dry Weather Priority Outfall Field Screening Reports
- IDDE Incident Report & Correspondance Documentation

#### **Appendix D – MCM #5- Post Construction Stormwater Management**

- 2024 PCSM BMP Inventory

#### **Appendix E - MCM #6- Pollution Prevention/Good Housekeeping (PP-GH)**

- NPDES MS4 Employee Training Presentation
- NPDES MS4 Employee Training Sign-In Sheet
- Stormwater BMP Operation, Maintenance & Training Presentation
- Stormwater BMP Operation, Maintenance & Training Sign-In Sheet

#### **Appendix F – Pollutant Reduction Plan (PRP) Final Report**

- Swamp Creek Stream Restoration PRP Final Report Form
- Stream Restoration Eligibility Evaluation Memo
- Pollutant Reduction Plan Set (includes O&M pg. 8)
- Pre-& Post-Construction Site Photos

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

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

GENERAL INFORMATION					
Permittee Name:	New Hanover Township	NPDES Permit No.:	PAG130020		
Mailing Address:	2943 N. Charlotte Street	Effective Date:	1/15/2019		
City, State, Zip:	Gilbertsville, PA 19525	Expiration Date:	Administratively extended		
MS4 Contact Person:	Jamie L. Gwynn	Renewal Due Date:	TBD		
Title:	Township Manager	Municipality:	New Hanover Township		
Phone:	610-631-0450	County:	Montgomery		
Email:	jgwynn@newhanover-pa.org				
Co-Permittees (if applicable): n/a					
Appendix(ces) that permittee is subject to (select all that apply):					
<input type="checkbox"/> Appendix A <input type="checkbox"/> Appendix B <input checked="" type="checkbox"/> Appendix C <input type="checkbox"/> Appendix D <input checked="" type="checkbox"/> Appendix E <input type="checkbox"/> Appendix F					
WATER QUALITY INFORMATION					
Are there any discharges to waters within the Chesapeake Bay Watershed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Identify all surface waters that receive stormwater discharges from the permittee's MS4 and provide the requested information (see instructions).					
Receiving Water Name	Ch. 93 Class.	Impaired?	Cause(s)	TMDL?	WLA?
Swamp Creek (reach 02040203000487)	TSF	Yes	Municipal Point Source-Cause Unknown; Urban Runoff/Storm Sewer Siltation	No	No
Swamp Creek (reach 02040203000488)	TSF	No		No	No
Minister Creek	TSF	No		No	No
Middle Creek	TSF	No		No	No
Scioto Creek	TSF	No		No	No
Unnamed Tributary (UNT) to Sanatoga Creek	WWF	No		No	No
UNTs to Miniter Creek	TSF	No		No	No
UNTs to Swamp Creek (reach 02040203000488)	TSF	No		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	New Hanover Township	Maggie Dobbs	610-323-1008 x103
#2 Public Involvement/Participation	New Hanover Township	Maggie Dobbs	610-323-1008 x103
#3 Illicit Discharge Detection and Elimination (IDD&E)	New Hanover Township	Jay Kowal	610-323-1008
#4 Construction Site Storm Water Runoff Control	New Hanover Township	Jamie Gwynn	610-323-1008
#5 Post-Construction Storm Water Management in New Development and Redevelopment	New Hanover Township	Maggie Dobbs	610-323-1008 x103
#6 Pollution Prevention / Good Housekeeping	New Hanover Township	Jay Kowal	610-323-1008

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

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

- For new permittees only, has the written PEOP been developed and implemented within the first year of permit coverage?  
 Yes     No
- Date of latest annual review of PEOP: March 2024 (last updated March 2021)      Were updates made?     Yes     No
- What were the plans and goals for public education and outreach for the reporting period?  
  - Review the PEOP and update as necessary.
  - Review the target audience list and update as necessary.
  - Review the information and links on the stormwater page of the Township website and update as necessary.
  - Display and distribute stormwater educational information at the Township Building and parks.
  - Distribute stormwater information to new homeowners.
  - Include MS4 educational materials on stormwater in bills and once a year on employee paychecks.
  - Continue involvement with the Township Environmental Advisory Board (EAB).
  - Educate PCSM BMP owners about stormwater and BMP maintenance to help ensure proper O&M by sending out a mailing and monitoring compliance of BMP inspections.
  - Publish at least one article relating to stormwater in the Township newsletter.
- Did the MS4 achieve its goal(s) for the PEOP during the reporting period?       Yes     No
- Identify specific plans and goals for public education and outreach for the upcoming year:  
  
The Township plans to continue implementing the plans and goals outlined in #3 above, and also implement a Stormwater BMP Self Inspection Program as part of MCM #5 and educate the public through the use of reporting system.

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

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

Yes  No

2. Date of latest annual review of target audience lists: March 2024      Were updates made?  Yes  No

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

1. For new permittees only, were stormwater educational and informational items produced and published in print and/or on the Internet within the first year of permit coverage?

Yes  No

2. Date of latest annual review of educational materials: March 2024      Were updates made?  Yes  No

3. Do you have a municipal website?  Yes  No (URL:  
[https://www.newhanover-  
pa.org/departments/planning/stormwater\\_management.php](https://www.newhanover-pa.org/departments/planning/stormwater_management.php))

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

The website contains a stormwater web page under "Planning" which provides an overview of stormwater management, a link to an ArcGIS Online (AGOL) Story Map of the Township's stormwater infrastructure, NPDES MS4 permitting overview, information on the stormwater BMP inspection program, Stormwater Pollution Prevention Tips for Township residents and businesses, EPA Minimum Control Measure (MCM) forms, and numerous links to a wide variety of educational and government websites. Some of these links include the EPA Stormwater Basic Information, PA DEP Stormwater Management Program, Perkiomen Watershed Conservancy, Homeowner's Guide to Stormwater, Green Guide for Property Management, Quick Resource Guide for Winter Maintenance BMPs, etc.

The Stormwater Management webpage includes a link to the Stormwater BMP Inspection Program webpage, which includes information on the program, step-by-step user guidance, a Story Map tool, and link to the ArcGIS Survey123 self inspection form.

4. Describe any other method(s) used during the reporting period to provide information on stormwater to the public:  
Please refer to BMP #4 for additional methods used and Appendix A for supporting documentation.
5. Identify specific plans for the publication of stormwater materials for the upcoming year:
  - Display and distribute stormwater educational information at the Township Building and parks.
  - Distribute stormwater information to new homeowners.
  - Include MS4 educational materials on stormwater in bills and once a year on employee paychecks.
  - Continue involvement with the Township Environmental Advisory Board (EAB).
  - Educate PCSM BMP owners about stormwater and BMP maintenance to help ensure proper O&M by sending out a mailing and monitoring compliance of BMP inspections.
  - Publish at least one article relating to stormwater in the Township newsletter.

**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).

- On September 1, 2023, the Township shared a link to the electronic version of the Township Fall/Winter 2023 Newsletter to the Township Facebook page. The Newsletter contained articles regarding stormwater management.
- On January 1, 2024, the Township shared an Emergency Management Update regarding intense weather patterns and heavy rains to the Township Facebook page. The Emergency Management Update included a link to the Township's ArcGIS interactive infrastructure mapping which includes the stormwater sewer system.
- On January 31, 2024 the Township shared an article on Stormwater Pollution Prevention Tips for Winter 2023-2024 to the Township Facebook page. The article was created by the Perkiomen Watershed Conservancy (PWC) and provided to the Township as part of their partnership benefits package.
- New Hanover Township adopted a new fee schedule on March 2, 2024 including new fees for Stormwater Management. The Township shared a link to the updated document on the Township Facebook page on March 11, 2024.
- On March 21, 2024, the Township shared an article on Stormwater Pollution Prevention Tips Spring 2024 to the Township Facebook page. The article was created by PWC and provided to the Township as part of their partnership benefits package.
- On April 3, 2024 the township shared a link to the electronic version of the Township Spring/Summer 2024 Newsletter on the Township Facebook page. The Newsletter contained articles regarding stormwater management.
- On April 4, 2024, the Township hosted an in-person education session on their Stormwater BMP Inspection Program. For those that could not attend in-person, a link to materials presented and information on BMP self-inspections were shared on the Township Facebook page on April 4, 2024, following the session.
- The Township's website was updated in April to include a webpage dedicated to the Township Stormwater BMP Inspection Program. The webpage includes information and step-by-step instructions for completing BMP self-inspections. Materials presented at the in-person April 4, 2024 educational session are also included on this webpage.

- The Township provides printed education information at the Municipal Building. Materials include flyers from the Perkiomen Watershed Conservancy (PWC), Township Newsletters, a Basin Retrofit brochure, and a pamphlet titled, "Yard Waste Accepted for Recycling."
- The Township's Spring/Summer 2023 Newsletter included articles and information related to stormwater management. The following were included: "Possible Prescription Problems," describes potential negative impacts of medications entering the waste water system and waterways; "Beautify Your Property- Protect Our Resources," notes planting native plants to reduce water use and lawn runoff; "Illicit Discharge Reporting," defines what an illicit discharge is, DEP regulations, and how to report an illicit discharge; "Yard and Leaf Waste Drop-Off," notes where, when, and what times residents can drop-off yard wastes; "What is an EAB, Anyway?" explains the role of the Township's Environmental Advisory Board; and the "Message from the Public Works Director" notes that crews will be cleaning out and making repairs to drainage infrastructure.
- The Township's Fall/Winter 2023 Newsletter included articles and information related to stormwater management. The following were included: the "Ordinance Corner" section provides information on regulated impervious coverage and requirements for implementing stormwater management facilities; "Fats, Oils, and Greases," article notes the significant impact these wastes have on wastewater systems; the "Message from the Public Works Director" includes leaf recycling and composting information, a reminder to "never dump anything into storm drains and never mow grass into the streets", and instructions to not shovel snow into streets or park over storm drains during snowstorm events.
- The Township's Spring/Summer 2024 Newsletter included articles and information related to stormwater management. The following were included: an article "Hydrogen Sulfide in Wastewater Collection Systems"; the "Message from the Public Works Director" that road maintenance crews will be cleaning out and making repairs to drainage infrastructure; information on the "Stormwater BMP Inspection Program"; "Stormwater Pollution Prevention Tips for Spring 2024" provided by PWC; encouragement to attend the Township's Environmental Advisory Board monthly meetings; and an event flyer for the Lawn to Native Garden Workshop on April 18, 2024 hosted by New Hanover Township and PWC.
- The Township's Website contains several links to Stormwater Management information. Refer to BMP #3 of this MCM.

**MCM #1 Comments:**

Refer to Appendix A for MCM #1 supporting documentation.  
The most recent updated written PEOP was submitted with the 2021 Annual MS4 Status Report and is available upon request.

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

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

1. For new permittees only, was the PIPP developed and implemented within one year of permit coverage?  
 Yes  No
2. Date of latest annual review of PIPP: March 2024 (last updated March 2021)    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:  
  
An amendment was made to the existing stormwater management ordinance. Attachment 10- Appendix 23H, Simplified Stormwater BMP was added to the ordinance during this reporting period. The public notice for the Simplified Stormwater BMP attachment public comment period and public hearing date was advertised in the Pottstown Mercury on August 24th and 31st, 2023. The public hearing took place on September 7, 2023 and the Board of Supervisors (BOS) formally adopted the amendment at that time. Refer to Appendix B for the Public Notice/Proof of Publication.

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
Stormwater Management Ordinance (addition of Attachment 10- Appendix 23H Simplified Stormwater BMP)	08/24/2023 & 08/31/2023	09/07/2023	09/07/2023

**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:

At the June 6, 2024 Board of Supervisors (BOS) Meeting, Township MS4 consultatn, Beth Uhler of the Center for Watershed Protection (CWP), and Maggie Dobbs, Assistant Township Manager, presented on the components of the NPDES MS4 Program, stormwater control measures, inspection schedules, and the Township's BMP self-inspection program. Refer to Appendix B for the BOS Meeting Minutes and New Hanover Township NPDES MS4 Program presentation.

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.

-On October 28, 2023 the Township hosted a Free Shrub/Tree Giveaway event. The event was a collaboration between Keystone 10 Million Tree Project, Montgomery County Master Watershed Stewards and New Hanover Township. The Township advertised the event through the Township Facebook page on October 9, 2024 and October 24, 2024. Per the November 14, 2023 Environmental Advisory Board (EAB) Meeting Minutes, the event was successful with over 500 trees given out to residents.

-On April 4, 2024 the Township hosted a Stormwater Management BMP Inspection Program information session which drew approximately 40 participants. Property owners that opt into self-inspections of stormwater BMPs were informed on how to use the Township's ArcGIS Survey 123 link shared to participate in the program. Additional information and materials from the educational session are provided on the Township website Stormwater BMP Inspection Program webpage. A total of 40 New Hanover Township residents participated in the event and 28 native perennials were distributed. The event was advertised on the Township Facebook page on March 26, 2024, April 1, 2024 and on April 4, 2024, prior to the event.

-On April 18, 2024 New Hanover Township and the Perkiomen Watershed Conservancy (PWC) hosted a Lawn to Native Garden Workshop at New Hanover Township Municipal Park. Participants learned about the benefits of native plants, environmental impacts of "lawn culture", and how native plants help filter and infiltrate stormwater. The Township advertised the event and shared a registration link to the Township Facebook page on February 26, 2024.

-On May 11, 2024 the Perkiomen Watershed Conservancy (PWC) hosted a Rain Barrel Workshop during their annual Native Plant Sale. The Township shared the event advertisement to the Township Facebook page on May 2, 2024.

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.

-On April 22, 2024 the Township announced that they were selling rain barrels at the Township Building on the Township Facebook page. The Facebook post noted that the Perkiomen Watershed Conservancy was available to provide helpful information regarding use of the rain barrel. 8 rain barrels were sold to Township residents.

-On March 19, 2024 a live staking event was held at the 4H Center in Creamery, per Environmental Advisory Board (EAB) Meeting Minutes dated February 12, 2024.

-On April 13, 2024 a live staking event was held at Swamp Creek Park per EAB Meeting Minutes dated February 12, 2024 and April 8, 2024.

-According to the Perkiomen Watershed Conservancy (PWC) Stormwater Reduction Statistics Package, six (6) stream clean-ups were organized. A total of 54 volunteers from New Hanover Township participated in the clean-ups, removing 49 bags of trash over the duration of the reporting period. PWC and New Hanover Township partnered on two (2) Rain Barrel/Lawn to Native Garden Workshops, yeilding a total of 40 municipal volunteers with 8 rain barrels made and 28 perennials being given out to residents. See Appendix B for supporting documentation.

**MCM #2 Comments:**

The Township continues to partner with Perkiomen Watershed Conservancy through their Municipal Membership Program to share stormwater-related information and organize community engagement activities.

Refer to Appendices A and B for MCM #2 supporting documentation. The most recent updated written PIPP was submitted with the 2021 Annual MS4 Status Report and is available upon request.

**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: March 2024 (last Were updates made?  Yes  No updated March 2021)

**BMP #2: Develop and maintain map(s) that show permittee and urbanized area boundaries, the location of all outfalls and, if applicable, observation points, and the locations and names of all surface waters that receive discharges from those outfalls. Outfalls and observation points shall be numbered on the map(s).**

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

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

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

2. Date of last update or revision to map(s): June 26, 2024; Public Web Map App updated continuously. Link to app: <https://arcg.is/0mzWKW1>

3. Total No. of Outfalls in MS4: 189 Total No. of Outfalls Mapped: 189

4. Total No. of Observation Points: 88 Total No. of Observation Points Mapped: 88

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

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

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

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

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

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

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

3. Date of last update or revision to map(s): June 26, 2024; Public Web Map App updated continuously. Link to app: <https://arcg.is/0mzWKW1>

**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? 11

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: 9%

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

5. If Yes for #4, attach all sample results to this report with a map identifying the sample location. Explain the corrective action(s) taken in the attachment.

6. Do you use the MS4 Outfall Field Screening Report form (3800-FM-BCW0521) provided in the permit?

Yes  No

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

**BMP #5: Enact a Stormwater Management Ordinance or SOP to implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to the regulated small MS4.**

1. Do you have an ordinance (municipal) or SOP or other mechanism (non-municipal) that prohibits non-stormwater discharges?  Yes  No

If Yes, indicate the date of the ordinance or SOP: 12/1/2022

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

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

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

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

Violation Date	Nature of Violation	Responsible Party	Enforcement Taken
01-05-2024	Dump truck released hydraulic oil onto roadway	White Tail Disposal	Reported to DEP and State EOC. Oil-dry and street sweeper brought in to remediate oil tire tracks on roadway. Operator of truck placed absorbents to address release.

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? Township Public Works employees received an in-classroom training from staff at the Center for Watershed Protection (CWP) which included an overview of Illicit Discharge Detection and Elimination and Dry Weather Outfall Field Screening Procedures and how to utilize the MS4 Outfall Field Screening Form on April 29, 2024. A copy of the presentation is attached in Appendix E. The in-classroom training was followed by a field training session on June 11, 2024 in which CWP trained and oversaw Public Works employees while they conducted dry weather outfall field screenings for priority outfalls.

The Township website also includes educational information about IDDE in a Story Map, including a number to call if an illicit discharge is suspected. The number is also provided on the Township's Stormwater Management webpage along with links to additional educational resources.

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

Yes  No

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

**MCM #3 Comments:**

-The Township maintains a map with all stormwater infrastructure, outfalls, and BMPs by maintaining an interactive ArcGIS Online (AGOL) web map app. 31 BMPs were added to the New Hanover GIS inventory and webmap during the reporting period. The last update occurred on 6/26/2024.

- There were no updates, additions or deletions to outfalls or observation points during the reporting period.

-The web map app is publicly accessible via the stormwater page on the Township website at the link below: <https://nhtpa.maps.arcgis.com/apps/webappviewer/index.html?id=a094bc9a144745e3911ef1c65a279145>

-The Township uses a Survey123 Form that contains the same information as the DEP MS4 Outfall Field Screening Form. Refer to Appendix C for report forms.

-Dry weather outfall field screenings were performed as part-two (field training session) of the Center for Watershed Protection's (CWPs) MS4 IDDE Employee Training Program. CWP staff were joined by Public Works employees to conduct 11 priority outfalls screenings on June 11, 2024. A memorandum of the field training, summary of results, and dry weather outfall field screening inspection forms are attached in Appendix C. No illicit discharges were noted based on results of the outfall field screening inspections.

-The most recent updated written IDDE Program was submitted with the 2021 Annual MS4 Status Report and is available upon request.

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

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

Yes  No

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

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

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

Yes  No  Not Applicable (no building permit applications received)

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

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

Yes  No  Not Applicable (no building permit applications received)

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

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

If Yes, indicate the date of the ordinance or SOP: 12/1/2022

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

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

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

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

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

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

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

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

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

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

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

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

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

**MCM #4 Comments:**

The Township does rely on PA's statewide program for stormwater associated with construction activities to satisfy this MCM. In addition, the Township typically completes erosion & sediment control inspections and enforcement. However, the formal program is temporarily suspended due to Township staffing changes and updates to the E&S Control Inspection Program. The Township Engineer (Knight Engineering, Inc.) still conducts regular inspections on their active construction sites as part of the land development process. The Township also requires E&S controls for projects that are less than

one acre of earth disturbance through a plan review process and conducts inspections of these sites. This information is available upon request.

A list of active construction sites great than or equal to one acre within the Township is provided below:

Hanover Pointe- Still Active

Rolling Meadows- NPDES Permit expires, outstanding items remain

Woodfield- Still Active

Montgomery View/Renninger- Still Active

Kiner, Little Road- Active

Firefly, Kulp Road- Active

Conway, Little Road- Active

Sanatoga Road Culvert Replacement- Township project, Active

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

**BMP #1: Enact, implement and enforce an ordinance or SOP to require post-construction stormwater management from new development and redevelopment projects, including sanctions for non-compliance.**

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

**BMP #2: Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new development and redevelopment. Measures should also be included to encourage retrofitting LID into existing development. Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID practices.**

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

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

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

The Township underwent a major update of their Stormwater BMP Inspection and Compliance Program (refer to MCM #5 Comments section). Responsible parties were given an opportunity to complete a self-inspection at no cost or have the Township Engineer complete their inspection (i.e. engineered inspection) for a cost per the Township's fee schedule. All inspections were completed in April through June. Results were being reviewed/finalized for violation or compliance letters to be distributed as of the end of this reporting period.

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

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

1. Specify the number of PCSM Plans reviewed during the reporting period for projects disturbing greater than or equal to one acre (including projects less than one acre that are part of a larger common plan of development or sale):
2. Has a tracking system been established and maintained to record qualifying projects and their associated BMPs?

Yes  No

**PCSM BMP INVENTORY**

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

BMP No.	BMP Name	DA (ac)	Entity Responsible for O&M	Latitude	Longitude	Date Installed	O&M Requirements	NPDES Permit No.
1	*Refer to Attachment D for PCSM BMP Inventory			o ' "	o ' "			
2				o ' "	o ' "			
3				o ' "	o ' "			
4				o ' "	o ' "			
5				o ' "	o ' "			
6				o ' "	o ' "			
7				o ' "	o ' "			
8				o ' "	o ' "			
9				o ' "	o ' "			
10				o ' "	o ' "			
11				o ' "	o ' "			
12				o ' "	o ' "			
13				o ' "	o ' "			
14				o ' "	o ' "			
15				o ' "	o ' "			
16				o ' "	o ' "			

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

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

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

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

**MCM #5 Comments:**

The Township underwent a major update of their Stormwater BMP Inspection and Compliance Program (refer to MCM #5 Comments section). Responsible parties were given an opportunity to complete a self-inspection at no cost or have the Township Engineer complete their inspection (i.e. engineered inspection) for a cost per the Township's fee schedule. All inspections were completed in April through June. Results were being reviewed/finalized for violation or compliance letters to be distributed as of the end of this reporting period.

The Township will continue to maintain and update both the PCSM BMP Inventory and the inventory of BMPs that are less than one acre (LT1A) installed to meet Township stormwater ordinance requirements. Refer to Appendix D for the PCSM BMP Inventory. The LT1A BMP Inventory is available upon request.

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

**BMP #1: Identify and document all operations that are owned or operated by the permittee and have the potential for generating pollution in stormwater runoff to the MS4. This includes activities conducted by contractors for the permittee.**

1. Have you identified all facilities and activities owned and operated by the permittee that have the potential to generate stormwater runoff into the MS4?  Yes  No
2. When was the inventory last reviewed? June 2024
3. When was it last updated? September 14, 2022 (included in the written O&M Program)

**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: Last reviewed June 2024, last updated September 14, 2022

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

3800-FM-BCW0491 9/2017  
Annual MS4 Status Report

1. Have you developed an employee training program?  Yes  No
2. Date of last review or update to training program: Reviewed June 2024; Updated August 4, 2022 Date of latest training: April 29, 2024

3. Training topics covered:

- NPDES MS4 Program Overview
- MCM #3- Illicit Discharge Detection and Elimination
- Dry Weather Outfall Field Screening Procedures (and MS4 Outfall Field Screening Form)
- A part-two Field Training was also conducted in addition to the classroom training session. Field Training took place on June 11, 2024 in which Public Works staff were joined by CWP staff to conduct Priority Area Outfall Field Screenings. Refer to Appendix C for Memorandum and staff attendees.

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

Beth Uhler, CWP  
Julie Schneider, CWP

5. Names of training attendees:

Maggie Dobbs, Assistant Manager (classroom attendee only)  
Shaina Ward, Administrator (classroom attendee only)  
Jay Kowal, Public Works Director  
Sam Miskey, Public Works Department  
Zach Hendricks, Public Works Department  
Randy Miller, Public Works Department  
Kevin Snyder, Public Works Department  
Kevin Fulmer, Public Works Department  
Brad Holloway, Public Works Department  
Matthew Bechtel, Public Works Department (field training attendee only)

Refer to sign-in sheet in Appendix E.

**MCM #6 Comments:**

Employee training documentation is included in Appendix E. Refer to Appendix C for Priority Outfall Field Screening Memorandum and attendees list of field training session.

**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.*

<b>Task</b>	<b>Date Completed</b>	<b>Attached</b>	<b>Anticipated Completion Date</b>
Storm Sewershed Map(s)	9/30/2019	<input type="checkbox"/>	
Source Inventory	8/19/2020	<input type="checkbox"/>	
Investigation of Suspected Sources	n/a	<input type="checkbox"/>	n/a
Ordinance/SOP for Controlling Animal Wastes	n/a	<input type="checkbox"/>	n/a

**PCM Comments:**

The Township is required to implement Pollutant Control Measures for Priority Organic Compounds (App C) for discharges to the Schuylkill River which is impaired by polychlorinated biphenyls (PCBs). Because no suspected sources of PCBs were identified in the Source Inventory, an investigation of suspected sources is not applicable.

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

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

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

Type of Plan	Submission Date	DEP Approval Date	Surface Waters Addressed by Plan
<input type="checkbox"/> Chesapeake Bay PRP (Appendix D)			Chesapeake Bay
<input checked="" type="checkbox"/> Impaired Waters PRP (Appendix E)	Revised October 2018	January 11, 2019	Swamp Creek
<input type="checkbox"/> TMDL Plan (Appendix F)			
<input type="checkbox"/> Combined Chesapeake Bay / Impaired Waters PRP			Chesapeake Bay,
<input type="checkbox"/> Combined PRP / TMDL Plan			

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

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

Type of Plan	TSS Load Reduction (lbs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)
<input type="checkbox"/> Chesapeake Bay PRP (Appendix D)			
<input checked="" type="checkbox"/> Impaired Waters PRP (Appendix E)	3,644.75		
<input type="checkbox"/> TMDL Plan (Appendix F)			
<input type="checkbox"/> Combined Chesapeake Bay / Impaired Waters PRP			
<input type="checkbox"/> Combined PRP / TMDL Plan			

3. Date Final Report Demonstrating Achievement of Pollutant Load Reductions Due: September 30, 2024

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

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

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

If Yes to #4, describe the plan modifications.

5. Summary of progress achieved during reporting period.

The Swamp Creek Stream Restoration project was completed in September 2023. Monitoring continued throughout this reporting period to ensure vegetation was being established and proper maintenance was taking place. The PRP Final Report and attachments are included in Appendix F. This project fulfills the Township's pollutant reduction requirement for this permit period.

The Environmental Advisory Board (EAB) began investigating stormwater basins for retrofits. Five basins were selected for retrofit projects that will be considered for implementation in the next permit period. Refer to Appendix B,

EAB Meeting Minutes dated 11/14/2023, 12/11/2023, 1/8/2024, 3/11/2024, and 4/8/2024 for discussions of the Basin Retrofit Initiative.

6. Anticipated activities for next reporting period.

The Township will continue to identify new project opportunities in anticipation of the next permit. See Appendix B, EAB Meeting Minutes dated 11/14/2023, 12/11/2023, 1/8/2024, 3/11/2024, and 4/8/2024 for discussions on the Basin Retrofit Initiative.

**PRP/TMDL Plan Comments:**

Refer to Appendix E for PRP Final Report and associated documentation.

**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)
1	Swamp Creek Stream Restoration	82.65	11	100 lf	1	40°19'1"	75°35'5"	9/1/2023	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4488
						o ' "	o ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						o ' "	o ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						o ' "	o ' "		<input type="checkbox"/>	<input type="checkbox"/>	
						o ' "	o ' "		<input type="checkbox"/>	<input type="checkbox"/>	

**BMP INVENTORY FOR PRP/TMDL PLAN IMPLEMENTATION**

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

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

						o ' "	o ' "				<input type="checkbox"/>
--	--	--	--	--	--	-------	-------	--	--	--	--------------------------

**CERTIFICATION**

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

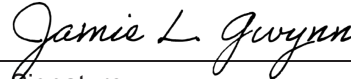
**For All Permittees:** I certify under penalty of law that this report was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage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

Jamie Gwynn, New Hanover Township Manager

Name of Responsible Official

610-323-1008

Telephone No.



Signature

09-26-2024

Date

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



**APPENDIX A**

**MCM#1  
PUBLIC EDUCATION AND OUTREACH  
PROGRAM**

- Public Education and Outreach Documentation
- Township Newsletters

On September 1, 2023 the Township shared a link to the electronic version of the Township Fall/Winter 2023 Newsletter to the Township Facebook page. The Newsletter contained information on stormwater management. See Newsletters, attached to this Appendix, for more information.

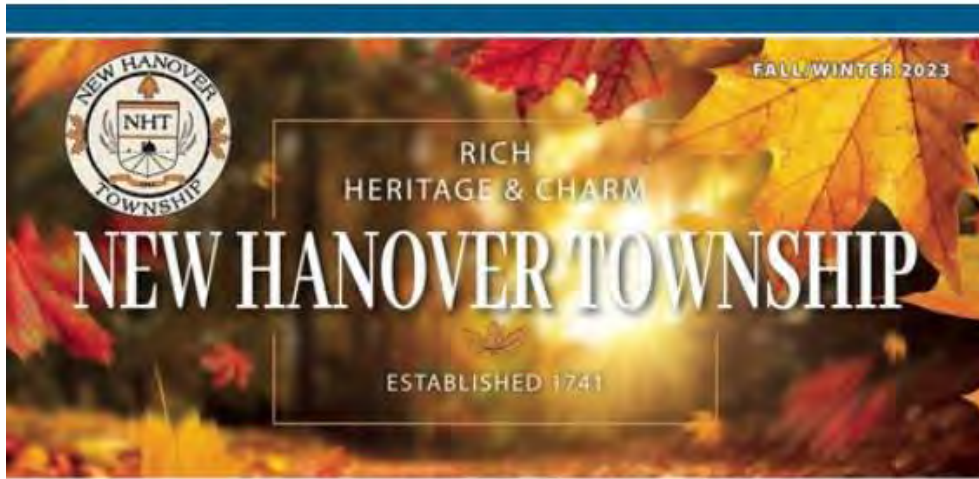


New Hanover Township

September 1, 2023 · 🌐



Our fall/winter newsletter is officially out and will be mailed to households soon. Click below for the electronic version!



Dear Residents,




[VIEW.FLIPDOCS.COM](http://VIEW.FLIPDOCS.COM)

**New Hanover Fall Winter 23**

👍 6

2 comments 1 share

On January 1, 2024 the Township shared an Emergency Management Update regarding intense weather patterns and heavy rains to the Township Facebook page. The Update included a link to the Township's ArcGIS interactive infrastructure mapping to help residents report damages due to the heavy rainfall event.



**New Hanover Township**  
January 9 · 🌐

Emergency Management Update

Our weather pattern is showing an inch of rain throughout the day, heavy rain into the night and tomorrow morning with winds gusting up to 40 miles an hour. It's possible we will have another 1 to 2 inches of rain. Please use caution while traveling our roads.


Our interactive map below shows where our roadblocks and crossing arms are located in flooding events (turn on the layers labeled "Flood Event..."). We will post road closures as they come in via the [New Hanover Township Police Department](#).

<https://nhtpa.maps.arcgis.com/.../webappviewer/index.html...>

Reporting Damage

If you experience damage on your property, please send an email to [contact@newhanover-pa.org](mailto:contact@newhanover-pa.org) with the location, damage, description and dimensions, a local estimated cost of the damages, whether you have insurance coverage for the damage, and the impact of the damage. The Township will then send this information into Montgomery County's Division of Emergency Management. If an emergency declaration is declared by the PEMA, they will analyze the damage information it receives from the County to determine if the event warrants requesting assistance from either FEMA or the SBA. More information on this is also linked below.

<https://www.pema.pa.gov/.../Report.../Pages/default.aspx>




NHTPA.MAPS.ARCGIS.COM  
**New Hanover Township Infrastructure - Public Viewer**  
Web map application displaying New Hanover Township infrastructure

👍 27 5 comments · 17 shares

👍 Like      💬 Comment      ➦ Share

View more comments



**Gabriel Iannozzi**  
Maybe we can stop building so many houses so the flooding would stop getting worse every year?

On January 31 the Township shared an article on Stormwater Pollution Prevention Tips for Winter 2023-2024 to the Township Facebook page. The article was created by the Perkiomen Watershed Conservancy and provided to the Township as part of their benefits package.



New Hanover Township  
January 31 · 🌐

⋮



## Stormwater Pollution Prevention Tips

Winter 2023 – 2024

### MELTING SNOW IS STORMWATER TOO!

Stormwater runoff can come in many forms, including snow melt! When the ground is frozen, melting snow can't infiltrate into the soil the way that rain water is able to. This means that even a small amount of snow can cause flooding on your property.

When snow melts, it picks debris and pollutants that make their way into nearby streams and creeks. In the winter, de-icing salts are a main contributor to stormwater pollution, causing detrimental impacts to local wildlife and water quality.

**Check out these simple steps that you can take to reduce stormwater runoff on your property this winter!**



LEARN MORE BY SCANNING THIS QR CODE OR BY VISITING OUR WEBSITE:  
[WWW.PERKIOMENWATERSHED.ORG](http://WWW.PERKIOMENWATERSHED.ORG)



**Start shoveling early!** The more snow you remove, the less salt you'll need to use.



**Pile snow in locations with the most opportunity for it to infiltrate into the ground.**



**Use de-icing salt sparingly.** Follow the product instructions and give it time to work. Sweep up any remaining material.



**Clear away any snow that may have been thrown onto storm drains.**

👍 10
💬 1 comment
🔗 2 shares

👍 Like
💬 Comment
🔗 Share



**Matthew M. Smith**  
And don't forget to clear fire hydrants that may be close to your home too.

33w Like Reply
👍

The Township shared a link to their new fee schedule, including new fees for stormwater management, on their Township Facebook page on March 11, 2024. The New fee schedule was adopted March 7, 2024 .See Facebook post and excerpt of Contents, below.



## New Hanover Township Fee Schedule

### Contents

New Hanover Township Fee Schedule.....	1
Part 1 – Building and Zoning Permits.....	2
1. Residential Principal and Accessory Structures .....	2
2. Non-Residential Principal and Accessory Structures.....	3
3. Administrative Fees .....	4
Part 2 – Grading and Stormwater Applications .....	5
1. Stormwater Management .....	5
2. Grading and Erosion & Sediment Control .....	5
Part 3 – Highway Occupancy Permits .....	6
1. Street Opening .....	6
2. Driveways, Sidewalks, and Curbs .....	6
3. Other Fees .....	7
Part 4 –Hearing Applications.....	8
1. Zoning Hearing Board .....	8
2. Conditional Use, Change of Zoning .....	8
3. Other Hearings.....	8
4. Building Code Board of Appeals .....	8
Part 5 – Subdivision and Land Development Applications .....	9
1. Residential.....	9
2. Non-Residential.....	10
3. Other Services.....	10
Part 6 – Park Rental Fees .....	11
1. Hickory Park.....	11
2. New Hanover Community Park.....	11
3. Field Rentals .....	11
Part 7 – Impact Fees/Fees in Lieu.....	12
Fee in Lieu of Park and Recreation Areas .....	12
Part 8 – Miscellaneous Fees.....	12

On March 21, 2024, the Township shared an article titled, "Stormwater Pollution Prevention Tips, Spring 2024," to the Township Facebook page. The article was created by the Perkiomen Watershed Conservancy and provided to the Township as part of their benefits package.



New Hanover Township

March 21 · 🌐



## Stormwater Pollution Prevention Tips

Spring 2024

### CARING FOR YOUR YARD THIS SPRING

Spring is here and with it comes warmer weather, longer days and lots of yard work! Before you head outside to tackle your latest project, remember that what you do on your yard has a direct impact on the environment. This is especially true when it comes to caring for your lawn.

Lawns are notorious for their negative impacts on wildlife as well as local waterways. Luckily there are lots of small steps that you can take as a homeowner to make your yard more eco-friendly!

**Consider these tips to reduce stormwater pollution and create wildlife habitat on your property this spring.**



LEARN MORE BY SCANNING THIS QR CODE OR BY VISITING OUR WEBSITE:  
[WWW.PERKIOMENWATERSHED.ORG](http://WWW.PERKIOMENWATERSHED.ORG)



**Clean-up:** Collect and dispose of any trash that might have blown into your yard over the winter. Mulch or compost leaves and garden cuttings from the fall so that they don't get washed into local streams.



**Fertilize Carefully:** Look for slow release nitrogen fertilizer which is less likely to harm water quality. Several small fertilizer applications spread out over the growing season is better than one large application. Never apply fertilizer before it rains!



**Plant Natives:** Spring is a great time to plant native trees, shrubs and perennials! Native PA species require less maintenance, are more beneficial for wildlife and absorb more stormwater than non-natives.




**Mow Sharp and High:** A sharp mower blade cuts grass cleanly which improves turf health. Set your mower deck to 2.5" or more to help reduce stormwater runoff. Consider converting a section of your lawn to native garden!

👍 9
🗨️ 3

👍 Like
🗨️ Comment

View more comments



**Heather Kates Walter**

Careful not to remove leaves too quickly as they are

On April 3, 2024 The Township shared a link to the electronic version of the Township Spring/Summer 2024 Newsletter to the Township Facebook page. The Newsletter contained information on stormwater management. See Newsletters, attached to this Appendix, for more information.



On April 4, 2024 the Township shared information following the Stormwater BMP Inspection Program optional education session on the Township Facebook page. The Facebook post contained a link to the Township's Stormwater BMP Inspection Program webpage and other education materials that were presented during the April 4 education session.



In April, 2024 the Township updated their website to include a page dedicated to the Township Stormwater BMP Inspection Program. The webpage includes information and step-by-step instructions for completing BMP self-inspections. Materials that were presented at the educational session on April 4, 2024 are also included on this webpage.

[https://cms6.revize.com/revize/newhanover/information/stormwater\\_bmp\\_inspection\\_program.php?fbclid=IwY2xjawFZX-9leHRuA2FlbQlxMQABHSft0Yu-QN4YfSPK3OHLqosMUi-W6V-o2FFavImfcSy8Qvv5RXOt5ANlza\\_aem\\_kLq9h9QapLYOofUVxcWS\\_Q](https://cms6.revize.com/revize/newhanover/information/stormwater_bmp_inspection_program.php?fbclid=IwY2xjawFZX-9leHRuA2FlbQlxMQABHSft0Yu-QN4YfSPK3OHLqosMUi-W6V-o2FFavImfcSy8Qvv5RXOt5ANlza_aem_kLq9h9QapLYOofUVxcWS_Q)

# Stormwater BMP Inspection Program

[HOME](#) > [INFORMATION](#)

> [STORMWATER BMP INSPECTION PROGRAM](#)

## Stormwater BMP Inspection Program

Property owners who requested to opt into self-inspections for the Stormwater BMP Inspection Program must submit their surveys by Friday, May 31. [Click here](#) for step by step instructions for completing the BMP self-inspection (these are the materials that were presented at the educational session on April 4th).

The survey can be completed through your internet browser by [clicking on this BMP Self Inspection Survey link](#) or you can download the 'ArcGIS Survey123' app onto your mobile device and then within the app, you can scan the following QR code to open the survey. Please click on the step by step instructions above for further details.



New Hanover Township provides printed educational material at the Municipal Building. Materials include a Perkiomen Watershed Conservancy Flyer, "Stormwater Pollution Prevention Tips- Summer 2024", the Township Newsletter which contains stormwater management-related articles, a Basin Retrofit brochure, and pamphlet titled, "Yard Waste Accepted for Recycling." Image taken June 2024.





RICH  
HERITAGE & CHARM

# NEW HANOVER TOWNSHIP



ESTABLISHED 1741

## INSIDE THIS ISSUE

- New Hanover Township Directory.. 3
- Upcoming Public Meetings ..... 4
- Township Building  
Taking on a New Look ..... 4
- Open Space Cleanup..... 4
- Preserving Open Space -  
Agricultural Security Area..... 4
- Township Tidbit ..... 4
- Police Department..... 6
- How to Avoid a Scam..... 7
- Are You Ready For  
Home Emergencies? ..... 8
- Possible Prescription Problems..... 8
- Montgomery County Hazardous  
Waste Events..... 9
- Park and Recreation News ..... 10-11
- Beautify Your Property -  
Preserve Our Resources..... 12
- Illicit Discharge Reporting ..... 12
- Yard and Leaf Waste Drop-Off ..... 12
- What is an EAB, Anyway?..... 12
- Code Enforcement / Zoning ..... 13
- Message from the  
Public Works Director ..... 14

Dear Residents,

We are excited to share with you many updates within this edition of our community newsletter. Some of our highlights:

- We have recently hired a new police chief and assistant manager (and planning and zoning director), among other positions we needed to fill due to retirements, that will bring a fresh perspective into our community.
- Our renovation projects have been completed, as our former Recreation Center transitioned into our new Police Department (2373 Hoffmansville Road) last October and our Municipal Building being finished in March. *Please reach out if you would like a tour of our buildings!*
- Efforts are being made to make doing business with the Township more convenient: We're finalizing the ability to pay for permits electronically or via a debit/credit card, with the ability to pay for your sewer bill (if applicable) online to date.

We hope you enjoy this edition of our newsletter, but stay tuned for the next one as we are in process of revamping the layout to provide even more relevant information within our community.

Sincerely,

Marie Livelsberger, Board of Supervisors, Chair

## BOARD OF SUPERVISORS



Marie Livelsberger  
Chair



W. Ross Snook  
Vice Chair



Kurt Zebrowsk  
Supervisor



D. W. Boone Flint  
Supervisor



Keith Youse  
Supervisor

610.323.1008

2943 North Charlotte Street , Gilbertsville, PA 19525-9718

## ARE YOU READY FOR HOME EMERGENCIES?

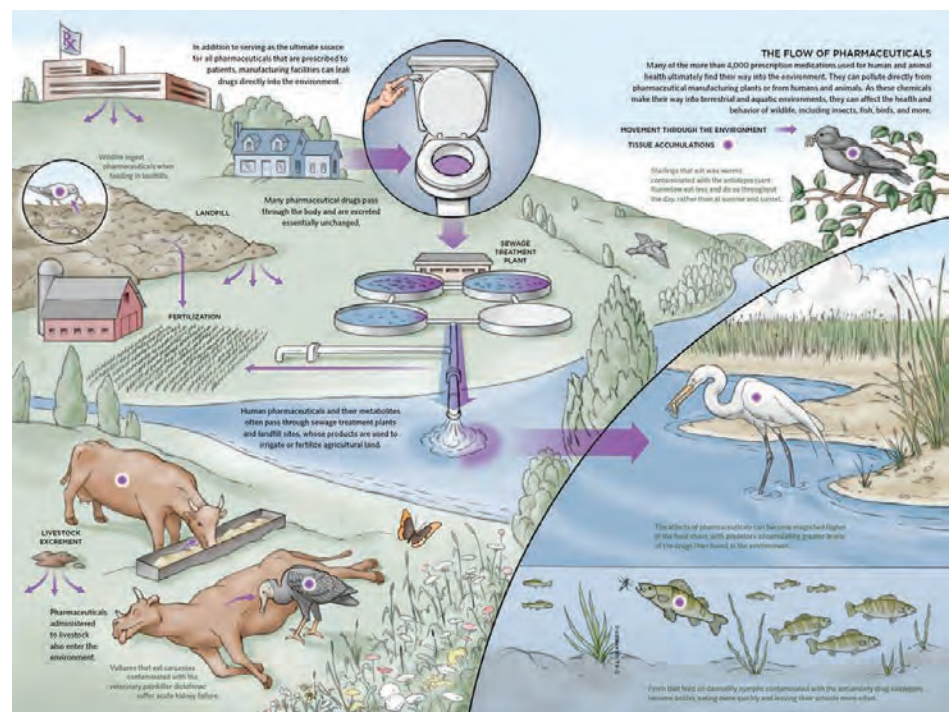
Many adults will experience an emergency at some point in their lives. From accidents, faulty alarms, broken water pipes and flooded basements, or children accidentally locking themselves in a room. The majority of our firefighters are volunteers and leave their jobs and families to respond to these calls which puts a strain on them. Property owners and residents can help alleviate or reduce the number of calls with just a little knowledge and planning. Many homeowners do not know how their alarm system works, nor do they know their password or code to give to the monitoring company when they call to verify an activation. All members of your household should know the code. If you are planning to have any work performed in your home that could cause an activation, such as painting, sanding, construction, or plumbing, the alarm needs to be placed out of service or on test. Cooking is the number one cause of home fires and also accidental alarms. You should know where your main water and natural gas shutoffs are then, if you should get a leak or broken pipe, you can quickly shut off the supply and keep damage to a minimum. All fuel fired heating units are required to have a shutoff and you should know where the switch is in case the unit malfunctions. Be sure that your electric panel is properly marked with what each circuit breaker supplies. Dryer vents should be cleaned to prevent buildup of lint. If you have a patio fireplace or fire pit in your yard, please remember to use them safely. An outdoor fire should only be ignited and attended during a time with calm winds and when there are no restrictions due to dry or windy conditions. Only dry seasoned wood should be used. Please be considerate of your neighbors and ensure that any smoke from your fire is minimal. Diseased and dead trees and limbs should be checked since they could break and fall causing damage. If installing an emergency generator, it should be located outside of the home and installed per code requirements. As a final reminder, battery-operated smoke detectors should be replaced every 10 years and carbon monoxide detectors, depending on manufacture, may need to be replaced every 5 to 7 years. Hopefully, these tips will help to keep you and your family safe and minimize any emergency situation that may arise. If you have a true emergency, get yourself and your family to a safe location and call 911.

## POSSIBLE PRESCRIPTION PROBLEMS

Prescription medications that are consumed and then eliminated from the body can end up in wastewater and potentially contaminate the water supply. This can occur when people flush medications down the toilet or when sewage treatment plants do not have the ability to effectively remove these medications. The potential for prescription medications to enter wastewater increases when individuals do not properly dispose of their medications properly.

The presence of certain medications in the water supply can have negative effects on aquatic life and may potentially pose a risk to human health if the water is not properly treated. Some studies have shown that trace amounts of certain medications can have hormone-like effects on fish and other aquatic animals, leading to reproductive and developmental problems. In addition to the potential negative effects on aquatic life and human health, the presence of prescription medications in wastewater can also have environmental consequences. For example, some medications have been found to have an impact on the growth and reproduction of algae, which can alter the balance of ecosystems.

To help reduce the potential for prescription medications to end up in wastewater, it is important for people to properly dispose of their medications according to guidelines provided by their healthcare provider or local waste management agency. This may include returning the medications to a designated collection site or disposing of them in a special container. It is important for individuals to be aware of the potential consequences of improperly disposing of medications and to follow guidelines for proper disposal to help protect the environment and public health.



# BEAUTIFY YOUR PROPERTY - PRESERVE OUR RESOURCES

Increasing the number of native trees, shrubs, and wildflowers on your property is becoming increasingly important for birds, pollinators, and other wildlife. As more and more wooded and meadow areas get turned into housing developments and malls, there are fewer and fewer places for birds and other wildlife to survive. Maintaining a lawn can become costly, it must be mowed, and many people also add fertilizers and pesticides to their lawns which not only cost you money, but are dangerous for beneficial insects and stream organisms. Much of the rain that falls on a lawn runs off into the storm drains and then into the nearest stream, this is a significant problem. You can make your yard into a safe oasis for you, birds, and pollinators by simply planting large beds of native plants and choosing a mix of plants so that some bloom each season. Plants provide nectar for butterflies, seeds for birds, and caterpillars for parent birds to feed their young. These native plants don't need water once they are established, nor pesticides or mowing. There are resources available which will help you decide what plants you might want to use to start helping birds and pollinators in your yard.

## ILLICIT DISCHARGE REPORTING

The Pennsylvania Department of Environmental Protection mandates that the Township monitor locations where stormwater enters streams, creeks, or rivers. An illicit discharge is an unlawful act of disposing, dumping, spilling, emitting, or other discharge of any substance other than stormwater into the stormwater drainage system. The stormwater drainage system includes streets, ditches, catch basins, yard inlets, lakes, small or large pipes, or where swale discharges into a waterway. In addition to the monitoring by Township personnel, we count on citizens like you to help us identify problems in the watershed that drain into streams, creeks or rivers. A partial list of illicit discharges that we are asking you to report, if you observe them happening or see evidence of such an occurrence, includes oil, gas, chlorinated swimming pool discharge, or other toxic material being dumped or spilled. Please contact the Township at 610 323-1008.

## YARD AND LEAF WASTE DROP-OFF

Hetrick Gardens provides a drop off-site for yard waste for New Hanover Township residents.

The facility is located at 2620 Swamp Pike, Pottstown, PA. Residents will need to provide proof of residency and sign in to drop off their yard waste materials.

Hours:

**Monday - Friday 8:00AM to 4:00PM**

**Saturday - 9:00 AM to 3:00 PM**



## *What is an EAB, anyway?*

EAB stands for **E**nvironmental **A**dvisory **B**oard

This Board helps bring environmental issues and concerns to the Board of Supervisors for review and action by the Township. The EAB welcomes all township residents to attend the monthly meetings and offer suggestions or voice concerns. Meetings are the second Monday of each month at 6:30 PM and are held in the Township building, 2943 N. Charlotte Street, Gilbertsville, PA 19525.

The EAB aims to educate Township residents about environmental issues so they can play a part in protecting/improving the Township.

The EAB assists the Township in monitoring basins to ensure proper function during and after a heavy rain event, gives advice to the Board of Supervisors after reviewing proposed development plans, is working on improving the Township parks with meadows and pollinator areas to make the parks more attractive and inviting, and is working on a recycling ordinance among other environmental topics.

Now, when you drive by the Township building and see EAB and a date on the sign out front, plan to attend, now that you know what EAB is!

# MESSAGE FROM THE PUBLIC WORKS DIRECTOR

Public works crew will be out cleaning and preparing parks for spring and summer usage, maintaining walking trails and making sure playgrounds and equipment are in safe condition.

**Road Maintenance:** Crews will be out cleaning and making repairs to drainage ditches, patch paving, repairing potholes, crack sealing and making inlet repairs throughout the township.

**Community Park:** Later this summer look for the new Traffic Garden that will be installed in the parking lot alongside the playground.

**What is a Traffic Garden?** Known as a small safety town for children are a set of small streets painted on the asphalt with stop signs crosswalks, where children can practice navigating streets on foot or bicycles in a fenced in protected environment and also a great place for families to play and teach their children to ride bikes. In partnering with Montgomery County, they will also provide education classes for children at the traffic garden. This will be installed by the Public Works Department in the summer months.



## Capital Road Projects 2023

### • Scheduled for paving:

- Swamp Picnic Road from Reifsynder Road to New Hanover Square Road
- Deep Creek Road from Layfield Road to Erb Road
- Evans Road from Fagleysville Road to the Dead End
- Rhoads Road from Buchert Road to Courtside Avenue
- Lutheran Road from Swamp Picnic Road to Church Road

• **Fog Sealing:** Fairbrook Drive, Donald Drive, Willow Brook Drive, and Sweet Briar Court.

• **Oil and Chip:** Broomstick Road, Eichele Road, and Schulbelish Road

*All Capital Road Projects are based upon Board of Supervisors approval and scheduling can change.*

## State Roads in New Hanover Township

- North Charlotte Street, Route 73 "Big Road", Route 663 "Layfield Road"
- Any issues or concerns with State Roads. Contact Penn Dot @ 1-800- FIX ROAD

## Montgomery County Roads in New Hanover Township

- Swamp Pike, Snyder, Kulp from Deep Creek to Hill Road, Deep Creek from Kulp to Township Line at Fisher Road, Henning from Deep Creek to Snyder Road.
- Any issues or concerns with County Roads. Contact Montgomery County Roads and Bridges at 610-278-3613

**Looking for informative information on streams, outfall, inlet and sewer line locations, go to our website [newhanover.org](http://newhanover.org) and check out our GIS mapping system of the township.**



RICH  
HERITAGE & CHARM

# NEW HANOVER TOWNSHIP



ESTABLISHED 1741

## INSIDE THIS ISSUE

- Township Directory.....3
- Upcoming Public Meetings .....4
- Welcoming the New Assistant  
Township Manager .....4
- Ordinance Corner .....4
- Fats, Oils and Greases .....5
- Police Department.....6-7
- Unveiling the New Traffic Garden  
for Roadway Safety Education .....8
- Message from Public Works.....9
- Prepare Your Home for Winter .....9
- Parks and Recreation  
Department ..... 10
- “Veteran Parking Only” Sign to  
Honor Our Veterans..... 11
- Be Halloween Safe..... 11
- New Hanover Volunteer Fire  
and Rescue Services ..... 12-13
- Carbon Monoxide Safety ..... 14

Dear Residents,

We trust this message finds you well as we gear up for the forthcoming fall and back-to-school season. We have several important updates we'd like to bring to your attention:

- **Traffic Garden:** We are delighted to announce the completion of a Traffic Garden at Community Park. This unique playground allows children to actively participate in interactive play while gaining a deeper understanding of traffic safety within a safe, controlled environment.
- **Blue Envelope Program:** Our Police Department has partnered with other Montgomery County Police Departments to introduce the innovative Blue Envelope Program. This initiative is designed to make traffic stops safer for individuals who may have difficulties with communication, as well as for the officers involved.
- **Fall Frolic:** We are excited to announce the return of the beloved Fall Frolic event, a long-standing tradition held in Hickory Park. We eagerly anticipate the joy and community spirit this event will once again bring.

As we prepare for both the back-to-school and winter seasons, we extend our heartfelt wishes for a safe and enjoyable fall.

Best regards,

Marie Livelsberger, Chair, Board of Supervisors

### BOARD OF SUPERVISORS



Marie Livelsberger  
Chair



W. Ross Snook  
Vice Chair



Kurt Zebrowski  
Supervisor



D. W. Boone Flint  
Supervisor



Keith Youse  
Supervisor

610.323.1008

2943 North Charlotte Street , Gilbertsville, PA 19525-9718

## UPCOMING PUBLIC MEETINGS

BOARD OF SUPERVISORS	
09-07-2023	6:30 PM
09-23-2023	BOS Road Tour
10-05-2023	6:30 PM
11-02-2023	6:30 PM
12-07-2023	6:30 PM
PLANNING COMMISSION	
09-13-2023	6:30 PM
10-11-2023	6:30 PM
11-08-2023	6:30 PM
MUNICIPAL AUTHORITY	
09-20-2023	6:30 PM
10-18-2023	6:30 PM
11-15-2023	6:30 PM

## WELCOMING THE NEW ASSISTANT TOWNSHIP MANAGER

We are thrilled to introduce Maggie Dobbs as the Assistant Township Manager of New Hanover Township. She is also serving as the Director of Planning & Zoning and the Zoning Officer. Maggie joined us at the beginning of this year, bringing a wealth of experience and expertise in planning and zoning.

Prior to joining our team, Maggie served as a planner for the Montgomery County Planning Commission, where she worked with numerous communities, including our very own New Hanover Township. Most recently, she was the Assistant Manager at Westtown Township in Chester County. Her extensive background in planning and community development has already proven to be a valuable asset to our organization.

Maggie holds a master's degree in city and regional planning from Rutgers University, which has equipped her with a comprehensive understanding of the field. In addition, she has been certified as a planner by the American Institute of Certified Planners (AICP) since 2018, demonstrating her commitment to upholding the highest professional standards.

We are delighted to have Maggie Dobbs on our team, and we are confident that her expertise and passion will continue to benefit New Hanover Township and its residents. Please join us in welcoming Maggie and recognizing her outstanding contributions so far.

## ORDINANCE CORNER

Do you know your property's impervious cover? All impervious coverage added to your property after July 23, 2007 contributes toward the cumulative amount of regulated impervious cover. When the cumulative amount of impervious cover exceeds 1,000 square feet on a residential property, you will be required to install a stormwater management facility. Regulated impervious coverage includes decks, patios, sheds, pools, and driveways, including all gravel driveways. Some properties have other regulatory limits on the amount of impervious cover that can be added, so check your property records before planning that big backyard project! Recently bought your house and not sure about the property's history? Call the Township Codes Department (610-323-1008 ext. 102) for a permit review to know your options, or to inquire which permits are required for your project.

Proudly serving  
New Hanover Township  
and other  
Pennsylvania  
municipalities



**DALLAS DATA SYSTEMS, Inc.**  
Systems from People Who Know Government  
dallasdatasystems.com

1035 E High St.  
Pottstown, PA 19464  
610-970-7050



50th Anniversary  
1973-2023

- Municipal Engineering
- Wastewater Engineering
- Water Facilities Engineering
- Planning & Site Design
- Traffic & Transportation Engineering
- Structural Engineering
- Environmental Engineering
- Construction Administration & Observation
- Surveying
- Geographic Information Systems




**THANK YOU TO THE BUSINESSES**

*Thank you*

This publication is made available through the generous advertising sponsorship of the businesses listed throughout our newsletter. We wish to encourage your patronage of these establishments; they play a substantial role in the economic vitality of our community.

# FATS, OILS AND GREASES

Fats, Oils and Greases (FOGs) have a significant impact on wastewater systems. These substances are commonly found in household and industrial wastewater, and if not properly managed, can cause a wide range of problems. One of the primary impacts of FOGs on wastewater is the formation of blockages and clogs. Fats and oils can solidify and accumulate in pipes and other wastewater infrastructure, leading to reduced flow rates and blockages. This can result in costly repairs and maintenance, as well as disruptions to the functioning of wastewater treatment plants. Another impact of FOGs on wastewater is the reduction of dissolved oxygen levels. When FOGs enter wastewater systems, bacteria begins to break them down through a process called biodegradation. This process consumes oxygen, which can lead to reduced levels of dissolved oxygen in the wastewater. Low oxygen levels can harm aquatic life and negatively impact the performance of wastewater treatment plants. In addition to these impacts, FOGs can also contribute to the formation of unpleasant odors in wastewater. This is because the breakdown of FOGs can release volatile organic compounds (VOCs) that are responsible for the characteristic foul odors associated with wastewater. To mitigate the impacts of FOGs on wastewater, there are several measures that can be taken. One common approach is to implement source control measures, such as educating the public and industry on the proper disposal of fats and oils. This can include encouraging the use of grease traps in commercial kitchens and promoting the use of absorbent materials to capture FOGs in household wastewater. Overall, the impacts of FOGs on wastewater can be significant, but there are measures that can be taken to mitigate their effects. By implementing source control and treatment measures, wastewater systems can function more effectively and efficiently, while minimizing the negative impacts of FOGs on the environment and public health.

## Cooking Oil and Grease Clog Pipes

No one wants their sewage back.

**Where does it go?**

STEP 1 Cool oil/grease	STEP 2 Remove oil/grease from pots and pans	
Small amount of grease	Large amount of oil	Large amount of grease
Wipe with paper towels or newspaper	Pour cooled oil into container, close lid	Scrape into container, close lid
FOOD & COMPOST	Place <b>NEXT</b> to RECYCLE cart	GARBAGE

HIC# PA 065759

*Add warmth to your home  
in as little as a day!*

**WOOD – PELLET – GAS**  
Install and Service of  
Fireplaces, Inserts, and Stoves

**Stop by or call today!**

**Schnecksville**  
4405 Pennsylvania Dr.  
610-224-5050

**Bechtelsville**  
834 Route 100 N.  
610-367-4488

**Kring's**  
**Hearth & Home**

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

**Edward Jones** > [edwardjones.com](http://edwardjones.com) | Member SIPC

**When it comes to your to-do list, put your future first.**

To find out how to get your financial goals on track, contact us for a complimentary review.

**Bonnie L. Thompson**  
Financial Advisor  
1831 Swamp Pike Suite 201  
Gilbertsville, PA 19525  
610-326-1035

FAP-1966G-A

# MESSAGE FROM THE PUBLIC WORKS DIRECTOR

## Leaf Season:

- Leaves are recyclable and can be composted on your property, or you can drop them off to Hetrick Gardens at 2620 Swamp Pike, Gilbertsville, Pa. No charge for New Hanover Township Residents.



## Stormwater:

- All storm drains are checked and monitored before and during storms.
- Never dump anything into storm drains and never mow grass into the streets as it will clog drains and fill road drainage swales. Sweep up any grass clippings that get blown into the street.

## Snowstorm Tips:

- Use off street parking when snow is predicted; when you park in the driveway there is less snow to shovel.
- Do not park over storm drains so crew can clear snow and ice to avoid flooding from melting runoff.
- Do not shovel or snow blow snow back into the street after it has been plowed.
- Think Safety: never approach moving snow equipment, just because you can see the driver does not mean they can see you.
- If there's a fire hydrant near your home, please "adopt" it and keep it clear in case of an emergency.



New Hanover Township Public Works Department maintains over 80 miles of roadway in the township.

## State Roads in the Township:

- North Charlotte St, Big Road "Route 73", Layfield Road "Route 663"

## Montgomery County Roads in the Township:

- Swamp Pike, Deep Creek Road from Kulp Road to the township line at Fisher Road, Kulp Road from Deep Creek to Hill Road, Henning Road from Deep Creek to Snyder Road, Snyder Road.



# PREPARE YOUR HOME FOR WINTER

As winter approaches, our thoughts turn to other activities as we plan for the annual hibernation to the indoors. This is also a good time to plan a safe hibernation for your house as well. The constant change in the weather can have a significant effect on your house that, if left unchecked, may result in major repairs in the future.

Now is the time to inspect your house for anything that does not appear to be normal. Things to look for include loose siding, missing or torn shingles, broken or sticking doors, missing caulking around windows or any other item that will leave your home exposed to the elements. Now is the time to start addressing these items before the cold weather sets in and these items are forgotten.

You may also want to take a look at other items that are often overlooked until it is too late. One important item is your home heating system. Most people who are not on a maintenance program forget to have service performed until well into the heating season when the furnace decides to stop working. Unfortunately, this is the time that most heating contractors are busiest and you may have to wait for service. Avoid the headache and plan ahead.

Items such as your water heater may need your attention as well as other home appliances. Remember to check and make sure water pipes are properly insulated and not exposed to freezing temperatures. Be sure that leaves and debris do not obstruct water flow from gutters and downspouts. Water that freezes and is allowed to back up rooftops often provides you with unwelcome leaks. The lists are endless, but remember your home is a major investment - take good care of it.



SPRING/SUMMER 2024

RICH  
HERITAGE & CHARM

# NEW HANOVER TOWNSHIP



ESTABLISHED 1741

## INSIDE THIS ISSUE

- Township Directory.....3
- Upcoming Public Meetings .....4
- Distinguished Citizen Award Recipient .....4
- Wishing Eileen Pogany A Happy Retirement.....4
- Tax Collector .....5
- Finance Department.....5
- Police Department.....6
- New Hanover Volunteer Fire And Rescue Services .....7
- Hydrogen Sulfide In Wastewater Collection Systems.....7
- Message From Public Works.....8
- Online Submissions & Payments for Permits.....8
- Stormwater Pollution.....9
- Parks And Recreationt..... 10-11
- Environmental Advisory Board.... 12
- Lawn To Native Garden Workshop..... 12
- Annual Home Garden Contest.... 13
- Household Hazardous Waste..... 14

Dear Residents,

As the flowers begin to bloom and the days grow longer, we welcome you to our latest newsletter comprised of helpful information and happenings in our township. Some of the features enclosed:

- Kids Fishing Derby: We are excited to hold this event again for children ages 12 and under on May 11 at Hickory Park. Please see the details for pre-registration. There will be prizes for First Caught, Biggest Fish, Smallest Fish, and Most Fish.
- Online Permit Payments for Fences, Sheds, and Patios: There's a new online portal for permit submissions for fences, sheds, and patios. The required documents and payment can now be submitted from the convenience of your home.
- Recognition of Individuals in our Community: We have a couple highlights of individuals who have made a positive impact in New Hanover Township. We are thrilled to recognize them for their positivity and commitment to serving others.

Thank you for being a part of our community. We hope you enjoy exploring our newsletter and that your spring is filled with happiness, growth, and abundant blessings.

Best regards,

Marie Livelsberger, Chair, Board of Supervisors

### BOARD OF SUPERVISORS



Marie Livelsberger  
Chair



W. Ross Snook  
Vice Chair



Kurt Zebrowski  
Supervisor



D. W. Boone Flint  
Supervisor



Keith Youse  
Supervisor

610.323.1008

2943 North Charlotte Street , Gilbertsville, PA 19525-9718

# NEW HANOVER VOLUNTEER FIRE AND RESCUE SERVICES



**Ordinary People  
Trained for the  
*Extraordinary.***

There are many ways for you to get involved with New Hanover Fire & Rescue Services based off **YOUR** interest. Regardless of how you volunteer, you'll be a key part in keeping our community safe.

**VOLUNTEER AS A:**

- FIREFIGHTER**  
Protect property and help save lives during an emergency. Learn to advance a hose line, how to position a ladder dependent on the situation, and perform search-and-rescue duties.
- EMT**  
Administer pre-hospital medical care. Transport the sick and injured to the hospitals.
- FIRE POLICE**  
Keep community members and responders safe by directing traffic and controlling crowds.
- JUNIOR FIREFIGHTER**  
Gain experience by assisting with groundwork at the scene of fires. Begin fire training to prepare to become an active firefighter at 18 years old.
- ADMINISTRATIVE MEMBER**  
Assist with vehicle maintenance, fundraising, organizing community events and more.

Fill out an inquiry form at [www.MONTGOFIREFIGHTERS.org](http://www.MONTGOFIREFIGHTERS.org) to take the next steps toward volunteering. A member of New Hanover Fire & Rescue will contact you asap.

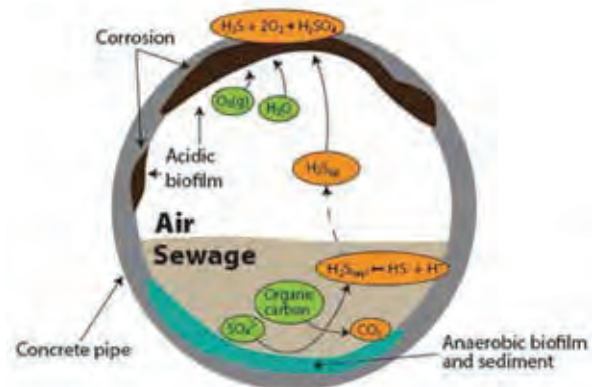


# HYDROGEN SULFIDE IN WASTEWATER COLLECTION SYSTEMS

Hydrogen sulfide (H<sub>2</sub>S) is a colorless, flammable gas with a characteristic rotten egg odor that is frequently encountered in wastewater collection systems. This compound is formed during the microbial decomposition of organic matter in sewage under anaerobic conditions. In wastewater collection systems, H<sub>2</sub>S can pose significant challenges due to its corrosive nature. The gas can react with moisture in the air to form sulfuric acid, leading to the deterioration of concrete and metal structures within the system. Corrosion caused by hydrogen sulfide can result in the degradation of pipes, manholes, and other infrastructure, leading to increased maintenance costs and the potential for system failures.

To mitigate the adverse effects of hydrogen sulfide in wastewater collection systems, various control measures are employed. Proper ventilation and aeration are critical components of effective control, as introducing oxygen helps create aerobic conditions that are less conducive to the production of hydrogen sulfide. Implementing these control measures not only safeguards the structural integrity of the system but also minimizes the associated maintenance costs and potential risks of infrastructure failures.

Regular monitoring of hydrogen sulfide levels is a crucial aspect of managing wastewater collection systems. Monitoring allows operators to assess the effectiveness of implemented control measures and identify areas within the system that may require targeted interventions. By staying vigilant and proactive in addressing hydrogen sulfide concerns, wastewater management authorities can ensure the long-term sustainability of their infrastructure, reduce environmental impact, and protect the health and safety of both workers and the surrounding community.



# MESSAGE FROM THE PUBLIC WORKS DIRECTOR

Public works crew will be completing the Dotterer Road trail project this summer.

**Road Maintenance:** Crews will be out cleaning and making repairs to drainage ditches, patch paving, repairing potholes, crack sealing and making inlet repairs throughout the township.

**Community Park:** Interior and exterior painting of the barn.

**Hickory Park:** Pavilions along the playground will have new ceilings installed.

## CAPITAL ROAD PROJECTS 2024

- **Scheduled for Paving:** Miles Road, Jane Lane, Sanatoga Road after new culvert installation, Fagleysville Road along the section of the sewer line repair, Rhoads Road from Buchert Road to Courtside Avenue after new culvert installation, and Romig Road from Swamp Pike to Buchert Road.
- **Fog Sealing:** Anthony Drive, Briana Drive, Lafayette Court, and the upper portion of Washington Drive.
- **Oil and Chip:** Henning Road, Kingswood Vale, and Lee Road.
- **Slurry Seal:** Faust Road from Washington Drive to the Limerick township line.

*All Capital Road Projects are based upon Board of Supervisors approval and scheduling can change.*

## MET-ED: REPORTING TREE PROBLEMS & OUTDOOR LIGHTING PROBLEMS

For hazardous tree issues along state or county roadways that are overhanging the roadway or electric lines, if it is within 10 feet of an electric line only a qualified linesman in tree removal/pruning practices can trim or remove the tree. Met-Ed can be notified about issues by visiting [firstenergycorp.com/met\\_edison](http://firstenergycorp.com/met_edison). Under the Service Requests tab, select 'Report Tree Problem'.

Residents can report streetlight issues to Met-Ed by calling 1-888-LIGHTSS (1-888-544-4877) or at the website listed above by going to the Service Requests tab and selecting 'Outdoor Lighting Problem'. They may also contact the township and provide information of the closest address or the pole number.

## STATE ROADS IN NEW HANOVER TOWNSHIP

- North Charlotte Street, Route 73 "Big Road", and Route 663 "Layfield Road"
- For any issues or concerns with state roads, contact PennDOT at 1-800- FIX-ROAD or through their Customer Care Center at [customer care.penndot.gov](http://customer care.penndot.gov)

## MONTGOMERY COUNTY ROADS IN NEW HANOVER TOWNSHIP

- Swamp Pike, Snyder, Kulp from Deep Creek to Hill Road, Deep Creek from Kulp to Township Line at Fisher Road, and Henning from Deep Creek to Synder Road
- For any issues or concerns with county roads, contact Montgomery County Roads and Bridges at 610-278-3613

**For information on streams, outfall, inlet and sewer line locations, go to our website, [newhanover.org](http://newhanover.org), and check out our GIS mapping system of the township.**

## ONLINE SUBMISSIONS & PAYMENTS FOR FENCE, SHED, AND PATIO PERMITS

There's a new and easy way to apply for your permits! New Hanover Township is pleased to introduce an online portal for permit submissions. You can fill out the form, attach the required documents, and pay for the permit all from the convenience of your home. This is currently available ONLY for fence permits, shed permits, and patio permits. All other permit types will require mailed, e-mailed, or in-person submission on the required form(s) with the applicable fee. Please email [permits@newhanover-pa.org](mailto:permits@newhanover-pa.org) with any questions.

To access the online portal, please visit [newhanover-pa.org/resources/documents\\_and\\_forms.php](http://newhanover-pa.org/resources/documents_and_forms.php).



# STORMWATER BMP INSPECTION PROGRAM

As part of the Township's MS4 Permit, all stormwater facilities (Best Management Practices - also referred to as BMPs) built after 2003 must be inspected. Prior to 2021, the Township relied on self-inspections for properties containing a stormwater management facility; this was done either by individual owners or by consultants hired by property owners to conduct the inspection. In 2021, the Township consulted with its engineer at that time to conduct inspections of all BMPs in the Township. The intent was to start all properties on the same inspection timeline. Inspections were completed in 2021 and 2022 but then paused during 2023.

This year, the Township is continuing with conducting BMP inspections and will be offering an option for self-inspection in lieu of the engineer inspection. BMPs will be inspected based on the approved plan specific to that BMP. The Township's Stormwater Management Ordinance has changed over time, therefore, the required design standards for older basins look different from more modern basins. Each BMP falls under an Operations & Maintenance agreement that gives the legal right for the Township or its agents to go onto a property to perform the inspection.

BMPs are classified into 2 categories:

- PCSM BMPs (Post-Construction Stormwater Management BMPs) are facilities constructed as part of a land development plan and are required to be inspected yearly.
- LT1A BMPs (Less than 1 Acre BMPs) are facilities installed on individual properties as a result of the addition of impervious cover over 1,000 square feet and are to be inspected once per year for the first 5 years and then a minimum of 3 years thereafter.

Residents impacted by the Stormwater BMP Inspection Program received a notice letter in February to provide information about the program timeline, future costs, and options for a Township versus self-inspection.

The inspections will be conducted by Knight Engineering. Fees for the inspection program will be billed at an hourly rate. Residents will receive an invoice after their inspection is completed. Inspections will be held on a rolling basis starting in May/June and completed by July. As the inspections are completed, properties with no violations will receive a letter confirming such. Non-compliant properties will receive notice letters; compliance will either be marked for review the following inspection year or 90 days for more serious violations. Re-inspections will occur in August/September.

The survey technician will utilize an online survey tool called Survey123 where the data will be collected in the field, including photos of the BMP. The data will be exported into a report and reviewed by the Township engineer for completeness before sending the final report to the Township. The report data will be uploaded into the Township GIS under our service agreement with the Center for Watershed Protection.

Residents will have the option to opt into a self-inspection rather than have the Township engineer perform the inspection, provided that they meet the deadline and submit by a designated day on Township provided forms. Resources prepared by Township staff will be available to educate residents on how to perform a self-inspection; check the Township's website and Facebook for updates pertaining to these resources.



## CARING FOR YOUR YARD THIS SPRING

Spring is here and with it comes warmer weather, longer days and lots of yard work! Before you head outside to tackle your latest project, remember that what you do on your yard has a direct impact on the environment. This is especially true when it comes to caring for your lawn.

Lawns are notorious for their negative impacts on wildlife as well as local waterways. Luckily there are lots of small steps that you can take as a homeowner to make your yard more eco-friendly!

**Consider these tips to reduce stormwater pollution and create wildlife habitat on your property this spring.**



LEARN MORE BY SCANNING THIS QR CODE OR BY VISITING OUR WEBSITE:  
[WWW.PERKIOMENWATERSHED.ORG](http://WWW.PERKIOMENWATERSHED.ORG)

- Clean-up:** Collect and dispose of any trash that might have blown into your yard over the winter. Mulch or compost leaves and garden cuttings from the fall so that they don't get washed into local streams.
- Fertilize Carefully:** Look for slow release nitrogen fertilizer which is less likely to harm water quality. Several small fertilizer applications spread out over the growing season is better than one large application. Never apply fertilizer before it rains!
- Plant Natives:** Spring is a great time to plant native trees, shrubs and perennials! Native PA species require less maintenance, are more beneficial for wildlife and absorb more stormwater than non-natives.
- Mow Sharp and High:** A sharp mower blade cuts grass cleanly which improves turf health. Set your mower deck to 2.5" or more to help reduce stormwater runoff. Consider converting a section of your lawn to native garden!

# ENVIRONMENTAL ADVISORY BOARD

The township's Environmental Advisory Board (EAB) would love for you to attend their monthly meetings to learn and join in on the discussion about environmental issues! This dedicated group plays a crucial role in advocating for our environment within our township. The EAB helps bring issues and concerns directly to the Board of Supervisors for review and action.

The EAB meets the 2nd Monday of each month at 6:30 PM at the Township Building. Their mission goes beyond just discussing problems; they aim to educate residents about environmental issues so that everyone can play a part in protecting and improving our township.

Some of the things they're currently involved in:

- Monitoring basins to ensure proper function during and after heavy rain events.
- Providing advice to the Board of Supervisors after reviewing proposed development plans.
- Working on enhancing Township parks with meadows and pollinator areas to make the parks more attractive and inviting.

Together, we can make a difference in preserving our environment and enhancing our community. Join us at our next meeting and be part of the change!



**New Hanover Township**  
**LAWN TO NATIVE**  
**GARDEN WORKSHOP**

**PERKIOMEN**  
WATERSHED CONSERVANCY

**Date and Time**  
Thursday, April 18th, 2024  
6:30 PM - 7:30 PM

**Location**  
New Hanover Township Building  
2943 N. Charlotte St, Gilbertsville, PA 19525

**Cost**  
Registration with plant package: \$35  
Registration without plant package: FREE

**Register Here**  
<https://connect.perkiomewatershed.org/event/new-hanover-township-lawn-to-garden-workshop/e55475>



**ABOUT THE WORKSHOP:**  
Learn about the many benefits of native plants & the harmful environmental impacts of "lawn culture." Different methods & tips for reducing lawn area & increasing native garden area on your property will be discussed along with garden design & plant selection.

**NATIVE PLANT BENEFITS:**

- Great for wildlife!
- Filter and infiltrate stormwater.
- Require less maintenance & inputs than non-natives.
- Establish quickly & are naturally hardy & healthy.
- Provide a variety of colors, textures, & bloom times to add interest to your landscape.

# MUNICIPAL SEPERATE STORM SEWER SYSTEM ANNUAL MS4 STATUS REPORT



## APPENDIX B

# MCM#2 PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

- Public Involvement and Participation Documentation
- Board of Supervisors (BOS) Meeting Minutes
- New Hanover Township NPDES MS4 Program Presentation for (BOS)
- Environmental Advisory Board (EAB) Meeting Minutes
- Perkiomen Watershed Conservancy Stormwater Reduction Statistics Package
- Simplified Stormwater BMP Ordinance Appendix-Public Notice/Proof of Publication

On October 28, 2023 The Township hosted a Free Shrub/Tree Giveaway event. The event was a collaboration between Keystone 10 Million Tree Project, Montgomery County Master Watershed Stewards and New Hanover Township. The Township advertised the event through the Township Facebook page on October 9, 2023 and October 24, 2024. See below for Facebook post and event webpage.

**New Hanover Township**  
October 9, 2023 · 🌐

FREE SHRUB/TREE GIVEAWAY. New Hanover Township, in conjunction with Keystone 10 Million Tree Project and the Montgomery County Master Watershed Stewards, invite residents of the Township to select and pickup a free tree on October 14 or October 28 from 9AM to 12PM at the Municipal Building's parking lot (2943 North Charlotte Street, Gilbertville, PA 19525). Residents can select their tree by visiting the website:  
<https://sites.google.com/view/newhanovertreegiveaway/home>

For questions, contact William Ross Snook at 484-638-1865 or via email at [wsnook@newhanover-pa.org](mailto:wsnook@newhanover-pa.org).

SITES.GOOGLE.COM  
**New Hanover Tree Giveaway**  
Residents of New Hanover Township are invited to pick up a FREE TREE or SHRUB!

83 likes · 36 comments · 62 shares

Like Comment Share

View more comments

**Linda Taylor**  
Do we just show up?  
49w · Like · Reply · 3

**Kurt Zebrowski**  
**Linda Taylor** Yes you can.

**New Hanover Township**  
 October 24, 2023

**FREE SHRUB/TREE GIVEAWAY** – Reminder that this Saturday, October 28, from 9 AM – 12 PM is the second date that residents can pick up a free tree.

New Hanover Township, in conjunction with Keystone 10 Million Tree Project and the Montgomery County Master Watershed Stewards, invite residents of the Township to select and pickup a free tree on October 14 or October 28 from 9AM to 12PM at the Municipal Building's parking lot (2943 North Charlotte Street, Gilbertsville, PA 19525). Residents can select their tree by visiting the website: <https://sites.google.com/view/newhanovertreegiveaway/home>

For questions, contact William Ross Snook at 484-638-1865 or via email at [wsnook@newhanover-pa.org](mailto:wsnook@newhanover-pa.org).

SITES.GOOGLE.COM  
**New Hanover Tree Giveaway**  
 Residents of New Hanover Township are invited to pick up a FREE TREE or SHRUB!

24 20 comments 7 shares

Like Comment Share



**Residents of New Hanover Township are invited to pick up a FREE TREE or SHRUB!**

A collaboration between  
**Keystone 10 Million Tree Project**  
**Montgomery County Master Watershed Stewards**  
**New Hanover Township**

Below is a list of trees & shrubs available to residents of the Township.  
 Click the box in the upper right corner of the spreadsheet to see the full list on your screen.

	A	B	C	D	E	F
1	<b>Name (SHRUBS)</b>	Buttonbush	Sandbar Willow	Smooth Alder		
2	Height	6-12'	6-22'	10-20'		
3	Width	5-9'	5'	8-15'		
4	Shape	erratic mounded	swaying, upright habit	multiple shoots from trunk		
5	Growth Speed	moderate	fast	fast		
6	Sun Requirements	full to partial sun more sun = more flowers	full sun	full sun to partial shade		
7	Yields	ball-like flowers/seeds	catkins in spring give way to tiny flowers	catkins to cones; resembles tiny pine cones		
8	Soil Requirements	moist, wet soil	moist to wet soil	moist, good in wet areas		

- If possible, please bring a box or bucket with you to the event to carry home your tree/shrub.
- **PLEASE return the pots to the township building. The more pots you return, the less money spent on buying new pots next year, which mean more FREE TREES!**

On April 4, 2024 an optional education session was hosted by the Township to inform residents of the Stormwater BMP Inspection Program. The educational event covered topics including Engineer Inspections and Self-Inspection procedures. The Township shared information regarding the Stormwater BMP Program, a link to the Township's Stormwater BMP Inspection Program webpage and event information to the Township Facebook page on March 26, 2024, April 1, 2024, and April 4, 2024.

**New Hanover Township**  
March 26 · 🌐

**STORMWATER BMP INSPECTION PROGRAM**

All properties with a stormwater management facility, or a "BMP" (Best Management Practice), are responsible for inspecting the facility on a regular basis. The link below explains the requirements for this program, as well as the options for property owners to either complete the required inspection through an Engineer Inspection or a Self-Inspection.

The 2024 deadline to opt into a self-inspection is April 21, 2024. The Township will be hosting an optional educational session on Thursday April 4, 2024 from 5:30 - 6:30 PM at the administration building. This session is NOT mandatory to qualify for the self-inspection. Information will be given on how to complete the inspection form and residents will have an opportunity to ask any questions of Township staff and consultants. If you are unable to attend the educational session, the materials will be made available on the Township's website for reference. Residents are encouraged to contact the Township with any additional questions in person or by phone or email (SWM@newhanover-pa.org).

[CMS6.REVIZE.COM](https://cms6.revize.com)  
**cms6.revize.com**  
Welcome to New Hanover, PA

👍👎👏 4

Like Comment Share

**New Hanover Township**  
April 1 · 🌐

**STORMWATER BMP INSPECTION PROGRAM**

This is a friendly reminder that the Township is hosting an optional educational session this Thursday, April 4, 2024 from 5:30 - 6:30 PM at the administration building regarding the Self-Inspection option for the Stormwater BMP Inspection Program. The 2024 deadline to opt into a self-inspection is April 21, 2024.

All properties with a stormwater management facility, or a "BMP" (Best Management Practice), are responsible for inspecting the... [See more](#)

[CMS6.REVIZE.COM](https://cms6.revize.com)  
**cms6.revize.com**  
Welcome to New Hanover, PA

1 comment 1 share



**New Hanover Township**

April 4



Tonight is the optional educational session regarding the Stormwater BMP Inspection Program from 5:30 - 6:30 PM at the administration building. The 2024 deadline to opt into a self-inspection is April 21, 2024.

All properties with a stormwater management facility, or a "BMP" (Best Management Practice), are responsible for inspecting the facility on a regular basis. The link below explains the requirements for this program, as well as the options for property owners to either complete the required inspection through an Engineer Inspection or a Self-Inspection.

The session this Thursday is NOT mandatory to qualify for the self-inspection. Information will be given on how to complete the inspection form and residents will have an opportunity to ask any questions of Township staff and consultants. If you are unable to attend the educational session, the materials will be made available on the Township's website for reference. Residents are encouraged to contact the Township with any additional questions in person or by phone or email (SWM@newhanover-pa.org).

CMS6.REVIZE.COM

**cms6.revize.com**

Welcome to New Hanover, PA



5

1 comment | 2 shares

On April 18, 2024, the Township, in partnership with the Perkiomen Watershed Conservancy, hosted a Lawn to Native Garden Workshop. Participants learned about the benefits of native plants, environmental impacts of "lawn culture", and how native plants help filter and infiltrate stormwater. The Township shared the event flyer and an event registration link to the Township Facebook page on February 26, 2024 and April 16, 2024.



New Hanover Township

February 26 · 🌐

Registration Link:

<https://connect.perkiomenwatershed.org/.../new.../e555475>

**New Hanover Township**  
**LAWN TO NATIVE GARDEN WORKSHOP**

**PERKIOMEN**  
WATERSHED CONSERVANCY

**Date and Time**  
Thursday, April 18th, 2024  
6:30 PM - 7:30 PM

**Location**  
New Hanover Township Building  
2943 N. Charlotte St, Gilbertsville, PA 19525

**Cost**  
Registration with plant package: \$35  
Registration without plant package: FREE

**Register Here**  
<https://connect.perkiomenwatershed.org/event/new-hanover-township-lawn-to-garden-workshop/e555475>

**ABOUT THE WORKSHOP:**  
Learn about the many benefits of native plants & the harmful environmental impacts of "lawn culture." Different methods & tips for reducing lawn area & increasing native garden area on your property will be discussed along with garden design & plant selection.

**NATIVE PLANT BENEFITS:**

- Great for wildlife!
- Filter and infiltrate stormwater.
- Require less maintenance & inputs than non-natives.
- Establish quickly & are naturally hardy & healthy.
- Provide a variety of colors, textures, & bloom times to add interest to your landscape.

👍❤️ 33

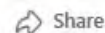
1 comment 13 shares



Like



Comment



Share

On April 22, 2024 the Township announced that they were selling rain barrels at the Township building on the Township Facebook page. The announcement noted that the Perkiomen Watershed Conservancy was available for any helpful information residents may need regarding use of the rain barrel. 8 Rain barrels were sold during the event.



The Perkiomen Watershed Conservancy (PWC) hosted a Rain Barrel Workshop on May 11, 2024, during their Native Plant Sale. New Hanover shared the event advertisement on the Township Facebook page on May 2, 2024.



New Hanover Township

May 2 · 🌐

...

The Perkiomen Watershed Conservancy is hosting their annual Native Plant Sale on May 11th and 12th at Jacob Reiff Park in Harleysville. Online pre-ordering is available through their website, linked below, until tomorrow, Friday, May 3rd.

<https://us-east-2.protection.sophos.com/?d=perkiomenwatershed.org&u=aHR0cHM6Ly93d3cucGVya2lvcWVud2F0ZXJzaGVkLm9yZy9uYXRpdmUtcGxhbnQtc2FsZS8=&p=m&i=NjM5TUyMTMxMzg4ZWVxMjA3M2JlZTc3&t=U01SSmDieXlwTUJXSdNNWThBdmtOUWl0QW1hVXR0VXgyeVo2T0g0UlRoRT...> See more

**PERKIOMEN WATERSHED CONSERVANCY'S NATIVE PLANT SALE**

**SATURDAY, MAY 11TH**  
9:00 AM - 4:00 PM  
&  
**SUNDAY, MAY 12TH**  
9:00 AM - 1:00 PM

**THE NATIVE PLANT SALE FEATURES**

**150+ PENNSYLVANIA NATIVE SPECIES**  
Flowering perennials, ferns, grasses, trees, & shrubs.  
Trees and shrubs provided by Behmerwald Nursery.

**ONLINE PRE-ORDERING**  
April 22nd, 8:00 AM - May 3rd, 8:00 PM  
[www.perkiomenwatershed.org](http://www.perkiomenwatershed.org)

**IN-PERSON PLANT SALE & PRE-ORDER PICK-UP**  
May 11th, 9:00 AM - 4:00 PM & May 12th, 9:00 AM - 1:00 PM  
@ Dragonfly Farm located at Jacob Reiff Park, Lower Salford, PA

**WORKSHOPS, WALKS, & MORE**  
Rain Barrel Workshop: May 11th @ 12:00 pm  
Butterfly Garden Walk: May 11th @ 2:00 pm

Chief “Jay” Ciarllo was joined by the officers of New Hanover Township. Marie Livelsberger spoke of the new officer’s background. District Justice Maurice Saylor administered the Oath of Office to Maria Almiron. The Board congratulated and welcomed Officer Almiron.

## 5. REPORTS

### A) Authorities, Boards, and Commissions

Ross Snook reported that the Environmental Advisory Board (EAB) will spread 15 rolls of plastic at Swamp Creek Park (SCP) in April. Reported 20” bank erosion per rain event of 2” or more at SCP bank pin project, which EAB will continue to monitor. Chose Annetto Road basin as first retrofit discussion. Tree giveaway cancelled for this spring and is looking for alternate source for trees, hoping to have trees available in the fall.

### B) Assistant Manager

Maggie Dobbs stated 120 permits were processed in March. Two violation letters were issued to Sunset Hill Brewery, both were appealed to Zoning Hearing Board (ZHB), tentatively for May. Violation issued to property at Big Road and Layfield Road. Appeal by Whitetail Disposal of ZHB decision. Appeals to Court of Common Pleas (CCP) filed by Sunset Hill Brewery and Township to recent ZHB decision. Ordinance updates forthcoming on SALDO and Light Industrial Districts. Sign Ordinance will be updated at PC workshop. Stormwater management inspection program information session drew approximately 40 people. Opt-in deadline April 21; self-inspection application form will be available online from April 22 until May 31.

### C) Assistant to the Manager

Shaina Ward reported working with Ridge Support to increase security. Municipal Authority is using services of Portnoff Law for fifty delinquent accounts. Marie Livelsberger confirmed information on Lawn to Garden workshop is available on website.

### D) Finance Department

Michele Smith reported on expenses and payroll for March. Liquid fuel tax payment was approximately \$8,000 less than budgeted. Marie Livelsberger confirmed that liquid fuels audit is every three years. Awaiting reports from Girard.

### E) New Hanover Township Authority

Kirt Michaels reported pump station pumped 4.14 million gallons to plant over past four days. Pump station handled flow but big difference attributed to blockages at Gilbertsville Golf Course (GGC). Jamie Gwynn added that DEP issued a violation notice for Greens of Gilbertsville property, formerly GGC, and the developer, the Artisan Group, will remove debris. Ross Snook still has not received results of dieldrin contamination at GGC and is concerned of leaching

## PRESENTATIONS

Beth Uhler of the PA Director of Center for Watershed Protection went over the components of NPDES MS4 Program. She stated New Hanover Township goes above and beyond with erosion and sediment control program. Maggie Dobbs offered more details on stormwater control measures for land development, typically for projects greater than or equal to an acre, and individual property. She reported on inspection schedules, frequency, and fees. She spoke on the self-inspection program and informed that engineered inspections by Knight Engineering will be wrapping up shortly. Stormwater control measures owned by the Township are also being inspected and documented. The resources on the Township's website were shown.

## REPORTS

### A) Authorities, Boards, and Commissions

Ross Snook spoke on behalf of the Environmental Advisory Board (EAB) reporting on wildflowers blooming at park and sightings of a bald eagle and a raven. He welcomed the audience to attend EAB meetings.

### B) Assistant Manager

Maggie Dobbs reported 74 permits were issued in the past month. She stated the driveway permit applications have been updated. Two Zoning Hearings originally scheduled for May were continued at the applicants' request. Two upcoming Zoning Hearings on June 19<sup>th</sup> for 962 Kulp Road for a detached structure in excess of accessory structure size limit and for 409 Layfield Road for a variance for lot dimensions and frontage for minor subdivision plan. Two hearings are scheduled for June 27<sup>th</sup>: applicant for Sunset Hill Brewery has requested continuance and the other is to address violations at the riding academy at 704 Kulp Road. Described plan for compliance for stormwater inspection program. Had staff meeting with Westwood Maguire to address issues raised in engineering letter.

### C) Assistant to the Manager

Shaina Ward stated 275 people signed up for Peddler's License/Do Not Solicit Registry. This information is shared with the police and the people/businesses who have peddler's licenses with the Township. Newsletter will be mailed in August. She reported on delinquent sewer accounts and advised that five individuals with 50 Years of Service with New Hanover Volunteer Fire & Rescue Services will be recognized at the June 20th meeting.

### D) Finance Department

Michele Smith reported that the audit is done and that DCED reports have been filed for the Township and Sewer Authority. For the month of May, payroll was \$234,657.77 and the Bills List totaled \$748,514.64. Jamie Gwynn added that audit results will be posted on the website before presentation by Maillie in August.

### E) New Hanover Township Authority



**New Hanover Township NPDES MS4 Program**

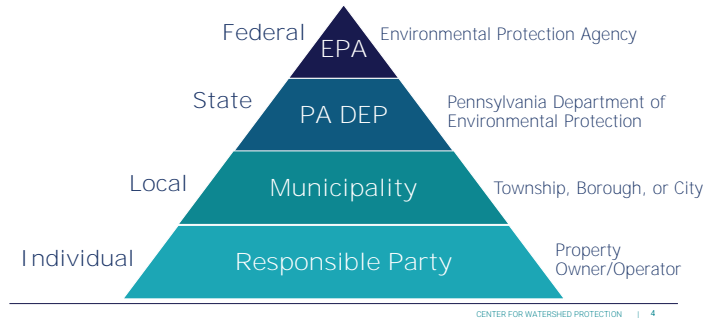
**CENTER FOR WATERSHED PROTECTION**  
Beth Uhler  
Pennsylvania Director

Maggie Dobbs, AICP  
Assistant Township Manager



Board of Supervisors Meeting  
June 6, 2024

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



**New Hanover Township NPDES MS4 Program Components**

**Minimum Control Measures**

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

**Swamp Creek Pollutant Reduction Plan (PRP)**

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

**Pollutant Control Measures (PCMs) for Schuylkill River**

- Stormwater discharges to priority organic compounds (PCBs)

Annual MS4 Status Report due to PA DEP by September 30 each year



**Post Construction Stormwater Management Requirements**

<p><b>NPDES Permit for Stormwater Discharges Associated with Construction</b> <small>authorized after March 10, 2003 (Chapter 102 of PA Code)</small></p>	<ul style="list-style-type: none"> <li>• <b>Who?</b> <u>Developers</u></li> <li>• <b>What?</b> <u>Projects ≥ 1 acre of Earth Disturbance</u></li> <li>• <b>When?</b> <u>During Construction</u></li> </ul> <p style="text-align: center; color: red;"><i>MS4 municipalities required to ensure O&amp;M</i></p>
<p><b>Municipal Stormwater Permit (Municipal Stormwater Ordinance)</b></p>	<ul style="list-style-type: none"> <li>• <b>Who?</b> <u>Developers and Property Owners</u></li> <li>• <b>What?</b> <u>&gt;1,000 sq ft of Impervious Surface or ≥ 5,000 sq ft of Earth Disturbance</u></li> <li>• <b>When?</b> <u>During and Post Construction</u></li> </ul> <p style="text-align: center; color: red;"><i>Ordinance and O&amp;M Agreement requires inspection and O&amp;M</i></p>

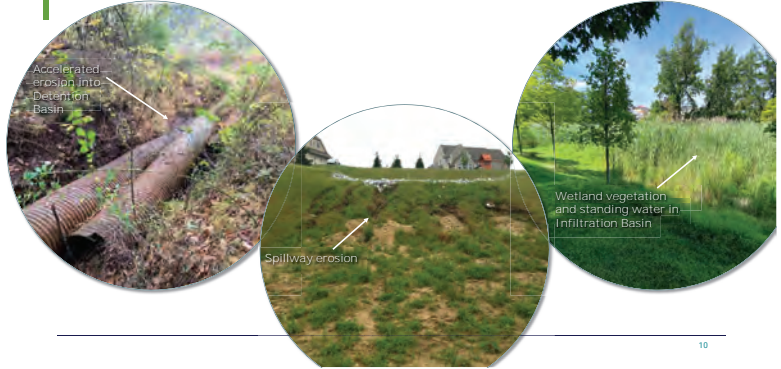


## MCM #5 – Post Construction Stormwater Management (PCSM) in Development and Redevelopment



**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.

## Common Inspection Issues



## MCM #5 – Post Construction Stormwater Management (PCSM) in Development and Redevelopment



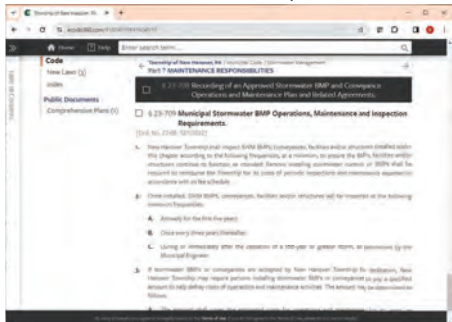
**BMP #3 (continued):** An inventory of PCSM BMPs shall be developed...

- ✓ BMPs approved since March 10, 2003 greater than 1 acre of earth disturbance
- ✓ Location
- ✓ Responsible Party Information
- ✓ BMP Type and Year Installed
- ✓ Maintenance requirements
- ✓ Actual inspection/maintenance that has occurred
- ✓ Compliance Assessment/Activity

## Common Inspection Issues



## Municipal Stormwater Ordinance (MS4 and Non-MS4)



## New Hanover Township Post Construction Stormwater Management (PCSM) Inspection Program

## Stormwater Control Measures (SCMs)

### Land Development

- NPDES Permits for Stormwater Discharges Associated with Construction authorized after March 10, 2003.
- **≥ 1 acre of earth disturbance**

### Individual Property Owner

- Municipal Stormwater Permit
- < 1 acre of earth disturbance  
**(≥1,000 sq ft of impervious or 5,000 sq ft of earth disturbance)**

## Compliance Process

- ✓ The Assistant Township Manager will coordinate and distribute the following letters to responsible parties of the SCMs depending on the results of the inspection within 2 weeks of completion of the inspection:
  - Compliance letters (for those with SCMs that are compliant in no need of maintenance or repair)
  - Non-compliance letters\* (for those with SCMs in need of maintenance or minor repairs)
  - Notice of violation letters\* (for those with SCMs with ongoing maintenance issues or in need of major repairs).

\*To be sent Certified Mail.

## Inspection Frequency and Fees

- ✓ New Stormwater Control Measures (SCMs) added to the inspection inventory if they were installed and had their final inspection or NPDES Permit Notice of Termination (NOT) by June 30 to be inspected the following year.
- ✓ SCMs will be inspected **once a year for 5 years and once every 3 years thereafter**, at a minimum.
- ✓ A **fee schedule** will be adopted each year. The fee will be assessed at the time of permit/land development approval.

## Compliance Process

- ✓ Non-compliance letters and Notice of Violation letters will include:
  - Violation
  - Remedy
  - Sections of Township code that have not been met
  - Timeframes to respond
  - Potential penalties to be assessed
  - Right to appeal
  - Contact person at the Township to answer questions and track compliance for reporting to PA DEP
- ✓ Responsible parties will be requested to send the Township documentation of the completed maintenance or repair. Follow-up inspections will be completed by the Township (or 3<sup>rd</sup> party consultant to verify).

## Inspection Process

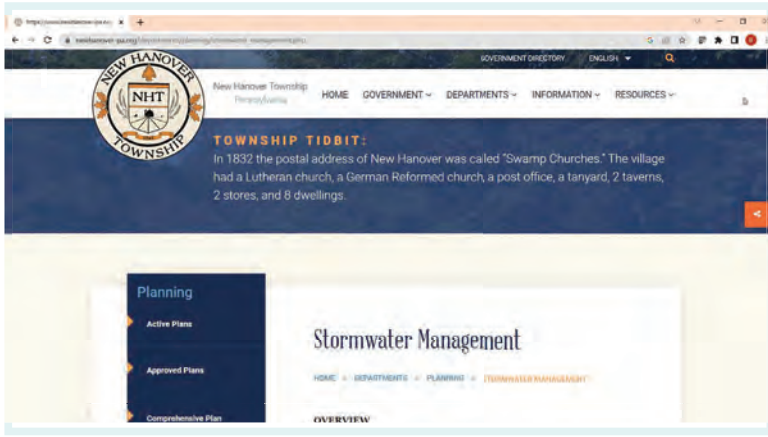
- ✓ Inspection notification letters will be mailed out in **February** via First Class Certified Mail by Township staff and overseen by the Assistant Township Manager.
- ✓ Inspections will be conducted in **April – June** by a 3<sup>rd</sup> party consultant, typically at least 72 hours after the last rain event.
- ✓ The 3<sup>rd</sup> party consultant will provide the results of the inspections to the Township immediately following the inspection.

*Option for Self-Inspection*

## Township-Owned SCMs

- ✓ SCMs owned by the Township will also be inspected.
- ✓ Inspection results will be forwarded to the Public Works Department (PWD) to address.
- ✓ The Assistant Township Manager will oversee to ensure the maintenance or repairs are completed and the inventory status is updated for reporting to PA DEP.





Inspection Form Example



THANK YOU



**Beth Uhler**  
Pennsylvania Director  
Center for Watershed Protection  
[beu@cwpa.org](mailto:beu@cwpa.org)  
484-680-0806



**Maggie Dobbs**  
Assistant Township Manager  
New Hanover Township  
[mdobbs@newhanover-pa.org](mailto:mdobbs@newhanover-pa.org)  
610-323-1008

## NEW HANOVER TOWNSHIP

Environmental Advisory Board Meeting

November 14, 2023 – 6:30 PM

### MEETING MINUTES

The regular monthly meeting of the New Hanover Township Environmental Advisory Board was held on November 14, 2023, and was called to order at 6:30 pm. Present board members were William Snook, Marcella Boettger and John Canale. Announcements were read by Mr. Snook.

#### Consent items

Consent items will be tabled until the next meeting.

#### Discussion items

- A) Seeding is completed, and we will be keeping an eye on the park to see how the project progresses. A resident asked if there were any results from the spring live staking project and it was determined that a fair percentage of the live stakes survived.
- B) Discussion was about getting vegetable seeds and the possibility of vegetable boxes being constructed near the township building. More information to come on this topic.
- C) The tree give away was a great success with over 500 trees being given out to residents. We are on the list for next year's giveaway and look forward to another successful event. The event was a positive way to connect with the township residents who were excited to get planting.
- D) There will be a website for the tree list for 2024
- E) A few basins are being considered currently for a retrofit, and the selection is based on these basins making the most difference with storm water runoff once they are corrected.
- F) Wendy Wadsworth was voted in as a new board member. Mr. Snook made the motion, Mr. Canale seconded, motion carried 3-0

#### Adjournment

A motion was made by Mr. Snook to adjourn the meeting and was seconded by Mr. Canale. Motion carried 3-0. The meeting was adjourned at 7:05 pm.

---

John Canale, Secretary

## NEW HANOVER TOWNSHIP

Environmental Advisory Board Meeting

December 11, 2023 – 6:30 PM

### MEETING MINUTES

The regular monthly meeting of the New Hanover Township Environmental Advisory Board was held on December 11, 2023, and was called to order at 6:30 pm. Present board members were William Snook, Marcella Boettger, and John Canale. Announcements were read by Mr. Snook.

#### Consent items

A motion was made by Mrs. Boettger to approve the meeting minutes from the November 14, 2023, meeting. This motion was seconded by Mr. Canale. Motion carried 3-0.

#### Discussion items

- A) Mr. Snook commented that he has noticed plants sprouting and that we should consider other parks to plant wildflowers next year. It was mentioned that the best time of year would be early Fall to plant wildflower seeds.
- B) We are hoping for seed donations or discount for next year. Earnst seed company has offered a 30% discount this year and Burpee has provided free plant material. We currently have enough seed left to plant about an acre.
- C) In 2023 we received 500 trees from the Chesapeake Bay Foundation “10 million tree giveaway”. With the help of volunteers, we were able to give those trees away within 2 weekends. For 2024 we have selected 11 popular varieties and will continue to offer free trees to township residents.
- D) Ross has the tree list, and it will be available in the coming months.
- E) The idea to retrofit basins in the township will be to start with ones that require a relatively simple orifice reduction. The board will work on a list after visiting basins known to need this type of modification.
- F) We will welcome two new board members in the new year, John Moran and Wendy Wadsworth.
- G) Karl Stewart will set Ross up with a link to his rain station. In January we will look for a volunteer to maintain data.

#### Public Comment

Sean Smolsky provided some information about clean energy. He would like to be added to the agenda for the next meeting to further discuss and provide information to the board.

A motion was made by Mrs. Boettger to adjourn the meeting and was seconded by Mr. Canale. Motion carried 3-0. The meeting was adjourned at 7:42 pm.

---

John Canale, Secretary

## NEW HANOVER TOWNSHIP

Environmental Advisory Board Meeting

January 8, 2024 – 6:30 PM

### MEETING MINUTES

The regular monthly meeting of the New Hanover Township Environmental Advisory Board was held on January 8, 2024, and was called to order at 6:30 pm. Present board members were William Snook, Marcella Boettger, John Canale, Jon Moran, and Wendy Wadsworth.

The first order of business was the organization of the EAB board. Mr. Snook was elected Chair, Ms. Boettger was elected Vice Chair and Mr. Canale was elected Secretary. All votes were 4-0 in favor with appointee declining to vote.

Announcements were read by Mr. Snook.

A 20-minute presentation was made by NHT resident Shawn Smolsky on Solar Panels and Clean Energy. Along with providing information and data, Mr. Smolsky gave an example using West Rock Hill Township and their success with solar as a way our township could save money over time.

After the presentation Mr. Canale made a motion to further research Solar Panels and Clean Energy, the motion was seconded by Mr. Moran. Motion carried 5-0. It was decided that Mr. Moran, with the help of Mrs. Wadsworth, would begin researching the subject.

A question was asked by NHT resident William Bullen, “Has anyone considered windmills in the township”? Response from the board was that it would depend on finding favorable wind conditions.

#### Consent items

A motion was made by Mr. Snook to approve the meeting minutes from the December 11, 2023, meeting. This motion was seconded by Mr. Canale. Motion carried 5-0.

#### Discussion items

- A) The EAB ordinance review was read by Mr. Snook. The ordinance can be found on the NHT website. There was discussion about Storm Water Basins, their type and function. Specifically, the MRC (managed release concept) Basin which should discharge water in a 72-hour period, a Detention Basin which collects water and lets it out and a Retention Basin that does not let water out. The second part of the discussion was about whether our ordinance now is based on a 1.2-inch rain event, can we research and find out if that number is still relevant or needs to be changed. Mr. Snook and Mr. Canale volunteered to research township rainfall amounts.
- B) We are waiting for Spring to see results for the Meadows project.
- C) The order has been placed for the tree giveaway.
- D) Mr. Snook scheduled a day and time to drive around and look at basins in the area, Mr. Canale said he was available to ride along.

## **Public Comment**

Sharon Hoffman is the president of the HOA for the Wyndlestrae development. She commented that Basin A is the worst basin and that the storm water coming in from Douglass Township is an issue because it is not managed.

Michael Bobak commented that he has a residential basin on his property that we could stop to look at.

## **Board Announcements**

Mr. Canale proposed organizing another live stake event for the weekend of 4/13. Back- up dates would be 3/30 and 4/20. Russ Oister Jr. has volunteered to be the “day of” organizer and has the basic tools needed for the event. Volunteers are welcome and can bring pruners, water, or snacks. The event will held at Swamp Picnic Park and more information will be coming.

Ms. Boettger commented that current rain events have made driving in our township very hazardous. She believes that responsible management of storm water is the least we can do.

Mr. Snook thanked the new board members for their time and asked that we all continue to promote storm water runoff solutions.

A motion was made by Mrs. Boettger to adjourn the meeting and was seconded by Ms. Wadsworth. Motion carried 5-0. The meeting was adjourned at 8:03 pm.

---

John Canale,  
Secretary

## NEW HANOVER TOWNSHIP

### Environmental Advisory Board Meeting

March 11, 2024 – 6:30 PM

### MEETING MINUTES

The regular monthly meeting of the New Hanover Township Environmental Advisory Board was held on March 11, 2024 and was called to order at 6:35 pm. Present board members were William Snook, Marcella Boettger, Wendy Wadsworth, and John Moran. Board member John Canale was absent.

Announcements were read by Mr. Snook.

#### Consent items

- Tabled acceptance of minutes from Feb 12, 2024 meeting

#### Discussion items

- A) Swamp Creek Meadows Project: Some sprouting
- B) Tree Give-Away for Next Year 2024: Tabled for spring, looking into fall give-away. Looking into alternate sources
- C) Swamp Creek Bank Pin Project 2024: Stake pins into bank near the riparian buffer repair. Board member Wadsworth to check every 2 weeks for bank recession.
- D) Basin retrofit initiative (first 5 basins to study) create list: Board member Snook has a list of 14 basins from basin inspection notes. For discussion at next EAB meeting.
- E) Rainfall project: Tabled to next meeting
- F) Bird House Maintenance: Board members Wadsworth and Moran signed up. Initiated contact and assumed responsibility.
- G) 3-D Map of New Hanover Township: Board member Snook to acquire as visual aid for EAB, Planning Commission, Board of Supervisors
- H) Transfer Station Hosting Fee Study: Board member Snook investigated tipping fee for waste. To be shared with Board of Supervisors as suggestion.

#### Public Comments

- No comments

#### Board Announcements

- Discussion items for upcoming Board of Supervisors meeting
  - o Missing amended soils
  - o Rainfall totals and basins
  - o Explore expanding the protection range of the Heron rockery by the township

#### Adjournment

NEW HANOVER TOWNSHIP  
Environmental Advisory Board Meeting

April 8, 2024 – 6:30 PM

MEETING MINUTES

The regular monthly meeting of the New Hanover Township Environmental Advisory Board was held on April 8, 2024, and was called to order at 6:30 pm. Present board members were William Snook, Marcella Boettger, John Canale, Jon Moran, and Wendy Wadsworth. Announcements were read by Mr. Snook.

Consent items

A motion was made by Ms. Boettger to approve the meeting minutes from the March 11, 2024, meeting. This motion was seconded by Mr. Canale. Motion carried 5-0.

Discussion items

- A) As we await new growth from the Fall planting, we will continue to lay plastic to complete the wildflower area. From 9-11 am volunteers will be meeting at Swamp Picnic Park to help with live staking and laying plastic.
- B) The tree give-away is cancelled until further notice as the areas closest to Chesapeake will get trees first.
- C) Mr. Snook will aid in opening a path to make access easier for the bank pin project.
- D) Annetto Drive at Kingston Hill will be the first basin to retrofit. Public works to do project.
- E) Mr. Canale gave a brief review of the information gathered to date on rainfall.
- F) Birdhouse maintenance is underway.
- G) Mr. Snook believes a 3-D map of the township will aid in the review and understanding of our township and its' terrain, especially when planning for new development.
- H) Transfer hosting fee study.
- I) Mr. Snook has made members aware of current opportunities for EAC education.

Public Comment

No public comment was made.

Board Announcements

Mr. Canale announced that there will be a live staking project on Saturday 4/13/24 at Swamp Creek Park. The on-site organizer will be Russ Oister. With help from volunteers, we hope to cut and plant stakes in designated areas around the park. There will also be a group laying plastic led by Mr. Snook.

Adjournment

A motion was made by Ms. Boettger to adjourn the meeting and seconded by Ms. Wadsworth, motion carried 5-0. The meeting was adjourned at 7:14 pm.

---

John Canale, Secretary



Jessie Kemper  
 Director of Conservation  
 1 Skippack Pike, Schwenksville, PA 19473  
[jkemper@perkiomenwatershed.org](mailto:jkemper@perkiomenwatershed.org)  
 Phone 610.287.9383

## New Hanover Township Stormwater Reduction Statistics Package

The chart below shows the statistics for your municipality during the 2024 membership year:

Conservation Project	Site(s)	Number Municipal Volunteers	Municipal Volunteer Hours	Amount
Tree Plantings	0	0	0	0 trees planted
Stream Clean-up	6	54	162	49 bags of trash removed
Water Chestnut Removal	0	0	0	0 bags of EWC removed
Rain Garden Installations	0	0	0	0 perennials planted
Rain Barrel / Lawn to Native Garden Workshops	2	40	40	8 rain barrels made / 28 perennials given to residents
<b>TOTALS</b>	<b>8</b>	<b>94</b>	<b>202</b>	<b>85</b>

The chart below shows the statistics for the entire Perkiomen Watershed during the 2024 membership year:

Conservation Project	Site(s)	Total Number of Volunteers	Total Volunteer Hours	Total Amount
Tree Plantings	11	200	800	660 trees planted
Stream Clean-up	163	1,806	5,418	1,733 bags of trash removed
Water Chestnut Removal	1	50	1,600	172 bags of EWC removed
Rain Garden Installations	2	100	300	3,000 native perennials planted
Rain Barrel/Rain Garden Workshops	9	135	135	75 rain barrels made
<b>TOTALS</b>	<b>186</b>	<b>2,291</b>	<b>8,253</b>	<b>5,640</b>

# STORMWATER MANAGEMENT

## 23 Attachment 10

### APPENDIX 23-H SIMPLIFIED STORMWATER BMP [Ord. No. 2023-01, 91712023]

#### APPENDIX 23-H SIMPLIFIED STORMWATER BMP

Regulated activities that will result in between 1,001 and 3,000 square feet of Regulated Impervious Surface Area shall provide an infiltration-type structural BMP that will store a minimum of 75% of the Recharge Volume (Rev) as defined by the Stormwater Ordinance. The remaining 25% of the Recharge Volume may either be directed to an infiltration-type structure BMP or reused, evapotranspirated, or infiltration through nonstructural BMPs. One or more of the following BMPs may be used to meet the 75% of the Recharge Volume (Rev) through the infiltration-type structural BMP:

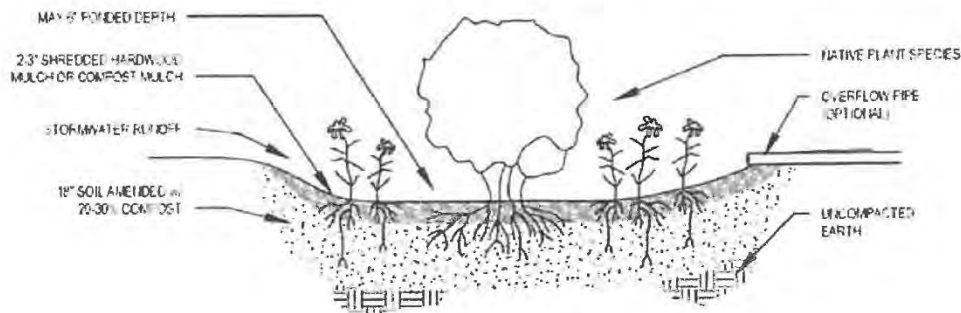
- (a) Rain Gardens - also referred to as bioretention, rain gardens are a method of treating relatively small volumes of stormwater by allowing water to pond in a surface depression. Native species are planted within the depression to improve water quality as well as aesthetics. Water quality improvements are achieved through filtration and settling of particles through a layer of mulch and through infiltration into the surrounding soil. Plant life also contributes to pollutant uptake and improvement of water quality. Construction of a rain garden shall be performed after all other areas of the site are stabilized to avoid clogging. During construction, compaction of the subgrade soil shall be avoided, and construction shall be performed with only light machinery. Additional resources on rain gardens can be found online:

[https://www.dep.state.pa.us/dep/subject/advcoun/stormwater/manual\\_draftjan05/section06-structuralbmps-part1.pdf](https://www.dep.state.pa.us/dep/subject/advcoun/stormwater/manual_draftjan05/section06-structuralbmps-part1.pdf)

[https://www.stormwaterpa.org/assets/media/BMP\\_manual/chapter\\_6/Chapter\\_6-4-5.pdf](https://www.stormwaterpa.org/assets/media/BMP_manual/chapter_6/Chapter_6-4-5.pdf)

<https://www.epa.gov/soakuptherain/soak-rain-rain-gardens>

#### TYPICAL RAIN GARDEN CONFIGURATION



## NEW HANOVER CODE

### **Sizing:**

STEP 1 - Determine Area of Total New Impervious Surfaces (A)

STEP 2 - Determine Required Infiltration Volume (Rev)

$$\text{Rev (cubic feet)} = A \text{ (square feet)} * 20 \text{ CF} / 100 \text{ SF}$$

STEP 3 - Sizing of Select Infiltration Method

$$(\text{Rev}) = (\text{Depth}) \times (\text{Width}) \times (\text{Length})$$

### Example:

STEP 1 – Determine Area of Total New Impervious Surfaces

Suppose total impervious surfaces = 2,000 square feet

STEP 2 - Determine Required Infiltration Volume (Rev)

$$\text{Rev (cubic feet)} = A \text{ (square feet)} * 20 \text{ CF} / 100 \text{ SF}$$

$$\text{Rev} = (2,000 \text{ square feet}) * 20 \text{ CF} / 100 \text{ SF}$$

$$\text{Rev} = 400 \text{ Cubic Feet}$$

STEP 3 - Sizing of Select Infiltration Method

Suppose a ponded depth of 0.5 feet (maximum ponded depth) is desired.

$$(\text{Rev}) = (\text{Depth}) \times (\text{Width}) \times (\text{Length})$$

$$(400 \text{ cubic feet}) = (0.5 \text{ ft}) \times (\text{Width}) \times (\text{Length})$$

$$(\text{Width}) \times (\text{Length}) = \text{Surface Area} = 800 \text{ square feet (possibly 20 feet x 40 feet)}$$

## STORMWATER MANAGEMENT

### Construction Issues:

The following must be addressed during construction to ensure proper function:

- Do not allow sediment to wash back into the bed during construction.
- A minimum of 18" of amended soils shall be provided.
- Amended soil shall be premixed (vs. mixed on-site) and certified as providing an infiltration rate of at least 1" per hour.
- Avoid compaction of the bottom. This can limit the infiltration capacity.
- An overflow pipe can be used to direct excess water to a particular location. If an overflow pipe is used, it shall be placed at the top of the depression, such that water is still allowed to pond.
- Plants used in the rain garden must be tolerant of both wet and dry conditions, as well as be suitable for your light and soil conditions. Plant selection guidance can be found in the internet links listed above.
- If elevated groundwater is encountered, a 4" underdrain wrapped in 6" of clean stone may be added to the bottom of the basin, below the amended soil mixture, and daylighted downstream of the basin.

### Maintenance Issues:

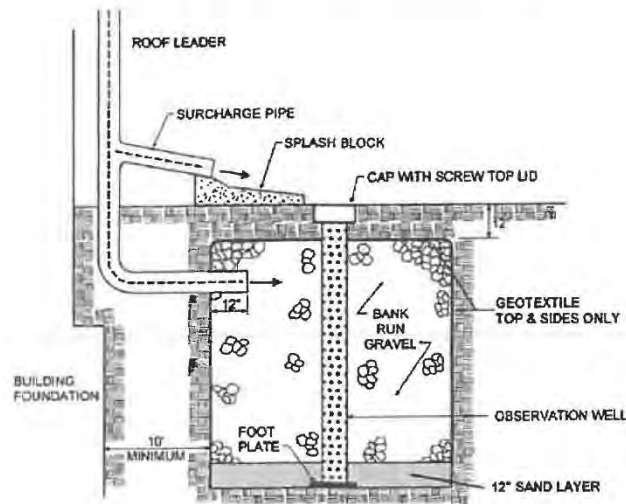
Rain Gardens require the following regular maintenance:

- While vegetation is being established, watering, pruning, and weeding may be required.
- Dead plant material must be removed every year. Perennial plantings may be cut down at the end of the growing season.
- Mulch shall 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.
- Rain Gardens shall be inspected at least two times per year for sediment buildup, erosion, vegetative conditions, or any other conditions that negatively impact the functionality of the system.
- During periods of extended drought, Rain Gardens may require watering.
- Trees and shrubs shall be inspected twice per year to evaluate health.

## NEW HANOVER CODE

- (b) Dry wells - Dry wells are effective methods of infiltrating runoff from roof leaders. These facilities shall be located a minimum of ten (10) feet from the building foundation to avoid seepage problems. A dry well can be either a structural prefabricated chamber or an excavated pit filled with aggregate. Construction of a dry well shall be performed after all other areas of the site are stabilized to avoid clogging. During construction, compaction of the subgrade soil shall be avoided, and construction shall be performed with only light machinery. Depth of dry wells in excess of three and one half (3 ½) feet should be avoided. Gravel fill shall be an average one and one-half to two and one-half (1.5 to 2.5) inches in diameter and shall be homogeneously graded. Dry wells shall not be installed in areas where elevated groundwater exist or within Type D (Hydrologic Soil Group) soil areas.

### TYPICAL DRY WELL CONFIGURATION



Source: Maryland Stormwater Design Manual

Note: Acceptable geotextiles include Mirafi 140N, Amoco 4547, Geotex 451 or approved equal.  
Bank run gravel should be 1.5" to 2.5" in diameter (AASHTO #2 stone is preferable).

### Sizing:

STEP 1 - Determine Area of Total New Impervious Surfaces (A)

STEP 2 - Determine Required Infiltration Volume (Rev)

$$\text{Rev (cubic feet)} = A \text{ (square feet)} * 20 \text{ CF} / 100 \text{ SF}$$

STEP 3 - Sizing of Select Infiltration Method

$$(\text{Rev}) / (0.4) = (\text{Depth}) \times (\text{Width}) \times (\text{Length})$$

Note: Rev is divided by 0.4 to account for the void space in the stone bed.

## STORMWATER MANAGEMENT

### Example:

#### STEP 1 – Determine Area of Total New Impervious Surfaces

Suppose total impervious surfaces = 2,000 square feet

#### STEP 2 - Determine Required Infiltration Volume (Rev)

Rev (cubic feet) = A (square feet) \* 20 CF / 100 SF

Rev = (2,000 square feet) \* 20 CF / (100 SF)

Rev = 400 Cubic Feet

#### STEP 3 - Sizing of Select Infiltration Method

Suppose a bed depth of 3 feet is desired.

(Rev) / (0.4) = (Depth) x (Width) x (Length)

(400 cubic feet) / (0.4) = (3 feet) x (Width) x (Length)

(Width) x (Length) = Surface Area = 333.3 square feet (possibly 15 feet x 22 feet)

### Construction Issues:

The following must be addressed during construction to ensure proper function:

- Do not allow sediment to wash back into the bed during construction.
- Avoid compaction of the bottom. This can limit the infiltration capacity.
- Observation well shall be constructed of perforated pipe such that the level of water in the well is the same as the level of water in the bed.
- Geotextile shall overlap a minimum of 16 inches at seams.

### Maintenance Issues:

- Dry Wells require the following regular maintenance:
- Inspect Dry Wells at least four times a year, as well as after every storm exceeding 1 inch of rain.
- Dispose of sediment, debris/trash, and any other waste material removed from a Dry Well at suitable disposal/recycling sites and in compliance with local, state, and federal waste regulations.
- Evaluate the drain-down time of the Dry Well to ensure the maximum time of 72 hours is not exceeded. If drain-down times are exceeding the maximum, drain the Dry Well via pumping and clean out perforated piping, if included.
- Regularly clean out gutters and ensure proper connections to facilitate the effectiveness of the dry well.
- Replace filter screen that intercepts roof runoff as necessary.
- If an intermediate sump box exists, clean it out at least once per year.

# NEW HANOVER CODE

Worksheet 3. Nonstructural BMP Credits																		
<b>PROTECTED AREA</b>																		
1.1 Area of Protected Sensitive/Special Value Features (see WS 2)		_____	Ac.															
1.2 Area of Riparian Forest Buffer Protection		_____	Ac.															
3.1 Area of Minimum Disturbance/Reduced Grading		_____	Ac.															
<b>TOTAL</b>			_____ Ac.															
<table style="width: 100%; border: 1px solid black; margin: 0 auto;"> <tr> <td style="text-align: center;">Site Area</td> <td style="text-align: center;"><i>minus</i></td> <td style="text-align: center;">Protected Area</td> <td style="text-align: center;">=</td> <td style="text-align: center;">Stormwater Management Area</td> </tr> <tr> <td style="text-align: center;">[ ]</td> <td style="text-align: center;">-</td> <td style="text-align: center;">[ ]</td> <td style="text-align: center;">=</td> <td style="text-align: center;">[ ]</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: center;"> <i>This is the area that requires stormwater management</i> </td> </tr> </table>				Site Area	<i>minus</i>	Protected Area	=	Stormwater Management Area	[ ]	-	[ ]	=	[ ]					<i>This is the area that requires stormwater management</i>
Site Area	<i>minus</i>	Protected Area	=	Stormwater Management Area														
[ ]	-	[ ]	=	[ ]														
				<i>This is the area that requires stormwater management</i>														
<b>VOLUME CREDITS</b>																		
<b>3.1 Minimum Soil Compaction</b>																		
Lawn	_____ ft <sup>2</sup>	x 1/4" x 1/12	= _____ ft <sup>3</sup>															
Meadow	_____ ft <sup>2</sup>	x 1/3" x 1/12	= _____ ft <sup>3</sup>															
<b>3.3 Protect Existing Trees</b>																		
<i>For Trees within 100 feet of impervious area:</i>																		
Tree Canopy	_____ ft <sup>2</sup>	x 1/2" x 1/12	= _____ ft <sup>3</sup>															
_____																		
<b>5.1 Disconnect Roof Leaders to Vegetated Areas</b>																		
<i>For runoff directed to areas protected under 5.8.1 and 5.8.2</i>																		
Roof Area	_____ ft <sup>2</sup>	x 1/3" x 1/12	= _____ ft <sup>3</sup>															
<i>For all other disconnected roof areas</i>																		
Roof Area	_____ ft <sup>2</sup>	x 1/4" x 1/12	= _____ ft <sup>3</sup>															
<b>5.2 Disconnect Non-Roof Impervious to Vegetated Areas</b>																		
<i>For Runoff directed to areas protected under 5.8.1 and 5.8.2</i>																		
Impervious Area	_____ ft <sup>2</sup>	x 1/3" x 1/12	= _____ ft <sup>3</sup>															
<i>For all other disconnected roof areas</i>																		
Impervious Area	_____ ft <sup>2</sup>	x 1/4" x 1/12	= _____ ft <sup>3</sup>															
[ ]																		
* For use on Worksheet 5																		

# MUNICIPAL SEPERATE STORM SEWER SYSTEM ANNUAL MS4 STATUS REPORT



## APPENDIX C

# MCM#3 ILLICIT DISCHARGE DETECTION & ELIMINATION

- Dry Weather Priority Outfall Field Screening Memo & Summary Table
- Dry Weather Priority Outfall Field Screening Reports
- IDDE Incident Report & Correspondance Documentation

# MEMORANDUM

To: Jay Kowal, Township Manager, New Hanover Township, PA

From: Beth Uhler, Center for Watershed Protection, Inc. (CWP)

Date: July 15, 2024

Re: Findings from 2024 Dry Weather Outfall Field Screening Surveys (MCM#3)

---

The Center for Watershed Protection (CWP) in conjunction with staff from New Hanover Township, PA conducted dry weather outfall field screening for the 11 previously identified outfalls that drain priority areas on June 11, 2024. New Hanover Township staff in attendance includes Matt Bechtel, Kevin Fulmer, Zach Hendricks, Brad Holloway, Jay Kowal, Randy Miller and Kevin Synder. Dry weather outfall field screening for these outfalls should be performed annually.

## **Background**

The purpose of the dry weather outfall field screening is to identify and report any potential illicit discharges from the municipal separate storm sewer system (MS4) that may discharge into local waterways. This outfall field screening was also organized with the purpose of training New Hanover Township staff to conduct the dry weather outfall field screening. A classroom training occurred April 2024, prior to the dry weather outfall field screening. During the dry weather outfall field screening, if any potential or actual illicit discharges are identified, subsequent investigation would be recommended. This field work was conducted 48 hours or more after a runoff producing rain event to ensure any flow from an outfall isn't from stormwater runoff. The dry weather outfall field screening is part of MS4 Minimum Control Measure (MCM) #3: Illicit Discharge Detection and Elimination requirement. At each priority outfall information was collected in a digital version of the PA DEP MS4 Outfall Field Screening Report using the ArcGIS Survey123 application.

## **Results**

No illicit discharges were noted based on the outfall field screening results. One (1) of the 11 outfalls had dry weather flow (trickle or moderate flow) and three (3) outfalls had standing water. All were field tested on-site for water quality parameters. Water quality parameters tested included pH and chlorine with the results indicating no water quality concerns. The water quality parameters were tested using pH and chlorine indicator strips. The pH at outfalls was consistently between 6-7 which is neutral. Outfalls #203, #209, #211, #306, #413, and #920 are all partially filled with sediment which should be addressed. The individual dry weather outfall field screening reports and a **summary table of the field findings for each priority area outfall is enclosed.**

## **Enclosures:**

New Hanover Township 2024 Priority Area Outfall Dry Weather Outfall Field Screening Summary Table  
Dry Weather Outfall Field Screening Reports

**New Hanover Township 2024 Priority Area Outfall Dry Weather Outfall Field Screening Summary Table**

Outfall Number	Type	Pipe Type	Shape	Pipe Diameter (in)	Flow Present?	Illicit Discharge Determination	Drain Priority Area	2024 Dry Weather Field Screening Notes
203	Outfall	RCP	Circular	48	No	Unlikely	Yes	Partially submerged with sediment and $\frac{3}{4}$ filled with water
206	Outfall	HDPE	<b>Circular</b>	36	<b>No</b>	Unlikely	Yes	
209	Outfall	Concrete	Elliptical	36	No	Unlikely	Yes	Outfall $\frac{1}{2}$ filled with sediment. Outfall cracking and vegetation growth. Check slopes in pipes.
211	Outfall	Concrete	<b>Circular</b>	NA	<b>No</b>	Unlikely	Yes	$\frac{1}{2}$ filled with sediment. Asphalt bike path above pipes cracked and deteriorated.
306	Outfall	RCP	<b>Circular</b>	36	Yes	Unlikely	Yes	Partially filled with sediment. Algae and oil present, believed to be of natural origin.
329	Outfall	Earthen	Other	36	No	Unlikely	Yes	
331	Outfall	Earthen	Other	30	No	Unlikely	Yes	Overland flow with excessive vegetation growth.
413	Outfall	WCP	Circular	48	<b>No</b>	Unlikely	Yes	$\frac{3}{4}$ filled with sediment, leaves, and weeds.
416	Outfall	WCP	Circular	NA	No	Unlikely	Yes	
920	Outfall	RCP	Circular	24	No	Unlikely	Yes	Partially submerged in water and sediment. Grate on outlet collecting some leaves.
110	Outfall	RCP	Circular	36	No	Unlikely	Yes	



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 10:10
<b>Outfall Number:</b> 413	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.569728, 40.281141	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Other
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed	RCP	Circular	18 inch	In water: No
				With sediment: Partially
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine			Test Strip
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

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

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

**Notes:**

No flow, pipe partially full of weeds, sediment, leaves

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024



**New Hanover Township**

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete outfall pipe structure in a field. The pipe is partially buried in the ground, surrounded by green vegetation and dry leaves. The structure appears to be a simple concrete curb or wall with a circular opening at the bottom.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete outfall pipe. The pipe is partially obscured by green weeds and brown leaves growing around its base. The pipe itself is dark and appears to be made of metal or plastic, set into a concrete wall.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 3	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete pipe with a circular opening, partially obscured by tall green grass and weeds. The pipe is situated in a grassy area next to a road. In the background, there are utility poles, power lines, and a building under a cloudy sky.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 10:25
<b>Outfall Number:</b> 416	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.568949, 40.280988	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Other
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed	RCP	Circular	24 inch	In water: No
				With sediment: No
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine			Test Strip
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

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

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

None

**Notes:**

RESPONSABLE 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. S 4904 (relating to unsworn falsification).	
Responsible Official Name Jay Kowal	Signature Jay Kowal
Telephone Number	Date 7-11-2024



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete outfall pipe structure. The pipe has a circular opening. The base of the pipe is surrounded by a pile of large, dark grey and brown rocks. The concrete appears to be part of a larger structure, possibly a culvert or a stormwater management facility. The background shows some green grass.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete structure, likely a dry weather outfall, with a circular opening. The structure is surrounded by large, dark rocks. A person wearing a yellow safety vest is partially visible in the background.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 10:34
<b>Outfall Number:</b> 306	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.582637, 40.281907	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Other
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed	RCP	Circular	36	In water: No
				With sediment: Partially
In-stream? No				
<b>Flow present? Yes</b>				
Flow description (if present): Trickle				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine	0		Test Strip
pH	7.8	pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow? **No**

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

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

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

None

**Notes:**

Algae. Saw some evidence of oil. Assuming it's natural

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024



**New Hanover Township**

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>




Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a narrow, shallow stream flowing through a rocky channel. The water is clear and reflects the surrounding green foliage and sky. The rocks are dark and jagged, forming the banks of the stream. The overall scene is a natural, outdoor setting.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 3	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a small stream or outfall pipe discharging into a natural stream. The water is clear and flows over a bed of large, grey rocks. The surrounding area is lush with green vegetation, including trees and grasses, indicating a healthy natural environment.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 10:59
<b>Outfall Number:</b> 110	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.604733, 40.293224	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Other
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed	RCP	Circular	18	In water: No
				With sediment: No
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine			Test Strip
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

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

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

None

**Notes:**

None

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a large, circular concrete pipe opening. The interior of the pipe is dark and appears to be empty, consistent with a dry weather outfall. The pipe is surrounded by rocks and some vegetation.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
-------------	-------------------------------------	------------



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 3	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete pipe that is partially blocked or surrounded by a large pile of rocks and debris. The pipe is situated in a natural, vegetated area, likely a stream bed or outfall point. The surrounding area is covered with green plants and rocks of various sizes.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 11:26
<b>Outfall Number:</b> 206	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.600122, 40.285345	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Suburban Residential
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed	HDPE	Circular	24	In water: No
				With sediment: No
In-stream? No				
Flow present? No				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine			Test Strip
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



### New Hanover Township

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

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

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

None

**Notes:**

None

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024



**New Hanover Township**

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a black corrugated pipe discharging into a grassy field. The pipe is partially buried in a shallow trench, and the surrounding area is overgrown with tall grass. The background shows a concrete structure and some trees.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a large, dark, corrugated pipe that has been cut and laid on its side in a grassy field. The pipe is surrounded by tall grass and some rocks. In the background, there is a concrete wall and some trees under a cloudy sky.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 11:48
<b>Outfall Number:</b> 203	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.600005, 40.285178	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Suburban Residential
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed	RCP	Circular	36	In water: Partially With sediment: Partially
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine	0		Test Strip
pH	7.5	pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



### New Hanover Township

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

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

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

None

**Notes:**

Pipe is partially submerged with sediment and three quarters full of water. Stagnant water. High alkalinity of

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024



**New Hanover Township**

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>




Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete structure, likely a stormwater outfall, partially obscured by dense green grass and weeds. The structure appears to be a rectangular box with a dark opening at the bottom, situated on a grassy slope.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete structure, likely a dry weather outfall, partially obscured by dense green grass and weeds. The structure appears to be a rectangular box or culvert opening.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 3	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a dense thicket of green vegetation, including tall grasses and shrubs, growing along a stream or outfall. A large, weathered wooden post is visible on the right side of the frame, partially obscured by the plants. The background shows a narrow waterway winding through the trees.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 11:58
<b>Outfall Number:</b> 920	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.589084, 40.307533	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Suburban Residential
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed	RCP	Circular	12	In water: Partially
				With sediment: Partially
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine	0		Test Strip
pH	7.5	pH Units	Test strip/Probe
Ammonia	Not sampled	mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

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

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

None

**Notes:**

Filled with leaves, water present but not flowing

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024



**New Hanover Township**

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a person wearing a bright green polo shirt and dark pants, kneeling on a bed of grey rocks. The person is holding a clear plastic bottle and appears to be sampling water from a pipe that is partially covered by a metal grate. The background consists of a concrete wall and some green foliage.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete structure, likely a dry weather outfall, surrounded by a bed of dark, irregularly shaped stones. The structure has a small opening with a metal grate. The area is overgrown with green vegetation, including ferns and leafy plants. A person's arm and a red and white striped object are partially visible on the right side of the frame.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 3	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a concrete structure, likely a dry weather outfall, partially obscured by dense green foliage. The structure is surrounded by a large pile of dark, jagged rocks, which appears to be a screening or filter bed. The scene is outdoors with lush vegetation in the background.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 09:40
<b>Outfall Number:</b> 329	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.568137, 40.293779	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Other
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input checked="" type="checkbox"/> Open <input type="checkbox"/> Closed	Earthen	Other	Other	In water: No
				With sediment: No
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine			Test Strip
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

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

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

None

**Notes:**

Natural vegetation growth present. No constructed swale present, but clear path of runoff over natural cover.

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024



**New Hanover Township**

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
A photograph showing a concrete structure on the left side of a stream. The water in the stream is dark and appears to be flowing over a rocky bed. There is a lot of green vegetation on the right bank of the stream. The photo is taken from a slightly elevated position looking down into the stream.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
A photograph showing a dry weather outfall field screening site. The image depicts a concrete structure, possibly a weir or screen, partially obscured by dense, tall green vegetation. The background is filled with lush green trees and bushes, suggesting a wooded or natural area.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 09:49
<b>Outfall Number:</b> 331	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.568235, 40.293855	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Other
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input checked="" type="checkbox"/> Open <input type="checkbox"/> Closed	Earthen	Other	Other	In water: No
				With sediment: No
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine			Test Strip
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

Are physical indicators that are not related to flow present? **Yes**

Indicator	Description
Outfall Damage	
Deposits/Stains	
Abnormal Vegetation	Other Natural vegetation growth
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

No

**Notes:**

Overland flow along side of roadway, excessive natural vegetation growth in path of overland flow.

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024




**New Hanover Township**

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a stream with brown, turbid water. The stream is heavily overgrown with dense green vegetation, including tall grasses and leafy plants, which appear to be encroaching on the waterway. The water is contained within a concrete or stone-lined channel.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a dense thicket of green vegetation, including various grasses and leafy plants, growing in a wooded or brushy area. The plants are vibrant green, suggesting a healthy, natural environment.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 3	Dry Weather Outfall Field Screening	06/11/2024
A photograph showing a dry weather outfall field screening structure. The structure consists of a concrete wall with a metal grate and a metal pipe leading away. The area is surrounded by dense green vegetation and a wooden post is visible in the background.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 10:58
<b>Outfall Number:</b> 211	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.59801, 40.291582	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Other
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed		Circular	18	In water: No
				With sediment: Partially
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine			Test Strip
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



### New Hanover Township

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

Are physical indicators that are not related to flow present? **Yes**

Indicator	Description
Outfall Damage	Spalling, cracking, chipping
Deposits/Stains	
Abnormal Vegetation	
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

None

**Notes:**

Pipe outlets and bike path over piping requires maintenance for cracking paving and sediment buildup. Check pipe slope and grades to verify flow directions and pipe network.

RESPONSABLE 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. S 4904 (relating to unsworn falsification).	
Responsible Official Name Jay Kowal	Signature Jay Kowal
Telephone Number	Date 7-11-2024



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
A photograph showing two large, light-colored concrete pipes laid out on the ground. The pipes are surrounded by dense green vegetation and some rocks. The pipes appear to be part of an outfall system, possibly for stormwater or wastewater.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing two large concrete pipes installed in a trench. The pipes are surrounded by gravel and some green vegetation. The pipes appear to be part of a drainage system.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 3	Dry Weather Outfall Field Screening	06/11/2024
A photograph showing two large, dark concrete pipes in a rocky, vegetated area. The pipes are partially obscured by green foliage and rocks. A blue plastic bag is visible on the ground in the foreground. The scene appears to be a dry weather outfall field screening.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



## DRY WEATHER OUTFALL FIELD SCREENING

New Hanover Township | NPDES ID: PAG130020

<b>Date:</b> 06/11/2024	<b>Time Inspected:</b> 11:28
<b>Outfall Number:</b> 209	<b>Outfall/Observation Point:</b> Outfall
<b>Lat/Long:</b> -75.602736, 40.29266	<b>Inspector(s):</b> JS
<b>Subwatershed:</b>	<b>Contributing Drainage Area Land Use:</b> Other
<input checked="" type="checkbox"/> Dry Weather <input type="checkbox"/> Wet Weather	

### Outfall Description

Pipe Type	Material	Shape	Dimensions (in.)	Submerged
<input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed		Elliptical	48	In water: No
				With sediment: Partially
In-stream? No				
<b>Flow present? No</b>				
Flow description (if present):				

### Quantitative Characterization (field data for flowing outfalls)

Parameter	Result	Unit	Equipment
Chlorine			Test Strip
pH		pH Units	Test strip/Probe
Ammonia		mG/L	Test strip

### Physical Indicators for Flowing Outfalls Only

Are any physical indicators present in the flow?

Indicator	Description	Relative Severity
Odor		
Color		
Turbidity		
Floatables		



**New Hanover Township**  
 2943 North Charlotte Street  
 Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



**Physical Indicators for Both Flowing and Non-Flowing Outfalls**

Are physical indicators that are not related to flow present? **Yes**

Indicator	Description
Outfall Damage	Spalling, cracking, chipping
Deposits/Stains	
Abnormal Vegetation	Excessive
Poor pool quality	

**Overall outfall characterization for an illicit discharge:** Unlikely

**Data Collection**

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

**Any non-illicit discharge concerns?**

No

**Notes:**

48 pipe directs water to other outfall. Check pipe network for flow path. Some damage at pipe inlet head wall. Check slopes in pipe and clean out debris so water doesn't collect in pipe

**RESPONSABLE 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. S 4904 (relating to unsworn falsification).

Responsible Official Name	Jay Kowal	Signature	Jay Kowal
Telephone Number		Date	7-11-2024



**New Hanover Township**

2943 North Charlotte Street  
Gilbertsville, PA 19525-9718

<https://www.newhanover-pa.org/>




Photo No. 1	Dry Weather Outfall Field Screening	06/11/2024
A photograph showing a concrete structure, likely a manhole or outfall, with a large hole. The interior of the hole is dark and filled with soil and some green vegetation. The concrete structure is surrounded by grass and other plants.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 2	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a dry weather outfall field screening. The image depicts a narrow, dark opening or culvert surrounded by dense green vegetation, including tall grasses and leafy plants. The structure appears to be made of concrete or stone, with a wooden post visible on the left side.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>



Photo No. 3	Dry Weather Outfall Field Screening	06/11/2024
 A photograph showing a dry weather outfall field screening. The image depicts a dark, circular opening in a concrete or stone structure, surrounded by a rough, rocky ground surface. A wooden log is positioned horizontally across the opening, likely used for screening debris. The surrounding area appears to be a natural or semi-natural drainage area.		



**New Hanover Township**  
2943 North Charlotte Street  
Gilbertsville, PA 19525-9718  
<https://www.newhanover-pa.org/>

---

**From:** Miller, Rex <remiller@pa.gov>  
**Sent:** Friday, January 5, 2024 3:20 PM  
**To:** Bauer, Kevin <kbauer@pa.gov>; Drust, Betsie <bdrust@pa.gov>; Mountain, Shawn <smountain@pa.gov>; Oseredzuk, Jason <joseredzuk@pa.gov>  
**Cc:** Patterson, Patrick <patpatters@pa.gov>; Shankar, Sachin <sshankar@pa.gov>; Berardi, Stephanie <sberardi@pa.gov>; Strobridge, Lisa <lstrobridg@pa.gov>; Feindt, Kimberly <kfeindt@pa.gov>; Miller, Lisa (DEP-SERO) <lisamill@pa.gov>; Miller, Rex <remiller@pa.gov>; Reid, Amani <amreid@pa.gov>; Russell, Benjamin (DEP-SERO) <brussell@pa.gov>; Serrat, Juan <jserratgon@pa.gov>; Jardel, Paul <pjardel@pa.gov>; Jamie Gwynn <jgwynn@newhanover-pa.org>; Maggie Dobbs <mdobbs@newhanover-pa.org>  
**Subject:** 2024\_0105\_WM\_NewHanoverTwp\_Hydraulic Oil Release to Roadway from Whitetail Disposal Truck\_NRC#1388237

Greetings All,

Contacted Whitetail Disposal to inquire, received return call from Kyle Clevenger (484.942.5087), who advised that the release occurred Tuesday, unbeknownst to him.

In any event, he now has a 4 person crew out w/ oil dry & a street sweeper taking care of mitigating & remediating the spill, which is described a oily tire tracks on roadway.

Mr. Clevenger will send a spill report to Betsie when completed.

Regards,  
Rex

-----Original Message-----

**From:** StateEOC, Pennsylvania <stateeoc@pa.gov>  
**Sent:** Friday, January 5, 2024 12:24 PM  
**To:** StateEOC, Pennsylvania <stateeoc@pa.gov>  
**Subject:** NRC#1388237

NATIONAL RESPONSE CENTER 1-800-424-8802

\*\*\*GOVERNMENT USE ONLY\*\*\*GOVERNMENT USE ONLY\*\*\*

Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 1388237

#### INCIDENT DESCRIPTION

\*Report taken by NRC on 05-JAN-24 at 12:13 ET.

Incident Type: MOBILE

Incident Cause: UNKNOWN

Affected Area:

Incident occurred on 05-JAN-24 at 12:00 local incident time.

Affected Medium: LAND / ROADWAY

---

#### REPORTING PARTY

Name: ANONYMOUS

Organization:

Address:

, XX

Email Address:

PRIMARY Phone: (111)1111111

Type of Organization: OTHER

---

#### SUSPECTED RESPONSIBLE PARTY

Name: UNKNOWN UNKNOWN

Organization: WHITE TAIL DISPOSAL

Address: 334 LAYFIELD WAY

PERKIOMENDILLE, PA

Phone: (610)7540103

Type of Organization: PRIVATE ENTERPRISE

---

#### INCIDENT LOCATION

2165 HILL RD County: MONTGOMERY

City: PERKIOMENVILLE State: PA Zip: 18074

---

#### RELEASED MATERIAL(S)

CHRIS Code: UNK Official Material Name: UNKNOWN MATERIAL

Also Known As:

Qty Released: 0 UNKNOWN AMOUNT

---

#### DESCRIPTION OF INCIDENT

THE CALLER STATED THAT A TRASH TRUCK IS RELEASING AN UNKNOWN AMOUNT

OF AN UNKNOWN MATERIAL ONTO THE ROADWAY AT THE LOCATION. THE CAUSE

OF THE RELEASE IS UNKNOWN TO THE CALLER.

---

#### SENSITIVE INFORMATION

---

### INCIDENT DETAILS

Road Mile Marker:  
Length of Service Disruption:  
Airbag Deployed: UNKNOWN  
---MOBILE INFORMATION---  
Vehicle Type: DUMP TRUCK  
Vehicle Number: UNKNOWN  
Vehicle Fuel Capacity:  
Hazmat Carrier: UNKNOWN  
Carrier Licensed: UNKNOWN  
Suspected Non Compliance: UNKNOWN  
Trailer/Tanker Number:  
Cargo Capacity:  
Cargo On Board:

---

### IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN  
INJURIES: NO Sent to Hospital: Empl/Crew: Passenger:  
FATALITIES: NO Empl/Crew: Passenger: Occupant:  
EVACUATIONS:NO Who Evacuated: Radius/Area:  
Damages: NO

Closure Type	Description of Closure	Hours	Direction of	Closed	Closure
Air:	NO				

Road:	NO	Major	Artery:NO
Waterway:	NO		
Track:	NO		
Passengers Transferred:	NO		
Environmental Impact:	NO		
Media Interest:	NONE		

---

### REMEDIAL ACTIONS

THE OPERATOR OF THE TRUCK PLACED ABSORBENTS TO ADDRESS THE RELEASE.

Release Secured: UNKNOWN  
Release Rate:  
Estimated Release Duration:

---

### WEATHER

---

### ADDITIONAL AGENCIES NOTIFIED

Federal:  
State/Local:  
State/Local On Scene:  
State Agency Number:

---

NOTIFICATIONS BY NRC  
CENTERS FOR DISEASE CONTROL (GRASP)

05-JAN-24 12:19 (770)4887100  
ASST COMDT FOR INTELLIGENCE (CG-2) (OFFICE OF INTELLIGENCE PLANS  
AND POLICY  
(CG-25))  
05-JAN-24 12:19 (202)3722886  
CBP TRADE PTNRSHIP AGAINST TERRORISM (CTPAT PROGRAM MIAMI)  
05-JAN-24 12:19 (305)2050759  
DEPT OF HEALTH AND HUMAN SERVICES (SECRETARY OPERATION CENTER  
(SOC))  
05-JAN-24 12:19  
DHS CISA (CISA CENTRAL)  
05-JAN-24 12:19 (202)2829201  
OH OFFICE OF INTELL & ANALYSIS (FIELD OPERATIONS DIVISION)  
05-JAN-24 12:19 (202)6171946  
OFFICE OF ENV. POLICY & COMPLIANCE (OEPC REGION 3)  
05-JAN-24 12:19 (215)5975012  
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)  
05-JAN-24 12:19 (202)3661863  
DELAWARE VALLEY INTEL CENTER (REGIONAL FUSION CENTER/PHILI PD)  
05-JAN-24 12:19 (215)8970800  
U.S. EPA III (MAIN OFFICE)  
(215)8143255  
JOINT TASK FORCE CIVIL SUPPORT (CBRN ANALYSIS CELL)  
05-JAN-24 12:19 (757)5017422  
NJ STATE POLICE DEPT (MARINE SERVICES BUREAU)  
05-JAN-24 12:19 (609)9636900  
NJ STATE POLICE DEPT (REGIONAL OPERATIONS INTELLIGENCE CENTER)  
05-JAN-24 12:19 (609)8822000  
NOAA RPTS FOR PA (MAIN OFFICE)  
05-JAN-24 12:19 (206)5264911  
PA ENVIRONMENTAL PROTECTION AGENCY (EMERGENCY ENVIRONMENTAL  
RESPONSE)  
05-JAN-24 12:19 (717)7875715  
PA STATE POLICE (BUREAU OF CRIMINAL INVESTIGATION)  
05-JAN-24 12:19 (717)5255260  
PA STATE POLICE (PENNSYLVANIA CRIMINAL INTELLIGENCE CENTER)  
05-JAN-24 12:19 (717)5255283  
PIPELINE & HAZMAT SAFETY ADMIN (HAZARDOUS MATERIAL ACCIDENT  
INVESTIGATION)  
05-JAN-24 12:19 (202)3664031  
PA EMERG MGMT AGCY (MAIN OFFICE)  
05-JAN-24 12:19 (717)6512001  
USCG DISTRICT 5 (D5 DRAT)  
05-JAN-24 12:19 (757)3986231  
US COURTS JUDICIAL SECURITY DIV (FACILITIES AND SECURITY OFFICE  
(FSO))  
05-JAN-24 12:19 (847)9034936

---

ADDITIONAL INFORMATION

---

\*\*\* END INCIDENT REPORT #1388237 \*\*\*

Report any problems by calling 1-800-424-8802  
PLEASE VISIT OUR WEB SITE AT <http://nrc.uscg.mil/>

-----Original Message-----

From: Communications Center <[comm@csonline.net](mailto:comm@csonline.net)>  
Sent: Friday, January 5, 2024 12:35 PM  
To: EP-SEEmergencyReport <[EP-SEEmergencyReport@pa.gov](mailto:EP-SEEmergencyReport@pa.gov)>  
Subject: [External] Montgomery County Emergency or Spill

Message for 6033.05 DEP Southeast

Message For: Rex Miller  
Taken 5-JAN-24 at 12:31PM by JLC

-----  
Caller ID: 717-651-2001  
Name: Bruce  
Company: PEMA  
Phone: 717-651-2001 Ext:  
Alt#: - -

----- Time/Date of incident: 01/05 at 12pm  
Incident: Trash truck released trash on the roadway Approximate quantity: Unknown Spilled  
material: Unknown Responsible party: Unknown Is the release secure/contained? No Is a  
waterway affected? No Name of waterway: N/A Is there a clean up crew on site? No  
Company name: N/A PEMA Incident#: 65528  
Notify: Regional office

-----  
Site: Roadway  
Site address: 2165 Hill Rd  
Zip: 18074-  
City: Perkiomenville State: PA  
Site contact: N/A  
Phone: - -  
Municipality: Perkiomen Township  
County: Montgomery County  
Lat/Long: lat: 30.31033 lng: -95.28774

PT 1: 05-JAN-24 12:34 PM MLC 101

=====

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



**APPENDIX D**

**MCM #5  
POST CONSTRUCTION  
STORMWATER MANAGEMENT**

- 2024 PCSM BMP Inventory

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Fun-E-Farm, LLC	1	1A	Retention Basin	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31313	-75.55233	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1B	Rain Garden/Bio-Retention	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31226	-75.55255	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1B1	Rain Garden/Bio-Retention	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.3117	-75.55166	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1C	Protected Sensitive Features	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31407	-75.55546	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1C1	Protected Sensitive Features	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31401	-75.55391	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1D	Revegetation Area	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31314	-75.55198	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1E	Vegetated Swale	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31275	-75.55163	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1F	Soils Amendment and Restoration	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31288	-75.55224	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1F1	Soils Amendment and Restoration	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31257	-75.55202	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1G	Disconnection from Storm Sewers	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31285	-75.55199	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1G1	Disconnection from Storm Sewers	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31244	-75.55171	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1G2	Disconnection from Storm Sewers	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31221	-75.55091	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1G3	Disconnection from Storm Sewers	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31203	-75.55175	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1G4	Disconnection from Storm Sewers	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31202	-75.55122	Spring 2024	TBD
Fun-E-Farm, LLC.	1	1G5	Disconnection from Storm Sewers	3488 Church Road	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	FEF, LLC.	10 Schoolhouse Road, STE 1, Souderton, PA 18964	11/9/2018	PAG02004614031	40.31197	-75.55204	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Hanover Woods	2	2A	Detention Basin	Dotterer Road	HANOVER WOODS PLANNED COMMUNITY ASSN	2655 PHILMONT AVE, HUNTINGDON VALLEY PA 19006	HANOVER WOODS PLANNED COMMUNITY ASSN	2655 PHILMONT AVE, HUNTINGDON VALLEY PA 19006	7/5/2006	PAG2004605185	40.30852	-75.5877	Spring 2024	TBD
Hanover Woods	2	2A1	Detention Basin	Jackie Drive	HANOVER WOODS PLANNED COMMUNITY ASSN	2655 PHILMONT AVE, HUNTINGDON VALLEY PA 19006	HANOVER WOODS PLANNED COMMUNITY ASSN	2655 PHILMONT AVE, HUNTINGDON VALLEY PA 19006	7/5/2006	PAG2004605185	40.30847	-75.5861	Spring 2024	TBD
Hanover Woods	2	2A2	Detention Basin	Marisa Lane	HANOVER WOODS PLANNED COMMUNITY ASSN	2655 PHILMONT AVE, HUNTINGDON VALLEY PA 19006	HANOVER WOODS PLANNED COMMUNITY ASSN	2655 PHILMONT AVE, HUNTINGDON VALLEY PA 19006	7/5/2006	PAG2004605185	40.30751	-75.58617	Spring 2024	TBD
Hanover Woods	2	2B	Retentive Grading	Marisa Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	7/5/2006	PAG2004605185	40.30756	-75.58478	Spring 2024	TBD
Hanover Woods	2	2B1	Retentive Grading	Garnet Drive	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	7/6/2006	PAG2004605186	40.30756	-75.58478	Spring 2024	TBD
Hanover Woods	2	2C	Sump Inlet	Garnet Drive	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	7/5/2006	PAG2004605185	40.30849	-75.58739	Spring 2024	TBD
Hanover Woods	2	2C1	Sump Inlet	Garnet Drive	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	7/5/2006	PAG2004605185	40.30879	-75.58759	Spring 2024	TBD
Hanover Woods	2	2C2	Sump Inlet	Jackie Drive	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	7/5/2006	PAG2004605185	40.30904	-75.58609	Spring 2024	TBD
Hanover Woods	2	2C3	Sump Inlet	Marisa Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	7/5/2006	PAG2004605185	40.30849	-75.58507	Spring 2024	TBD
Hanover Woods	2	2C4	Sump Inlet	Marisa Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	7/5/2006	PAG2004605185	40.30742	-75.58584	Spring 2024	TBD
Hanover Woods	2	2E	Bio-Infiltration Area	Layfield Park	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	7/6/2006	PAG2004605186	40.30756	-75.58478	Spring 2024	TBD
Orff	3	3	Infiltration Basin	961 Layfield Drive, Perkiomenville PA 18074	David & Susan Orff	195 PAPER MILL RD BARTO, PA 19504	David & Susan Orff	195 Paper Mill Road, Barto PA 19504	1/24/2007	PAG2004606121	40.35944	-75.52796	Spring 2024	TBD
Falcon Crest (Shannon Rose Estates)	4	4	Detention Basin	111 Lawrence Drive, Gilbertsville PA	William & Susan Grill	111 LAWRENCE DR, GILBERTSVILLE, PA 19525	William & Susan Grill	111 Lawrence Drive, Gilbertsville PA	7/3/2007	PAG2004606157	40.27844	-75.57054	Spring 2024	TBD
Fairbrook	5	5A	Detention Basin	107 Fairbrook Drive, Gilbertsville PA	PALMERIO JOSEPH M & JENNIFER A	107 Fairbrook Drive, Gilbertsville PA	Fairbrook HOA C/O Tony Filopanti	122 Fairbrook Drive, Gilbertsville PA	2/4/2011	PAG02004605117R	40.29378	-75.58069	Spring 2024	TBD
Fairbrook	5	5B	Vegetated Swale	107-119 Fairbrook Drive, Gilbertsville PA	Multiple	107-119 Fairbrook Drive, Gilbertsville PA	Fairbrook HOA C/O Tony Filopanti	122 Fairbrook Drive, Gilbertsville PA	2/4/2011	PAG02004605117R	40.29304	-75.58052	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Hanover Greene	6	6	Detention Basin	2292 Sterling Drive, Gilbertsville PA, 19525	MUSSER BROOKE	2292 Sterling Drive, Gilbertsville PA, 19525	MUSSER BROOKE	2292 Sterling Drive, Gilbertsville PA, 19525	TBD	PAR10T919	40.28691	-75.57593	Spring 2024	TBD
Highlands at Hanover II	8	8A	Seepage Bed	2512 Tracy Ln, Gilbertsville PA 19525	King Edward & Courtney	2512 TRACY LN, GILBERTSVILLE, PA 19525	King Edward & Courtney	2512 Tracy Ln, Gilbertsville PA 19525	TBD	TBD	40.27556	-75.56325	Spring 2024	TBD
Highlands at Hanover II	8	8A1	Seepage Bed	2514 Tracy Ln, Gilbertsville PA 19525	Wieber Francis M & Rebecca S	2514 TRACY LN, GILBERTSVILLE, PA 19525	Wieber Francis M & Rebecca S	2514 Tracy Ln, Gilbertsville PA 19525	TBD	TBD	40.2752	-75.56303	Spring 2024	TBD
Highlands at Hanover II	8	8A2	Seepage Bed	2516 Tracy Ln, Gilbertsville PA 19525	Cless Craig M & Catherine B	2516 TRACY LN, GILBERTSVILLE, PA 19525	Cless Craig M & Catherine B	2516 Tracy Ln, Gilbertsville PA 19525	TBD	TBD	40.27508	-75.56288	Spring 2024	TBD
McSurdy Office Center	9	9A	Wet (Detention) Basin	1831 Swamp Pike, Gilbertsville PA 19525	McSurdy LP	430 Park Ave Collegeville, PA 19426	McSurdy LP	128 MENNONITE RD, COLLEGEVILLE, PA 19426	TBD	PAG2004606064	40.30418	-75.58871	Spring 2024	TBD
McSurdy Office Center	9	9B	Snout	1831 Swamp Pike, Gilbertsville PA 19525	McSurdy LP	430 Park Ave Collegeville, PA 19426	McSurdy LP	128 MENNONITE RD, COLLEGEVILLE, PA 19426	TBD	PAG2004606064	40.30383	-75.58913	Spring 2024	TBD
McSurdy Office Center	9	9B1	Snout	1831 Swamp Pike, Gilbertsville PA 19525	McSurdy LP	430 Park Ave Collegeville, PA 19426	McSurdy LP	128 MENNONITE RD, COLLEGEVILLE, PA 19426	TBD	PAG2004606064	40.30399	-75.58925	Spring 2024	TBD
Minister Creek Farms	10	10A	Seepage Bed	107 Holbrook Ln, Gilbertsville PA 19525	HALSEY KRISTOPHER T & BEVERLY JEAN	107 Holbrook Ln, Gilbertsville PA 19525	HALSEY KRISTOPHER T & BEVERLY JEAN	107 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29143	-75.56023	Spring 2024	TBD
Minister Creek Farms	10	10A1	Seepage Bed	109 Holbrook Ln, Gilbertsville PA 19525	ANTHONY DALTON SCOTT & ANTHONY VERONICA LYNN	109 Holbrook Ln, Gilbertsville PA 19525	ANTHONY DALTON SCOTT & ANTHONY VERONICA LYNN	109 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29152	-75.56038	Spring 2024	TBD
Minister Creek Farms	10	10A2	Seepage Bed	111 Holbrook Ln, Gilbertsville PA 19525	Testa Jonathan & Ashley M	111 Holbrook Ln, Gilbertsville PA 19525	Testa Jonathan & Onder Ashley	111 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29161	-75.56054	Spring 2024	TBD
Minister Creek Farms	10	10A3	Seepage Bed	113 Holbrook Ln, Gilbertsville PA 19525	Cordrey T Daniel & Bucher-Cordrey Heather	113 Holbrook Ln, Gilbertsville PA 19525	Cordrey T Daniel & Bucher-Cordrey Heather	113 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29171	-75.5607	Spring 2024	TBD
Minister Creek Farms	10	10A4	Seepage Bed	115 Holbrook Ln, Gilbertsville PA 19525	Messmer Christine M	115 Holbrook Ln, Gilbertsville PA 19525	Messmer Christine M	115 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29181	-75.56086	Spring 2024	TBD
Minister Creek Farms	10	10A5	Seepage Bed	117 Holbrook Ln, Gilbertsville PA 19525	Klee Laura Anne	117 Holbrook Ln, Gilbertsville PA 19525	Klee Laura Anne	117 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29192	-75.56108	Spring 2024	TBD
Minister Creek Farms	10	10A6	Seepage Bed	205 Clarkdale Ln, Gilbertsville PA 19525	Mauger Alana J & Reinke Chris A	205 Clarkdale Ln, Gilbertsville PA 19525	Mauger Alana J & Reinke Chris A	205 Clarkdale Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29168	-75.56219	Spring 2024	TBD
Minister Creek Farms	10	10A7	Seepage Bed	219 Clarkdale Ln, Gilbertsville PA 19525	Schoedler Ronald W & Nicole K	219 Clarkdale Ln, Gilbertsville PA 19525	Schoedler Ronald W & Nicole K	219 Clarkdale Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29184	-75.56226	Spring 2024	TBD
Minister Creek Farms	10	10A8	Seepage Bed	221 Clarkdale Ln, Gilbertsville PA 19525	Gargano Anthony Jr	221 Clarkdale Ln, Gilbertsville PA 19525	Gargano Anthony Jr	221 Clarkdale Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29199	-75.56219	Spring 2024	TBD
Minister Creek Farms	10	10A9	Seepage Bed	223 Clarkdale Ln, Gilbertsville PA 19525	Smith Gregory J & Julia L	223 Clarkdale Ln, Gilbertsville PA 19525	Smith Gregory J & Julia L	223 Clarkdale Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29216	-75.56211	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Minister Creek Farms	10	10A10	Seepage Bed	227 Holbrook Ln, Gilbertsville PA 19525	Ellis Brian C & Vicki L	227 Holbrook Ln, Gilbertsville PA 19525	Ellis Brian C & Vicki L	227 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29137	-75.56314	Spring 2024	TBD
Minister Creek Farms	10	10A11	Seepage Bed	222 Holbrook Ln, Gilbertsville PA 19525	Cornelius Mark & Lara	4021 COUNTY LINE RD EAST GREENVILLE PA 18041	Cornelius Mark & Lara	4021 COUNTY LINE RD EAST GREENVILLE PA 18041	9/21/2006	PAG2004606077	40.2906	-75.5635	Spring 2024	TBD
Minister Creek Farms	10	10A12	Seepage Bed	220 Holbrook Ln, Gilbertsville PA 19525	PHILLIPS JOSHUA & DANIELLE	220 Holbrook Ln, Gilbertsville PA 19525	PHILLIPS JOSHUA & DANIELLE	220 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29054	-75.56339	Spring 2024	TBD
Minister Creek Farms	10	10A13	Seepage Bed	218 Holbrook Ln, Gilbertsville PA 19525	Talis Donna A	218 Holbrook Ln, Gilbertsville PA 19525	Talis Donna A	218 Holbrook Ln, Gilbertsville PA 19525	9/21/2006	PAG2004606077	40.29048	-75.5633	Spring 2024	TBD
Minister Creek Farms	10	10B	Infiltration Bed	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0285	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29222	-75.56382	Spring 2024	TBD
Minister Creek Farms	10	10B1	Infiltration Bed	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0286	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29115	-75.56412	Spring 2024	TBD
Minister Creek Farms	10	10C	Detention Basin	Holbrook Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0287	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29208	-75.56168	Spring 2024	TBD
Minister Creek Farms	10	10D	Retention Basin	Holbrook Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0288	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29209	-75.56105	Spring 2024	TBD
Minister Creek Farms	10	10E	Natural Features - Stream Riparian Corridor	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0289	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29324	-75.56235	Spring 2024	TBD
Minister Creek Farms	10	10E1	Natural Features - Existing Woodlands	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0290	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29243	-75.56194	Spring 2024	TBD
Minister Creek Farms	10	10E2	Natural Features - Vegetative Stabilization	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0291	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29239	-75.56158	Spring 2024	TBD
Minister Creek Farms	10	10E3	Natural Features - Steep Slopes	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0292	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29249	-75.56123	Spring 2024	TBD
Minister Creek Farms	10	10E4	Natural Features - Steep Slopes	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0293	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29244	-75.56064	Spring 2024	TBD
Minister Creek Farms	10	10E5	Natural Features - Riparian Stream Corridor	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0294	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29252	-75.56014	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Minister Creek Farms	10	10E6	Natural Features - Vegetative Stabilization	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0295	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29342	-75.56048	Spring 2024	TBD
Minister Creek Farms	10	10E7	Natural Features - Existing Woodlands	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0296	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29228	-75.56026	Spring 2024	TBD
Minister Creek Farms	10	10E8	Natural Features - Stream Riparian Corridor	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0297	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29195	-75.56354	Spring 2024	TBD
Minister Creek Farms	10	10E9	Natural Features - Existing Woodlands	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0298	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29142	-75.5646	Spring 2024	TBD
Minister Creek Farms	10	10E10	Natural Features - Steep Slopes	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0299	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29096	-75.56405	Spring 2024	TBD
Minister Creek Farms	10	10E11	Natural Features - Stream Riparian Corridor	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0300	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29088	-75.56379	Spring 2024	TBD
Minister Creek Farms	10	10F	Vegetative Grass Swale	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0301	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29046	-75.56324	Spring 2024	TBD
Minister Creek Farms	10	10F1	Vegetative Grass Swale	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0302	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29046	-75.56159	Spring 2024	TBD
Minister Creek Farms	10	10G	Landscape Planting	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0303	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29014	-75.56245	Spring 2024	TBD
Minister Creek Farms	10	10G1	Landscape Planting	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0304	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29017	-75.56127	Spring 2024	TBD
Minister Creek Farms	10	10G2	Landscape Planting	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0305	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.29079	-75.56005	Spring 2024	TBD
Minister Creek Farms	10	10H	Grassy Filter Strip	Clarkdale Ln, Gilbertsville PA 19525	Hawthorne Estates Community Association	PO BOX 306, GILBERTSVILLE PA 19525-0306	Del Val Realty & Property Management	49 E Lancaster Ave, Suite 300, Malvern, PA 19355	9/21/2006	PAG2004606077	40.291	-75.56099	Spring 2024	TBD
Pryor Tract	11	11A	Detention Basin	2303 Wooded Creek Cir	Albright Jason P & Stephanie A	2303 Wooded Creek Cir	Albright Jason P & Stephanie A	2303 Wooded Creek Cir	TBD	TBD	40.3361	-75.5337	Spring 2024	TBD
Pryor Tract	11	11B	Swale	2301 Wooded Creek Cir	Sillitti Frank & Schuck Renee A	2301 Wooded Creek Cir	Sillitti Frank & Schuck Renee A	2301 Wooded Creek Cir	TBD	TBD	40.33661	-75.53408	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Lawrence	13	13A	Recharge Pit	2408 New Hanover Square Rd, Gilbertsville PA, 19525	Zielinski Carla J & Kenneth J Jr	2408 New Hanover Square Rd, Gilbertsville PA, 19525	Zielinski Carla J & Kenneth J Jr	2408 New Hanover Square Rd, Gilbertsville PA, 19525	4/27/2004	PAG2004604040	40.27516	-75.57437	Spring 2024	TBD
Lawrence	13	13A1	Recharge Pit	2404 New Hanover Square Rd, Gilbertsville PA, 19525	Austin Lisa & Jamie L	2404 New Hanover Square Rd, Gilbertsville PA, 19525	Austin Lisa & Jamie L	2404 New Hanover Square Rd, Gilbertsville PA, 19525	4/27/2004	PAG2004604040	40.27545	-75.57495	Spring 2024	TBD
Lawrence	13	13B	Roof Drain Cleanout	2404 New Hanover Square Rd, Gilbertsville PA, 19525	Austin Lisa & Jamie L	2404 New Hanover Square Rd, Gilbertsville PA, 19525	Austin Lisa & Jamie L	2404 New Hanover Square Rd, Gilbertsville PA, 19525	4/27/2004	PAG2004604040	40.27558	-75.57508	Spring 2024	TBD
Lawrence	13	13B1	Roof Drain Cleanout	2408 New Hanover Square Rd, Gilbertsville PA, 19525	Zielinski Carla J & Kenneth J Jr	2408 New Hanover Square Rd, Gilbertsville PA, 19525	Zielinski Carla J & Kenneth J Jr	2408 New Hanover Square Rd, Gilbertsville PA, 19525	4/27/2004	PAG2004604040	40.27532	-75.57414	Spring 2024	TBD
Lawrence	13	13B2	Roof Drain Cleanout	2400 New Hanover Square Rd, Gilbertsville PA, 19525	Deloach Ian C & Tammy L	2400 New Hanover Square Rd, Gilbertsville PA, 19525	Deloach Ian C & Tammy L	2400 New Hanover Square Rd, Gilbertsville PA, 19525	4/27/2004	PAG2004604040	40.27527	-75.57531	Spring 2024	TBD
Rosenberry Ridge	15	15A	Infiltration Basin	2281 Sterling Drive, Gilbertsville, PA 19525	CARVAJAL JESUS R ROSADO & ROSADO LEYMARY	2281 Sterling Drive, Gilbertsville, PA 19525	CARVAJAL JESUS R ROSADO & ROSADO LEYMARY	2281 Sterling Drive, Gilbertsville, PA 19525	1/23/2008	PAG2004606154	40.28515	-75.57605	Spring 2024	TBD
Rosenberry Ridge	15	15B	Vegetated Swale	2295-2285 Sterling Drive, Gilbertsville, PA 19525	DAVIS GREGORY P & SPADONE JULIANE/REED BRANDON & ARGOE KELLY/CHAPMAN DANIEL J & BALLAT DANA/MCCARTHY TIMOTHY E & ERIN M	2295/2293/2289/2285 Sterling Drive, Gilbertsville, PA 19525	DAVIS GREGORY P & SPADONE JULIANE/REED BRANDON & ARGOE KELLY/CHAPMAN DANIEL J & BALLAT DANA/MCCARTHY TIMOTHY E & ERIN M	2295/2293/2289/2285 Sterling Drive, Gilbertsville, PA 19525	1/23/2008	PAG2004606154	40.2853	-75.57675	Spring 2024	TBD
Sterling Tract	16	16A	Detention Basin	2306 Sterling Dr, Gilbertsville, PA 19525	Reffner Brent & Christina L	2306 Sterling Dr, Gilbertsville, PA 19525	Reffner Brent & Christina L	2306 Sterling Dr, Gilbertsville, PA 19525	TBD	TBD	40.28453	-75.57675	Spring 2024	TBD
Valley Brook II	17	17A	Seepage Bed	303 Renninger Rd, Perkiomenville, PA 18074	Schwarz Brian J & Felicia M	303 Renninger Rd, Perkiomenville, PA 18074	Schwarz Brian J & Felicia M	303 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31366	-75.53708	Spring 2024	TBD
Valley Brook II	17	17A1	Seepage Bed	307 Renninger Rd, Perkiomenville, PA 18074	BORDER PAUL L & REBECCA GRACE	307 Renninger Rd, Perkiomenville PA 18074	BORDER PAUL L & REBECCA GRACE	307 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31403	-75.53672	Spring 2024	TBD
Valley Brook II	17	17A2	Seepage Bed	313 Renninger Rd, Perkiomenville, PA 18074	Benedict Craig & Maria	313 Renninger Rd, Perkiomenville, PA 18074	Benedict Craig & Maria	313 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31443	-75.5363	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Valley Brook II	17	17A3	Seepage Bed	355 Renninger Rd, Perkiomenville, PA 18074	Stein Jeffrey A Jr & Loree L	355 Renninger Rd, Perkiomenville, PA 18074	Stein Jeffrey A Jr & Loree L	355 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31635	-75.53431	Spring 2024	TBD
Valley Brook II	17	17A4	Seepage Bed	363 Renninger Rd, Perkiomenville, PA 18074	Young Thomas A & Jamie M	363 Renninger Rd, Perkiomenville PA 18074	Young Thomas A & Jamie M	363 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31752	-75.53545	Spring 2024	TBD
Valley Brook II	17	17B	Detention Basin	355 Renninger Rd, Perkiomenville, PA 18074	Stein Jeffrey A Jr & Loree L	355 Renninger Rd, Perkiomenville, PA 18074	Stein Jeffrey A Jr & Loree L	355 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31692	-75.53495	Spring 2024	TBD
Valley Brook II	17	17B1	Detention Basin	313 Renninger Rd, Perkiomenville, PA 18074	Benedict Craig & Maria	313 Renninger Rd, Perkiomenville, PA 18074	Benedict Craig & Maria	313 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31476	-75.53684	Spring 2024	TBD
Valley Brook II	17	17C	Snout	303 Renninger Rd, Perkiomenville, PA 18074	Schwarz Brian J & Felicia M	303 Renninger Rd, Perkiomenville, PA 18074	Schwarz Brian J & Felicia M	303 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31356	-75.53719	Spring 2024	TBD
Valley Brook II	17	17C1	Snout	307 Renninger Rd, Perkiomenville, PA 18074	BORDER PAUL L & REBECCA GRACE	307 Renninger Rd, Perkiomenville, PA 18074	BORDER PAUL L & REBECCA GRACE	307 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31395	-75.5368	Spring 2024	TBD
Valley Brook II	17	17C2	Snout	313 Renninger Rd, Perkiomenville, PA 18074	Benedict Craig & Maria	313 Renninger Rd, Perkiomenville, PA 18074	Benedict Craig & Maria	313 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31435	-75.53639	Spring 2024	TBD
Valley Brook II	17	17C3	Snout	355 Renninger Rd, Perkiomenville, PA 18074	Stein Jeffrey A Jr & Loree L	355 Renninger Rd, Perkiomenville, PA 18074	Stein Jeffrey A Jr & Loree L	355 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31648	-75.53422	Spring 2024	TBD
Valley Brook II	17	17C4	Snout	363 Renninger Rd, Perkiomenville PA 18074	Young Thomas A & Jamie M	363 Renninger Rd, Perkiomenville PA 18074	Young Thomas A & Jamie M	363 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31739	-75.53537	Spring 2024	TBD
Valley Brook II	17	17C5	Snout	361 Renninger Rd, Perkiomenville , PA 18074	Brown Heath A & Conrad Debra J	361 Renninger Rd, Perkiomenville , PA 18074	Brown Heath A & Conrad Debra J	361 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31685	-75.53378	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Windlestrae	18	18A (Basin D)	Detention Basin	Tulip Lane, Gilbertsville, PA 19525	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	7/7/2010	PAG-02004603158R	40.31212	-75.59193	Spring 2024	TBD
Windlestrae	18	18A1 (Basin E)	Detention Basin	Tulip Lane, Gilbertsville, PA 19525	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	7/7/2010	PAG-02004603158R	40.31144	-75.59487	Spring 2024	TBD
Windlestrae	18	18A2 (Basin C)	Detention Basin	Tulip Lane, Gilbertsville, PA 19525	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	7/7/2010	PAG-02004603158R	40.30999	-75.59372	Spring 2024	TBD
Windlestrae	18	18A3 (Basin A)	Detention Basin	Dotterer Road	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.30864	-75.58901	Spring 2024	TBD
Windlestrae	18	18A4 (Basin B)	Detention Basin	Wrenfield Lane	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.31472	-75.58498	Spring 2024	TBD
Windlestrae	18	18B	Porous Pavement	Tulip Lane	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.31023	-75.59332	Spring 2024	TBD
Windlestrae	18	18C	Flo-Guard Vortex Separator	Tulip Lane	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.31007	-75.5933	Spring 2024	TBD
Windlestrae	18	18D (Basin B Forebay)	Detention Basin Forebay	Wrenfield Lane	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.31342	-75.58446	Spring 2024	TBD
Windlestrae	18	18D1 (Basin B Forebay)	Detention Basin Forebay	Wrenfield Lane	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.31413	-75.58458	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Windlestrae	18	18D2 (Basin C Forebay)	Detention Basin Forebay	Tulip Lane	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.31028	-75.59375	Spring 2024	TBD
Windlestrae	18	18D3 (Basin D Forebay)	Detention Basin Forebay	Middle Creek Road	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.31196	-75.59177	Spring 2024	TBD
Windlestrae	18	18D4 (Basin E Forebay)	Detention Basin Forebay	Tulip Lane, Gilbertsville, PA 19525	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.31196	-75.59177	Spring 2024	TBD
Windlestrae	18	18E	Inlet Snout/Oil-Grit Separator	Middle Creek Road	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Windlestrae Community Master Association, c/o Camco Mangement Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	6/15/2006	PAG-02004603158R	40.30974	-75.59327	Spring 2024	TBD
Kingston Hill	19	19A	Detention Basin	Canyon Creek Road, Gilbertsville, PA 19525	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	Ste. 220 Fort Washington	PA 19034	40.282	-75.59725	Spring 2024	TBD
Kingston Hill	19	19A1	Detention Basin	Canyon Creek Road, Gilbertsville, PA 19525	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	TBD	TBD	40.28255	-75.5964	Spring 2024	TBD
Kingston Hill	19	19A2	Detention Basin	Canyon Creek Road, Gilbertsville, PA 19525	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	TBD	TBD	40.28234	-75.59452	Spring 2024	TBD
Kingston Hill	19	19A3	Detention Basin	Canyon Creek Road, Gilbertsville, PA 19525	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, STE 200, Fort Washington, PA 19034	TBD	TBD	40.28245	-75.59075	Spring 2024	TBD
Kingston Hill	19	19C	Amended Soils	2001 CANYON CREEK RD	WEBER JOHN C JR	2001 CANYON CREEK RD, GILBERTSVILLE, PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28181	-75.5988	Spring 2024	TBD
Kingston Hill	19	19C1	Amended Soils	2003 CANYON CREEK RD	ARDEN STEVEN WAYNE & RACHEL PAULINE	2003 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28198	-75.5986	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Kingston Hill	19	19C2	Amended Soils	2007 CANYON CREEK RD	WASSEL WILLIAM C & LYNN S	2007 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28228	-75.5983	Spring 2024	TBD
Kingston Hill	19	19C3	Amended Soils	1988 CANYON CREEK RD	IMBESI PHILIP MATTHEW & JENNIFER MARIE	1988 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28095	-75.5979	Spring 2024	TBD
Kingston Hill	19	19C4	Amended Soils	1986 CANYON CREEK RD	GUNVANTBHAI HEMANT & PATEL KRISHNA HEMANT	1986 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28081	-75.5977	Spring 2024	TBD
Kingston Hill	19	19C5	Amended Soils	1987 CANYON CREEK RD	SUSSMAN JEFFREY A & LAURA A & SUSSMAN BARRY	1987 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28045	-75.5981	Spring 2024	TBD
Kingston Hill	19	19C6	Amended Soils	1985 CANYON CREEK RD	HIRST DAVID J JR & ALLYSON T	1985 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28037	-75.5979	Spring 2024	TBD
Kingston Hill	19	19C7	Amended Soils	1983 CANYON CREEK RD	GLADWIN ROBERT S & SUSAN A	1983 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28026	-75.5977	Spring 2024	TBD
Kingston Hill	19	19C8	Amended Soils	1981 CANYON CREEK RD	SEDGWICK WAYNE & SANDRA JULIA	1981 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28018	-75.5975	Spring 2024	TBD
Kingston Hill	19	19C9	Amended Soils	CANYON CREEK RD	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28022	-75.5972	Spring 2024	TBD
Kingston Hill	19	19C10	Amended Soils	1977 CANYON CREEK RD	WENZEL TYLER & EMILY	1977 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28008	-75.597	Spring 2024	TBD
Kingston Hill	19	19C11	Amended Soils	602 MADISON CT	DEBERARDINIS JOSEPH J & BRIDGET C	602 MADISON CT, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28006	-75.5967	Spring 2024	TBD
Kingston Hill	19	19C12	Amended Soils	604 MADISON CT	BOYLE KEVIN & SHIVERS KELLY	604 MADISON CT, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.27985	-75.5967	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Kingston Hill	19	19C13	Amended Soils	606 MADISON CT	SHABBIR ADNAN & LAUREN	606 MADISON CT, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.27962	-75.5966	Spring 2024	TBD
Kingston Hill	19	19C14	Amended Soils	608 MADISON CT	GILBERT MARK D & STACY M	608 MADISON CT, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.27939	-75.5964	Spring 2024	TBD
Kingston Hill	19	19C15	Amended Soils	609 MADISON CT	MCGRORY MICHAEL L & JESSICA L	609 MADISON CT, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.27935	-75.5961	Spring 2024	TBD
Kingston Hill	19	19C16	Amended Soils	1969 CANYON CREEK RD	MAJOR JOHN R & DEBRA A	1969 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28008	-75.5957	Spring 2024	TBD
Kingston Hill	19	19C17	Amended Soils	CANYON CREEK RD	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28017	-75.5955	Spring 2024	TBD
Kingston Hill	19	19C18	Amended Soils	1965 CANYON CREEK RD	HALL JUSTIN S & MERISSA L	1965 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28027	-75.5952	Spring 2024	TBD
Kingston Hill	19	19C19	Amended Soils	1963 CANYON CREEK RD	ALEX CYNTHIA	1963 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28041	-75.595	Spring 2024	TBD
Kingston Hill	19	19C20	Amended Soils	1976 CANYON CREEK RD	BATZ RICHARD J & NICOLE D	1976 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28054	-75.5966	Spring 2024	TBD
Kingston Hill	19	19C21	Amended Soils	CANYON CREEK RD	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28053	-75.5963	Spring 2024	TBD
Kingston Hill	19	19C22	Amended Soils	1960 CANYON CREEK RD	HECK WILLIAM A & RYAN KATE	1960 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.281	-75.5953	Spring 2024	TBD
Kingston Hill	19	19C23	Amended Soils	1956 CANYON CREEK RD	WOOLFORD SEMAJ SPECIAL NEEDS TRUST THE PNC BANK NA TRUSTEE	777 Taylor St, Philadelphia PA 19130	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28124	-75.5949	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Kingston Hill	19	19C24	Amended Soils	1954 CANYON CREEK RD	CHEN SHANDE & WU YU YING	1954 CANYON CREEK RD, GILBERTSVILLE PA 19525	Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28141	-75.5948	Spring 2024	TBD
Kingston Hill	19	19C25	Amended Soils	CENTENNIAL AVE	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28154	-75.5963	Spring 2024	TBD
Kingston Hill	19	19C26	Amended Soils	CENTENNIAL AVE	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28223	-75.5961	Spring 2024	TBD
Kingston Hill	19	19D	Restoration: Buffers/Landscape/Floodplain (407 Tree Plantings Throughout)	Kingston Hill	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.28163	-75.5967	Spring 2024	TBD
Kingston Hill	19	19B	Infiltration Berm	Canyon Creek Road	Camco Management Company		Kingston Hill HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034			40.27986	-75.5954	Spring 2024	TBD
Country Meadows	20	20A1	Rain Garden	201/203 Peter Lane	PACITTO DAVID B & ANTONIA/ Name(s)ONDARZA SHANE JARED & JOHNSTON HEATHER L	201/203 Peter Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30578	-75.59344	Spring 2024	TBD
Country Meadows	20	20A2	Rain Garden	205 Peter Lane	WINNEBERGER STEPHEN J & JENNIFER M	205 Peter Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.3056	-75.59309	Spring 2024	TBD
Country Meadows	20	20A3	Rain Garden	207 Peter Lane	MCDANIEL DENISE R	207 Peter Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30549	-75.59279	Spring 2024	TBD
Country Meadows	20	20A4	Rain Garden	207/209 Peter Lane	MCDANIEL DENISE R/Langerfeld Robert E & Brianna R	207/209 Peter Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30538	-75.59243	Spring 2024	TBD
Country Meadows	20	20A5	Rain Garden	101 Fox Lane	MOYER TERRY A & KAREN F/EGOLF SCOTT B & LINDA T	101 Fox Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.3065	-75.59312	Spring 2024	TBD
Country Meadows	20	20A6	Rain Garden	103/105 Fox Lane	MCGAVIN PHILLIP H & ROSEMARY/EGOLF SCOTT B & LINDA T	103/105 Fox Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30675	-75.59297	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Country Meadows	20	20A7	Rain Garden	107/109 Fox Lane	PETTINE BARTHEL B & CHRISTINE R/HARVEY WILLIAM K & WHITE-HARVEY LORI A	107/109 Fox Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30729	-75.59277	Spring 2024	TBD
Country Meadows	20	20A8	Rain Garden	209/211 Quail Drive	GINER MARK F & CYNTHIA A/REUTER LEON & REUTER JEANNE	209/211 Qual Drive, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30693	-75.59125	Spring 2024	TBD
Country Meadows	20	20A9	Rain Garden	211/213 Quail Drive	REUTER LEON & REUTER JEANNE/BARNDT KEVIN M & CARR PAMELA L	211/213 Qual Drive, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30669	-75.59099	Spring 2024	TBD
Country Meadows	20	20B1	Infiltration Berm	2939 Dotterer Road	KLEINBACH KEITH K & KLEINBACH DALE M &	2939 Dotterer Road, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30652	-75.59119	Spring 2024	TBD
Country Meadows	20	20B2	Infiltration Berm	108 Fox Lane	STANCICK ASHLEY L & DERRICK R	108 Fox Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30676	-75.59159	Spring 2024	TBD
Country Meadows	20	20B3	Infiltration Berm	206 Peter Lane	HAZEL MARY E	206 Peter Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30599	-75.59195	Spring 2024	TBD
Country Meadows	20	20C1	Underground Detention Basin	203 Peter Lane	ONDARZA SHANE JARED & JOHNSTON HEATHER L	203 Peter Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30562	-75.59333	Spring 2024	TBD
Country Meadows	20	20C2	Underground Detention Basin	207 Peter Lane	MCDANIEL DENISE R	207 Peter Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30539	-75.59271	Spring 2024	TBD
Country Meadows	20	20C3	Underground Detention Basin	209 Peter Lane	LANGERFELD ROBERT E & BRIANNA R	209 Peter Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30523	-75.59201	Spring 2024	TBD
Country Meadows	20	20C4	Underground Detention Basin	105 Fox Lane	EGOLF SCOTT B & LINDA T	105 Fox Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30695	-75.59305	Spring 2024	TBD
Country Meadows	20	20C5	Underground Detention Basin	109 Fox Lane	HARVEY WILLIAM K & WHITE-HARVEY LORI A	109 Fox Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30756	-75.59241	Spring 2024	TBD
Country Meadows	20	20C6	Underground Detention Basin	110 Fox Lane	TYLER BRIAN B & RAUSCHER KELSEY B	110 Fox Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30732	-75.59177	Spring 2024	TBD
Country Meadows	20	20C7	Underground Detention Basin	213 Quail Road	BARNDT KEVIN M & CARR PAMELA L	213 Qual Road, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30654	-75.59053	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Country Meadows	20	20C8	Underground Detention Basin	214 Quail Road	COCCIE KATHLEEN M & LAVIN THOMAS M	214 Qual Road, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30694	-75.59011	Spring 2024	TBD
Country Meadows	20	20D1	Inlet Snout/Oil-Grit Separator	Quail Road	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.3077	-75.59252	Spring 2024	TBD
Country Meadows	20	20D2	Inlet Snout/Oil-Grit Separator	Fox Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30742	-75.59206	Spring 2024	TBD
Country Meadows	20	20D3	Inlet Snout/Oil-Grit Separator	Fox Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30743	-75.59218	Spring 2024	TBD
Country Meadows	20	20D4	Inlet Snout/Oil-Grit Separator	Quail Drive	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30748	-75.59191	Spring 2024	TBD
Country Meadows	20	20D5	Inlet Snout/Oil-Grit Separator	Fox Drive	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.3069	-75.59251	Spring 2024	TBD
Country Meadows	20	20D6	Inlet Snout/Oil-Grit Separator	Peter Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30602	-75.59328	Spring 2024	TBD
Country Meadows	20	20D7	Inlet Snout/Oil-Grit Separator	Peter Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30587	-75.59292	Spring 2024	TBD
Country Meadows	20	20D8	Inlet Snout/Oil-Grit Separator	Peter Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30558	-75.59224	Spring 2024	TBD
Country Meadows	20	20D9	Inlet Snout/Oil-Grit Separator	Peter Lane	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30528	-75.59179	Spring 2024	TBD
Country Meadows	20	20D10	Inlet Snout/Oil-Grit Separator	213 Quail Drive	BARNDT KEVIN M & CARR PAMELA L	213 Qual Drive, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30635	-75.59071	Spring 2024	TBD
Country Meadows	20	20D11	Inlet Snout/Oil-Grit Separator	Dotterer Road	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30655	-75.59026	Spring 2024	TBD
Country Meadows	20	20D12	Inlet Snout/Oil-Grit Separator	Quail Drive	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	New Hanover Township	2943 N Charlotte St, Gilbertsville, PA 19525	11/25/2019	TBD	40.30673	-75.59023	Spring 2024	TBD
Country Meadows	20	20E	Vegetated Swale	Fox Lane	107/109 Fox Lane	Fox Lane, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30736	-75.59296	Spring 2024	TBD
Country Meadows	20	20F	Protect/Convert/Establish Riparian Buffer	Quail Drive	Quail Drive	Qual Drive, Gilbertsville PA, 19525	Country Meadows HOA C/O Phil McGavin	103 Fox Lane, Gilbertsville PA, 19525	11/25/2019	TBD	40.30796	-75.59325	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Halteman Office Center	21	21A	Bio-Retention Area	1808 Swamp Pike	KANAJI LLC	5161 Pintail Ct, Bensalem PA 19020	HALTEMAN OFFICE CENTER CONDOMINIUM ASSOC	1810 Swamp Pike Suite 100 Gilbertsville, PA 19525	5/21/2007	TBD	40.30257	-75.59364	Spring 2024	TBD
Halteman Office Center	21	21B	Infiltration Basin	1808 Swamp Pike	KANAJI LLC	5161 Pintail Ct, Bensalem PA 19020	HALTEMAN OFFICE CENTER CONDOMINIUM ASSOC	1810 Swamp Pike Suite 100 Gilbertsville, PA 19525	5/21/2007	TBD	40.30293	-75.5928	Spring 2024	TBD
Halteman Office Center	21	21C	Inlet Snout	1808 Swamp Pike	KANAJI LLC	5161 Pintail Ct, Bensalem PA 19020	HALTEMAN OFFICE CENTER CONDOMINIUM ASSOC	1810 Swamp Pike Suite 100 Gilbertsville, PA 19525	5/21/2007	TBD	40.30281	-75.59289	Spring 2024	TBD
Boyertown Middle School East	22	22	Infiltration Trench	2020 Big Rd, Gilbertsville, PA 19525	Boyertown Area School District	911 Montgomery Ave, Boyertown PA 19512	Boyertown Area School District	2020 Big Rd, Gilbertsville, PA 19525	6/21/2004	TBD	40.3142	-75.57776	Spring 2024	TBD
Acorn Hills	23	23A	Vegetated Filter Strip	Samantha Way	Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	Acorn Hills HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	7/30/2014	TBD	40.28459	-75.5491	Spring 2024	TBD
Acorn Hills	23	23B1	Disconnection of Roof	3024 Samantha Way	CWIKLA JOHN F & MICHELLE L	3024 SAMANTHA WAY, GILBERTSVILLE PA 19525	CWIKLA JOHN F & MICHELLE L	3024 SAMANTHA WAY, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.28483	-75.54924	Spring 2024	TBD
Acorn Hills	23	23B2	Disconnection of Roof	3028 Samantha Way	LIGHT KELLY & CHESTER	3028 SAMANTHA WAY, GILBERTSVILLE PA 19525	LIGHT KELLY & CHESTER	3028 SAMANTHA WAY, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.28507	-75.54913	Spring 2024	TBD
Acorn Hills	23	23C	Detention Basin	Samantha Way	Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	Acorn Hills HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	7/30/2014	TBD	40.28655	-75.5483	Spring 2024	TBD
Acorn Hills	23	23D	Existing Vegetation	Samantha Way	Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	Acorn Hills HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	7/30/2014	TBD	40.2853	-75.54882	Spring 2024	TBD
Acorn Hills	23	23D1	Existing Vegetation	Samantha Way	Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	Acorn Hills HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	7/30/2014	TBD	40.28306	-75.55025	Spring 2024	TBD
Acorn Hills	23	23B3	Disconnection of Roof	3004 Samantha Way GILBERTSVILLE PA 19525	RAMAMOORTHY BARATHWAJ & PADMINI	3004 SAMANTHA WAY, GILBERTSVILLE PA 19525	RAMAMOORTHY BARATHWAJ	3004 SAMANTHA WAY, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.2835	-75.54997	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Acorn Hills	23	23B4	Disconnection of Roof	2698 ST VICTORIA DR GILBERTSVILLE PA 19525	DREYER EDWARD & CYNTHIA	2698 ST VICTORIA DR, GILBERTSVILLE PA 19525	DREYER EDWARD & CYNTHIA	2698 ST VICTORIA DR, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.28245	-75.55184	Spring 2024	TBD
Acorn Hills	23	23B5	Disconnection of Roof	2694 ST VICTORIA DR GILBERTSVILLE PA 19525	HAUGHTON GARFIELD A	2694 ST VICTORIA DR, GILBERTSVILLE PA 19525	HAUGHTON GARFIELD A	2694 ST VICTORIA DR, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.28241	-75.55227	Spring 2024	TBD
Acorn Hills	23	23C1	Detention Basin	ST VICTORIA DRIVE GILBERTSVILLE PA 19525	Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	Acorn Hills HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	7/30/2014	TBD	40.28235	-75.55343	Spring 2024	TBD
Acorn Hills	23	23B6	Disconnection of Roof	2544 ST VICTORIA DR GILBERTSVILLE PA 19525	Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	Acorn Hills HOA, c/o Camco Management Company	501 Office Center Drive, Ste. 220 Fort Washington, PA 19034	7/30/2014	TBD	40.28396	-75.55579	Spring 2024	TBD
Acorn Hills	23	23B7	Disconnection of Roof	2538 SAINT VICTORIA DR GILBERTSVILLE PA 19525	BREYER HERBERT J & DEBRA J	2538 SAINT VICTORIA DR, GILBERTSVILLE PA 19525	BREYER HERBERT J & DEBRA J	2538 SAINT VICTORIA DR, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.2838	-75.55601	Spring 2024	TBD
Acorn Hills	23	23B8	Disconnection of Roof	2534 ST VICTORIA DR GILBERTSVILLE PA 19525	LAMPMANN STEPHEN F	2534 ST VICTORIA DR, GILBERTSVILLE PA 19525	LAMPMANN STEPHEN F	2534 ST VICTORIA DR, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.28355	-75.55614	Spring 2024	TBD
Acorn Hills	23	23B9	Disconnection of Roof	2530 ST VICTORIA DR GILBERTSVILLE PA 19525	RAUGHT BRYAN & KRISTEN	2530 ST VICTORIA DR, GILBERTSVILLE PA 19525	RAUGHT BRYAN & KRISTEN	2530 ST VICTORIA DR, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.28335	-75.55629	Spring 2024	TBD
Acorn Hills	23	23B10	Disconnection of Roof	2528 ST VICTORIA DR GILBERTSVILLE PA 19525	BRADY RICHARD & CYNTHIA A	2528 SAINT VICTORIA DR, GILBERTSVILLE PA 19525	BRADY RICHARD & CYNTHIA A	2528 SAINT VICTORIA DR, GILBERTSVILLE PA 19525	7/30/2014	TBD	40.28325	-75.55643	Spring 2024	TBD
Boyertown YMCA	24	24	Detention Basin	3065 N CHARLOTTE ST GILBERTSVILLE PA 19525	NEW HANOVER UNITED METHODIST CHURCH	2211 SWAMP PIKE, GILBERTSVILLE, PA 19525	NEW HANOVER UNITED METHODIST CHURCH	2211 SWAMP PIKE, GILBERTSVILLE PA 19525	2/25/2003	TBD	40.31025	-75.5775	Spring 2024	TBD
Briar Ridge	25	25A1	Infiltration Trench	2370/2374 Sycamore Lane,L GILBERTSVILLE, PA 19525	PULEO CHARLES F JR & REBECCA L/WEIDMAN JOHN E & DOLORES C	2370/2374 Sycamore Lane GILBERTSVILLE, PA 19525	PULEO CHARLES F JR & REBECCA L/WEIDMAN JOHN E & DOLORES C	2370/2374 Sycamore Lane, GILBERTSVILLE PA 19525	9/13/2012	TBD	40.27753	-75.5767	Spring 2024	TBD
Briar Ridge	25	25A2	Infiltration Trench	2463 Magnolia Drive/2377 Sycamore Lane/2381 Sycamore Lane	REITER KYLE J & ASHLEY A/GRUBE MICHAEL & ANGIE/STORTI CHARLES M & ELMA M	2463 Magnolia Drive/2377 Sycamore Lane/2381 Sycamore Lane	REITER KYLE J & ASHLEY A/GRUBE MICHAEL & ANGIE/STORTI CHARLES M & ELMA M	2463 Magnolia Drive/2370/2374 Sycamore Lane, GILBERTSVILLE PA 19525	9/13/2012	TBD	40.27823	-75.5759	Spring 2024	TBD
Briar Ridge	25	25A3	Infiltration Trench	2398 Magnolia Drive GILBERTSVILLE PA 19525	MOYER MARTYNE L	2398 Magnolia Drive GILBERTSVILLE PA 19525	MOYER MARTYNE L	2398 MAGNOLIA DR, GILBERTSVILLE PA 19525	9/13/2012	TBD	40.27843	-75.57446	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Briar Ridge	25	25A4	Infiltration Trench	2393/2397/2401 Mulberry Lane GILBERTSVILLE PA 19525	MOYER DONALD E & SUSAN K/WELSH MAUREEN/HILTNER ROBERT J & PATRICIA A	2393/2397/2401 Mulberry Lane GILBERTSVILLE PA 19525	MOYER DONALD E & SUSAN K/WELSH MAUREEN/HILTNER ROBERT J & PATRICIA A	2393/2397/2401 Mulberry Lane, GILBERTSVILLE PA 19525	9/13/2012	TBD	40.27893	-75.57296	Spring 2024	TBD
Briar Ridge	25	25A5	Infiltration Trench	2414 Magnolia Drive GILBERTSVILLE PA 19525	VITABILE WILLIAM J & KAREN A	2414 Magnolia Drive GILBERTSVILLE PA 19525	VITABILE WILLIAM J & KAREN A	2414 MAGNOLIA DR, GILBERTSVILLE PA 19525	9/13/2012	TBD	40.28005	-75.57273	Spring 2024	TBD
Briar Ridge	25	25A6	Infiltration Trench	2430/2426/2422 Magnolia Drive GILBERTSVILLE PA 19525	COYNE JOSEPH G & NANCY T/KENNEDY JOSEPH H JR & LINDA F/ULRICH J MICHAEL & MARY H	2430/2426/2422 Magnolia Drive GILBERTSVILLE PA 19525	COYNE JOSEPH G & NANCY T/KENNEDY JOSEPH H JR & LINDA F/ULRICH J MICHAEL & MARY H	2430/2426/2422 MAGNOLIA DR, GILBERTSVILLE PA 19525	9/13/2012	TBD	40.28055	-75.57392	Spring 2024	TBD
Briar Ridge	25	25B1	Infiltration Basin	2411/2427 Magnolia Drive GILBERTSVILLE PA 19525	SPLEEN LISA M/SHARKEY THOMAS D	2411/2427 Magnolia Drive GILBERTSVILLE PA 19525	SHARKEY THOMAS D/SPLEEN LISA M	2411/2427 MAGNOLIA DR, GILBERTSVILLE PA 19525	9/13/2012	TBD	40.2799	-75.57404	Spring 2024	TBD
Camp Laughing Waters	27	27A1	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.28994	-75.55436	Spring 2024	TBD
Camp Laughing Waters	27	27A2	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.2893	-75.55297	Spring 2024	TBD
Camp Laughing Waters	27	27A3	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29162	-75.55144	Spring 2024	TBD
Camp Laughing Waters	27	27A4	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29232	-75.55113	Spring 2024	TBD
Camp Laughing Waters	27	27A5	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29411	-75.55176	Spring 2024	TBD
Camp Laughing Waters	27	27A6	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29473	-75.55216	Spring 2024	TBD
Camp Laughing Waters	27	27A7	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29346	-75.54719	Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
Camp Laughing Waters	27	27A8	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29507	-75.549	Spring 2024	TBD
Camp Laughing Waters	27	27A9	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29565	-75.54649	Spring 2024	TBD
Camp Laughing Waters	27	27A10	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29557	-75.54536	Spring 2024	TBD
Camp Laughing Waters	27	27A11	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.2916	-75.54781	Spring 2024	TBD
Camp Laughing Waters	27	27A12	Bioretention Garden	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29161	-75.54737	Spring 2024	TBD
Camp Laughing Waters	27	27B1	Vegetated Swale with Check Dam	2698 HILDEBEIDEL RD	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	GIRL SCOUTS OF PHILADELPHIA INC & CFO GEORGE GORGE	330 MANOR RD, MIQUON PA 19444	TBD	TBD	40.29309	-75.55179	Spring 2024	TBD
New Hanover Square Pump Station	28	28A	Permanent Vegetation	3076 New Hanover Square Road	New Hanover Township Authority	2943 N. Charlotte Street, Gilbertsville PA 19525	New Hanover Township Authority	2943 N. Charlotte Street, Gilbertsville PA 19525	2005	TBD	40.29349	-75.5564	Spring 2024	TBD
Hanover Preserves	29	29A	Detention Basin	513/515 Courtside Ave	SCHAEFER SEAN & CATHERINE DIMOTSIS / DINIELLI JAMES R SR & MESETE-DINIELLI ALLISON E	513/515 Courtside Ave, GILBERTSVILLE PA 19525	SCHAEFER SEAN & CATHERINE DIMOTSIS / DINIELLI JAMES R SR & MESETE-DINIELLI ALLISON E	513/515 Courtside Ave, GILBERTSVILLE PA 19525	12/14/2006	PAG02004606058	40.28145	-75.59304	Spring 2024	TBD
Hanover Preserves	29	29B	Detention Basin	517 Courtside Ave	PROSTOVICH EVAN J & TRISTIN A	517 COURTSIDE AVE, GILBERTSVILLE PA 19525	PROSTOVICH EVAN J & TRISTIN A	517 COURTSIDE AVE, GILBERTSVILLE PA 19525	12/14/2006	PAG02004606058	40.28127	-75.59238	Spring 2024	TBD
394-398 Erb Road	31	31A	Soil Amendment	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	7/20/2023	PAC460117			Spring 2024	TBD
394-398 Erb Road	31	31B	Bioretention Area	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	7/20/2023	PAC460117			Spring 2024	TBD

**New Hanover Township 2024 PCSM BMP Inventory**

Site	BMP Site No.	BMP ID No.	BMP Type	BMP Address	Property Owner	Property Owner Address	Responsible Party	Responsible Party Address	Date Installed	NPDES Permit No.	Latitude	Longitude	Last Inspected	Compliance Status
394-398 Erb Road	31	31C	Protect Existing Trees	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	7/20/2023	PAC460117			Spring 2024	TBD
394-398 Erb Road	31	31D	Disconnect impervious to vegetated areas	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	7/20/2023	PAC460117			Spring 2024	TBD
394-398 Erb Road	31	31E	Disconnected roof leaders (stables)	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	7/20/2023	PAC460117			Spring 2024	TBD
394-398 Erb Road	31	31F	Disconnected roof leaders (home)	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	7/20/2023	PAC460117			Spring 2024	TBD
394-398 Erb Road	31	31G	Landscape restoration	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	PUPILLO SALVATORE M & PAULA A	398 Erb Road, Perkiomenville, PA, 18074	7/20/2023	PAC460117			Spring 2024	TBD
Valley Brook II	361	17A5	Seepage Bed	361 Renninger Rd, Perkiomenville, PA 18074	Brown Heath A & Conrad Debra J	361 Renninger Rd, Perkiomenville, PA 18074	Brown Heath A & Conrad Debra J	361 Renninger Rd, Perkiomenville, PA 18074	TBD	PAG2004604200	40.31675	-75.53388	Spring 2024	TBD

# MUNICIPAL SEPERATE STORM SEWER SYSTEM ANNUAL MS4 STATUS REPORT



## APPENDIX E

# MCM #6 POLLUTION PREVENTION/GOOD HOUSEKEEPING

- NPDES MS4 Employee Training Presentation
- NPDES MS4 Employee Training Sign-In Sheet
- Stormwater BMP Operation Maintenance & Inspection Training Presentation
- Stormwater BMP Operation Maintenance & Inspection Training Sign-In Sheet



**CENTER FOR  
WATERSHED  
PROTECTION**

Beth Uhler, Pennsylvania Director  
Julie Schneider, Watershed Planner

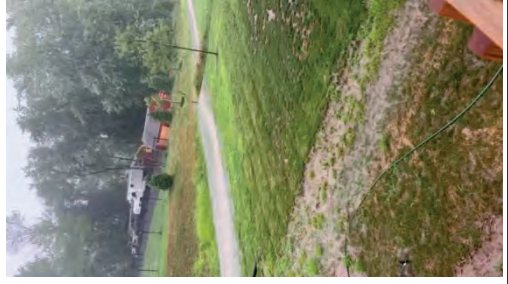
April 29, 2024

New Hanover Township Municipal Building

**NPDES MS4  
Program  
Employee  
Training**

## AGENDA

- 1) NPDES MS4 Program Overview
- 2) Overview of Illicit Discharge Detection and Elimination
- 3) Dry Weather Outfall Field Screening Procedures (and MS4 Outfall Field Screening Form)





## Public Education & Outreach (MCM #1)



### Permit Requirements:

- Written PEOP Program**
- Review annually and update as needed.
  - Plans and goals.

### Target Audience Lists

- Review annually and update as needed.

### Publish at least one (1) education item per year

- Website
- Newsletter

### Distribute stormwater educational materials to target audiences using at least two (2) distribution methods per year

- Displays, posters, signs
- Pamphlets, booklets, brochures, mailings, fact sheets
- Radio, local TV, newspaper articles, other advertisements
- Presentations, conferences, meetings
- Workshops, giveaways, storm drain stenciling

***DOCUMENT, DOCUMENT, DOCUMENT!!!***

10

## Public Involvement & Participation (MCM #2)

### Permit Requirements:

#### Written PIPP Program

- Review annually and update as needed
- Identifies plans and goals
- Opportunities for the public to participate in decision-making processes
- Routine communication with watershed associations and other environmental organizations
- Make Progress Reports available to the public
  - Website
  - Township Building
  - By Mail, etc.

### Public Input on Stormwater-Related Ordinances

#### At least one (1) Public Meeting

Stream clean-ups, volunteer plantings, community events, etc.

***DOCUMENT, DOCUMENT, DOCUMENT!!!***



11

## Illicit Discharge Detection & Elimination (MCM #3)

### Permit requirements:

#### Written IDD&E Program

#### Mapping

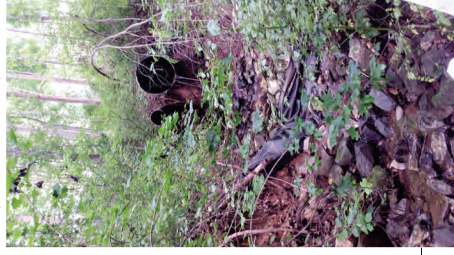
#### Outfall Field Screening

#### Ordinance Prohibiting Non-Stormwater

#### Discharges into the MS4

- Consistent with DEP's 2022 Model Stormwater Management Ordinance and due to DEP by September 30, 2022

#### Educational outreach specific to IDD&E



12

## Construction Site Runoff Control (MCM #4)



### Erosion and Sediment Control

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

13

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



### Permit requirements:

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

14

## Pollution Prevention/Good Housekeeping (MCM #6)



### Permit Requirements:

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



15

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

### What is an Illicit Discharge?

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



## MCM #3: Illicit Discharge Detection & Elimination

16

## What are common illicit discharges?

### Sewage:

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

### Miscellaneous:

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

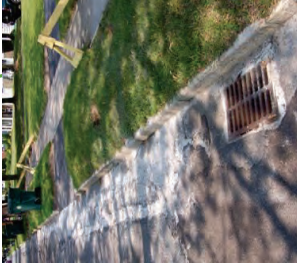
### Wash Water:

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

## How do you detect an Illicit Discharge?

### What to look for:

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



EXAMPLES.....

## What are common illicit discharges?

### Sewage:

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

### Miscellaneous:

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

### Wash Water:

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

## Motor vehicle fluids (oil, etc.)

**Color:** Rainbow sheen

**Odor:** Petroleum or gasoline smell



## Soaps, detergents

**Color:** White, grey, cloudy

**Odor:** Laundry detergent, soaps, or none at all



## Sediment

**Color:** Brown, orange/yellow, "chocolate milk"

**Odor:** None



## Sewage

**Color:** Grey

**Odor:** Sulfur, fecal matter



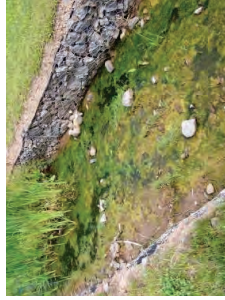
## Concrete Washout

**Color:** whitish discharge  
**Odor:** None



## Fertilizer

**Color:** Algal Growth  
**Odor:** Sulfur, fecal matter



## Priority Areas

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



## MS4 Permit Requirements for Illicit Discharge Detection and Elimination

### 6 Best Management Practices (BMPs)

**BMP #1:** Written IDD&E Program

**BMPs #2 and #3:** Mapping

**BMP #4:** Dry Weather Outfall Field Screening

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

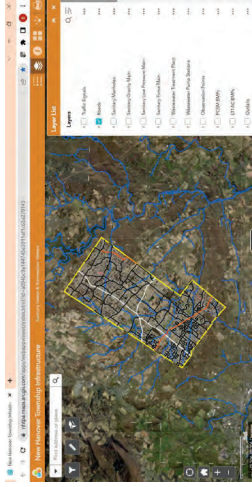
**BMP #6:** Educational Outreach specific to IDD&E

### BMP #1. Written IDD&E Program

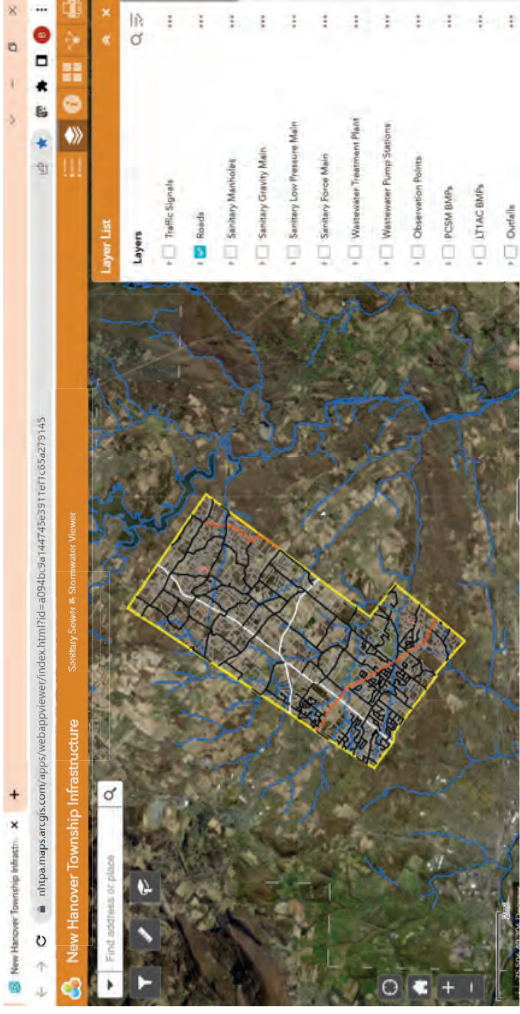
Develop and implement a written program for the detection, elimination, and prevention of illicit discharges

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

## BMP #2. Mapping Stormwater Systems

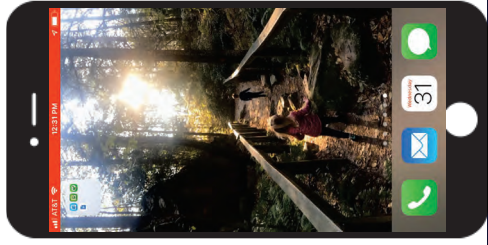


26



## IDD&E Outfall Field Screening

Using Survey123



## BMP #4 Priority Outfall Area Identification

### Procedure for identification

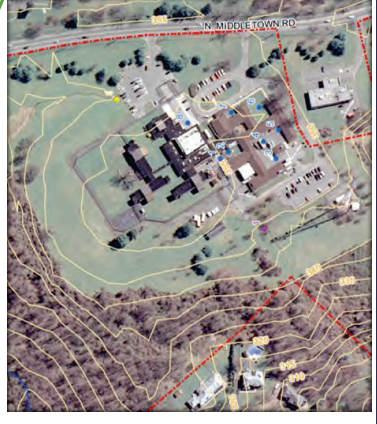
- Areas with a higher likelihood of illicit discharges, connections or illegal dumping

### Example areas:

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

### Procedure for screening outfalls

- Dry weather screening
- Lab sampling and testing



28

## IDD&E Outfall Field Screening

### What is an Outfall?

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

### How often?

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

### When?

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

### What?

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

### Sampling

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



## WHAT DO YOU DO WHEN YOU SEE AN ILLICIT DISCHARGE?

**Resident:** Call Township

**Public Works:** Report to MS4 point person

**DOCUMENT!!! DOCUMENT!!! DOCUMENT!!!**



## BMP #5 - IDD&E Stormwater Management Ordinance

### Prohibited Discharges

*"Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge, including sewage, process wastewater, and wash water, to enter the municipality's separate storm sewer system or the waters of the commonwealth is prohibited."*

### Prohibited Connections

*"Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge, including sewage, process wastewater, and wash water, to enter a separate storm sewer system, and any connections to the separate storm sewer system from indoor drains and sinks."*

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

## BMP #5 Eliminating an Illicit Discharge

### Voluntary Compliance

### Enforcement

Enforcement Notice

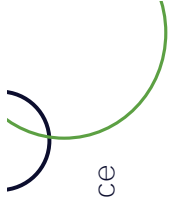
Notice of Violation

Citation

Cease & Desist Order

Penalties and fines

Program Documentation



## BMP #5 IDD&E Stormwater Management Ordinance

### Authorized Discharges

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

### Tips

Designate a Public Works staff member to conduct more frequent routine inspections.

Always DOCUMENT inspections, screenings and O&M activities.

Don't just write it down. Take PHOTOS.

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

## BMP #6. IDDE Education and Outreach

Provide educational outreach to public employees, public in general

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



### Resources

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

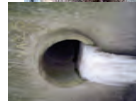
# Dry Weather Outfall Field Screening Procedures

## “Dry Weather” Outfall Screening

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



## Field Assessments Time of Year Considerations



### Winter:

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



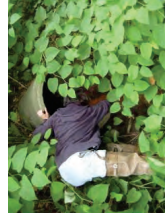
### Spring:

- High groundwater table



### Summer:

- Vegetation overgrowth
- Hard to find outfalls



## Field Assessments Time of Year Considerations



### Fall:

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

# Choose Your Own Adventure

## Scenario 1

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

What is the weather?

**Option 2:**  
Sunny and windy.  
Rain yesterday.

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

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

## No outfall screening today

- 1 Prefer 48 hours of no precipitation.
- 2 What else could the new inspector do to be ready for outfall screening later in the week?
  - 3 Read the IDDE Standard Operating Procedures (SOPs)
  - 4 Look at the IDDE Outfall Field Screening Form
  - 5 Familiarize themselves with the storm drain system and outfall map
  - 6 Review monitoring history and note repeat problem areas
  - 7 Gather equipment for field work later in the week
  - 8 Other –good idea!

[Back to Scenario 1](#)

## No outfall screening today


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

[Back to Scenario 1](#)

Perfect day!  
What do we need to bring?

- 1. Gloves
- 2. Sterile Sample Bottles
- 3. Dipper and/or telescoping rod
- 4. Maps or Tablet
- 5. Flashlight
- 6. Field Binder with field forms
- 7. Manhole hook
- 8. Waders or boots
- 9. First Aid Kit
- 10. Safety Vest
- 11. Pencils/Sharpies
- 12. Test Strips
- 13. Other Probes
- 14. Tape Measure
- 15. Hand sanitizer
- 16. Camera

3800-FM-SCM0521 12/2015  
MS4 Outfall Field Screening Report



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF CLEAN WATER

### MS4 OUTFALL FIELD SCREENING REPORT

---

#### BACKGROUND INFORMATION

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



## MS4 Outfall Field Screening Report

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



## Outfall Type

Open Channel



Closed Pipe



## MS4 Outfall Field Screening Report



Submerged: More than 1/2 below water



Partially submerged: Bottom is below water

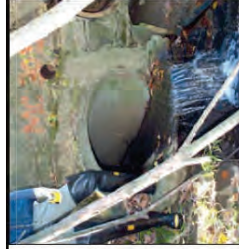


Fully submerged: Can't see outfall

## MS4 Outfall Field Screening Report



Trickle Flow: Very narrow stream of water



Moderate Flow: Steady stream, but very shallow depth



Significant flow (Source is a fire hydrant discharge)

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

Description of Flow Rate:  Trickle  Moderate  Significant  N/A

52

## If No Dry Weather Flow: MS4 Outfall Field Screening Report

**RESPONSIBLE OFFICIAL CERTIFICATION**

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

Responsible Official Name \_\_\_\_\_ Signature \_\_\_\_\_

Telephone No. \_\_\_\_\_ Date \_\_\_\_\_

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

**DRY WEATHER FLOW EVALUATION**

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

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

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

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

## MS4 Outfall Field Screening Report Dry Weather Flow Evaluation

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



## MS4 Outfall Field Screening Report Dry Weather Flow Evaluation

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

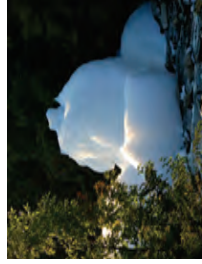


## MS4 Outfall Field Screening Report Foam

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



- "Un-natural" Foam
- Has "staying" power
- Whiter
- May have an odor



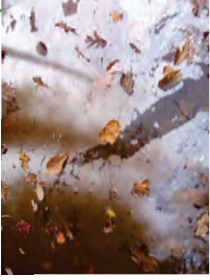
## MS4 Outfall Field Screening Report Iron Floc

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



## MS4 Outfall Field Screening Report Sheens

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



Synthetic oil forms a swirling pattern.

## MS4 Outfall Field Screening Report

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

### FIELD / LABORATORY ANALYSIS

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

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

## Indicator Monitoring

Test chemical makeup of dry weather flows to:

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



## Indicator Monitoring

### Taking a Sample

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



## Indicator Monitoring



## MS4 Outfall Field Screening Report Field/Laboratory Analysis

### Ammonia

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



## MS4 Outfall Field Screening Report Field/Laboratory Analysis

### Detergents

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



### Detergents (anionic surfactants, MBAS) — CHEMets Visual Kit

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

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

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

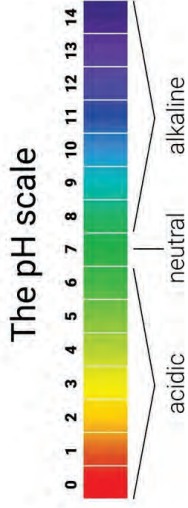
**WARNING! PROP 65**

**\$111.09**

MS4 Outfall Field Screening Report  
Field/Laboratory Analysis

**pH**

- Good indicator for industrial wastes (very high or low pH)
- Residential wash water is basic (pH of 8-9)
- Inexpensive, simple



MS4 Outfall Field Screening Report  
Field/Laboratory Analysis

**Conductivity**

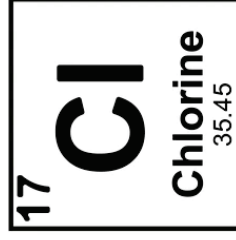
- Correlated with amount of dissolved material in water
- Some industrial discharges have very high conductivity
- Easy to measure but limited value



MS4 Outfall Field Screening Report  
Field/Laboratory Analysis

**Chlorine**

- Used to disinfect tap water
- Highly volatile; alternative is fluoride (if applicable)
- Can indicate water line break, swimming pool discharge, or industrial discharge from chlorine bleaching process



shutterstock.com · 466669517

MS4 Outfall Field Screening Report

ILLCIT DISCHARGES
<p>Is the dry weather flow an illicit discharge? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, describe efforts made to determine the source(s) of the illicit discharge.</p>
<p>Describe corrective actions taken by the permittee in response to the finding of an illicit discharge.</p>
<p>Inspector Comments:</p>

## MS4 Outfall Field Screening Report

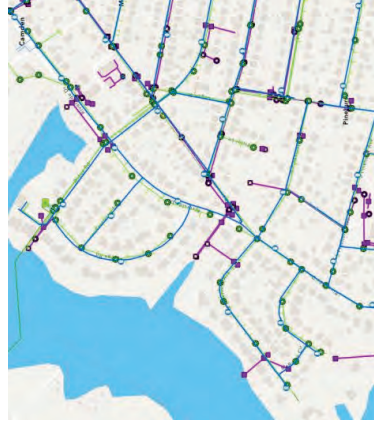
RESPONSIBLE OFFICIAL CERTIFICATION	
<p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry 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).</p>	
Responsible Official Name	Signature
Telephone No.	Date

## Investigation Techniques

### Best Options for Finding Discharges

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

### Mapping is Really Important!

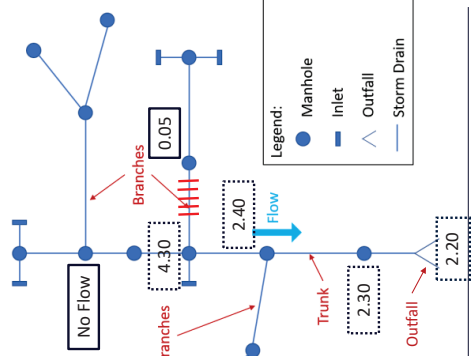


- MS4 Permit requires mapping storm drain system including outfalls.
- Other utility mapping (water and sanitary sewer) is helpful too.
- Webmaps are useful for field staff to access utility information in the field on an iPad or laptop.

# Tracking: Move up the Trunk

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

Goal- isolate discharge between manholes



## Drainage Area Investigation



Drive or walk around looking at potential discharge source sites

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

Not very helpful for finding sewage leaks

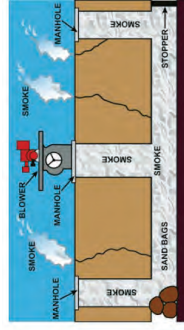
## On-site Investigation



Dye Testing



CCTV Video Testing



Smoke Testing

Choose Your Own Adventure

## Scenario 2

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

What do you do?

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

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

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

No!

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

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

[Back to Scenario 4](#)

No!

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

[Back to Scenario 4](#)

Yes!

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



[Back to Scenario 4](#)

## How do you investigate this?

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

Track up the storm drain system

Look for construction in the drainage area

## Track up the storm drain system

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

Back to Scenario 4

## Look for construction in the drainage area



Search Permit database



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



Drive around (windshield survey) of drainage area

## Windshield Survey

What did you find?

Determine responsibility

Which contractor was working in the area?

- Permits
- Eyewitnesses

### Challenges with this approach?

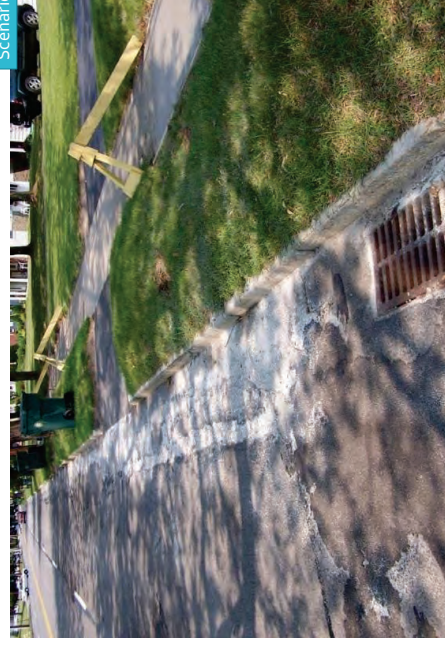
Undefined drainage area

Large drainage area

No permit

Other

Back to Scenario 4



THANK YOU

Beth Uhler  
Pennsylvania Director  
Center for Watershed Protection  
beu@cwpp.org  
484-680-0806

Julie Schneider  
Watershed Planner  
Center for Watershed Protection  
jas@cwpp.org  
410-696-3971

CENTER FOR  
**WATERSHED**  
**PROTECTION**

# NPDES MS4 Program Training Sign-In

New Hanover Township Municipal Building  
2943 N. Charlotte Street, Gilbertsville, PA 19525  
Monday, April 29, 2024 at 10:00am - 12:00pm



Photo Release\* Name Department Email

Zach Hendricks	Public Works
JKORDI	"
Brad Holloway	"
Kevin Snyder	PW
Kevin Fulmer	Public Works
Randy Miller	Public Works
Sam Marking	Public Works
Maggie Dobbis	Admin
Shaina Wertz	Admin

\*Photo Release: CWP may be photographing and videotaping this event. By attending, you are allowing your image to be used by CWP in its discretion if included as part of group photos or videos of the attendees. Should you not want to be included, please identify yourself to a CWP staff member so that you can be directed to an area not likely to be photographed.





Stormwater BMP  
Operation,  
Maintenance, &  
Inspection Training  
October 20, 2023

CENTER FOR  
**WATERSHED  
PROTECTION**

Julie Schneider  
Watershed Planner, CWP

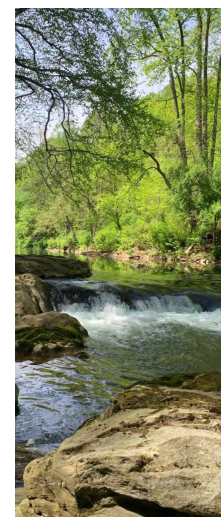
Paige Buzard  
Landscape Designer, CWP

Funded By:

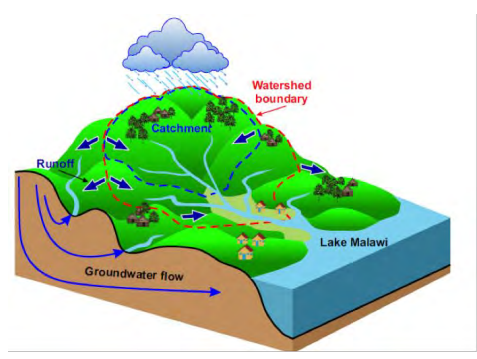


Agenda

- Stormwater 101
- BMP 101
- Inspection & Maintenance
- Vegetation Maintenance
- Q&A



What is a Watershed?

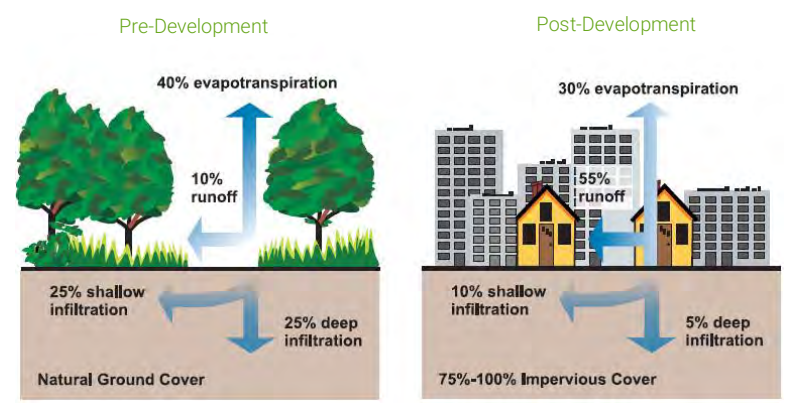


<http://www.catchmentguidelines.org/mw/sites/default/files/catchment.png>



<https://www.nj.gov/dirc/basin/>

Hydrologic Cycle



## What is Stormwater?

Stormwater runoff is water from rain or melting snow that "runs off" across the land

This runoff usually flows into the nearest stream, creek, river, lake, or ocean

Stormwater runoff is what carries pollutants and causes pollution.



Photo credit: Andy Mangold (Flickr)



Photo credit: <http://miriadna.com/wallpapers/forest>, <http://www.avisplumbing.com/services/utilities/storm-drains/>

## Stormwater Runoff

### Water Quantity

Excessive stormwater runoff can cause major flooding and stream erosion



Photo credit: Healthygulf.org

### Water Quality

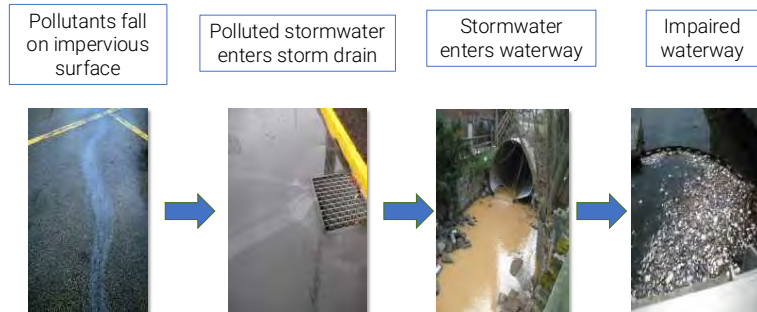
Stormwater picks up everything it runs across, carrying pollutants that affect the health of lakes and rivers



Photo credit: National Aquarium

## Stormwater Runoff

Urban stormwater runoff one of the main causes of water pollution



## Stormwater Runoff

Stormwater falls on impervious surface and runs off overland or into storm sewer



Stormwater enters waterway uncontrolled, without being treated by a BMP



Causes eroded streambanks and sediment (and nutrient pollution)



## Non-Structural BMPs

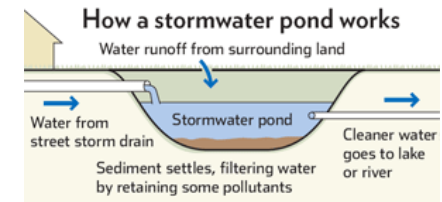
- Protect Sensitive and Special Value Features\*
- Minimize Disturbance and Minimize Maintenance\*
- Reduce Impervious Cover
- Disconnect/Distribute/Decentralize\*
- Source Control

## Structural BMPs

- Pervious Pavement
- Constructed Wetland
- Wet Pond Retention Basin
- Dry Extended Detention Basins
- Infiltration Basin
- Subsurface Infiltration Bed
- Infiltration Trench
- Rain Garden/Bioretention
- Drywell/Seepage Pit
- Constructed Filter
- Vegetated Swale
- Vegetated Filter Strip

9

## Stormwater Basins



10

### Wet Pond/ Retention Basin



Retention

### Dry Detention Basin

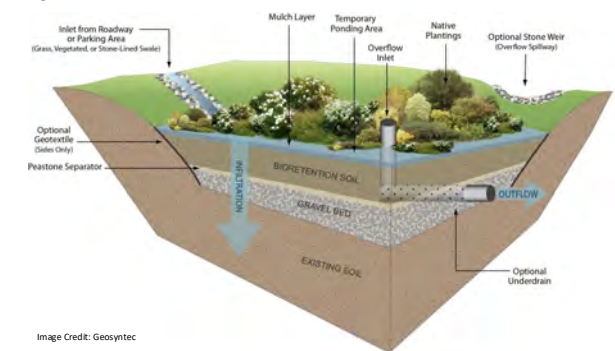


Detention

11

## Bioretention/Bioswale/Rain Garden

- Shallow depression with plants
- Soils replaced with sandy bioretention mix
- May have underdrain and gravel



## Types of Pretreatment



← Forebay →



Level spreader



Vegetated filter strip

Photos from MN Manual

## BMP Inspection and Maintenance

14

## Maintenance

### Why is maintenance important?

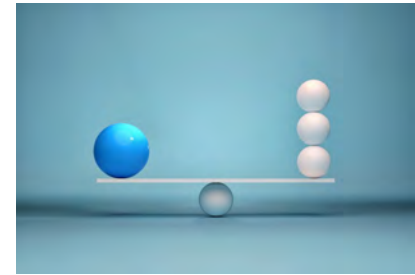
- Like a car—needs a tune up, oil change, tire rotations, detailing, etc.
- Without maintenance, BMPs are likely to fail
  - Costly to fix
  - May cause safety or flooding problems
- Required by state or local permit
- Aesthetics and public perception



15

## Maintenance

- Maintenance Plan
  - Existing or new
  - Adaptive management
  - Schedule for maintenance and routine site visits
- Prioritize maintenance items (inspection)
- Assess after heavy storms
- Maintenance/Inspection Form (tracking and reporting)



CENTER FOR WATERSHED PROTECTION | 17

## Inspection vs. Maintenance

### Inspection

- Visually assessing practices and noting what needs to be fixed



### Maintenance

- Preventing issues from occurring
- Fixing issues with the practice



18

## Maintenance Type

### Minor (Routine)



### Major (Restorative)



19

## Example Frequency for Routine Maintenance Activities

Frequency	Maintenance Activity
Twice a year	Watering *Watering newly planted (May – November)
	Clean Curb Cuts (debris, trash)
	Remove and/or prune vegetation
Twice a year during storm event	Weeding *More frequent during plant establishment
Annual	Inspect to determine if runoff is infiltrating properly
Annual, May/June	Mulching
	Maintain access, clear vegetation
As needed	Remove invasive vegetation
	Remove litter or debris
	Fix erosion gullies until vegetation established
	Remove or replace topsoil and engineered media layer of infiltration has decreased
	Pruning

20

## Typical Inspection Issues

## BMP Inspection Sections



## Inlet: Debris Removal



Sediment blocking water flow

Sediment

Removal of sediment outside AND inside of practice

Photo Credit: CWP

23

## Inlet: Debris Removal



Remove Trash

Photo: Chesapeake Stormwater Network

24

## Inlet: Debris Removal



Riprap covered

Remove Leaves/sediment  
Replace Riprap

Photo: Klein

25

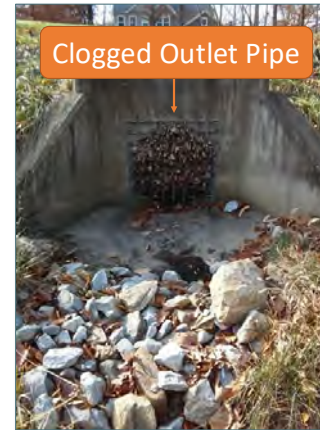
## Inlet: Structural Concern



Immediately Report Problem!

26

## Debris and Trash Accumulation



27

## Erosion

- Inlet
- Outlet
- Side slopes
- Main bed



## Sinking

- Alert manager!
  - May be infrastructure damage, and could cause safety issue
- Pipe could have broken underneath

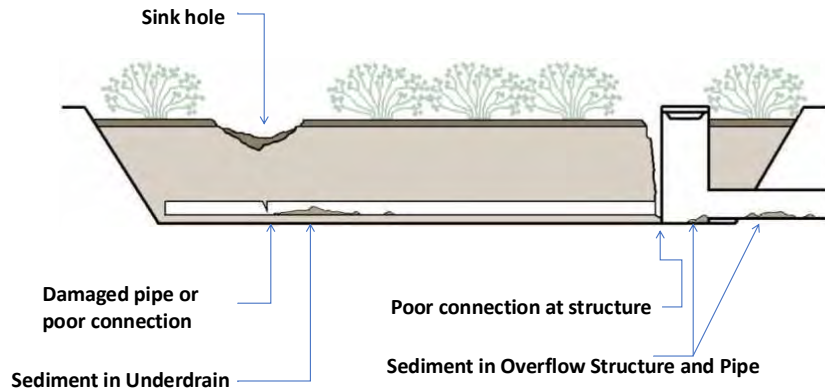


Photo: CSN, 2011



Photo: CSN, 2011

## Potential Causes of a Severely Sinking Filter Bed



30

## Bed Caking

- Compacted — till
- Clogged — remove sediment



31

## Ponding

- No standing water 24-72 hours after rainfall



Photo: CSN



Photo: CSN

## Observation Well/Cleanout

- Check for clogging or standing water inside pipe
- Is cleanout still there?



Photo: CSN



Photo: Klein, 2016



Photo: CSN



Photo: CSN

33

## Deteriorating Structures



34

## Vegetation

- The same BMP can look very different depending on the design.



35

## Vegetation

- Depending on landscaping regime and season, these are all in good shape



36





## Types of Vegetation

- Trees
  - Deciduous
  - Evergreen
- Shrubs
- Herbaceous/Perennials
- Grassy plants
  - Grasses
  - Sedges
  - Rushes



37

## Essentials for Plant Growth & Survival

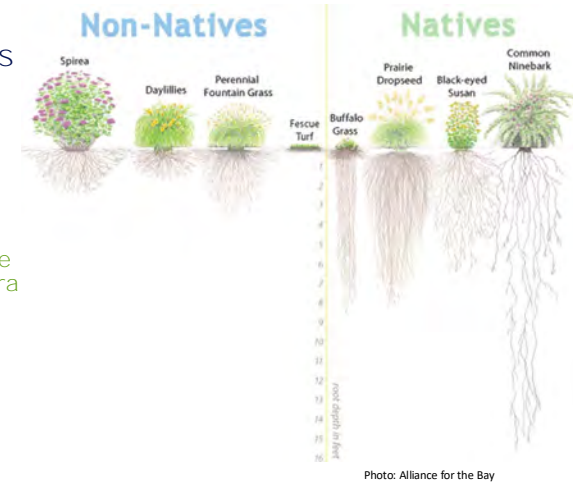
- Water 
- Nutrients (food) 
- Growth media 
- Light 
- Oxygen



38

## Benefits of Native Plants

- Have deeper roots to access water deeper in soil
- Helps infiltration
- Prevents erosion
- Adapted to the climate (require less watering, fertilizers, general maintenance)
- Provides habitat and food for local birds and insects



39

## State/Local Plant List

- Online resources through Penn State Extension, PA DCNR
- DEP Stormwater BMP Manual (Appendix B)
- Local resources
  - Montgomery County Planning Commission
  - Rodale Institute
- Local Native Plant Nursery
  - DCNR-Where to buy Natives
  - Ernst Seed Mix

Rain Gardens - the Plants

Recommended Native Plants for Landscaping in Pennsylvania

40

## Plant ID

- Apps
  - iNaturalist
  - Seek
  - Picture This
  - Plant Identifier- PI@Net
- Guides with Pictures
  - Native Plant Trust: Go Botany Dichotomous Key
- Books & Printed Manuals
  - Pocket Guides

GO BOTANY

Full Key: Which group best describes your plant?

Wetland plants

Woody plants

Aquatic plants

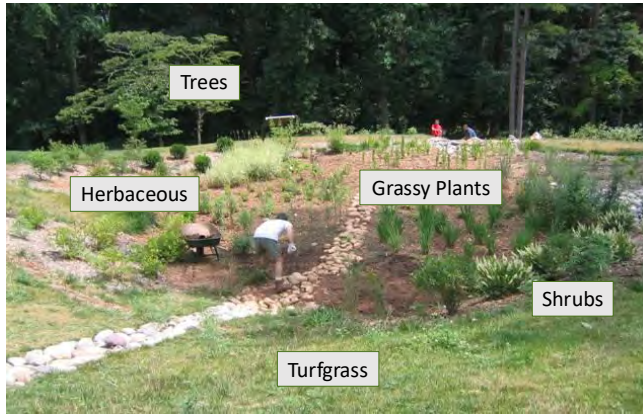
PENNSYLVANIA TREES & WILDFLOWERS

Common Leaf Shapes and Arrangements

© 2004 Encyclopaedia Britannica

Provided by the Alabama Outdoor Classroom Program

## Vegetation in a Bioretention



42

## Grass Maintenance

- Different areas may have grass
  - Pretreatment
  - Side Slopes
  - Main Bed
- No mow zones
- **4" - 9" of grass**
- Do not use weed whacker near tree trunk
- Mow areas around Green Infrastructure
- Mow established meadows 3x yearly- spring, summer, fall
- Overseeding Meadows in spring



Photo Credit: Blue Water Baltimore

43

## Outlet



Photo: CSN

44

## Vegetation Cover

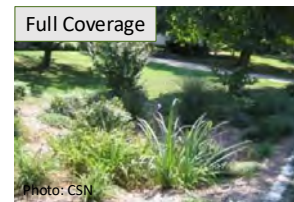


Photo: Klein, 2016

< 50% Coverage



Photo: CWP

< 25% Coverage

45

## Mulch

- Mulch should be around 3"

Too high



Photo: Klein, 2016

Photo Credit: NJ Forest Service



- Alternative surface cover
- Native groundcover
  - Turf
  - Dense planting
  - River stone, pea gravel

Too low



Photo: Klein, 2016

## Vegetation Care

- Fertilizer/pesticide application
  - Should not be used in BMPs
    - Water quality issues
  - Commercial pesticide application requires licenses
  - Timing and quantity
- Pruning
- Controlling invasive species
- Soil testing



## Vegetation Condition

Diseased Tree



Replace plants  
Additional inspection needed

Tree Removal



Cut back or remove trees

Weeds/Invasive



Pull out weeds/invasive

Overgrown



Cut back shrubs

## Invasive Plant Removal

- Identify
- Remove

Japanese Stiltgrass



James H. Miller & Todd Redden, WSU

Daniel C. Cole, DCNR - BOF

Mile-A-Minute



Brent Pifer, DCNR-BOF

Japanese Honeysuckle



Kudzo



Photo by John D. Byrd, Mississippi State University, Bugwood

Photo by John D. Byrd, Mississippi State University, Bugwood



THANK YOU

---



**Julie Schneider**  
Watershed Planner  
Center for Watershed Protection  
[jas@cwpp.org](mailto:jas@cwpp.org)  
410-696-3971

**Paige Buzard**  
Landscape Designer  
Center for Watershed Protection  
[prb@cwpp.org](mailto:prb@cwpp.org)  
443-420-7912

Schuylkill Action Network- BMP Operation and Maintenance Training- Oct. 20, 2023  
 Sign- In/Registration Sheet

<u>First Name</u>	<u>Last Name</u>	<u>Email</u>
Katherine	Archibald	Karchibald@westtown.org
Geoffrey	Attanasio	gattanasio@gilmore-assoc.com
Eileen	Bradley	sellersville@sellersvilleboro.org
Eileen	Bradley	sellersville@sellersvilleboro.org
Eileen	Bradley	sellersville@sellersvilleboro.org
Krista	Brown	Kristbrown@pa.gov
Courtney	Burns	cburns@quakertown.org
Joseph	Chillano	jchillano@lowerprovidence.org
Joseph	Chillano	jchillano@lowerprovidence.org
Joseph	Chillano	jchillano@lowerprovidence.org
Joseph	Chillano	jchillano@lowerprovidence.org
David	Conroy	dconroy@nbtpa.us
Ryan	Cressman	<a href="mailto:rcressman@nbtpa.us">rcressman@nbtpa.us</a>
Ryan	Cressman	rcressman@nbtpa.us
Ryan	Cressman	rcressman@nbtpa.us
Ryan	Cressman	rcressman@nbtpa.us
Ryan	Cressman	rcressman@nbtpa.us
Ryan	Cressman	rcressman@nbtpa.us
Ryan	Cressman	rcressman@nbtpa.us
Erin	Crump	ecrump13@gmail.com
Doreen	Curtin	dcurtin@warringtontownship.org
Kyle	Dermer	kdermer@cheltenhampa.gov
James	Dougherty	jdougherty@gilmore-assoc.com
Elise	Eggert-Crowe	eeggert-crowe@montgomeryconservation.org
Carolyn	Ellison	cellison@whitpaintownship.org
Lacey	Faber	lfaber@edgmont.org
Lacey	Faber	lfaber@edgmont.org
Lacey	Faber	lfaber@edgmont.org
Lacey	Faber	lfaber@edgmont.org
Lacey	Faber	lfaber@edgmont.org
Tara	Giordano	tgiordano@uwchlan.com
Kulveen	Gulati	kgulati@transystems.com
Kulveen	Gulati	kgulati@transystems.com
Megan	Hart	mhart@cheltenhampa.gov
Geoff	Hickman	ghickman@umtownship.org
Kate	Hutelmyer	khutelmyer@chesco.org
Christian	Jones	cjones@warringtontownship.org
Kyle	Kalemjian	kkalemjian@uwchlan.com
Colleen	Kane	ckane@gilmore-assoc.com
Kevin	Keifrider	kkeifrider@amitytownshippa.com
Erin	Landis	erin@wissahickontrails.org
Ryan	Lewis	<a href="mailto:asusten@doylestownpa.org">asusten@doylestownpa.org</a>
Henry	Mackensen	<a href="mailto:asusten@doylestownpa.org">asusten@doylestownpa.org</a>
Diana	Maher	dmaher@pecpa.org
Eric	Mains	emains@hanoverboroughpa.gov
Chris	Mason	<a href="mailto:asusten@doylestownpa.org">asusten@doylestownpa.org</a>

Stephanie	Mason	sjmason@doylestownpa.org
Bruce	McKenney	bmckenney@uwchlan.com
E.J.	Mentry	ementry@lowerprovidence.org
E.J.	Mentry	ementry@lowerprovidence.org
Shaun	Meredith	smeredith@eastpikeland.org
Shaun	Meredith	smeredith@eastpikeland.org
John	Neild	jneild@eastwhiteland.org
John	Neild	jneild@eastwhiteland.org
John	Neild	jneild@eastwhiteland.org
John	Neild	jneild@eastwhiteland.org
John	Neild	jneild@eastwhiteland.org
Zach	Nemec	zmn5053@psu.edu
Jacklyn	Oneil	jackieoneil@hotmail.com
Robert	Pace	pacerob77@gmail.com
Robert	Pace	pacerob77@gmail.com
Steven	Poole	spoole@havtwp.org
Paul	Racette	pracette@pecpa.org
Stephen	Randazzo	srandazzo@pennoni.com
Victoria (Vickey)	richter	vrichter@comcast.net
Victoria (Vickey)	richter	vrichter@comcast.net
Cindy	Rushton	c_rushton@verizon.net
Dom	Scrivano	dscrivano@hemenginc.com
Susan	Sharp	ssharp@edgmont.org
Carol	Smith	cas3737@verizon.net
william	snook	wsnook@newhanover-pa.org
TIFFANY	STRINE	tstrine@carlislepa.org
Andrea	Susten	asusten@doylestownpa.org
Alexander	Swiderski	alexander.swiderski@rve.com
Sean	Torpey	storpey@pennoni.com
Sean	Torpey	storpey@pennoni.com
Timothy	Wallace	twallace@gilmore-assoc.com
Karen	Wilwol	wilwolk@co.delaware.pa.us
Laura	Winslow	24lvwin@gmail.com
Matthew	Woerner	mwoerner@lowermoreland.org
Stephen	Woerner	swoerner@lowermoreland.org

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



**APPENDIX F**

**POLLUTANT REDUCTION PLAN (PRP)  
FINAL REPORT**

- Pollutant Reduction Plan (PRP) Final Report Form
- Stream Restoration Eligibility Evaluation Memo
- Pollutant Reduction Plan Set (O&M pg. 8)
- Pre- & Post-Construction Site Photos



## POLLUTANT REDUCTION PLAN (PRP) / TMDL PLAN FINAL REPORT

*Before completing this report please review the instructions, which are located within the Annual MS4 Status Report Instructions (3800-FM-BCW0491)*

### PRP / TMDL PLAN SUMMARY

Permittee Name: New Hanover Township Permit No.: PAG130020

PRP     TMDL Plan     Combined PRP / TMDL Plan

Plan Approval Date: 1/11/2019 Required Completion Date: 1/31/2024

Joint Plan?     Yes     No    *If Yes, identify all participating permittees as an attachment to this report*

Surface Waters Addressed by Plan: Swamp Creek

Permittee's Planning Area (acres): 82 Total Planning Area (Joint Plans): \_\_\_\_\_ acres

Pollutant Load Reduction Calculation Methodology:

Simplified Method     Mapshed     ModelMyWatershed     Other:

	TSS		TN		TP
Baseline Pollutant Load – Planning Area	36447.48	lbs/yr		lbs/yr	lbs/yr
Pollutant Load Reduction Requirement (%)	10	%	%	%	%
Pollutant Load Reduction Requirement (lbs/yr)	<b>3644</b>	lbs/yr	lbs/yr	lbs/yr	lbs/yr
WLA Reduction Requirement ( <i>TMDL Plan only</i> )		lbs/yr	lbs/yr	lbs/yr	lbs/yr

### BMP IMPLEMENTATION

BMP Type	No. of BMPs	Pollutant Load Reductions Achieved (Credit)			
		TSS		TN	
Structural BMPs	1	4488	lbs/yr	lbs/yr	lbs/yr
Non-Structural BMPs		lbs/yr		lbs/yr	lbs/yr
Total		lbs/yr		lbs/yr	lbs/yr

**Pollutant Load Reductions are documented on the following attachments:**

- Attachment A – Infiltration BMPs No.: \_\_\_\_\_
- Attachment B – BMP Retrofits No.: \_\_\_\_\_
- Attachment C – Stream and/or Floodplain Restoration No.: 1
- Attachment D – Street Sweeping or Storm Drain Solids Removal No.: \_\_\_\_\_
- Attachment E – Riparian Buffers No.: \_\_\_\_\_
- Attachment F – Tree Planting No.: \_\_\_\_\_
- Attachment G – Non-structural (Annual Practice) BMPs No.: \_\_\_\_\_
- BMP(s) have been implemented for which there are no attachments (*attach calculations*)

**COMPLIANCE DETERMINATION**

Were the pollutant load reduction requirements of the permit met?     Yes     No

If the pollutant load reduction requirements of the permit were **not met**, report the required load reductions remaining in lbs/yr and as a percentage of the total required load reduction.

	TSS		TN		TP
Load Reduction Remaining	0	lbs/yr		lbs/yr	lbs/yr
Percent of Required Load Reduction Remaining	0	%		%	%

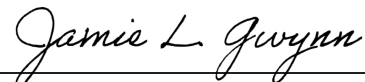
***If the pollutant load reduction requirements of the permit were not met, attach an explanation and provide a schedule for completing implementation of the PRP or TMDL Plan, including interim milestones.***

**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).

Jamie Gwynn

Responsible Official Name



Signature

New Hanover Township Manager

Official Title

09-26-2024

Date Signed

### ATTACHMENT C – STREAM RESTORATION

**GENERAL INFORMATION**

Permittee Name: New Hanover Township Permit No.: PAG130020  
 BMP Name: Swamp Creek Stream Restoration Latitude: 40.317119  
 Surface Waters: Swamp Creek Longitude: -75.584699  
 Municipality: New Hanover Township County: Montgomery  
 Construction of the BMP is Complete. Date Construction Completed: 9/1/2023  
 Photographs, Drawings, and O&M Plan are attached\*. Inspection/Monitoring Frequency: Annually  
 Permits or Approvals Obtained: Joint Chapter 105 Permit and PASPGP-6; E&S approval from MCCD  
 Party Responsible for Long-Term O&M:  Permittee  Other: \_\_\_\_\_  
 Joint BMP?  Yes  No *If Yes, attach a list of other permittees sharing credit for the BMP*

**STREAM RESTORATION TYPE**

Stream Restoration – Default Rate: \_\_\_\_\_ Expert Panel Report Protocols (Select all that apply):  
 Simplified Method (44.88 lbs/ft/yr)  Protocol 1: Prevented Sediment  
 Mapshed/Model My Watershed (115 lbs/ft/yr)  Protocol 2: Instream and Riparian Nutrient Processing  
 Protocol 3: Floodplain Reconnection  
 Does the restoration meet all the minimum qualifying conditions for stream restoration?  Yes  No

**TSS LOAD REDUCTION – DEFAULT RATE**

Total restoration length (center line of stream) (ft): 120  
 Restoration length stabilized using hard armoring (if applicable) (ft): \_\_\_\_\_  
 Restoration length armored by “Creditable w/Limits” practices (if applicable) (ft): \_\_\_\_\_  
 Percent of total restoration length armored by “Creditable w/Limits” practices (%): \_\_\_\_\_  
 Creditable restoration length (ft): 120  
 TSS Credit: Creditable restoration length (120 ft) x Default Rate (**44 lbs/ft/yr**) = 5385 lbs/yr TSS  
 Permittee Credit for Joint BMPs (if applicable): \_\_\_\_\_ % or \_\_\_\_\_ lbs/yr TSS Credit

**POLLUTANT LOAD REDUCTIONS – EXPERT PANEL PROTOCOLS**

Total restoration length (ft): \_\_\_\_\_ Floodplain area created (if applicable) (ac): \_\_\_\_\_  
 Protocol 1 Pollutant Load Reduction: TSS: \_\_\_\_\_ lbs/yr TN: \_\_\_\_\_ lbs/yr TP: \_\_\_\_\_ lbs/yr  
 Protocol 2 Pollutant Load Reduction: TSS: \_\_\_\_\_ lbs/yr TN: \_\_\_\_\_ lbs/yr TP: \_\_\_\_\_ lbs/yr  
 Protocol 3 Pollutant Load Reduction: TSS: \_\_\_\_\_ lbs/yr TN: \_\_\_\_\_ lbs/yr TP: \_\_\_\_\_ lbs/yr  
 Permittee Credit for Joint BMPs (if applicable): \_\_\_\_\_ % or \_\_\_\_\_ lbs/yr TSS Credit

**\* See Annual MS4 Status Report Instructions (3800-FM-BCW0491) for additional required attachments.**

# MEMORANDUM

To: Elizabeth Mahoney, Pennsylvania Department of Environmental Protection (PA DEP)

From: Beth Uhler, Center for Watershed Protection, Inc. (CWP)

Date: July 23, 2024

Re: Swamp Creek Stream Restoration - Minimum Qualifying Criteria for MS4 Credit Eligibility Evaluation

---

## INTRODUCTION

The Swamp Creek Stream Restoration project was completed in September 2023. New Hanover Township's Pollutant Reduction Plan (PRP) was required to be implemented by January 31, 2024. Thus, the PRP Final Report and associated documentation is required to be submitted with the 2024 Annual MS4 Status Report, due September 30, 2024. In addition to the completed PRP Final Report Form, site plans (including operations & maintenance), and pre- and post-construction site photographs, stream restoration projects must also include documentation that the project meets the minimum qualifying criteria for MS4 credit eligibility. This memorandum serves as this documentation.

The Swamp Creek Stream Restoration project used the PA DEP's BMP Effectiveness Value "simplified method" default rate of 44.88 lb/ft to calculate load reduction for the 120 linear ft of stream restoration. The sediment reduction achieved by this restoration project is 5,386 lbs/yr. An additional 2,642 square feet and 5,150 square feet of riparian buffer restoration was also established on the left and right streambanks, respectively, for an average width of 35 feet. The streambanks were graded to provide floodplain connectivity. Coir logs and a j-hook were utilized to provide creditable channel and streambank stabilization.

Qualifying criteria and how each were met are described below.

## SITING CRITERIA

*Qualifying Criteria #1: Permittee must document existing channel or streambank erosion and actively enlarging or incising urban stream condition prior to restoration (and existing problem).*

Response: Initially, Alta Planning + Design. Staff noted an extremely high stream that appeared to be enlarging cut banks on both the left and right streambanks as it passes through the restoration project area as part of the PRP in 2018. Cedarville Engineering, LLC (CEG) later documented continuing active erosion in the pre-construction photographs from 2021 included in the PRP Final Report. These photographs were taken during the Chapter 105 pre-application process, at an additional meeting on-site on June 30, 2021 with Chapter 105 and MS4 staff to verify the reach was appropriate for restoration.

*Qualifying Criteria #2: Effectiveness is most readily demonstrated for projects in 1<sup>st</sup>-3<sup>rd</sup> order streams (small). Larger-scale projects will require additional documentation.*

Response: This reach of Swamp Creek is a 3<sup>rd</sup> order stream.

**Qualifying Criteria #3:** *The project must address at least 100 linear feet of stream channel.*

Response: A 100 linear ft restoration project was initially proposed. The final stream restoration length as designed and constructed totaled 120 linear ft.

**Qualifying Criteria #4:** *Impervious areas upstream of the project must be sufficiently treated to address peak flows that may exceed engineering design thresholds or compromise channel form and function.*

Response: Floodplain benches were installed as part of the project to provide connectivity to the floodplain from the stream and treat peak flows.

**Qualifying Criteria #5:** *The project must address both sides of the channel where a need to do so is evident.*

Response: The Swamp Creek Restoration project addresses the streambanks and channel on both sides of Swamp Creek through bank grading, floodplain benches, and coir logs for stabilization. A 35 foot riparian buffer is located on both side of the channel where the project is located.

## RESTORATION TECHNIQUES

**Qualifying Criteria #6:** *The goal is to apply a comprehensive approach that may employ a mix of techniques appropriate to the site, creating long-term stability of the streambed, streambanks and floodplain.*

Response: The Swamp Creek Stream Restoration project employs a mix of techniques including coir logs, a j-hook revetment, brush packing at the stream bank transition, and riparian buffer restoration to create long-term stability of the streambed, streambanks and floodplain. The left bank is stabilized with 120 linear ft of an 18 inch coir log and 2,642 square feet of riparian buffer restoration. The right bank is stabilized with 145 linear ft of an 18-inch coir log and 5,150 square feet of riparian buffer restoration. The riparian buffer restoration includes use of an erosion control blanket, live staking, tree and shrub planting, and permanent seeding. Brush packing is used at the transition areas directly before and after restoration areas along either bank. Live branches and wooden stakes provide long-term stability of the restoration project and stream banks. A j-hook is used within the stream channel to create stability of the streambed. An in-depth Operations and Maintenance Plan has been developed and implemented to monitor the function and identify any issues with the long-term function of the project.

**Qualifying Criteria #7:** *Streambank or streambed armoring may be used where necessary to maintain channel stability, but the length of stream that is armored (such as with riprap and gabions) may not be included in the load reduction calculation.*

Response: Coir logs and J-hooks are creditable forms of streambank armoring according to the Chesapeake Bay Stream Restoration Protocol 1 Expert Panel. Coir logs are installed along both the right and left streambanks at base flow elevation. A 75 ft long J-hook revetment is also installed within the stream channel. Construction details for the coir logs and j-hook are provided on Sheet C-6 of the Swamp Creek Stream Restoration plan set.

**Qualifying Criteria #8:** *Projects should maximize floodplain reconnection, with a minimal channel invert elevation increase required to achieve this objective. Restoration bank height ratios must be 1.0 or less.*

Response: Restoration bank height ratio is 0.5 per Sheet C-6 of the Swamp Creek Stream Restoration plan set. Existing side slopes were amended to restore the 2:1 stream bank slope. Erosion control blanket and restoration landscaping is used to stabilize the streambank.

**Qualifying Criteria #9:** *A permanent 35' minimum riparian buffer.*

Response: The left bank of the stream restoration area has a 35-foot riparian buffer. The right bank of the stream restoration area has between 35 to 41 feet of riparian buffer along its length.

# CONCLUSION

The Swamp Creek Streambank Restoration project was completed in September 2023, restoring 120 linear ft of Swamp Creek in New Hanover Township. As demonstrated above, the project meets all of the minimum qualifying criteria for MS4 crediting.

Please contact Beth Uhler, Center for Watershed Protection, at [beu@cwpp.org](mailto:beu@cwpp.org) or 484-680-0806 if you have any questions or need any additional information.

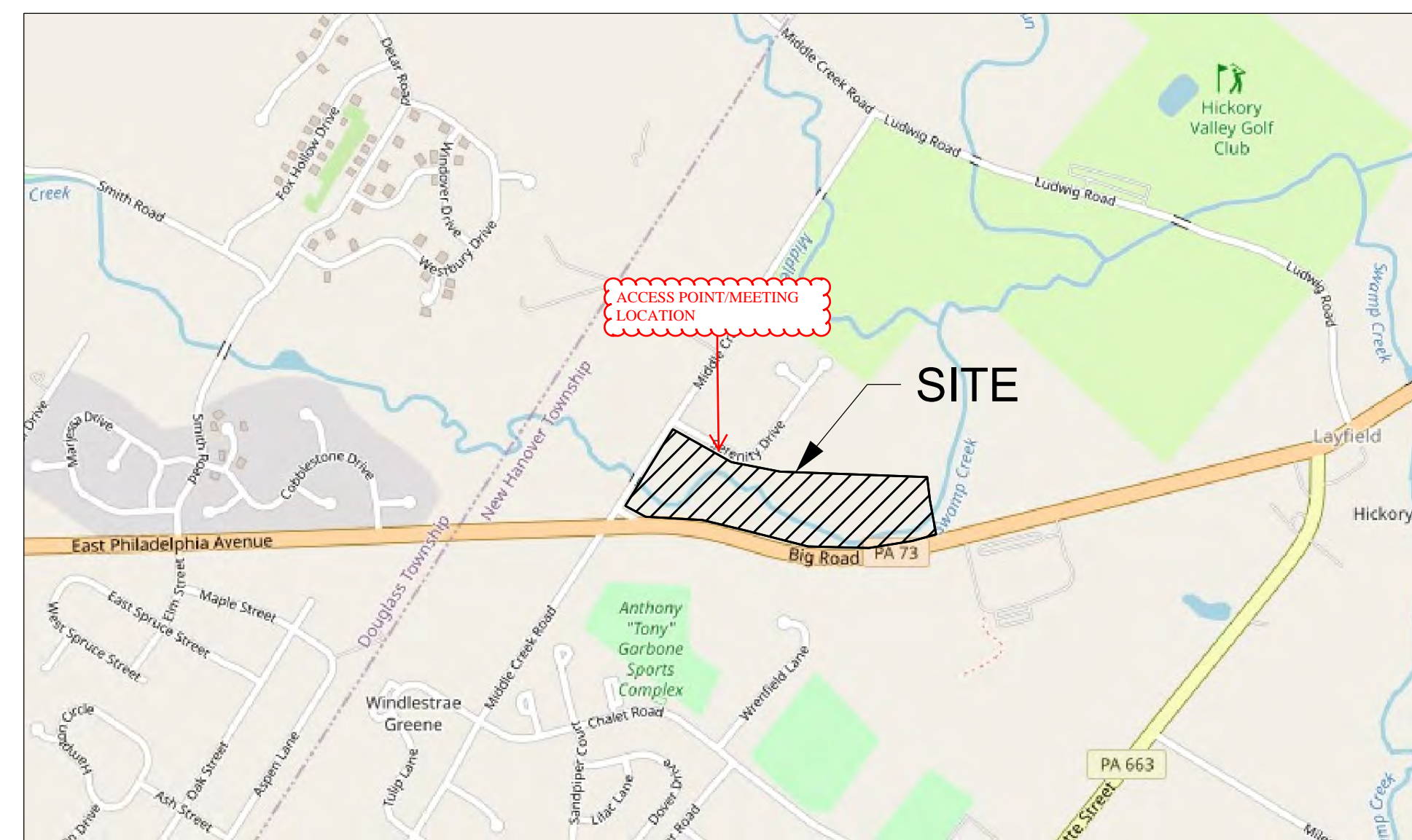
cc: Jamie Gwynn, New Hanover Township Manager  
Maggie Dobbs, New Hanover Township Assistant Manager

# SWAMP CREEK STREAM RESTORATION

PARCEL ID: 47-00-05022-54-5  
NEW HANOVER, PA

PREPARED FOR:  
**NEW HANOVER TOWNSHIP**  
**2943 NORTH CHARLOTTE STREET**  
**GILBERTSVILLE, PA 19525-9718**

JANUARY 2022



VICINITY MAP  
1"=1000'

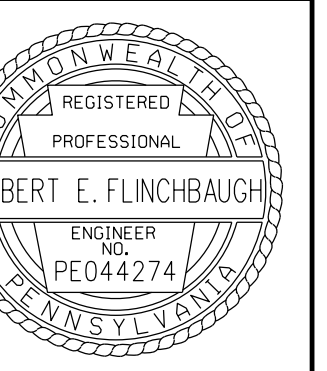
OWNER:  
NEW HANOVER TOWNSHIP  
2943 NORTH CHARLOTTE STREET  
GILBERTSVILLE, PA 19525-9718

ENGINEER/PLAN PREPARER:  
CEDARVILLE ENGINEERING GROUP LLC  
159 E. HIGH STREET  
POTTSTOWN, PA 19464  
PHONE: 610-705-4500

SITE ADDRESS:  
SWAMP CREEK  
PARCEL ID: 47-00-05022-54-5  
NEW HANOVER, PA

DRAWING NUMBER	DRAWING TITLE	DRAWING SCALE
C-1	COVER SHEET	NTS
C-2	EXISTING FEATURES PLAN	1"=40'
C-3	STREAM RESTORATION PLAN	1"=40'
C-4	STREAM PROFILE AND SECTION PLAN	AS NOTED
C-5	EROSION AND SEDIMENT CONTROL PLAN	1"=40'
C-6	EROSION AND SEDIMENT CONTROL NOTES/ DETAILS - 1	NTS
C-7	EROSION AND SEDIMENT CONTROL NOTES/ DETAILS - 2	NTS
C-8	EROSION AND SEDIMENT CONTROL LANDSCAPE/ PLANTING PLAN	1"=40'
C-9	EROSION AND SEDIMENT CONTROL LANDSCAPE/ PLANTING DETAILS	NTS

MARK	COMMENT	REVISIONS	DATE
1	MCCD REVIEW LETTER DATED 03/14/22		07/19/22



SITELINE IN  
NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA  
COVER SHEET  
PREPARED FOR  
NEW HANOVER TOWNSHIP  
PROJECT NAME  
SWAMP CREEK STREAM RESTORATION

DESIGNED BY: xxx/xxx  
DRAWN BY: MJC/MMG  
CHECKED BY: BMF  
PROJECT NO. NHT-21-205  
DATE: 01/12/2021  
SCALE: NTS

SHEET 1 OF 9

C-1



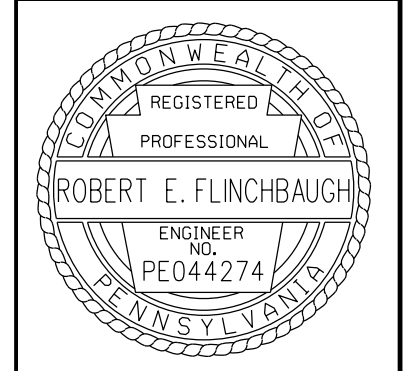
**LEGEND:**

EXISTING CONTOUR	--- · · · · ·
100-YEAR FLOODPLAIN	-----
APPROXIMATE TOP OF BANK	--- · · · · ·
RIPARIAN BUFFER	~~~~~
EDGE OF TREES	~~~~~
EXISTING FOOT PATH	-----
EDGE OF ROAD	-----
FLOODWAY	-----

- GENERAL NOTES:**
- EXISTING TOPOGRAPHY AND OTHER SURFACE INFORMATION TAKEN FROM A FIELD SURVEY PERFORMED BY CEDARVILLE ENGINEERING GROUP, LLC, IN AUGUST 2021.
  - GROUND SURVEY CONTROL WAS PERFORMED BY CEDARVILLE ENGINEERING GROUP, LLC. ELEVATIONS SHOWN ARE EXPRESSED IN US SURVEY FEET AND ARE BASED ON NAVD 83 AND HORIZONTAL LOCATIONS ARE BASED ON PENNSYLVANIA NAD 83, SOUTH ZONE (US SURVEY FEET).
  - LOCATIONS OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE AND ACCESSIBLE IN THE FIELD. THE MAPS LISTED IN THE REFERENCES AT THE TIME OF SURVEY, AVAILABLE AS-BUILTS, AND STRUCTURES BEFORE ANY EXCAVATION IS TO BEGIN. ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED TO THEIR LOCATION, SIZE, AND TYPE BY THE PROPER UTILITY COMPANY.

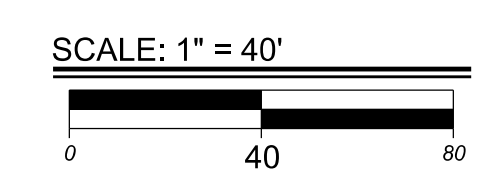
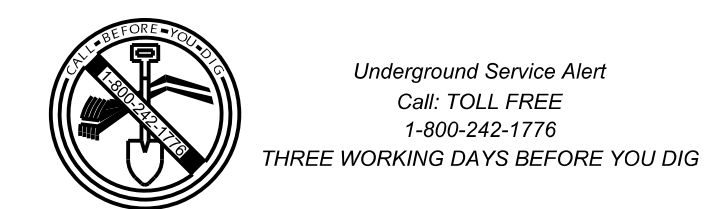
MARK	COMMENT	REVISIONS	DATE
1	MCCD REVIEW LETTER DATED 03/14/22		07/19/22

**CEG CEDARVILLE**  
 CIVIL ENGINEERING • ENVIRONMENTAL SERVICES  
 • SURVEYING • CONSTRUCTION  
 159 East High Street, Suite #500 | Pottstown, PA 19464  
 610.705.4500 (Office) | 610.705.4900 (Fax)



SITUATED IN  
 NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA  
 PREPARED FOR  
**EXISTING FEATURES PLAN**  
 PROJECT NAME  
**NEW HANOVER TOWNSHIP**  
**SWAMP CREEK STREAM RESTORATION**

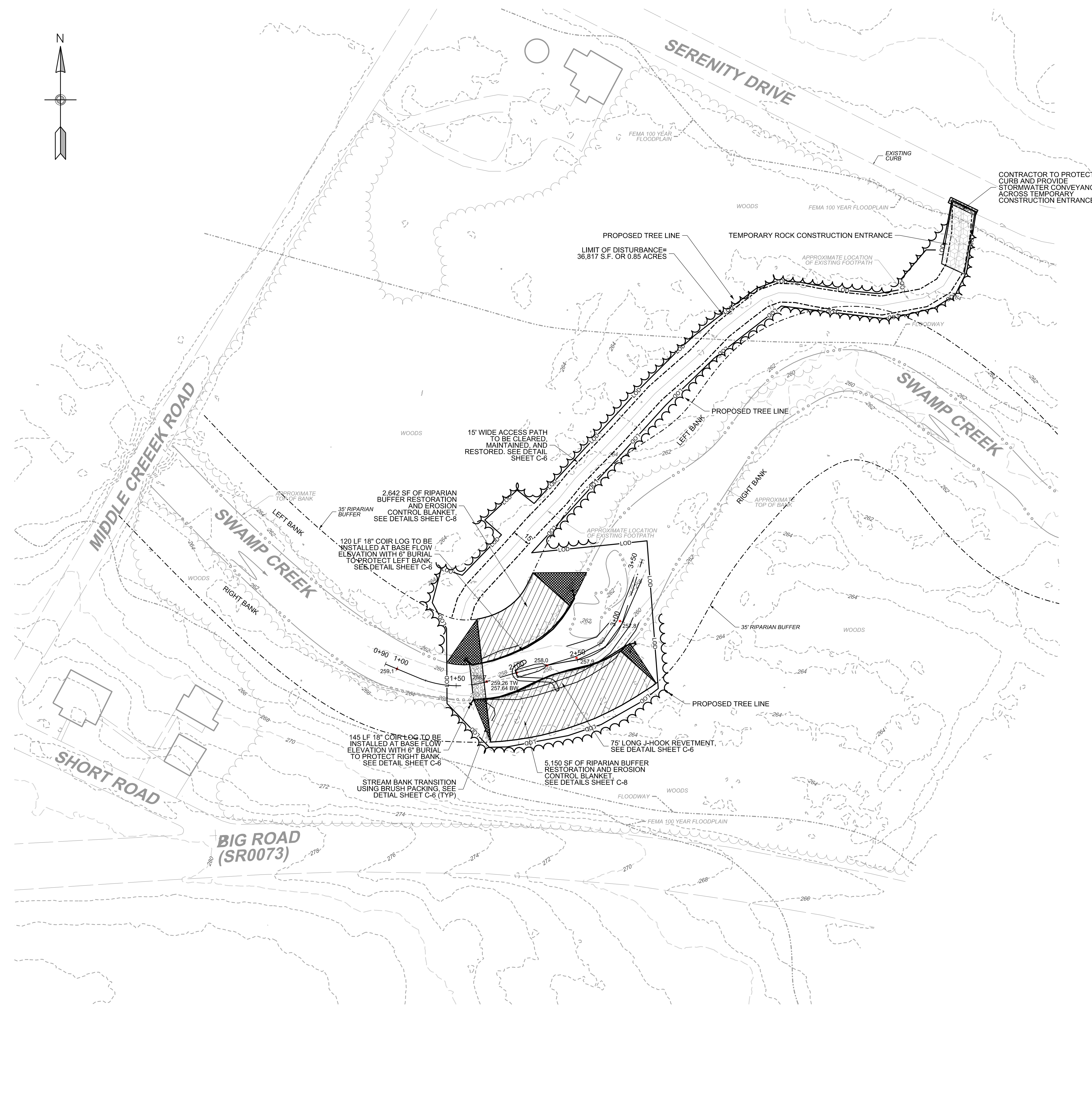
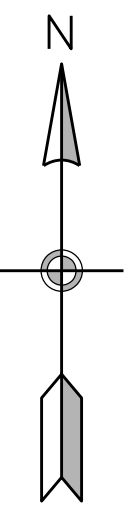
DESIGNED BY:	XXX/XXX
DRAWN BY:	MJC/MMG
CHECKED BY:	BMF
PROJECT NO.	NHT-21-205
DATE:	01/12/2021
SCALE:	1"=40'



SHEET **2** OF **9**

**C-2**

P:\\_Design\NHT-21-205\_Swamp\_Creek\_Stream\_Restoration\_Design\_and\_Promoting\SheetC201.dwg (12/16/2021) 4:00 PM



**CONSTRUCTION NOTES:**

1. DUE TO IRREGULARITY OF ROCK SHAPES, CONTOURS DEPICTING GRADING WITHIN STRUCTURES ARE APPROXIMATE. SPECIFICATIONS FOR GRADING ARE PROVIDED IN TYPICAL SECTIONS AND CONSTRUCTION DETAILS. THE CONSTRUCTION DETAIL SPECIFICATIONS TAKE PRECEDENCE OVER THE CONTOURS ON THE STREAM RESTORATION PLAN.
2. TREE PROTECTION FENCING SHALL BE PLACED AROUND ALL AREAS OF TREES TO BE PRESERVED ADJACENT TO THE LIMITS OF DISTURBANCE (LOD).
3. IT IS ASSUMED THAT ALL TREES WITHIN THE LOD WILL BE REMOVED. PRIOR TO CONSTRUCTION THE LOD SHALL BE WALKED BY THE ENGINEER AND CONTRACTOR TO CONFIRM TREE REMOVAL AND MATERIAL PRESERVATION. IN THE EVENT THAT THE CONTRACTOR BELIEVES A TREE WITHIN THE LOD COULD BE SAVED OR UTILIZED, THE CONTRACTOR SHALL CONTACT THE ENGINEER.
4. TREES SHALL BE FELLED, TO PREVENT DAMAGE TO ADJACENT TREES TO BE PRESERVED, TREES SHALL BE CUT IN SECTIONS FROM TOP DOWN (NOT BE FELLED IN ONE BASE CUT).
5. WORK TO BE LIMITED TO WITHIN THE EXISTING CHANNEL AND LOD TO THE EXTENT PRACTICABLE USING SUITABLE TRACKED EQUIPMENT TO LIMIT IMPACT TO TREES.
6. CONTRACTOR SHALL SALVAGE EXISTING STREAM BED MATERIAL AS CONSTRUCTION PROGRESSES AND REPLACE IN THE RESTORED STREAM AS SHOWN ON THE TYPICAL CROSS SECTION DETAIL (REFER TO CONSTRUCTION DETAILS).
7. SLOPES EXCEEDING 2:1 (H:V) AT THE LIMITS OF RESTORATION TO BE PROTECTED WITH BRUSH PACKING AND RIP RAP UNDERLAIN WITH GEOTEXTILE FABRIC.
8. STREAM FLOWS TO BE DIVERTED USING TWO (2) 36" DIVERSION PIPES THROUGH THE LEFT BANK AREA. CONTRACTOR TO PROVIDE BYPASS, PUMPING PLAN IN ACCORDANCE WITH SECTION 01500.01 OF THE SPECIFICATIONS.

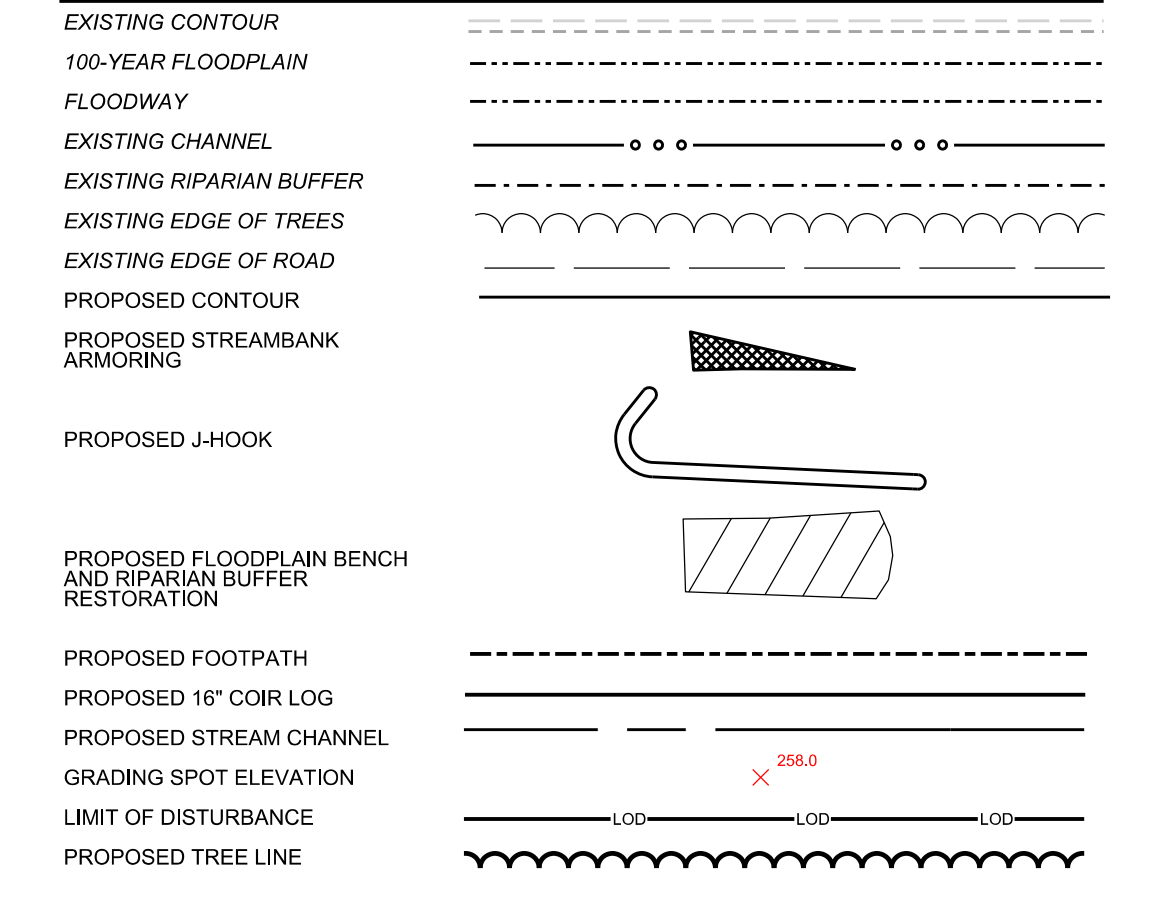
**J-HOOK STRUCTURE NOTES:**

1. STRUCTURE ROCK SHALL BE NATURALIZED, ROUNDED, AND SOURCED LOCALLY.
2. HEADER AND FOOTER ROCKS SHALL HAVE A MINIMUM DIMENSION OF 18 INCHES, INTERMEDIATE DIMENSION OF AT LEAST 36 INCHES, AND LONGEST DIMENSION OF AT LEAST 48 INCHES. EACH ROCK TO WEIGH A MINIMUM OF 400 LBS.
3. REFER TO TYPICAL CROSS-SECTION DETAILS FOR PLACEMENT OF COIR FABRIC ALONG THE STREAM BANKS.
4. BACKFILL BETWEEN J-HOOK AND BANKS WITH SUBSTRATE MATERIAL EXCAVATED FROM THE CHANNEL.
5. STRUCTURE SHALL BE UNDERLAIN WITH WOVEN OR NON-WOVEN POLYPROPYLENE GEOTEXTILE, SUCH AS MRFRAT 700x MRFRAT 700Z, FILTERWEAVE 500, NORSO, OR APPROVED EQUAL. THE FABRIC SHALL HAVE PUNCTURE RESISTANCE GREATER THAN 100 LBS, APPARENT OPENING SIZE GREATER THAN U.S. 70 SIEVE, AND 30 LBS. OF TENSILE STRENGTH AT 20% (MAXIMUM).
6. ALL FOOTER ROCKS SHALL BE EMBEDDED A MINIMUM OF 18 INCHES BELOW STREAM INVERT. SMALLER ROCKS MAY BE USED, AS APPROVED BY THE FIELD ENGINEER, BUT THIS MAY REQUIRE MORE THAN 2 ROWS OF ROCKS.

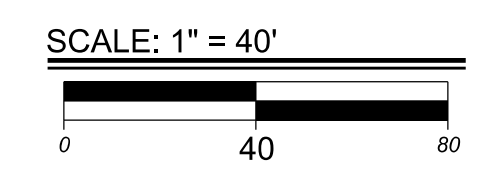
**STREAM RESTORATION NOTES:**

- 100 LF OF STREAM RESTORATION TO INCLUDE:
- J-HOOK VANE TO CONTROL EROSION FORCES AND PROVIDE HABITAT
  - STREAM BANK RESTORATION WITH RIPARIAN BUFFER PLANTINGS TO REDUCE EROSION POTENTIAL
  - FLOOD PLAN BENCHES TO INCREASE FLOOD WATER CAPACITY (RECONNECTION) IN FLOODPLAIN.

**LEGEND:**

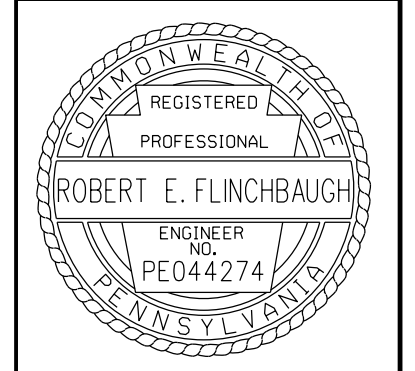


Underground Service Alert  
Call: TOLL FREE  
1-800-242-1776  
THREE WORKING DAYS BEFORE YOU DIG



MARK	COMMENT	REVISIONS	DATE
1	MCCD REVIEW LETTER DATED 03/14/22		07/19/22

**CEG CEDARVILLE**  
 CIVIL ENGINEERING • ENVIRONMENTAL SERVICES  
 • SURVEYING • CONSTRUCTION  
 159 East High Street, Suite #500 | Pottstown, PA 19464  
 610.705.4500 (Office) | 610.705.4900 (Fax)



SITUATE IN  
 NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

STREAM RESTORATION PLAN

PREPARED FOR  
 NEW HANOVER TOWNSHIP

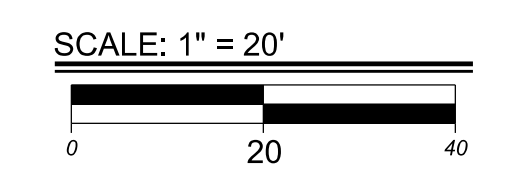
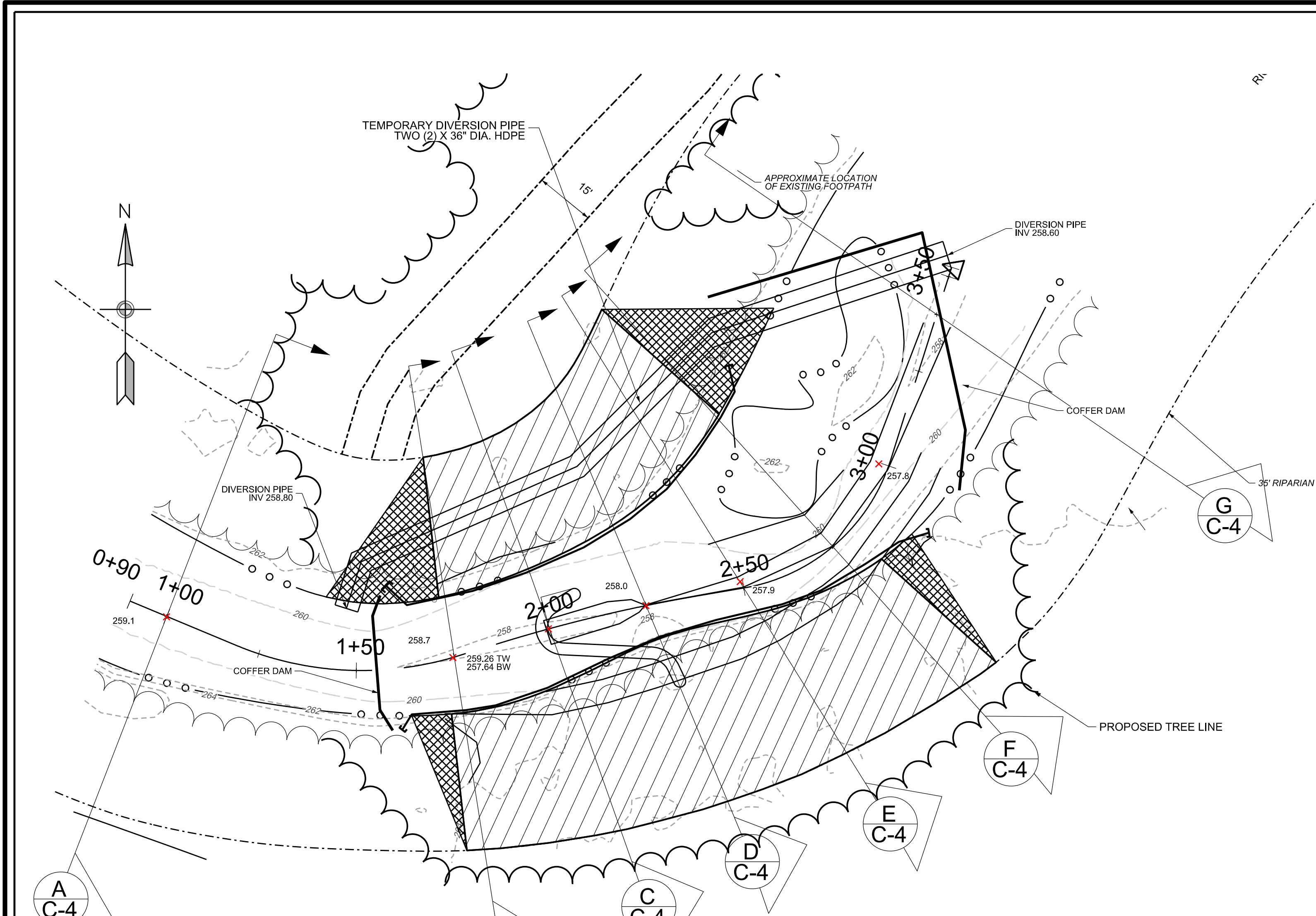
PROJECT NAME  
 SWAMP CREEK STREAM RESTORATION

DESIGNED BY: xxx/xxx  
 DRAWN BY: MJC/MMG  
 CHECKED BY: BMF  
 PROJECT NO: NHT-21-205  
 DATE: 01/12/2021  
 SCALE: 1"=40'

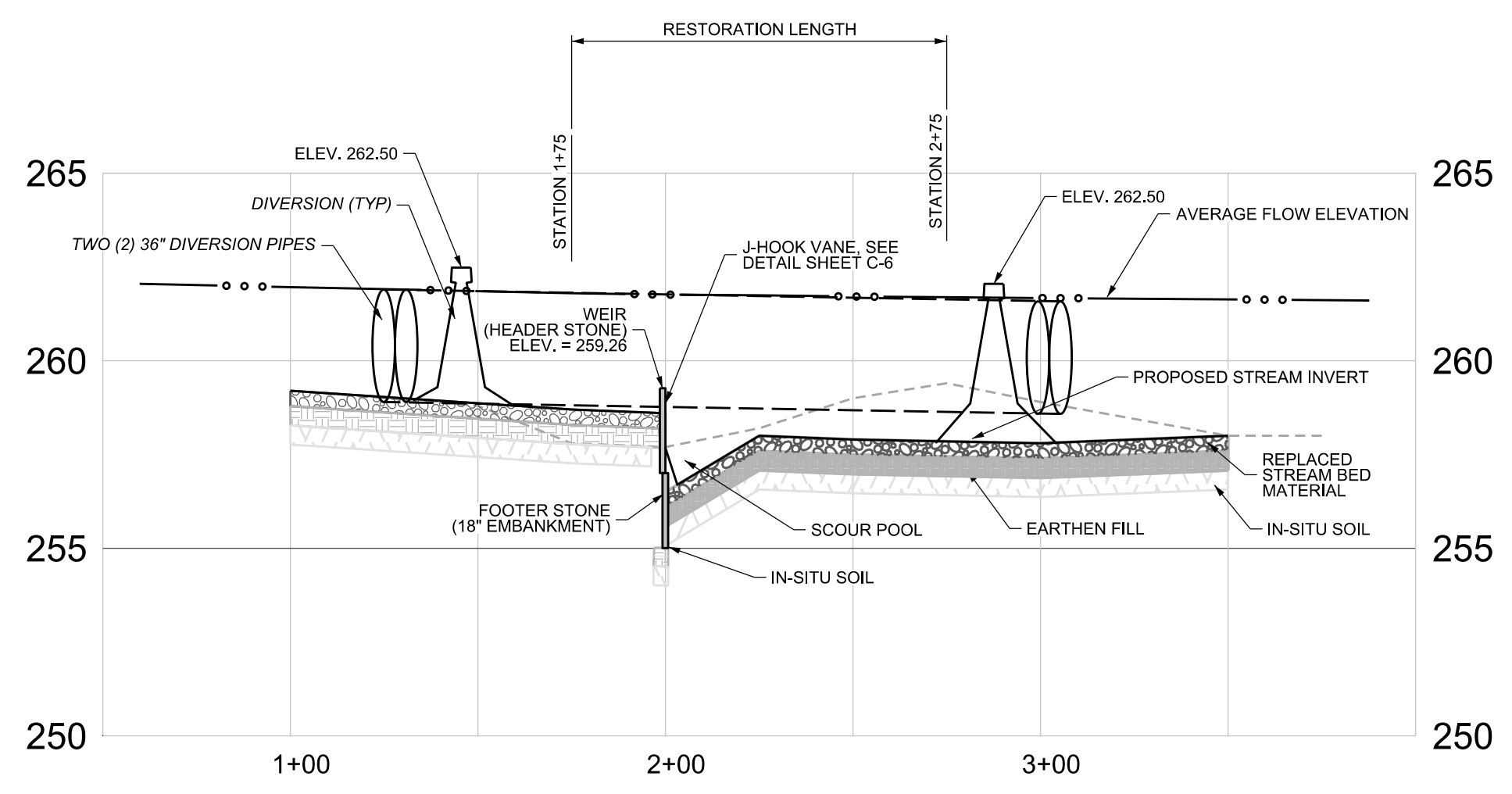
SHEET 3 OF 9

**C-3**

P:\\_Design\NHT-21-205\_Swamp\_Creek\_Stream\_Restoration\_Design\_and\_Permitting\Sheet\2021\_02\_mjc\2021.dgn

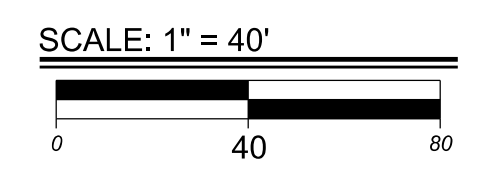


SECTION KEY



STREAM PROFILE

1"=40' - HORIZONTAL SCALE  
1"=4' - VERTICAL SCALE

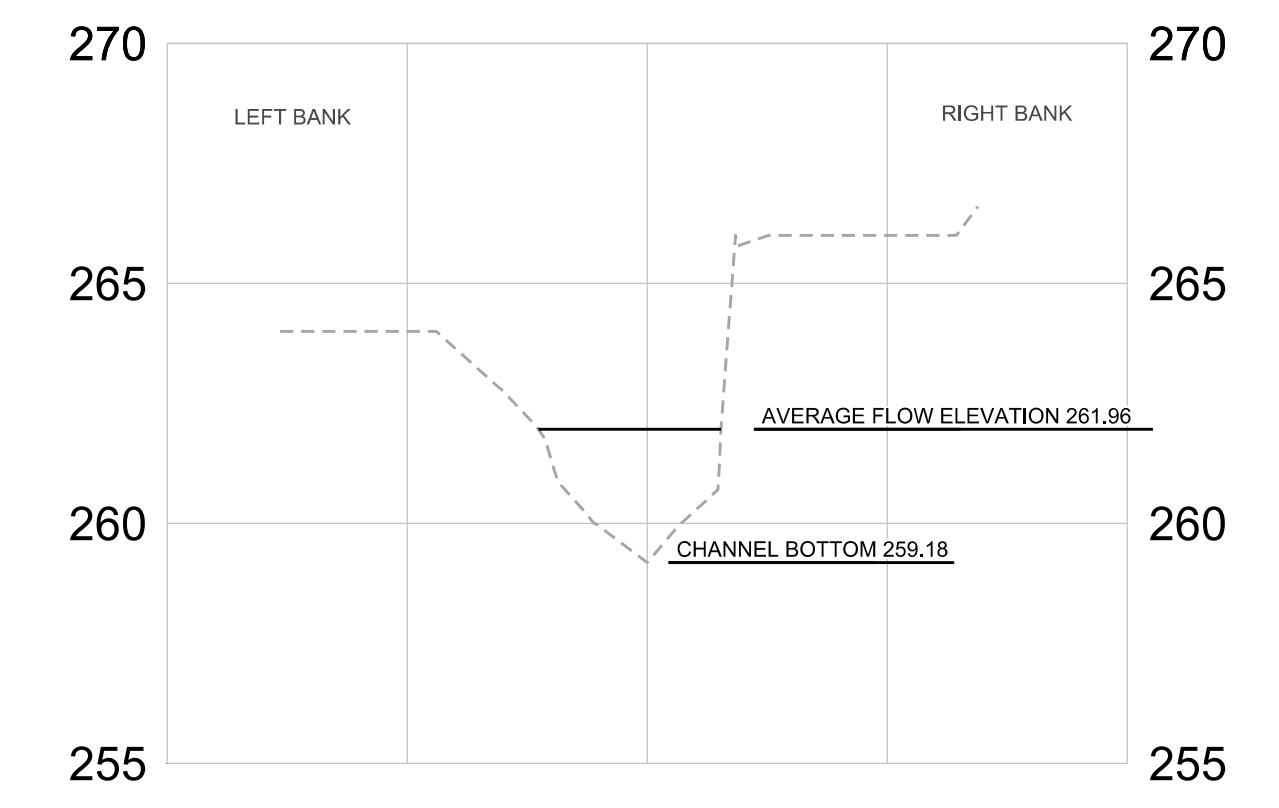


**LEGEND**

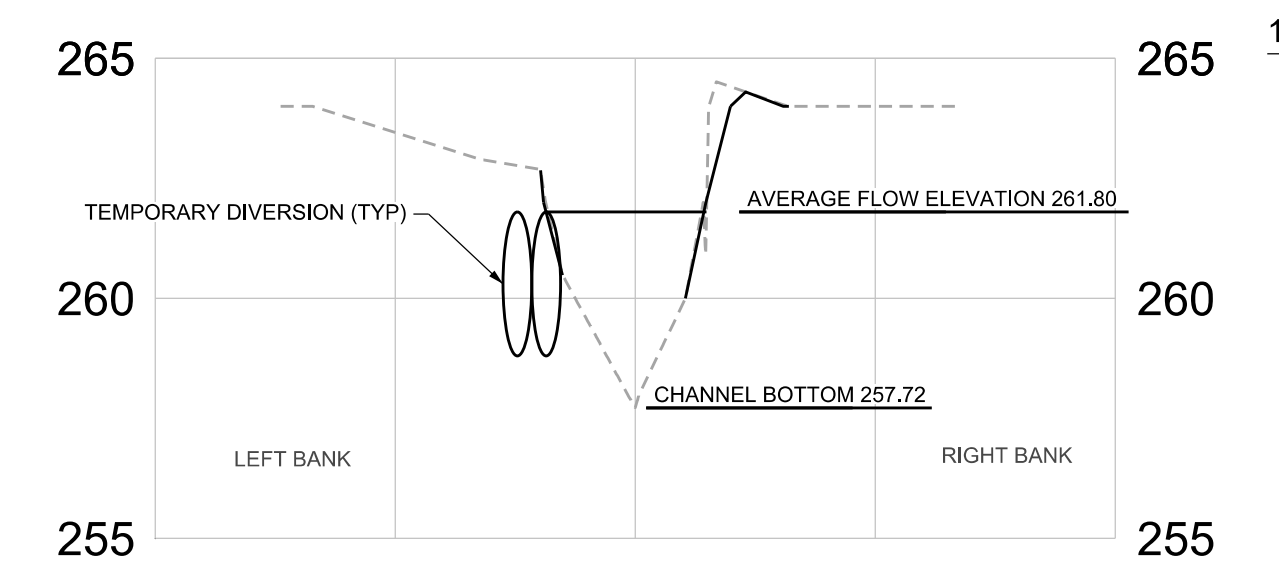
EX STREAMBED	
PR STREAMBED	
EARTHEN FILL	
IN-SITU SOIL	
J-HOOK VANE	
COIR LOG	
SPOT ELEVATION	
BRUSH PACKING	
RIPARIAN RESTORATION	

**CONSTRUCTION NOTES:**

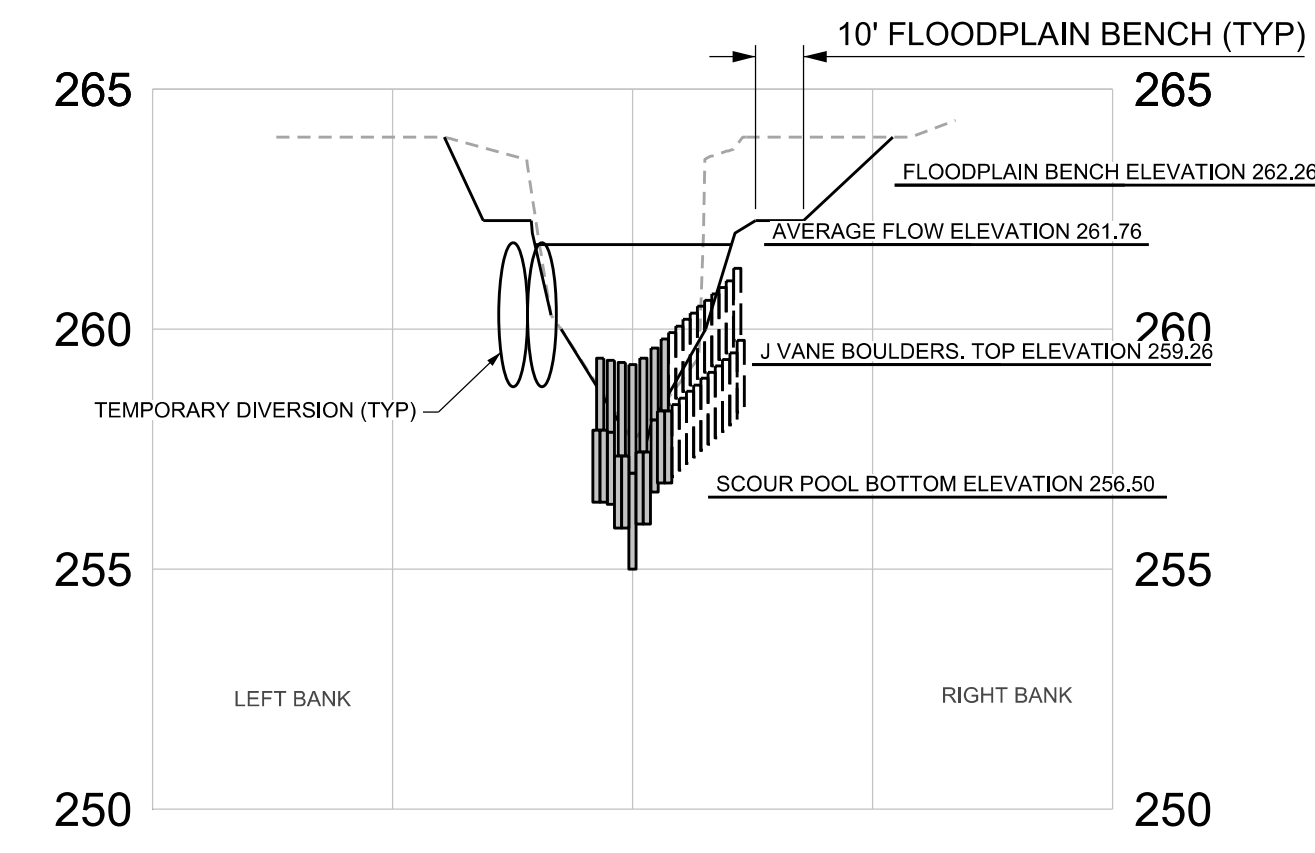
- DIVERSION PIPES TO BE BACKFILLED AND STABILIZED PRIOR TO CONSTRUCTION TRAFFIC TRAVERSING. DIVERSION PIPES TO BE RATED FOR TRAFFIC LOADING OR PLATED TO PREVENT CRUSHING.
- HEIGHT OF DIVERSION WALL TO MAINTAIN 6" OF FREEBOARD DURING ACTIVE FLOWS. IF NECESSARY, INCREASE HEIGHT PER SPECIFICATIONS AND DETAIL ON SHEET C-5.



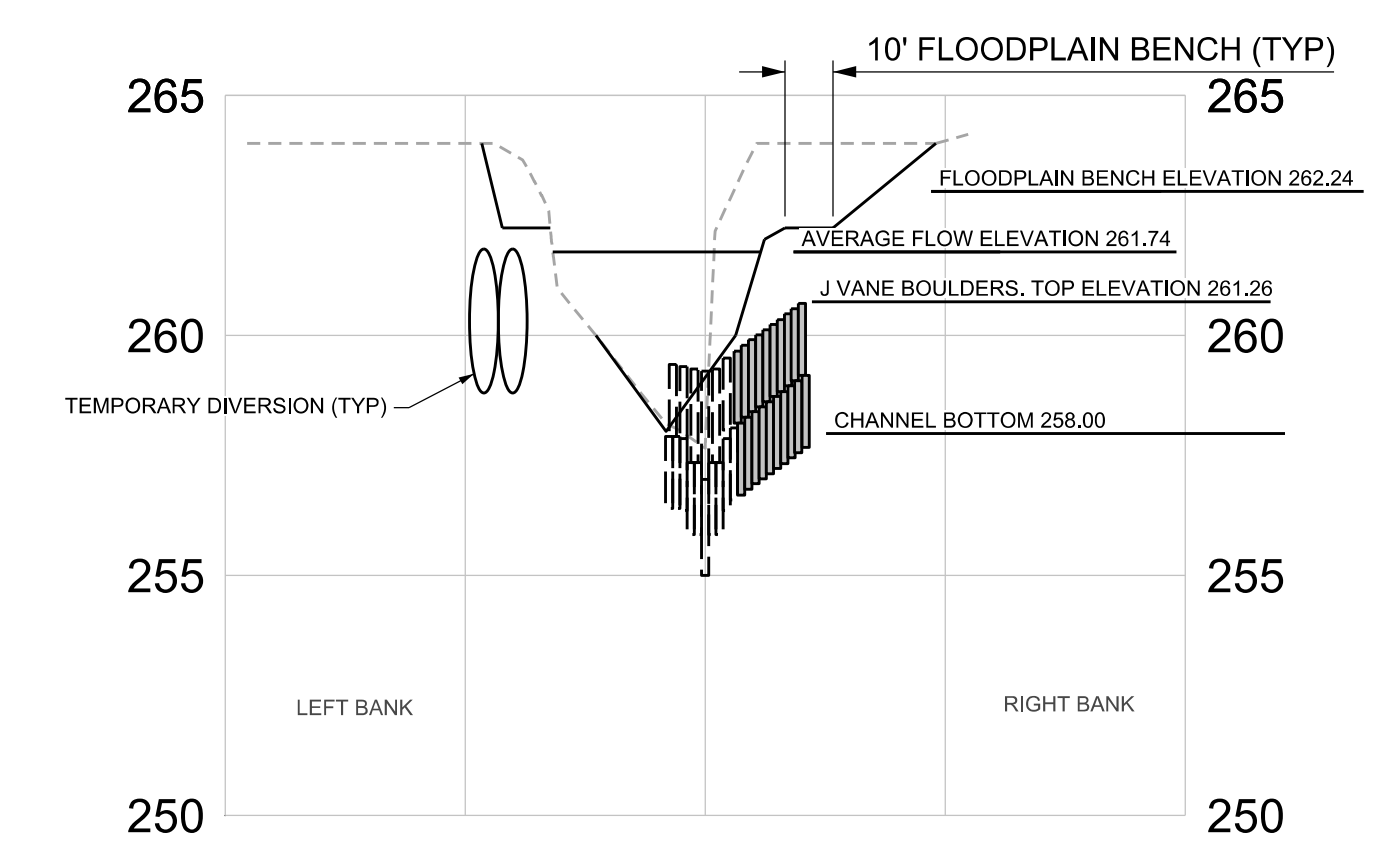
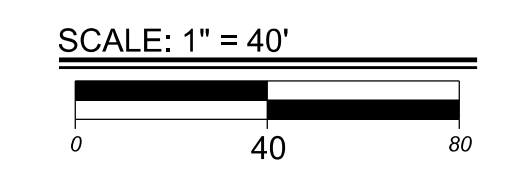
**A**  
C-4  
SECTION A, STATION 1+00  
1"=40' - HORIZONTAL SCALE  
1"=4' - VERTICAL SCALE



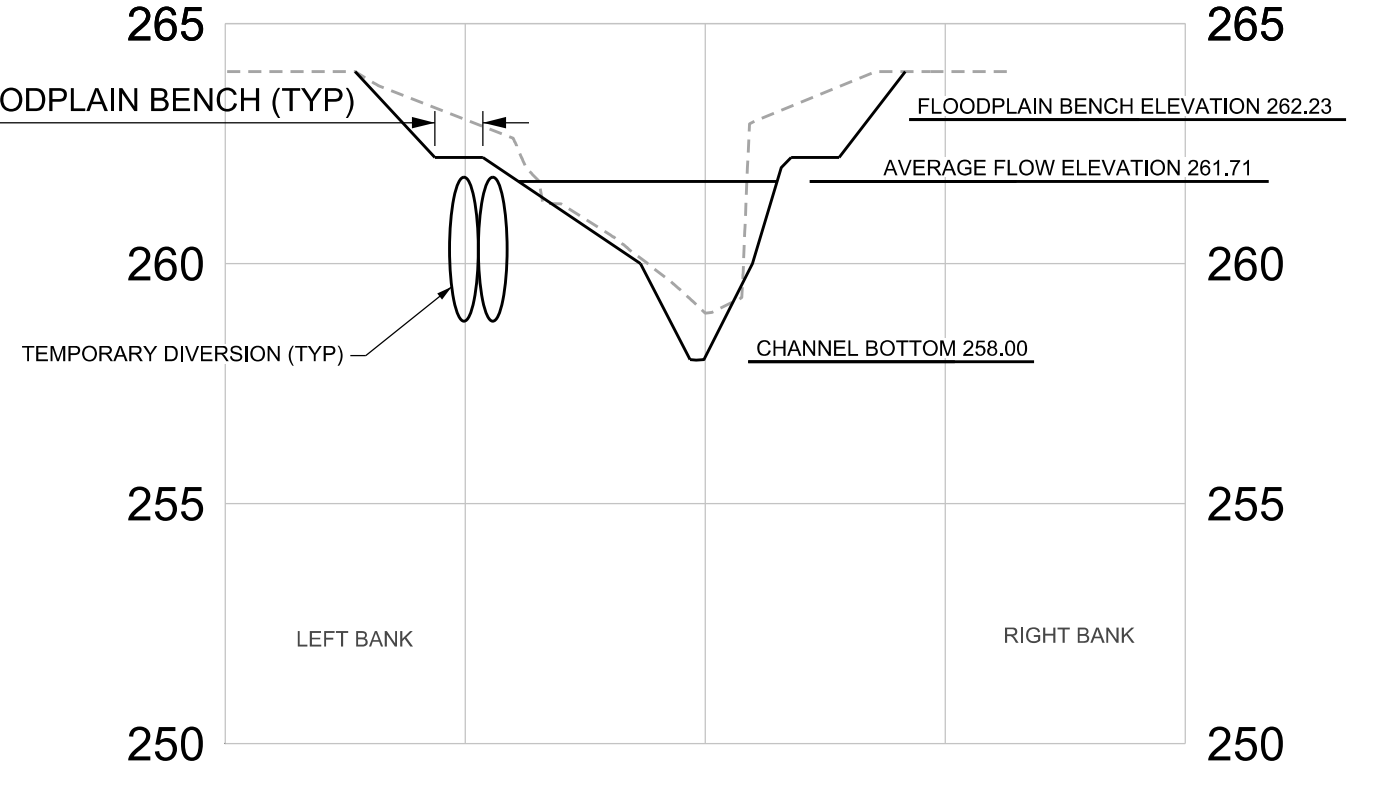
**B**  
C-4  
SECTION B, STATION 1+75  
1"=40' - HORIZONTAL SCALE  
1"=4' - VERTICAL SCALE



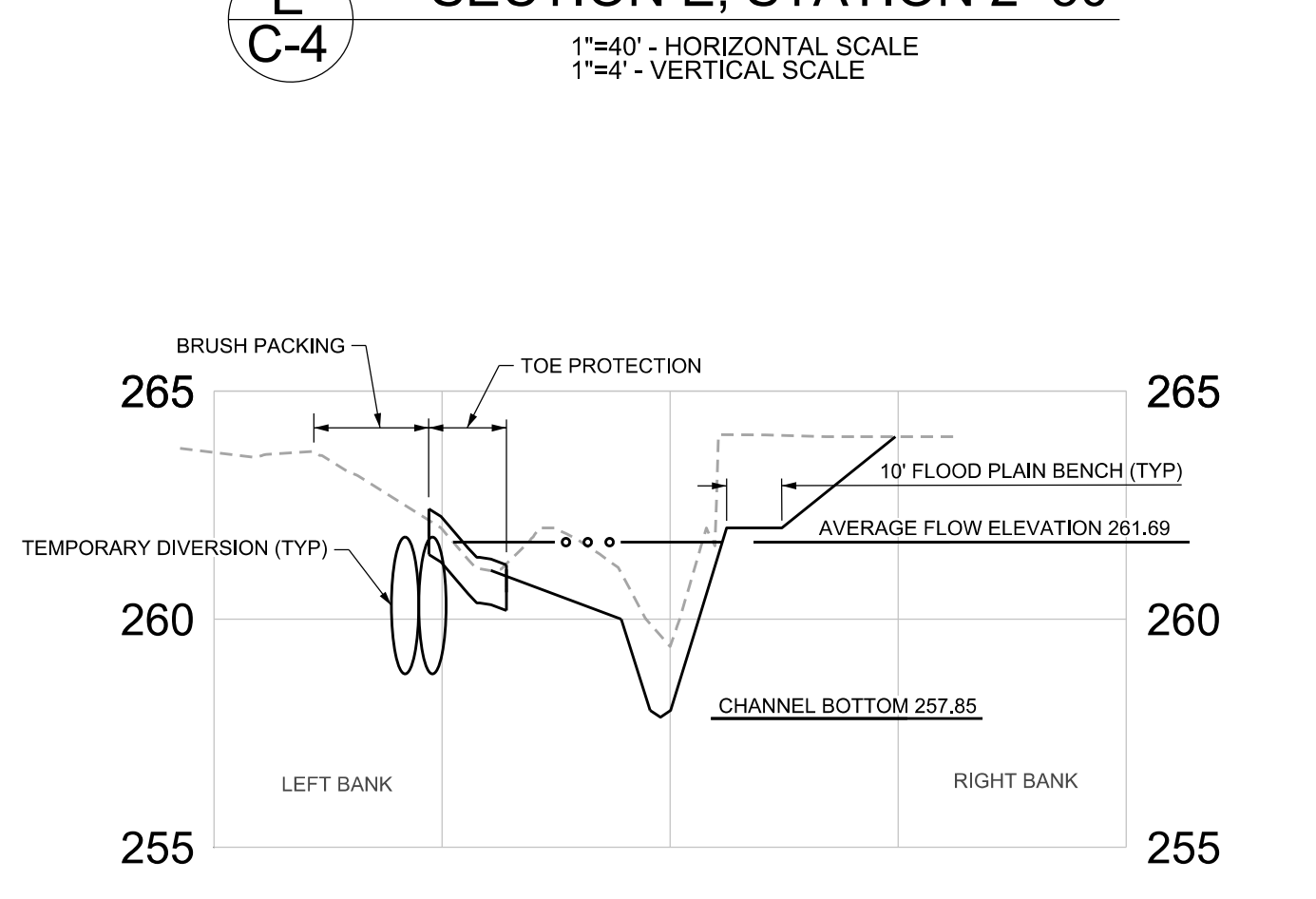
**C**  
C-4  
SECTION C, STATION 2+00  
1"=40' - HORIZONTAL SCALE  
1"=4' - VERTICAL SCALE



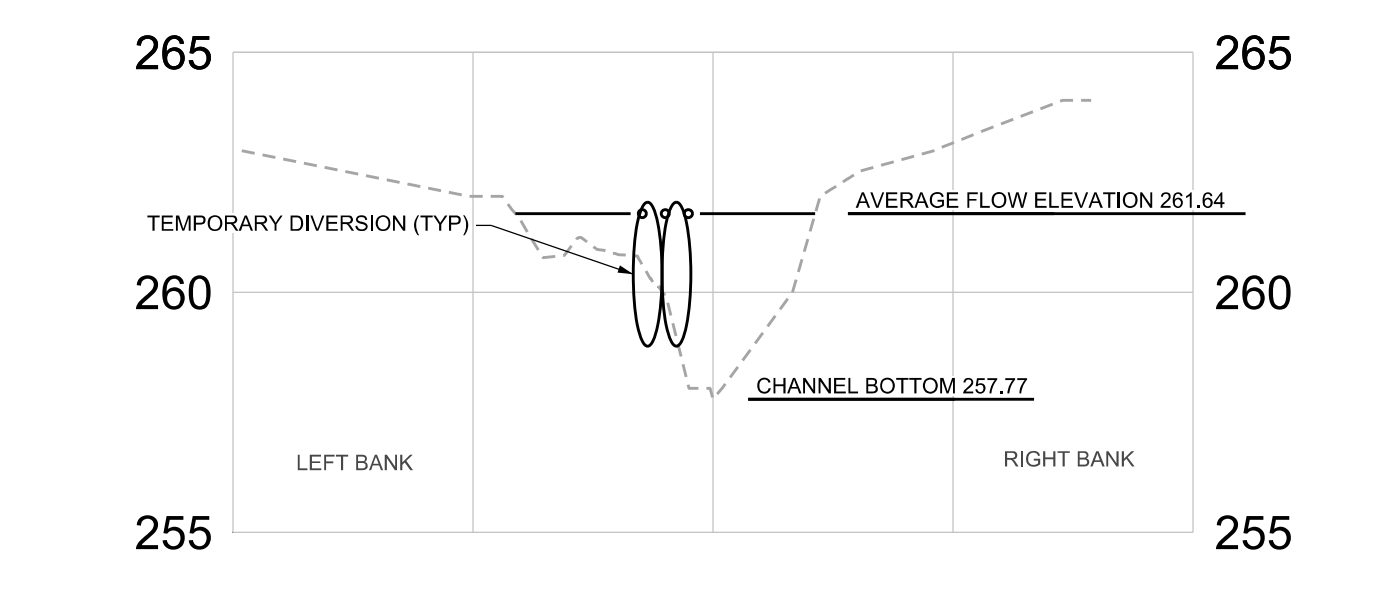
**D**  
C-4  
SECTION D, STATION 2+25  
1"=40' - HORIZONTAL SCALE  
1"=4' - VERTICAL SCALE



**E**  
C-4  
SECTION E, STATION 2+50  
1"=40' - HORIZONTAL SCALE  
1"=4' - VERTICAL SCALE



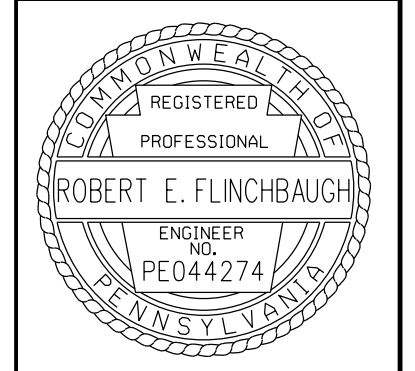
**F**  
C-4  
SECTION F, STATION 2+75  
1"=40' - HORIZONTAL SCALE  
1"=4' - VERTICAL SCALE



**G**  
C-4  
SECTION G, STATION 3+00  
1"=40' - HORIZONTAL SCALE  
1"=4' - VERTICAL SCALE

DATE:	07/19/22
REVISIONS:	
COMMENT:	MCCD REVIEW LETTER DATED 03/14/22
MARK:	1

**CEG CEDARVILLE**  
 CIVIL ENGINEERING • ENVIRONMENTAL SERVICES  
 SURVEYING • CONSTRUCTION  
 159 East High Street, Suite #500 | Pottstown, PA 19464  
 610.705.4500 (Office) | 610.705.4900 (Fax)



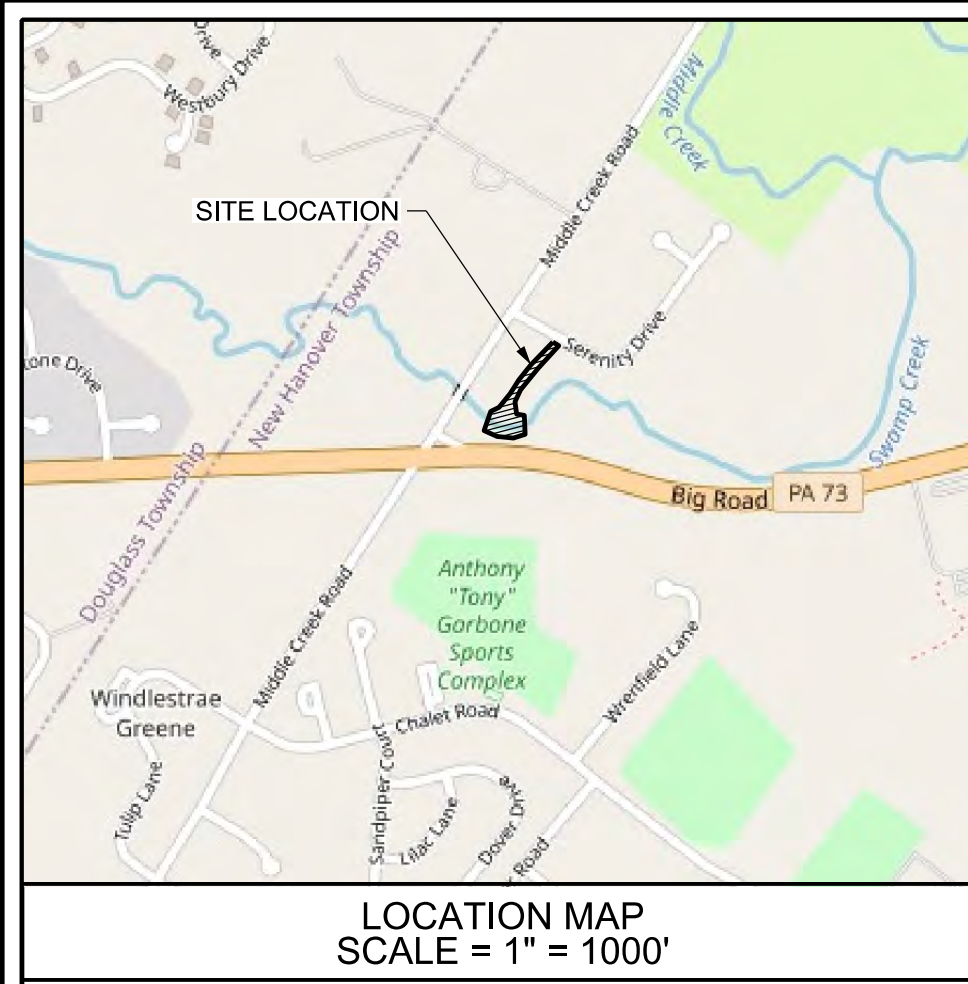
SITING IN  
 NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA  
 STREAM PROFILE AND SECTIONS PLAN  
 PREPARED FOR  
 NEW HANOVER TOWNSHIP  
 PROJECT NAME  
 SWAMP CREEK STREAM RESTORATION

DESIGNED BY:	xxx/xxx
DRAWN BY:	MJC/MMG
CHECKED BY:	BMF
PROJECT NO.:	NHT-21-205
DATE:	01/12/2021
SCALE:	AS NOTED

SHEET 4 OF 9

**C-4**

P:\Design\NHT-21-205\_Swamp\_Creek\_Stream\_Restoration\Drawings\Plan\Stream\SheetC-4.dwg 12/14/2021 10:56:40 AM



- GENERAL NOTES:**
1. A WETLAND DELINEATION WAS PERFORMED BY CEDARVILLE ENGINEERING GROUP, LLC ON JANUARY 16 AND AUGUST 18, 2021. NO WETLANDS WERE IDENTIFIED WITHIN THE AREA OF INVESTIGATION AND LIMITS OF DISTURBANCE AS SHOWN.
  2. TREE PROTECTION SHALL BE PLACED AROUND ALL AREAS OF TREES TO BE PRESERVED ADJACENT TO THE LIMITS OF DISTURBANCE (LOD).
  3. CONTRACTOR TO PROVIDE TREE PROTECTION FENCING AROUND ALL TREES TO BE PRESERVED WITHIN OR UP AGAINST THE LOD.
  4. STABILIZED TEMPORARY ACCESS PATH TO FOLLOW EXISTING FOOTPATH AND MINIMIZE CLEARING AND GRUBBING.
  5. THE ENTIRE LIMITS OF DISTURBANCE AREA, EXCEPTING THE STREAM CHANNEL, TO BE RESTORED IN ACCORDANCE WITH RESTORATION SPECIFICATIONS AND EROSION CONTROL BLANKETS.
  6. TREE PROTECTION FENCING SHALL BE PLACED AROUND ALL AREAS OF TREES TO BE PRESERVED ADJACENT TO THE LIMITS OF DISTURBANCE(LOD).
  7. DIVERSION PIPES TO BE BACKFILLED AND STABILIZED PRIOR TO CONSTRUCTION TRAFFIC TRAVERSING. DIVERSION PIPES TO BE RATED FOR TRAFFIC LOADING OR PLATED TO PREVENT CRUSHING.

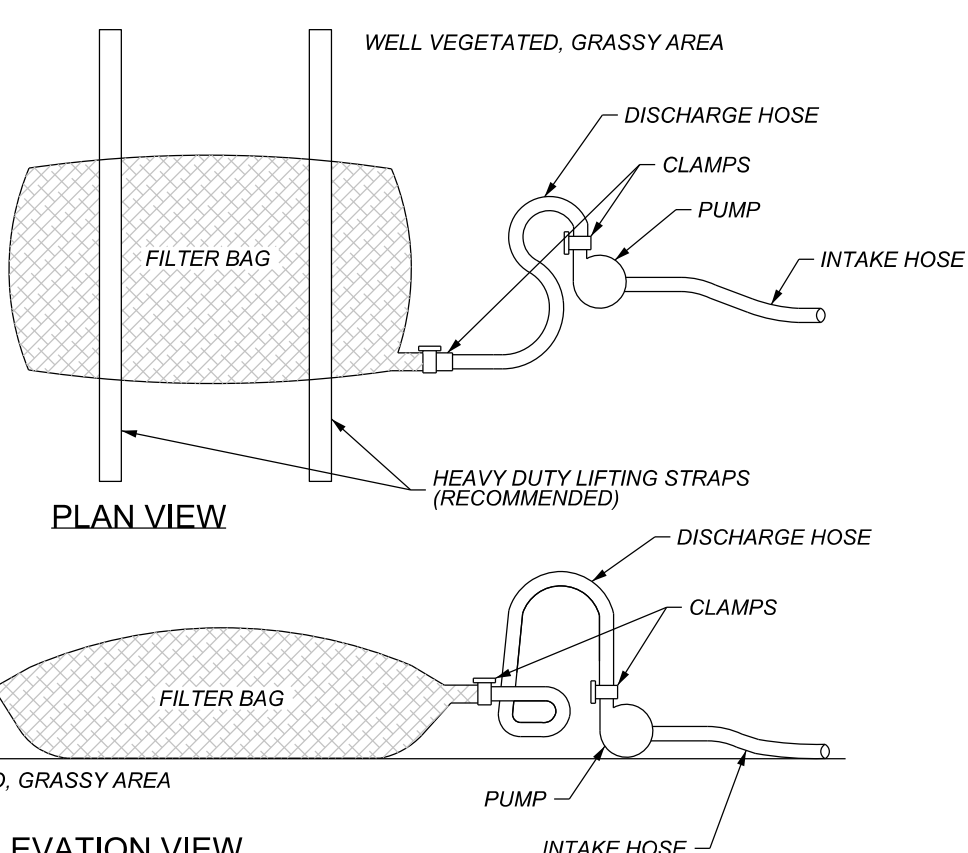
SOIL UNIT	SOIL TYPE	DEPTH OF RESTRICTIVE FEATURE	DEPTH TO WATER TABLE	SLOPE	HYDROLOGIC SOIL GROUP	HYDROLOGIC SOIL RATING
Bo	BOWMANVILLE-KNAUERS SILT-LOAM	72 TO 99 INCHES TO LITHIC BEDROCK	0 TO 18 INCHES	0-3%	C/D	YES

**MAXIMUM BULK DENSITIES**

SOIL TEXTURE	MAXIMUM BULK DENSITIES (G/CM <sup>3</sup> )
SANDS, LOAMY SANDS	1.60
SANDY LOAMS, LOAMS	1.40
SANDY CLAY LOAMS, LOAMS, CLAY LOAMS	1.40
SILT, SILT LOAMS	1.30
SILT LOAMS, SILTY CLAY LOAMS	1.10
SANDY CLAYS, SILTY CLAYS, SOME CLAY LOAMS (35-45% CLAY)	1.10
CLAYS (>45% CLAY)	1.10

- NOTES:**
1. ON-SITE TOPSOIL WITH AN ORGANIC CONTENT OF AT LEAST 4 PERCENT CAN BE PROPERLY STOCKPILED (TO MAINTAIN ORGANIC CONTENT) AND REUSED.
  2. COMPOST DERIVED FROM OR OBTAINED FROM MUSHROOM GROWING OPERATIONS SHALL BE AGED AT LEAST 7 YEARS.
  3. SUB-SOILING TO RELIEVE COMPACTION.
    - A. AFTER EXCAVATION, THE SUBSOIL SHALL BE IN A LOOSE, FRIABLE CONDITION TO A DEPTH OF 20 INCHES BELOW FINAL TOPSOIL GRADE. THERE SHALL BE NO EROSION RILLS OR WASHOUTS IN THE SUBSOIL SURFACE EXCEEDING 3 INCHES IN DEPTH.
    - B. TO ACHIEVE THIS CONDITION, SUBSOILING, RIPPING, OR SCARIFICATION OF THE SUBSOIL WILL BE REQUIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE. WHEREVER THE SUBSOIL HAS BEEN COMPACTED BY EQUIPMENT OPERATION OR HAS BECOME DRIED OUT AND CRUSTED, AND WHERE NECESSARY TO OBLITERATE EROSION RILLS, SUB-SOILING SHALL BE REQUIRED TO REDUCE SOIL COMPACTION IN ALL AREAS WHERE PLANT ESTABLISHMENT IS PLANNED. SUB-SOILING SHALL BE PERFORMED BEFORE COMPOST PLACEMENT.
    - C. SUBSOILED AREAS SHALL BE LOOSEN TO LESS THAN 200 PSI TO A DEPTH OF 20 INCHES BELOW FINAL TOPSOIL GRADE. WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL VERIFY THAT THE SUB-SOILING WORK CONFORMS TO THE SPECIFIED DEPTH.
    - D. SUB-SOILING SHALL FORM A TWO-DIRECTIONAL GRID. CHANNELS SHALL BE CREATED BY A COMMERCIALY AVAILABLE MULTI-SHANKED, PARALLEL-ROW IMPLEMENT (SOLID-SHANK RIPPER). THE EQUIPMENT SHALL BE CAPABLE OF EXERTING A PENETRATION FORCE NECESSARY FOR THE SITE. NO DISC CULTIVATORS, CHISEL POINTS, OR SPRING LOADED EQUIPMENT WILL BE ALLOWED. THE GRID CHANNELS SHALL BE SPACED 36 INCHES APART, DEPENDING ON EQUIPMENT, SITE CONDITIONS, AND THE SOIL MANAGEMENT PLAN. THE CHANNEL DEPTH SHALL BE A MINIMUM OF 20 INCHES OR AS SPECIFIED IN THE SOIL MANAGEMENT PLAN.
    - E. LEVEL SUB-SOILED AREAS BY USE OF A YORK RAKE.
    - F. IF SOILS ARE SATURATED, THE CONTRACTOR SHALL DELAY OPERATIONS UNTIL THE SOIL WILL NOT HOLD A BALL WHEN SOULCEED. ONLY ONE PASS SHALL BE PERFORMED ON PROBLEME SLOPES GREATER THAN 3:1. WHEN ONLY ONE PASS IS USED (AND AS DIRECTED BY THE ENGINEER), WORK SHOULD BE DONE AT RIGHT ANGLES TO THE DIRECTION OF SURFACE DRAINAGE, WHENEVER PRACTICAL.
    - G. EXCEPTIONS TO SUBSOILING INCLUDE AREAS WITHIN THE DRIP LINE OF ANY EXISTING TREES, OVER UTILITY INSTALLATIONS WITHIN 30 INCHES OF THE SURFACE, WHERE TRENCHING/DRAINAGE LINES ARE INSTALLED, WHERE COMPACTION IS BY SPECIFIED ADJUSTMENTS, FOOTINGS, OR IN SLOPES) AND ON INACCESSIBLE SLOPES, AS APPROVED BY THE OWNER'S REPRESENTATIVE.
  2. FINAL AMENDED SOIL QUALITY:
    - A. ORGANIC CONTENT (BY VOLUME) - 8 TO 13%
    - B. FINAL BULK DENSITIES SHALL MEET REQUIREMENTS LISTED ABOVE.
- SOIL AMENDMENT & RESTORATION CONSTRUCTION SEQUENCE:**
1. ALL OTHER CONSTRUCTION WITHIN THE TRIBUTARY AREA TO THE AREA TO BE AMENDED SHALL BE COMPLETED AND STABILIZED BEFORE BEGINNING SOIL RESTORATION.
  2. INITIAL SOIL DISTURBANCE - FOR HIGHLY COMPACTED SITE, PERFORMED WITH EQUIPMENT AS SPECIFIED ABOVE.
  3. UNIFORM BREAK-UP SUBSOIL - AS SPECIFIED ABOVE.
  4. ROCK REMOVAL - PERFORMED WITH A MECHANICAL PICKER.
  5. DISTRIBUTION OF IMPORTED MATERIAL - SPREAD MAXIMUM OF 1 INCH (ADJUST DEPTH OF COMPOST APPLIED TO ACHIEVE FINAL SAND INTO TOPSOIL WITH A ROTARY TILER THAT IS SET TO A DEPTH OF 8 INCHES.
  6. LINE AND FERTILIZER APPLICATION - AS DETERMINED BY SOIL TESTING.
  7. SOIL INTEGRATION - 2 PASSES WITH ROTOTILER IN PERPENDICULAR DIRECTIONS.
  8. GRADING AND ROLLING - TO ACHIEVE A SMOOTH SURFACE.
  9. SEED - AS DIRECTED IN SEEDING SPECIFICATIONS - USE OF HYDROSEED IS ACCEPTABLE.

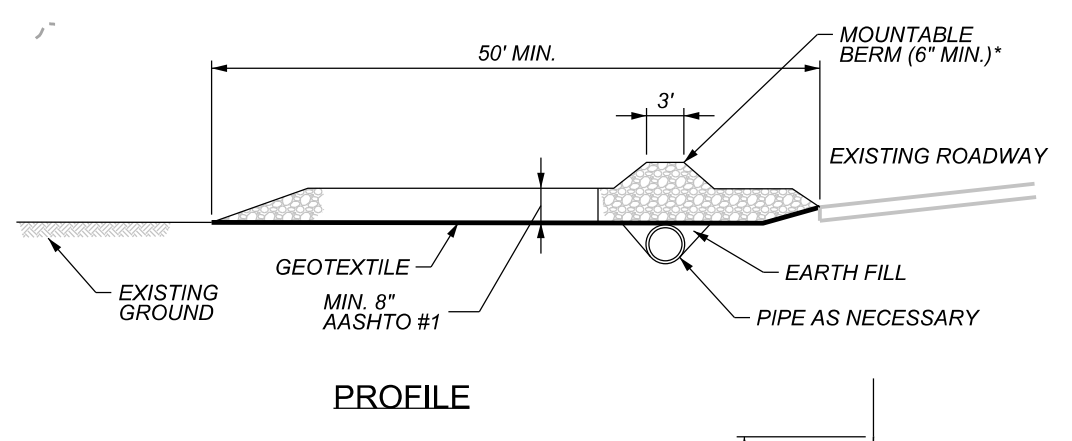
**SOIL AMENDMENT & RESTORATION**  
NOT TO SCALE



- NOTES:**
- LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "I" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 100 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4633	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

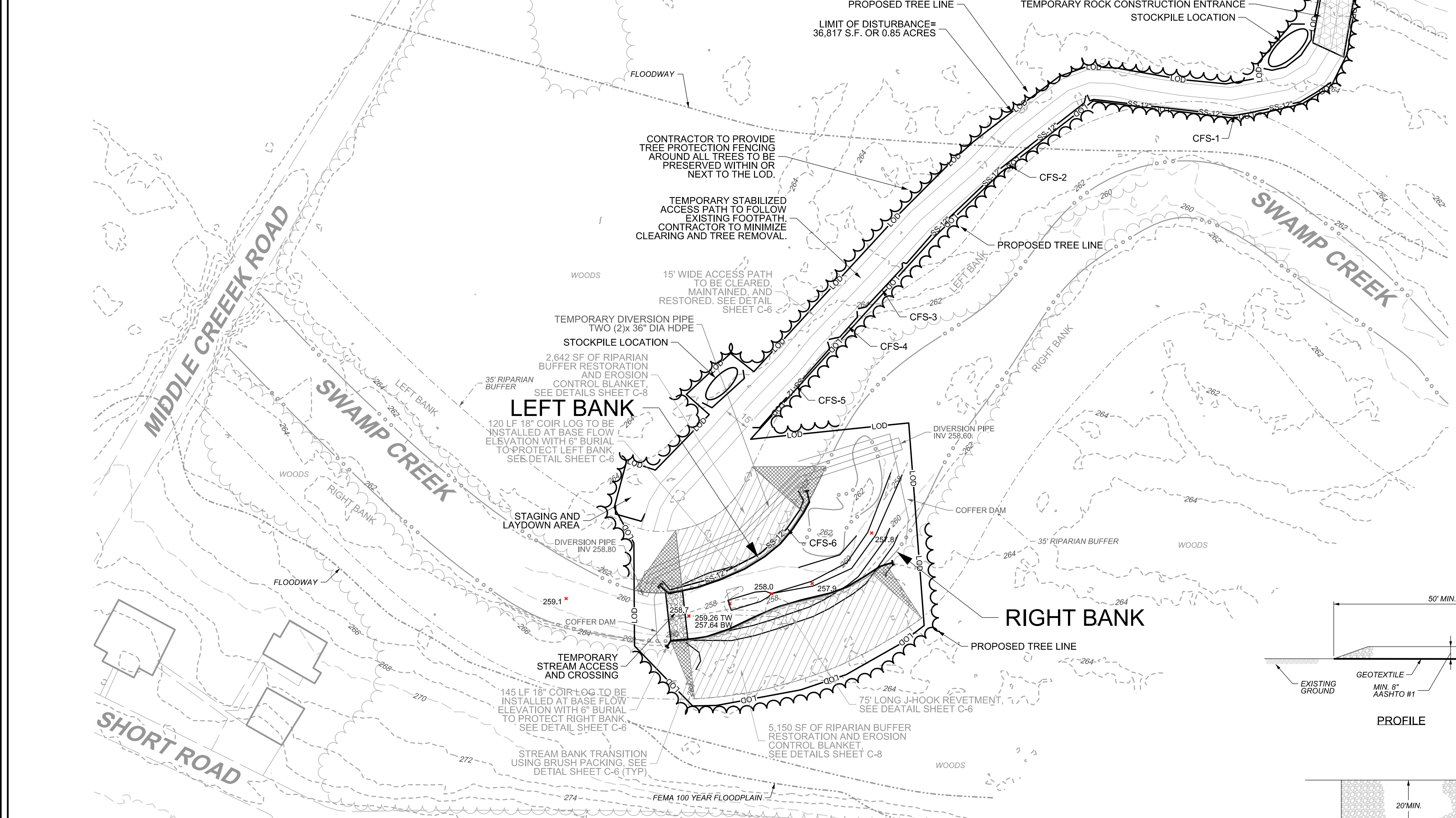
- A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL, UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
- BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%. CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
- NO DOWNSLOPE SEDIMENT BARRIERS IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HO OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
- THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
- THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.
- FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



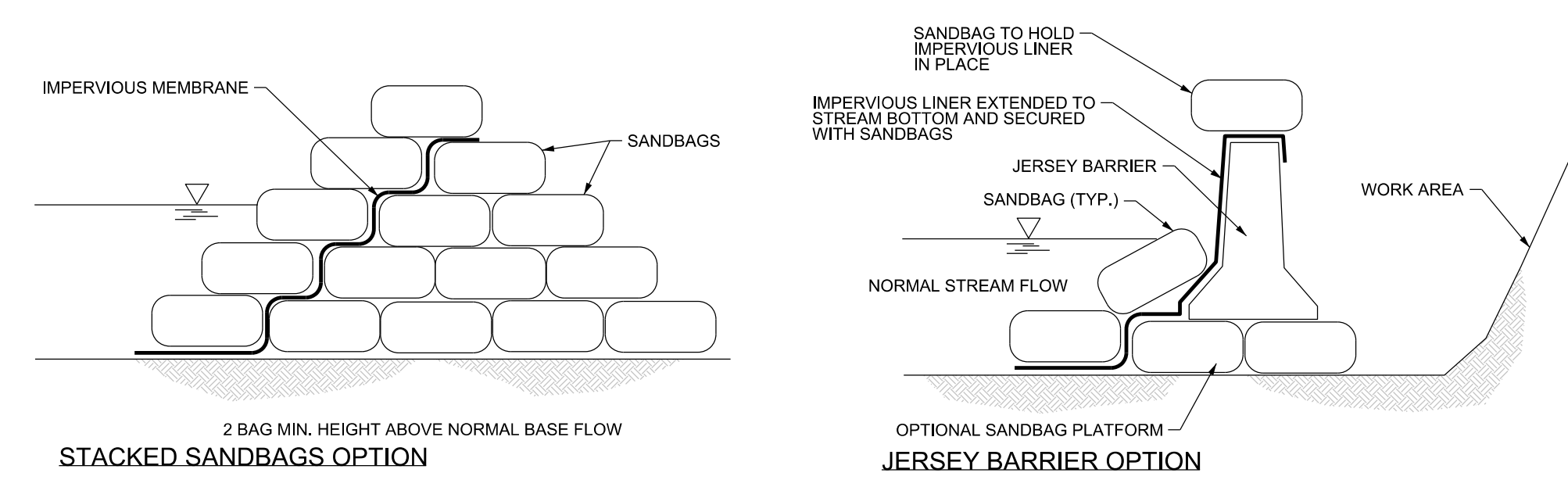
- NOTES:**
- REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
  - RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
  - MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
  - MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE. FOR THIS PURPOSE, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

**STANDARD CONSTRUCTION DETAIL #3-1**  
ROCK CONSTRUCTION ENTRANCE  
NOT TO SCALE

**STANDARD CONSTRUCTION DETAIL #3-16**  
PUMPED WATER FILTER BAG  
NOT TO SCALE



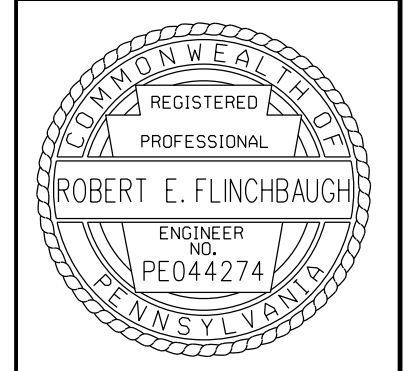
- LEGEND:**
- EXISTING CONTOUR
  - 100-YEAR FLOODPLAIN
  - FLOODWAY
  - APPROXIMATE TOP OF BANK
  - 35-FOOT RIPARIAN BUFFER
  - EDGE OF TREES
  - PROPOSED CONTOUR
  - STREAMBANK ARMORING
  - J-HOOK
  - FLOODPLAIN BENCH AND RIPARIAN BUFFER RESTORATION
  - FOOTPATH
  - LIMIT OF DISTURBANCE
  - PROPOSED TREELINE
  - COMPOST FILTER SOCK
  - COIR LOG
  - ROCK CONSTRUCTION ENTRANCE



**SANDBAG DIVERSION DAM OR COFFERDAM**  
NOT TO SCALE

**CEG CEDARVILLE**  
CIVIL ENGINEERING • ENVIRONMENTAL SERVICES  
• SURVEYING • CONSTRUCTION

159 East High Street, Suite #500 | Pottstown, PA 19464  
610.705.4500 (Office) | 610.705.4900 (Fax)



SITING IN  
NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

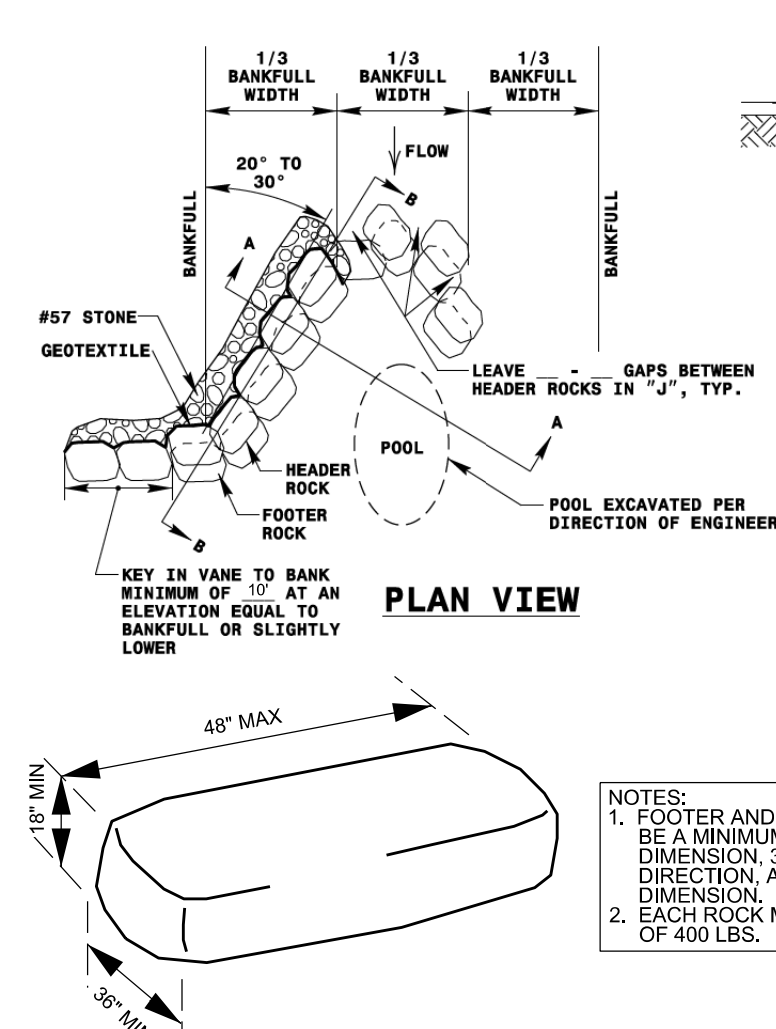
**EROSION AND SEDIMENT CONTROL PLAN**

PROJECT NAME  
NEW HANOVER TOWNSHIP  
SWAMP CREEK STREAM RESTORATION

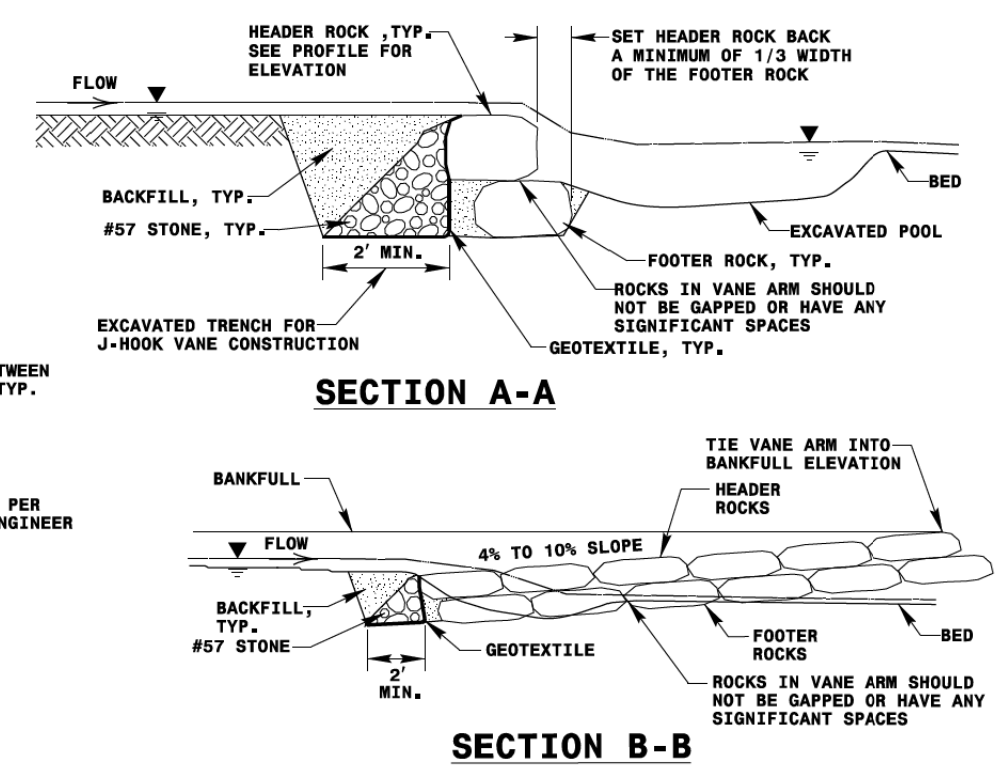
DESIGNED BY: XXX/XXX  
DRAWN BY: MJC/MMG  
CHECKED BY: BMF  
PROJECT NO: NHT-21-205  
DATE: 01/12/2021  
SCALE: 1"=40'

Underground Service Alert  
Call: TOLL FREE  
1-800-242-1776  
THREE WORKING DAYS BEFORE YOU DIG

SCALE: 1" = 40'  
0 40 80



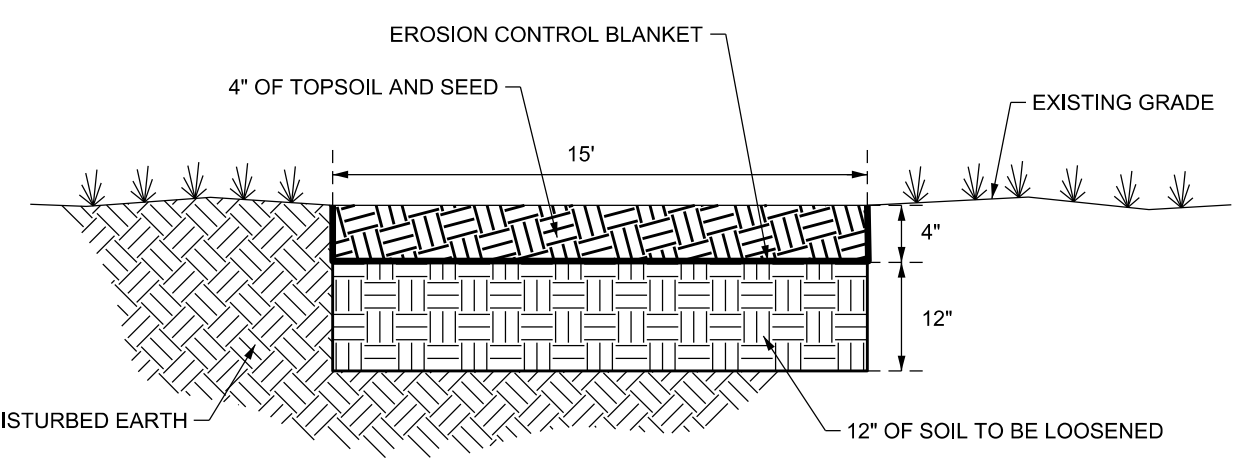
FOOTER/HEADER ROCK



NOTES:  
 1. FOOTER AND HEADER ROCKS MUST BE A MINIMUM OF 12" IN ONE DIMENSION, 36" IN ANOTHER DIRECTION, AND 48" IN THE LONGEST DIMENSION.  
 2. EACH ROCK MUST WEIGH A MINIMUM OF 400 LBS.

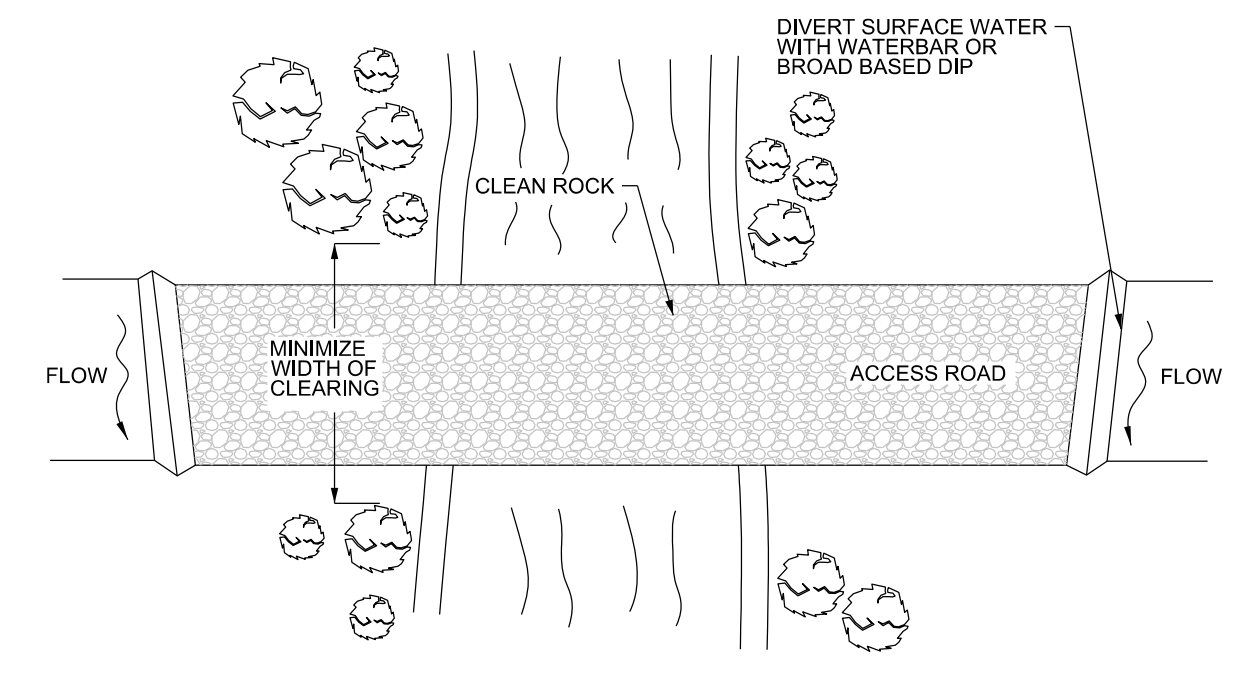
NOTES:  
 1. DEEPEST PART OF POOL TO BE IN LINE WITH WHERE VANE ARM TIES INTO BANKFULL.  
 2. DO NOT EXCAVATE POOL TOO CLOSE TO FOOTER BOULDERS BETWEEN HEADERS AND FOOTERS.  
 3. CLASS "A" STONE CAN BE USED TO REDUCE VOIDS BETWEEN HEADERS AND FOOTERS.  
 4. COMPACT BACKFILL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.  
 5. POOL DEPTH SHOULD BE 2 TO 3 TIMES BANKFULL DEPTH.

J-HOOK VANE DETAIL



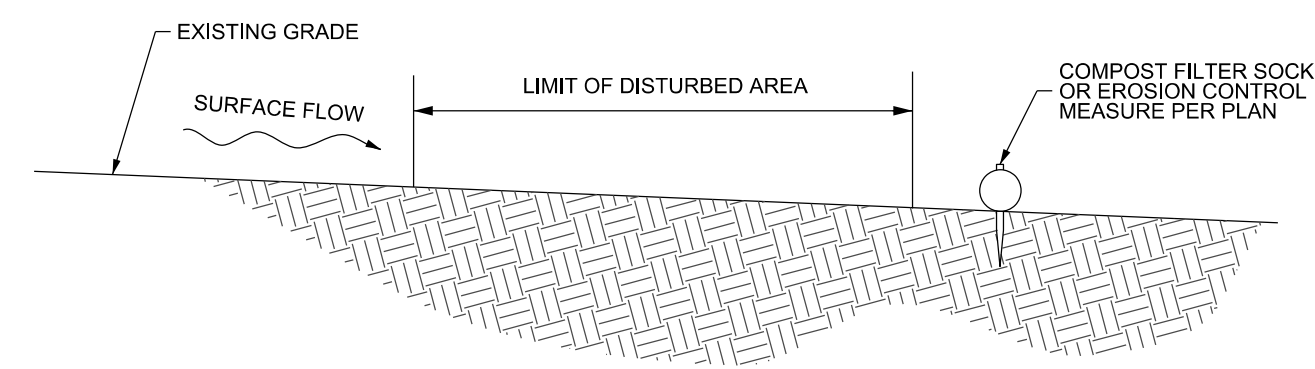
NOTE: ALL DISTURBED ACCESS AREAS TO BE RESTORED

ACCESS PATH RESTORATION



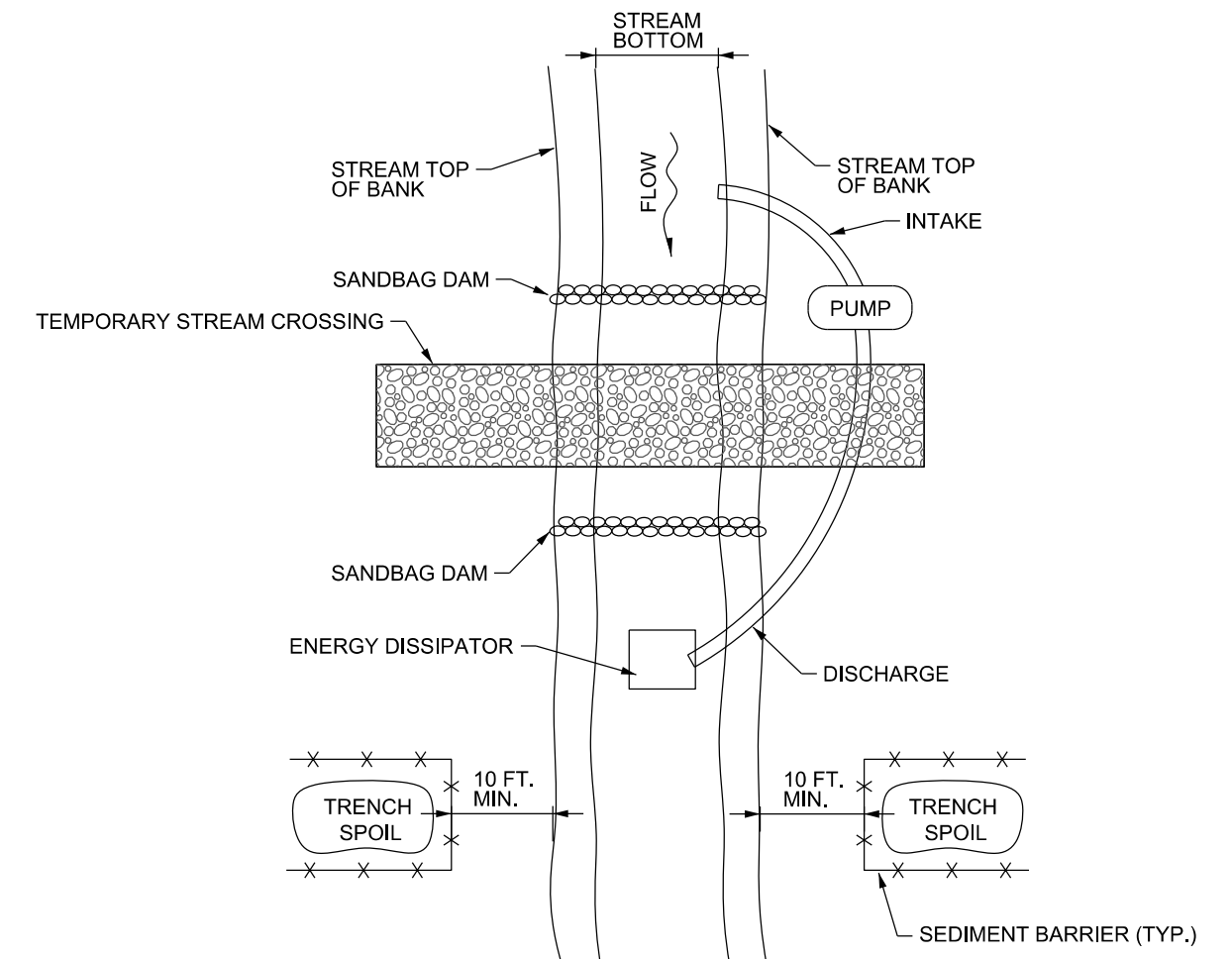
NOTES:  
 WATERBARS AND BROAD-BASED DIPS SHALL DISCHARGE TO SEDIMENT REMOVAL FACILITY.  
 CLEAN ROCK SHALL CONFORM TO CHAPTER 105 PERMITTING REQUIREMENTS.  
 FOLLOW PERMIT CONDITIONS REGARDING REMOVAL OF CROSSING.

TEMPORARY STREAM CROSSING - PLAN VIEW



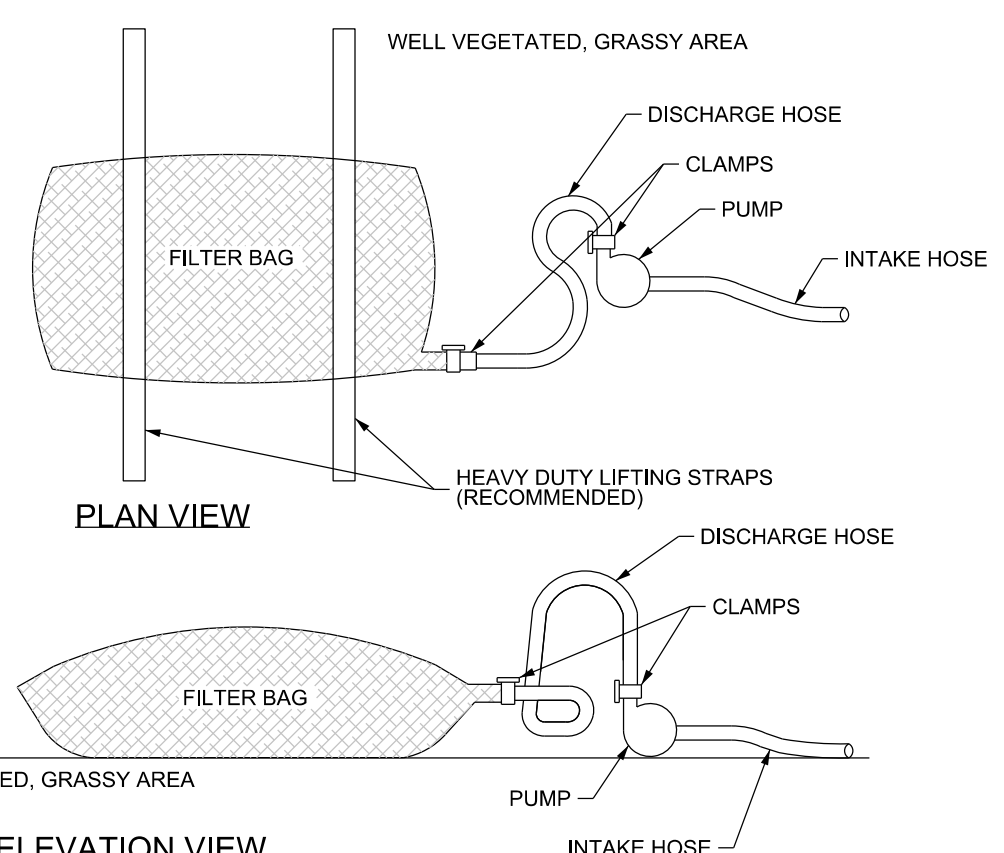
NOTE:  
 1. RUTTED OR ALTERED GRADES THAT PREVENT RUN-OFF AND CAUSE PONDING TO BE GRADED AND RESTORED TO EXISTING GRADE AT THE END OF EACH WEEK AND PRIOR TO RAIN EVENTS.  
 2. ACCESS PATH SHALL NOT PREVENT OR BLOCK STORM WATER RUN-OFF.  
 3. IF DISTURBED AREA CONTINUALLY PREVENTS ACCESS OR CAUSES SILTATION TO BUILD UP AT DOWNSTREAM E&S MEASURE, CONTRACTOR SHALL USE MULCH, REINFORCEMENT MATS, OR GROUND MATS TO STABILIZE THE AREA.

STABILIZED TEMPORARY ACCESS PATH



NOTES:  
 GRUBBING SHALL NOT TAKE PLACE WITHIN 50 FEET OF TOP-OF-BANK UNTIL ALL MATERIALS REQUIRED TO COMPLETE CROSSING ARE ON SITE AND PIPE IS READY FOR INSTALLATION.  
 BYPASS PUMP INTAKE SHALL BE MAINTAINED A SUFFICIENT DISTANCE FROM THE BOTTOM TO PREVENT PUMPING OF CHANNEL BOTTOM MATERIALS.  
 TRENCH PLUGS SHALL BE INSTALLED WITHIN THE TRENCH ON BOTH SIDES OF THE STREAM CHANNEL (STANDARD CONSTRUCTION DETAIL #13-4).  
 HAZARDOUS OR POLLUTANT MATERIAL STORAGE AREAS SHALL BE LOCATED AT LEAST 100 FEET BACK FROM THE TOP OF STREAMBANK.  
 ALL EXCESS EXCAVATED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE STREAM CROSSING AREA.  
 ALL DISTURBED AREAS WITHIN 50 FEET OF TOP-OF-BANK SHALL BE BLANKETED OR MATTED WITHIN 24 HOURS OF INITIAL DISTURBANCE FOR MINOR STREAMS OR 48 HOURS OF INITIAL DISTURBANCE FOR MAJOR STREAMS UNLESS OTHERWISE AUTHORIZED.  
 APPROPRIATE STREAMBANK PROTECTION SHALL BE PROVIDED WITHIN THE CHANNEL.

TYPICAL STREAM CROSSING WITH PUMP BYPASS

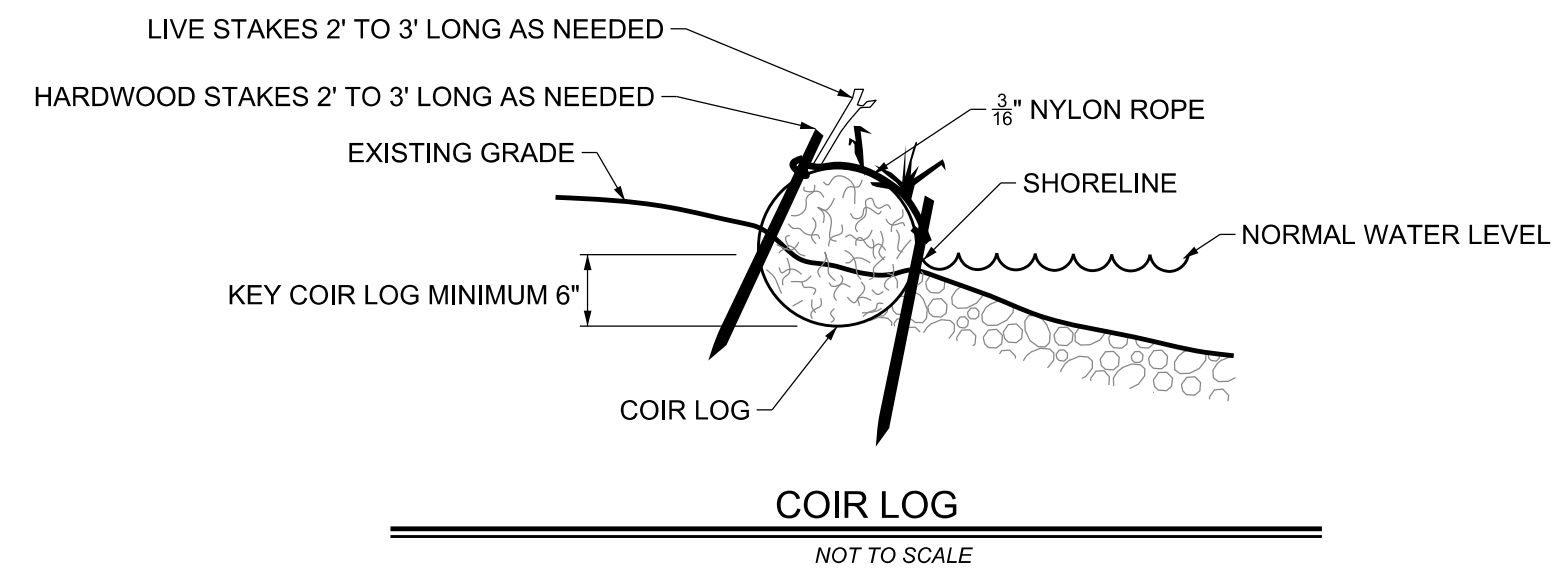


NOTES:  
 LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "P" TYPE SEAMS, THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

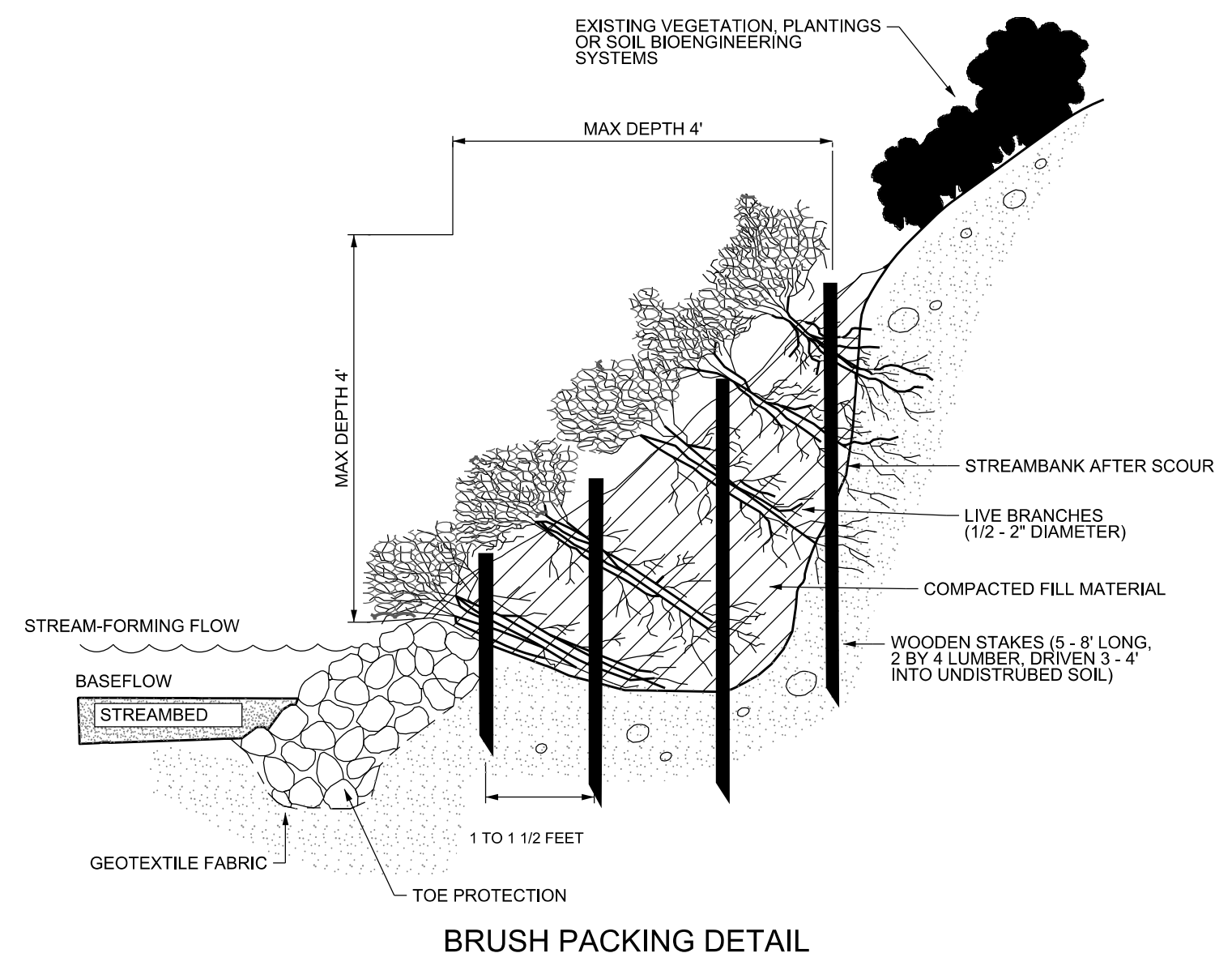
PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.  
 BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.  
 NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS, COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.  
 THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.  
 THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.  
 FILTER BAGS SHALL BE INSPECTED DAILY, IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

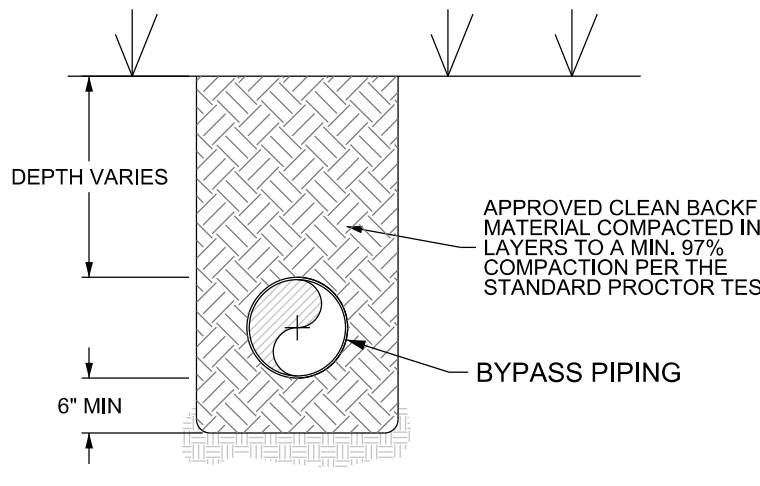
STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG



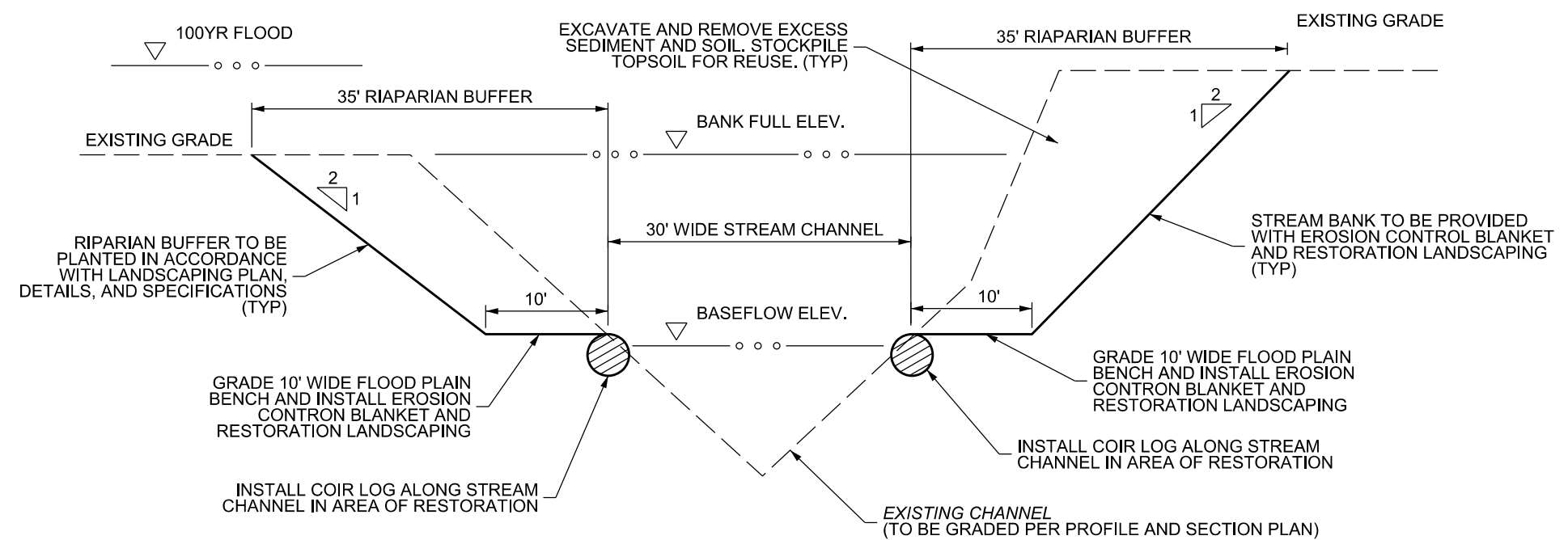
COIR LOG



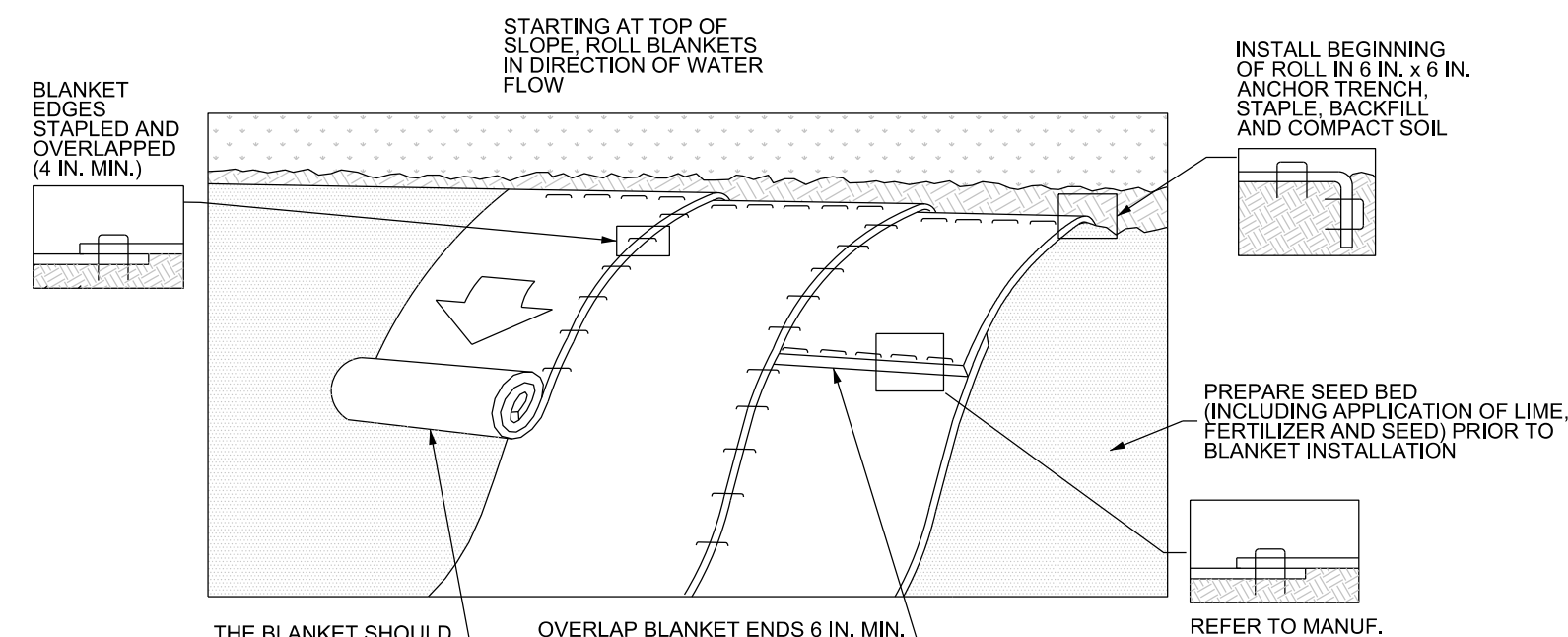
BRUSH PACKING DETAIL



BYPASS PIPE BACKFILL



STREAM RESTORATION DETAIL



NOTES:  
 SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.  
 PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.  
 SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.  
 BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.  
 THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.  
 BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION

DATE:	07/19/22
REVISIONS:	
COMMENT:	MCCD REVIEW LETTER DATED 03/14/22
MARK:	

**CEG CEDARVILLE**  
 CIVIL ENGINEERING • ENVIRONMENTAL SERVICES  
 • SURVEYING • CONSTRUCTION  
 159 East High Street, Suite #500 | Pottstown, PA 19464  
 610.705.4500 (Office) | 610.705.4900 (Fax)

PROFESSIONAL REGISTERED ENGINEER  
 ROBERT E. FLINCHBAUGH  
 PE044274  
 PENNSYLVANIA

SITING IN  
 NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA  
 PREPARED FOR  
 EROSION & SEDIMENT CONTROL NOTES/DETAILS-1  
 PROJECT NAME  
 NEW HANOVER TOWNSHIP  
 SWAMP CREEK STREAM RESTORATION

DESIGNED BY:	xxx/xxx
DRAWN BY:	MJC/MMG
CHECKED BY:	BMF
PROJECT NO.	NHT-21-205
DATE:	01/12/2021
SCALE:	NTS

SHEET 6 OF 9

C-6

**STANDARD EROSION AND SEDIMENT CONTROL NOTES:**

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVOKE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE AGENCIES, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND THE REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E&S PLAN.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN THE MANNER SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE REVEGETATED. STOCKPILES SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILES SHALL BE 20:1 V OR FLATER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS. ALL WASTES MUST BE PROPERLY STORED, IDENTIFIED, AND Labeled. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN AND FREE FROM FUEL OIL. FUEL OIL MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
- VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS 42-00-05022-54-5 ONTO MIDDLE CREEK ROAD OR BIG ROAD.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS, ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT OF BMPs, OR MODIFICATIONS TO THOSE INSTALLED WILL BE REQUIRED.
- A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE COLLECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- AREAS WHICH ARE TO BE TOP SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 4 INCHES TO 6 TO 8 INCHES ON COMPACTED SOILS. PRIOR TO THE APPLICATION OF TOPSOIL, AREAS TO BE VEGETATED SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHODS.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER OR AS OTHERWISE SHOWN ON PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS, DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION, CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POSITIVE CONSTRUCTION STABILIZATION BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY, IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS. SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
- FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION IN RESPONSE TO EROSION OR SEDIMENT POLLUTION, MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING IMPOSED BY THE DEPARTMENT AS DESCRIBED IN THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY FINES, AND UP TO \$25,000 IN MIDDLE-AND/OR CRIMINAL PENALTIES FOR EACH VIOLATION.

**ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES:**

- EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER AND WITHIN 50 FEET OF A SURFACE WATER AND ON ALL DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
- FILL MATERIALS FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY MATERIALS. ORGANIC MATERIAL, LARGE STONABLE AND OTHER OBJECTIONABLE MATERIALS, THE EMBANKMENT SHALL BE COMPACTED IN 12" LAYERED LIFTS.

**FEMA FLOODPLAIN:**

100-YEAR FLOODPLAIN IS PRESENT ON THIS SITE.

**EROSION AND SEDIMENT CONTROL PLAN NOTES:**

- ALL AREAS WITHIN THE LIMIT OF DISTURBANCE ARE TO BE CONSIDERED PART OF THE DEMOLITION AREA AS NECESSARY TO COMPLETE THE PROPOSED IMPROVEMENTS.
- COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. ADDITIONALLY, THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED AND HAS BEEN APPROVED BY THE LOCAL MUNICIPALITY IN COMPLIANCE WITH CHAPTER 102.4(b)(5) REGULATIONS, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL OFF SITE SOIL AND/OR ROCK SPOIL AND/OR BORROW AREAS. §102.4(b)(5)(XIV).

**E&S PLANNING DESIGN - 102.(B)(4)**

- THE EARTH DISTURBANCE ACTIVITIES SHALL BE PLANNED AND IMPLEMENTED TO THE EXTENT PRACTICABLE IN ACCORDANCE WITH THE FOLLOWING: MINIMIZE THE EXTENT AND DURATION OF THE EARTH DISTURBANCE BY UTILIZING THE CONSTRUCTION SEQUENCE:
- MINIMIZE THE EXTENT AND DURATION OF THE EARTH DISTURBANCE BY UTILIZING THE CONSTRUCTION SEQUENCE.
  - PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION BY MAINTAINING EXISTING DRAINAGE PATTERN AND PROTECTION OF EXISTING TREES TO THE MAXIMUM EXTENT POSSIBLE.
  - MINIMIZE SOIL COMPACTION BY UTILIZING THE CONSTRUCTION SEQUENCE.
  - THE FILTER SOCKS WILL MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF.

**THERMAL IMPACTS NOTES 102.4(b)(5)(xiii)**

THERMAL IMPACTS TO THE SURFACE WATER CANNOT BE AVOIDED. IMPACTS ARE MINIMIZED BY FILTERING THE SURFACE WATER THROUGH MULCH AND VEGETATION THROUGH EXISTING UNDISTURBED VEGETATION. THE THERMAL IMPACT POTENTIAL TO THE RECEIVING WATERS IS MINIMAL.

**DUST CONTROL NOTE:**

CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES TO MITIGATE FUGITIVE DUST EMISSIONS AND THE POTENTIAL FOR OFF-SITE DUST MIGRATION. SUCH MEASURES MAY INCLUDE, BUT NOT LIMITED TO, KEEPING TEMPORARY WORKING STOCKPILES COVERED WITH MULCH, TYPING AND NOT OTHERWISE STABILIZED, APPLYING WATER TO DRY EARTHEN SURFACES VIA SPRINKLING OR TRUCK-MOUNTED SPRAY BAR, OR APPLYING MUNICIPALITY APPROVED ADDITIVES.

**RECYCLING AND DISPOSAL OF MATERIALS NOTES 102.4(b)(5)(xi)**

- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS. ALL WASTES MUST BE PROPERLY STORED, IDENTIFIED, AND Labeled. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
  - THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN AND FREE FROM FUEL OIL. FUEL OIL MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
  - ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
  - VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS 42-00-05022-54-5 ONTO MIDDLE CREEK ROAD OR BIG ROAD.
  - UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS, ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT OF BMPs, OR MODIFICATIONS TO THOSE INSTALLED WILL BE REQUIRED.
  - A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE COLLECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
  - SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
  - ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
  - AREAS WHICH ARE TO BE TOP SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 4 INCHES TO 6 TO 8 INCHES ON COMPACTED SOILS. PRIOR TO THE APPLICATION OF TOPSOIL, AREAS TO BE VEGETATED SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
  - ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
  - ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
  - FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
  - FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
  - FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
  - SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHODS.
  - ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER OR AS OTHERWISE SHOWN ON PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
  - IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS, DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
  - PERMANENT STABILIZATION IS DEFINED AS A MINIMUM PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION, CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
  - E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
  - UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
  - AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POSITIVE CONSTRUCTION STABILIZATION BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY, IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS. SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
  - UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
  - FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION IN RESPONSE TO EROSION OR SEDIMENT POLLUTION, MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING IMPOSED BY THE DEPARTMENT AS DESCRIBED IN THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY FINES, AND UP TO \$25,000 IN MIDDLE-AND/OR CRIMINAL PENALTIES FOR EACH VIOLATION.

**CONSTRUCTION SEQUENCE**

NOTE - ALL UNDERLINED TEXT IS A CRITICAL STAGE. A LICENSED PROFESSIONAL OR THEIR DESIGNEE SHALL BE ON SITE DURING ALL CRITICAL STAGE CONSTRUCTION.

NOTE - THE CONTRACTOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.

- PRE-CONSTRUCTION MEETING TO BE HELD WITH REPRESENTATIVES FROM THE MUNICIPALITY, MONTGOMERY COUNTY CONSERVATION DISTRICT, AND CEDARVILLE ENGINEERING GROUP, LLC.
- LIMITS OF DISTURBANCE ARE MARKED IN THE FIELD. TREES SELECTED FOR PRESERVATION OR LOCATED AGAINST THE LOD SHALL HAVE TREE PROTECTION FENCING PLACED AROUND THEM.
- IF AT ANY TIME DURING CONSTRUCTION ACTIVITY IS HALTED FOR GREATER THAN FOUR DAYS, TEMPORARY STABILIZATION SHALL BE PLACED OVER DISTURBED AREAS.
- PRIOR TO ANY EARTH DISTURBING ACTIVITIES ALL PERIMETER AND NECESSARY EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES SHALL BE INSTALLED AS SPECIFIED ON THE EROSION AND SEDIMENT CONTROL PLAN SHEETS. THE ROCK CONSTRUCTION ENTRANCE AND COMPOST FILTER SOCK(S) ALONG THE ACCESS AREA SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
- ALL EROSION AND SEDIMENT CONTROLS SHOWN ON THE PLAN ARE TO BE INSTALLED AS SHOWN ON THE PLAN, DOWNSLOPE OF ALL FILL AREAS, AND AS DIRECTED BY THE ENGINEER. THE ROCK CONSTRUCTION ENTRANCE IS NOT TO BE REMOVED UNTIL THE SITE IS STABILIZED.
- CLEARING, GRUBBING, AND SELECT TREE REMOVAL TO BE DONE IN AREAS WHERE EROSION CONTROLS AND TREE PROTECTION ARE IN PLACE.
- CRITICAL STAGE - INSTALL COFFERDAMS FOR RIGHT-BANK RESTORATION, DIVERSION PIPING, AND STREAM RESTORATION.
- CRITICAL STAGE - INSTALL TEMPORARY DIVERSION PIPING FROM DOWNSTREAM TO UPSTREAM END WITHIN LEFT-BANK STREAM AND BACKFILL WITH TEMPORARY EROSION CONTROL MEASURES INCLUDING COMPOST FILTER SOCKS AND SANDBAGS TO PROTECT TEMPORARY DIVERSION PIPING. TEMPORARY STREAM CHANNEL DURING INSTALLATION. STREAM FLOW TO BE DIVERTED AFTER DIVERSION PIPES ARE BACKFILLED.
- INSTALL COFFERDAMS AND DIVERT STREAM FLOW.
- SET-UP BYPASS PUMPING AND DEWATERING EQUIPMENT. ANY SEDIMENT-LADEN WATER SHOULD BE DEWATERED THROUGH A DUMPING WATER FILTER BAG PRIOR TO DISCHARGING TO A SURFACE WATER BODY.
- INSTALL CLEAN STONE TEMPORARY STREAM CROSSING TO ACCESS RIGHT BANK.
- WITHIN THE RIGHT BANK LOD, REMOVE TREES AND VEGETATION FROM THE RESTORATION AREA. STRIP TOPSOIL AND STAKE IT FOR REUSE. STREAM CHANNEL MATERIAL TO BE STOCKPILED APART FROM TOPSOIL FOR REUSE WITHIN THE RESTORED STREAM CHANNEL. STOCKPILES SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLANS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. SLOPES SHALL BE 2H:1V OR FLATTER.
- COMPLETE STREAM RESTORATION FOR THE RIGHT BANK AND STREAM CHANNEL. INSTALL J-HOOK CROSS VANE STRUCTURE, STREAM BANK GRADING, FLOODPLAIN BENCH GRADING, STREAM CHANNEL GRADING, INSTALL COIR LOGS, EROSION CONTROL BLANKET/COIR FABRIC MATTING, SEEDING, AND BRUSH PACKING. INSTALL LEFT BANK COIR LOG.
- CRITICAL STAGE - BEGIN RESTORATION PLANTINGS AND CONSTRUCTION OF RIPARIAN/STREAM BUFFER AREA. COIR RIGHT-BANK AS SHOWN ON THE LANDSCAPING PLANS.
- RIGHT BANK TO BE CONSIDERED STABILIZED ONCE 70% PERENNIAL VEGETATIVE COVER HAS BEEN ACHIEVED OVER THE RIGHT BANK AREA.
- CRITICAL STAGE - UPON STABILIZATION OF THE RIGHT BANK, INSTALL LEFT BANK COIR LOG AND COMPOST FILTER SOCKS. REMOVE TEMPORARY STREAM CROSSING AND RELOCATE COIR DAMS TO FILL AND OUTLET. TEMPORARY BYPASS RETURN FLOW TO STABILIZATION.
- CRITICAL STAGE - REMOVE TEMPORARY STREAM DIVERSION PIPING AND ASSOCIATED EROSION CONTROL MEASURES.
- COMPLETE STREAM RESTORATION FOR THE LEFT BANK INCLUDING STREAM BANK GRADING, FLOODPLAIN BENCH GRADING, EROSION CONTROL BLANKET/COIR FABRIC MATTING, SEEDING, AND BRUSH PACKING.
- CRITICAL STAGE - BEGIN PLANTINGS AND CONSTRUCTION OF RIPARIAN/STREAM BUFFER AREA FOR LEFT-BANK AS SHOWN ON THE LANDSCAPING PLANS.
- LEFT BANK TO BE CONSIDERED STABILIZED ONCE 70% PERENNIAL VEGETATIVE COVER HAS BEEN ACHIEVED OVER THE RIGHT BANK AREA.
- UPON STABILIZATION OF THE LEFT BANK REMOVE TEMPORARY FILTER SOCK AND ALLOW COIR LOG TO REMAIN.
- UPON COMPLETION OF STREAM RESTORATION/EARTH DISTURBANCE ACTIVITIES, STABILIZE ALL REMAINING DISTURBED AREAS AND THE ACCESS PATH. ACCESS PATH TO BE CONSIDERED STABILIZED WHEN 70% PERENNIAL VEGETATIVE COVER HAS BEEN ACHIEVED.
- REMOVE ALL TEMPORARY E&S BMPs. THE OWNER/CONTRACTOR SHALL CONTACT THE ENGINEER FOR FINAL INSPECTION.

TEMPORARY SEEDING		PERMANENT SEEDING	
TYPE OF COVER AND SPECIES OR MIXTURES	AMOUNT PER ACRE	TYPE OF COVER AND SPECIES OR MIXTURES	AMOUNT PER ACRE
50% ANNUAL RYE	5.0 LB	PERENNIAL RYEGRASS	20.0 LB
50% WINTER RYE	28.0 LB	KENTUCKY BLUEGRASS	30.0 LB
TOTAL	33.0 LB	RED TOP	3.0 LB
		TOTAL	53.0 LB

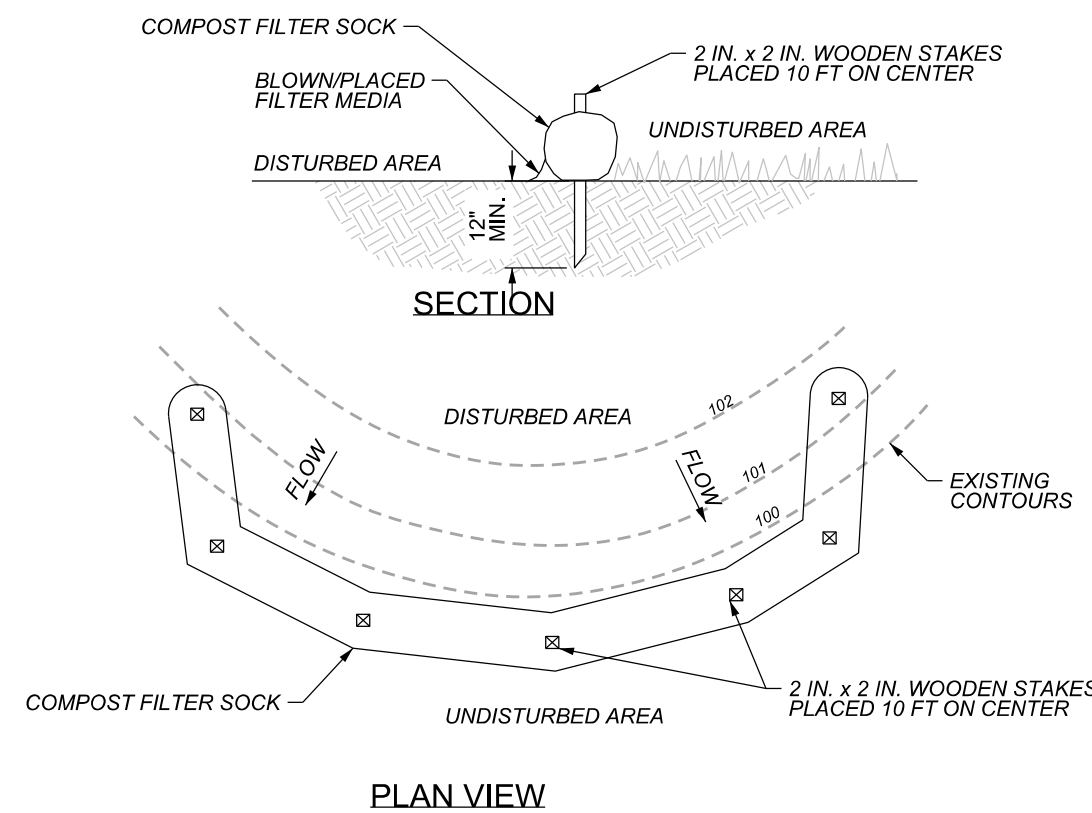
RECOMMENDED FERTILIZATION RATE		RECOMMENDED FERTILIZATION RATE	
LIME	1 TON PER ACRE	LIME	6 TONS PER ACRE
FERTILIZER	500 LBS 10-10-10 PER ACRE	FERTILIZER	500 LBS 10-20-20 PER ACRE
MULCH	3 TONS PER ACRE	MULCH	3 TONS PER ACRE

**NOTES:**

- SEED SHALL BE A MINIMUM 90% PURITY AND 85% GERMINATION.
- LIME SHALL BE AGRICULTURAL LIMESTONE AT 90% MINIMUM OF CARBONATES.
- ALL SEEDING, MULCHING AND SODDING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CHESTER COUNTY CONSERVATION DISTRICT. ALL SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED WITH EITHER SOD OR PERMANENT SEEDING AND MULCH AND ANCHORED IN PLACE WITH JUTE NETTING. NO SLOPES SHALL BE STEEPER THAN 2H:1V. TEMPORARY AND PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE PENN STATE AGRONOMY GUIDE OR AS RECOMMENDED BEDS DURING THE GERMINATING PERIOD. MULCH SHALL BE APPLIED AS RECOMMENDED BELOW. IF THE SITE IS TO REMAIN INACTIVE FOR OVER 6 MONTHS OR AT THE COMPLETION OF FINAL GRADING APPLY PERMANENT SEED TO MULCH AS RECOMMENDED BELOW. SHOULD UNFORESEEN EROSION CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMOVE SUCH CONDITIONS AND PREVENT DAMAGE TO ADJACENT/DOWN GRADIENT PROPERTIES AS A RESULT OF INCREASED SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALE, CRUSHED STONE AND/OR OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

**SEEDING SPECIFICATIONS**

NOT TO SCALE



**PLAN VIEW**

NOT TO SCALE

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 3 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

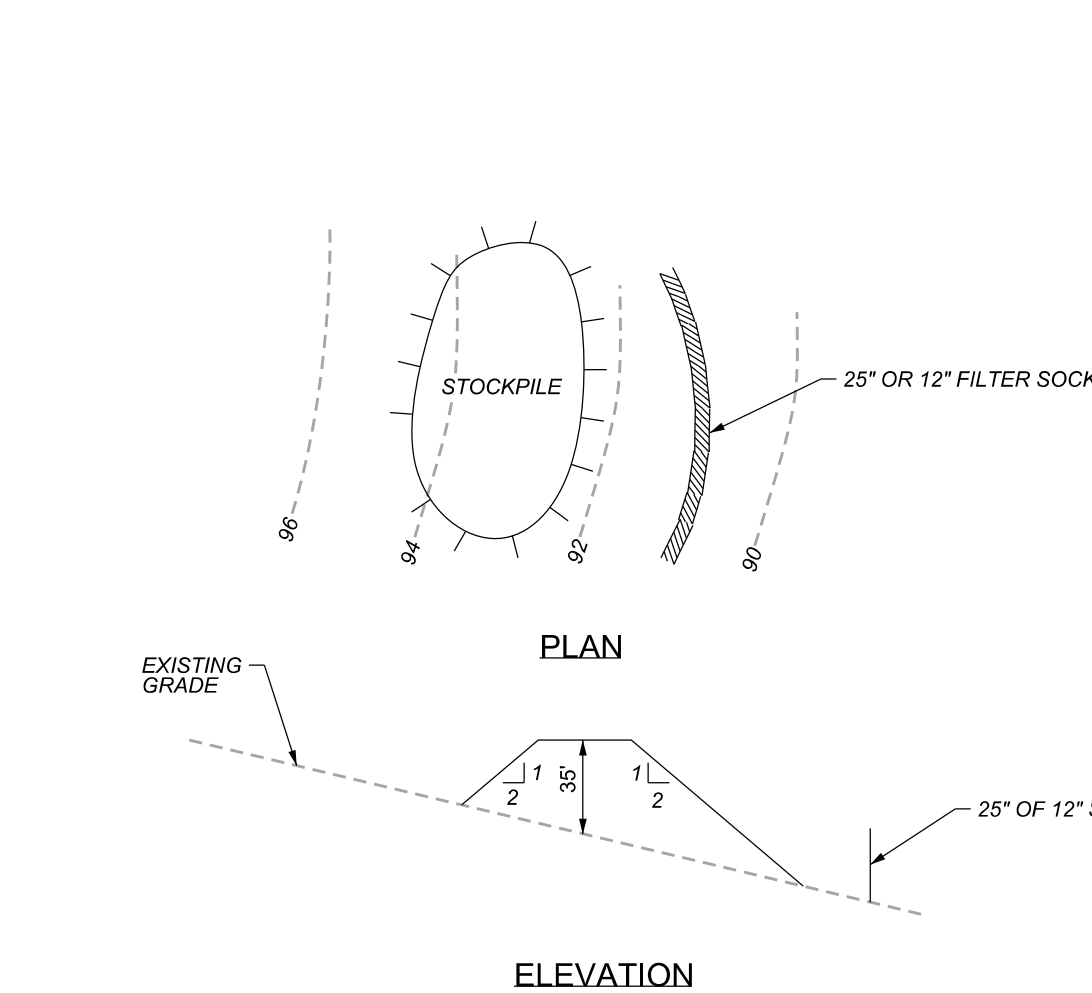
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTOGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

**COMPOST FILTER SOCK**

NOT TO SCALE

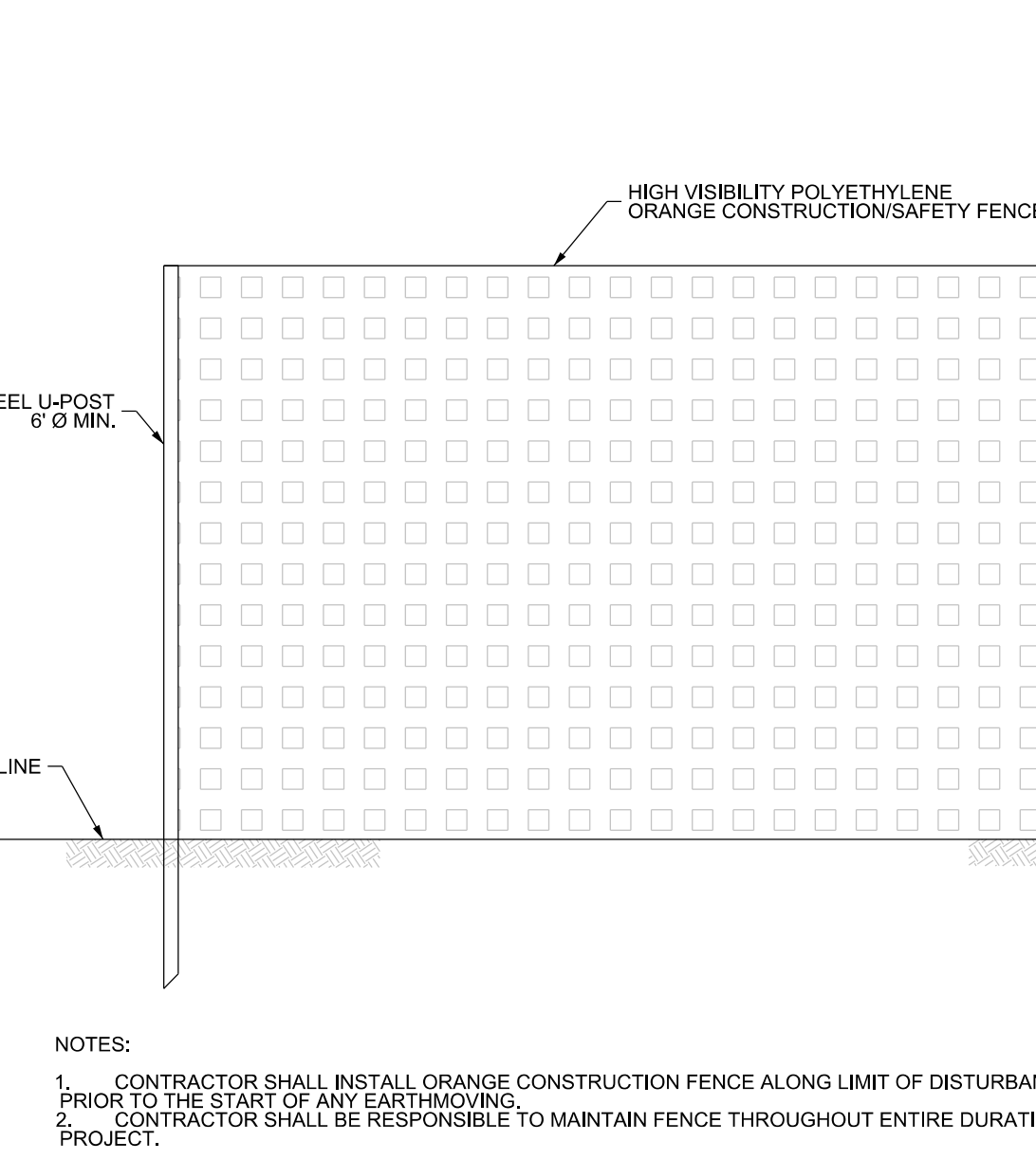


**NOTES:**

- INSTALL SILT FENCE DOWNSLOPE OF AREA OF STOCKPILE.
- PLACE STOCKPILE IN AREAS SHOWN ON EROSION CONTROL PLAN WITHOUT BLOCKING NATURAL DRAINAGE PATTERNS.
- FOLLOW DIMENSIONS SHOWN ABOVE. HEIGHT SHOULD NOT EXCEED 35 FT. SIDE SLOPES SHOULD NOT BE STEEPER THAN 2H:1V.
- MATERIAL SHALL BE TEMPORARILY STABILIZED AFTER 4 DAYS OF INACTIVITY. SEED WITH PENNDOT SEEDING FORMULA "C" FOLLOW SEEDING, FERTILIZATION SCHEDULE & SPECIFICATIONS.

**TOPSOIL STOCKPILE AND MAINTENANCE**

NOT TO SCALE



**NOTES:**

- CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCE ALONG LIMIT OF DISTURBANCE BOUNDARY PRIOR TO THE START OF ANY EARTHMOVING.
- CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN FENCE THROUGHOUT ENTIRE DURATION OF THE PROJECT.

**ORANGE CONSTRUCTION FENCE**

NOT TO SCALE

SOIL NAME	SOIL LIMITATIONS														
	CUTBANKS CAVE	CORROSIVE TO CONCRETE / STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE / SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS / LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLES	PONDING	WETNESS
BOWMANVILLE SILT LOAMS	X	C/S			X	X	X	X	X	X			X	X	
KNAUERS SILT LOAMS	X	C/S	X		X	X	X	X		X	X		X	X	X

CUT BANK - CUT BANKS (IF APPLICABLE) WILL BE LAID BACK AT A MINIMUM OF 3H:1(V) TO PRODUCE STABLE SLOPES;

CORROSIVE TO CONCRETE / STEEL - THE USE OF CONCRETE IS NOT ANTICIPATED IN THE DEMOLITION OF THE SITE. IF USED, CONCRETE MIXES WILL BE DESIGNED TO BE RESISTANT TO CORROSION. STEEL CASINGS WILL BE PROTECTED WITH COATINGS TO RESIST CORROSION, WHERE APPROPRIATE;

DROUGHTY - SEEDING AND MULCHING WILL BE ACCOMPANIED WITH SUFFICIENT WATERING TO PROMOTE THE GROWTH OF VEGETATION TO ACHIEVE SUFFICIENT COVER TO STABILIZE THE SOIL SURFACES;

EASILY ERODIBLE - EROSION PROTECTION BLANKETS WILL BE USED TO PREVENT ACCELERATED EROSION ON DISTURBED SLOPES OF 3H:1(V) AND STEEPER. SEEDING AND MULCHING OF DISTURBED AREAS WILL BE DONE AS SOON AS POSSIBLE AFTER WORK AREAS ARE COMPLETED. DISTURBED AREAS WILL BE INSPECTED AND MAINTAINED BY RE-SEEDING AS NEEDED UNTIL A STABLE VEGETATIVE COVER IS ESTABLISHED;

FLOODING - EARTH DISTURBANCE ACTIVITIES IN LOW-LYING AREAS WILL BE CONDUCTED DURING FAVORABLE WEATHER (IF POSSIBLE) OR WILL BE DEWATERED DURING CONSTRUCTION ACTIVITIES;

SEASONALLY HIGH WATER TABLE - IF CONSTRUCTION DEWATERING IS CONDUCTED, DEWATERING FLUIDS WILL BE PUMPED THROUGH A FILTER BAG AND DISCHARGED OVER STABLE GROUND SURFACES;

HYDRIC INCLUSIONS - THE EXISTING SITE IS FULLY DEVELOPED. NO WETLANDS WERE IDENTIFIED WITHIN THE LIMIT OF DISTURBANCE;

LOW STRENGTH / LANDSLIDE PRONE - CUT AND FILL SLOPES WILL BE CONSTRUCTED AT A SLOPE ADEQUATE TO PREVENT LANDSLIDES;

SLOW PERCOLATION - NO INFILTRATION OF SITE STORMWATER IS PROPOSED;

PIPING - NO IMPOUNDMENTS ARE PROPOSED TO BE CONSTRUCTED DURING THIS PROJECT. THEREFORE PIPING CONSIDERATIONS ARE NOT APPLICABLE;

POOR SOURCE OF TOPSOIL - ADDITIONAL FERTILIZER, LIME, AND MULCH WILL BE APPLIED AS NEEDED TO ESTABLISH THE REQUIRED 70% UNIFORM VEGETATIVE GROWTH TO STABILIZE THE DISTURBED AREAS;

FROST ACTION - NO STRUCTURES SUSCEPTIBLE TO DAMAGE TO FROST HEAVE WILL BE CONSTRUCTED;

SHRINK / SWELL - THE STRUCTURES WILL NOT BE SUSCEPTIBLE TO DAMAGE BY SHRINK / SWELL ISSUES;

POTENTIAL SINKHOLES - NO SINKHOLE OR KARST TOPOGRAPHICAL FEATURES ARE PRESENT WITHIN THE LIMIT OF DISTURBANCE;

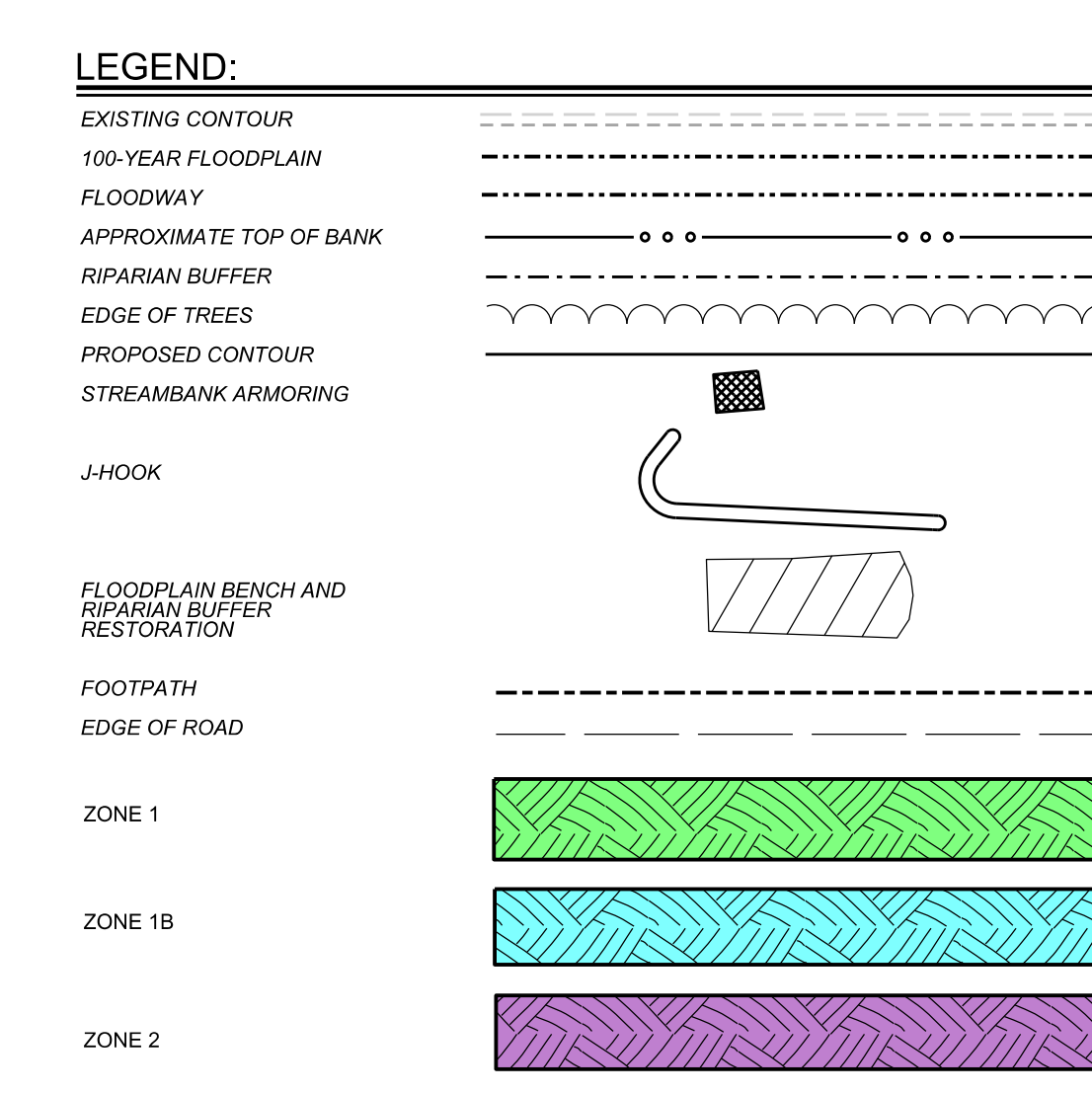
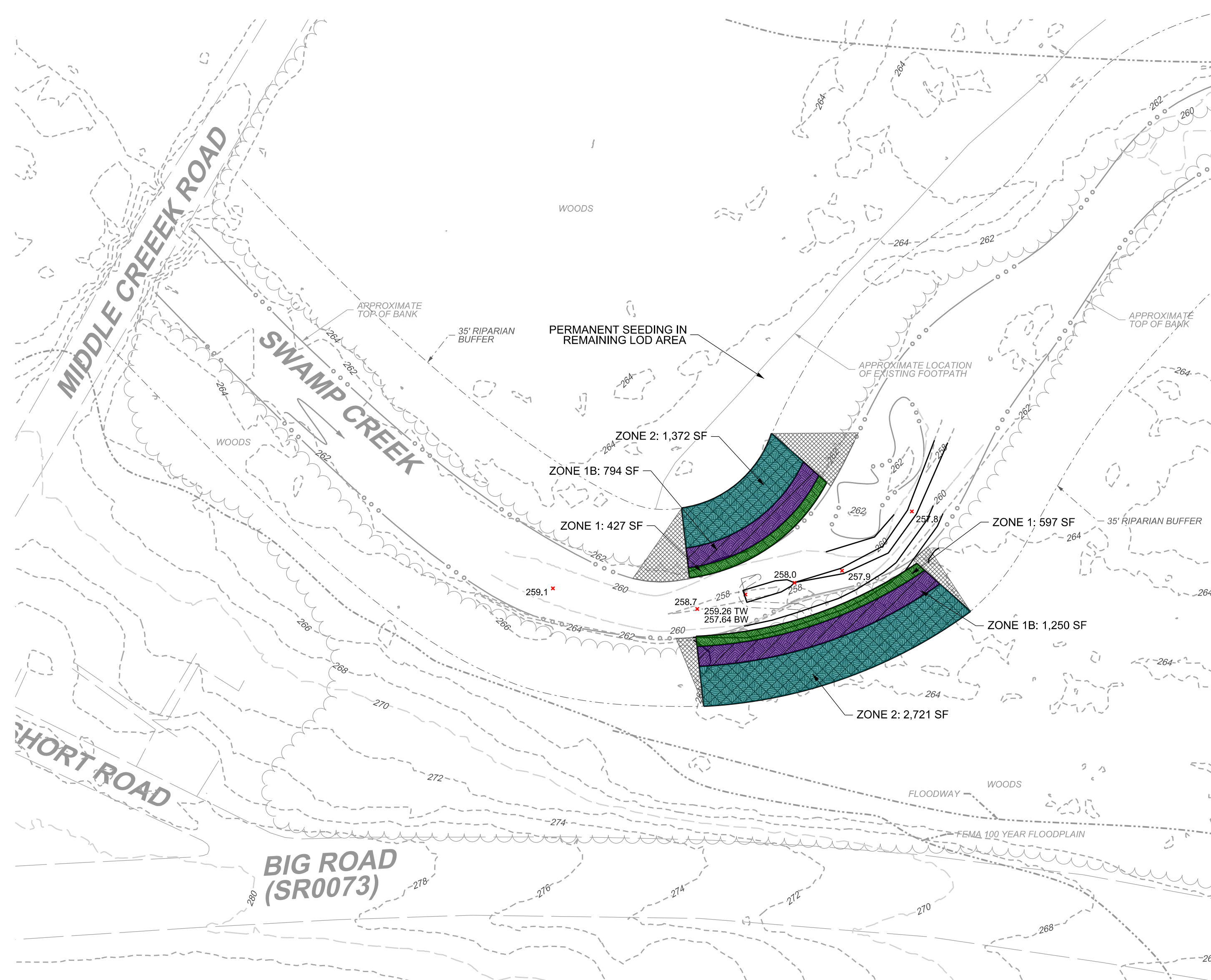
PONDING - EARTH DISTURBANCE ACTIVITIES IN LOW-LYING AREAS WILL BE CONDUCTED DURING FAVORABLE WEATHER (IF POSSIBLE) OR WILL BE DEWATERED DURING CONSTRUCTION ACTIVITIES;

WETNESS - WORK IS ANTICIPATED TO OCCUR DURING DRY WEATHER. IF NECESSARY, TEMPORARY WORK AREAS WILL BE CONSTRUCTED OF GRAVEL OR TIMBER MATS. ACCESS TO BE STABILIZED AND MAINTAINED THROUGHOUT CONSTRUCTION.

**SOIL LIMITATIONS TABLE**

NTS

MAINTENANCE SCHEDULE			
CONTROL MEASURE	INSPECT	PROBLEMS TO LOOK FOR	POSSIBLE REMEDIES
COMPOST FILTER SOCK	ONCE A WEEK AND AFTER EVERY RUNOFF EVENT	BARRIER HAS BEEN UNDERMINED OR TOPPED SEDIMENT AT 1/2 HEIGHT OF BARRIER TORN OR DAMAGED FABRIC SOCK IS OLDER THAN PERMITTED RUNOFF ESCAPING AROUND BARRIER	REPLACE WITH A ROCK FILTER OUTLET. INCREASE NUMBER OF STAKES AT AFFECTED AREA. REMOVE SEDIMENT, PLACE ACROSS SITE AS FILL. REPAIR ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACE. EXTEND BARRIER.
PUMPED WATER FILTER BAG	BEFORE AND AFTER EACH USE	TORN FABRIC, TEARS OR BREACHES SEDIMENT ESCAPING WITH PURGE WATER MORE THAN 50% FILLED WITH SEDIMENT	REPLACE FILTER BAG. REMOVE SEDIMENT, SPREAD OVER SITE.
ROCK CONSTRUCTION ENTRANCE</			



**RIPARIAN BUFFER RESTORATION PLANTING CHART:**

COMMON NAME	LATIN NAME	TYPE	SIZE	Zone 1A	ZONE 1B	ZONE 2
PUSSY WILLOW	SALIX DICOLOR	LIVE STAKE	36-48"	250	0	0
RED OSIER DOGWOOD	CORNUS SERICA	LIVE STAKE	36-48"	250	0	0
HIGHBUSH BLUEBERRY	VACCINIUM CORYMBOSUM	SHRUB, SEEDLING	1.5-2'	0	40	0
RED CHOKEBERRY	ARONIA ARBUTIFOLA	SHRUB, SEEDLING	1.5-2'	0	40	0
RIVER BIRCH	BETULA NIGRA	TREE	4-6'	0	8	0
RED MAPLE	ACER RUBRUM	TREE	4-6'	0	0	10

- HERBACIOUS SEED MIX PLANTING NOTES:**
- A NATIVE RIPARIAN BUFFER SEED MIX SHOULD BE SOURCED (ERNST SEEDS, ERNMX-178) OR A SIMILAR MIX UP AS LISTED BELOW:  
 27.1% ANDROPOGON GERARDII, 'NIAGARA' (BIG BLUESTEM, 'NIAGARA')  
 27.0% SORGHASTRUM NUTANS, PA ECOTYPE (INDIANGRASS, PA ECOTYPE)  
 20.0% ELYMUS VIRGINICUS, PA ECOTYPE (VIRGINIA WILDBLUE, PA ECOTYPE)  
 14.0% PANICUM VIRGATUM, 'CARTHAGE', NC ECOTYPE (SWITCHGRASS, 'CARTHAGE', NC ECOTYPE)  
 3.0% RUDBECKIA HIRTA (BLACKEYED SUSAN)  
 2.0% ASCLEPIAS INCANATA, PA ECOTYPE (SWAMP MILKWEEED, PA ECOTYPE)  
 2.0% VERBENA HASTATA, PA ECOTYPE (BLUE VERVAIN, PA ECOTYPE)  
 1.0% EUPATORIUM PERFOLIATUM, PA ECOTYPE (BONESSET, PA ECOTYPE)  
 1.0% HELENIUM AUTUMNALE, PA ECOTYPE (COMMON SNEEZEWEED, PA ECOTYPE)  
 0.7% ASTER NOVAE-ANGLAE, PA ECOTYPE (NEW ENGLAND ASTER, PA ECOTYPE)  
 0.7% ASTER LIMBELATUS, PA ECOTYPE (FLAT TOPPED WHITE ASTER, PA ECOTYPE)  
 0.7% Zizia aurea, PA ECOTYPE (GOLDEN ALEXANDERS, PA ECOTYPE)  
 0.5% MONARDA FRETULOSA, FORT INDIANTOWN GAP, PA ECOTYPE (WILD BERGAMOT, FORT INDIANTOWN GAP, PA ECOTYPE)  
 0.3% SOLIDAGO RUGOSA, PA ECOTYPE (WRINKLELEAF GOLDENROD, PA ECOTYPE)
  - SEED MIX SHOULD BE APPLIED AFTER WOODY INSTALLATION AND BEFORE MULCHING
  - SEED SHOULD BE APPLIED AT A RATE OF 4 LBS PER 1,000 SQUARE FEET. A MINIMUM OF 3.4 LBS OF SEED MIX IS REQUIRED FOR THE 8,800 SF BUFFER AREA.

- RIPARIAN BUFFER RESTORATION PLANT INSTALLATION NOTES:**
- BRUSH HOG UNDERSTORY OUTSIDE OF THE LIMIT OF DISBURANCE WITHIN RIPARIAN BUFFER AREA TO REMOVE INVASIVE SPECIES. NO GRADING SHOULD OCCUR OUTSIDE THE LOD.
  - SPRAY OR SPOT TREAT JAPANESE STILTGRASS WITH AQUATIC GLYPHOSATE.
  - IN AREAS WITHIN THE LOD, ENSURE THE TOPSOIL HAS BEEN REPALED AND THE SUBSTRATE IS NOT COMPACTED, AND THE AREA HAS BEEN PERMANENTLY STABILIZED WITH SEED STRAW MULCH AND ECG.
  - WAIT A MINIMUM OF 10 DAYS AFTER HERBICIDE APPLICATION TO INSTALL PLANTS.
  - TREE SHELTERS FOR SAPPLINGS UNDER 2" DIAMETER
  - ONCE ALL PLANTINGS ARE INSTALLED AND THE SITE STABILIZED, THE PLAN DESIGNER SHALL BE NOTIFIED AND SHALL INSPECT THE RIPARIAN BUFFER RESTORATION AREA.
  - WATER PLANTINGS AT THE END OF EACH DAY FOR TWO WEEKS AFTER PLANTING IS COMPLETED.
  - THE RIPARIAN BUFFER RESTORATION AREAS MUST BE MONITORED AND MAINTAINED POST CONSTRUCTION TO ENSURE THE SPECIES ARE ESTABLISHING AND RECTIFY POTENTIAL ISSUES.

- ALL PLANTS SHOULD BE SPACED AS FOLLOWS:
  - LIVE STAKES: SPACED 2-FOOT APART AND INSERTED PERPENDICULAR TO THE GROUND 3/4 THE LENGTH OF THE STOCK.
  - SHRUBS: RECTANGULAR GRID ON 7-FOOT CENTERS.
  - TREES: RECTANGULAR GRID ON 30-FOOT CENTERS.
- PLANTS SHOULD BE PURCHASED FROM A NATIVE PLANT NURSERY. THE CONTACT INFORMATION FOR A POINT NURSERY CAN BE FOUND BELOW:  
 458 SWAMP PIKE  
 SCHMENSVILLE, PA 19473  
 (610) 287-8523  
 info@onpointnursery.com
- IF A LISTED SPECIES IS NOT AVAILABLE, THEY MAY BE REPLACED WITH AN EQUIVALENT ALTERNATIVE SPECIES UPON COORDINATION WITH THE DESIGN ENGINEER.

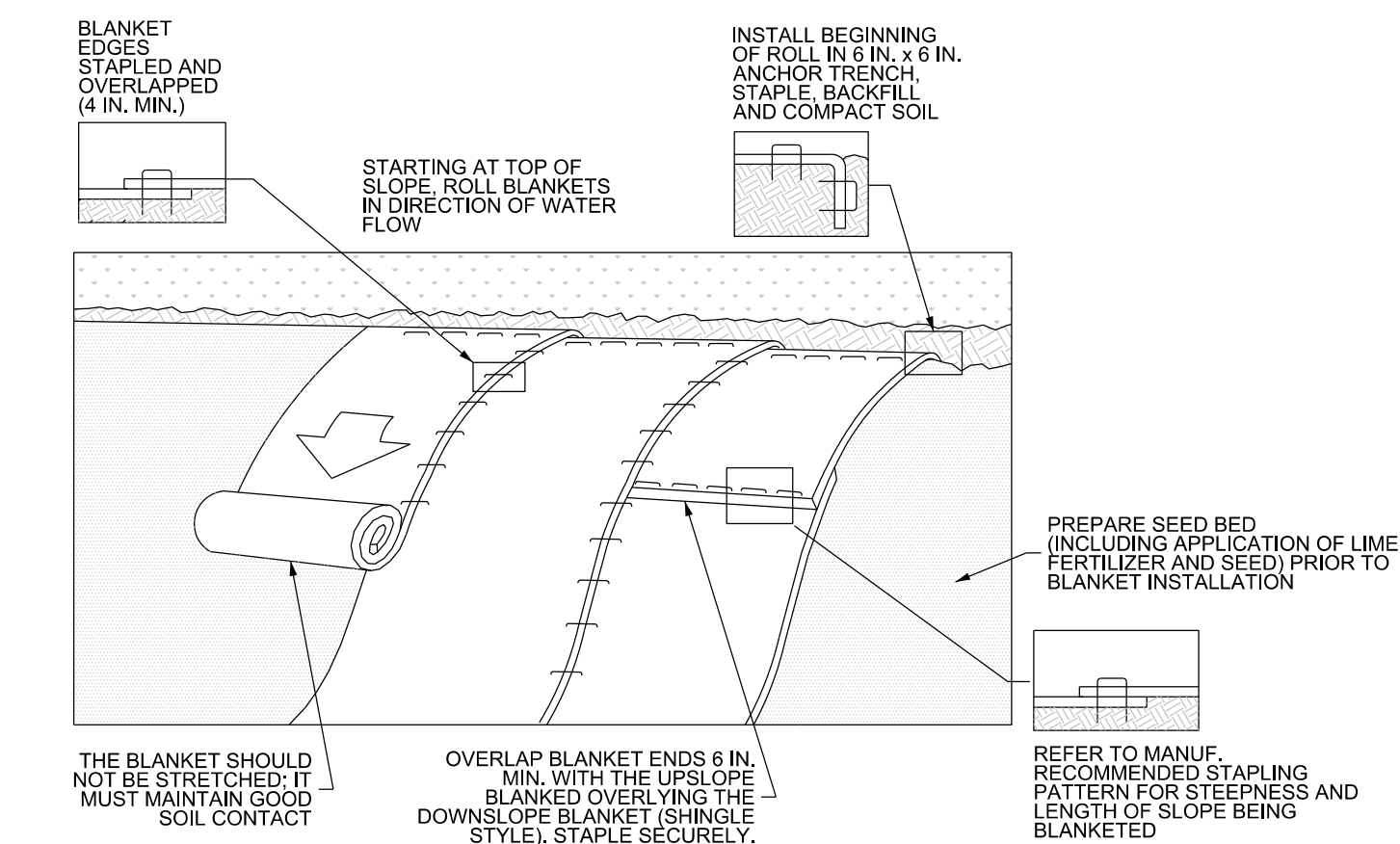
- LANDSCAPE PLAN ZONE NOTES**
- ZONE 1 - 0'-15'  
 LIVE STAKING 0'-5'  
 100 - PUSSY WILLOW, SALIX DICOLOR, FACV  
 100 - RED OSIER DOGWOOD, CORNUS SERICA (SUB SILKY DOGWOOD, CORNUS AMOMUM)  
 PLANTING: STAKES SHOULD BE PLANTED 1'-3" AART AND 2' DOWN PERPENDICULAR TO GROUND. STAKES ARE FLOOD RESISTANT AND FOOT QUICKLY.  
 SHRUBS/TREES 5'-15':  
 8' - RIVER BIRCH, BETULA NIGRA  
 40 - HIGH BUSH BLUEBERRY, VACCINIUM CORYMBOSUM  
 40 - RED CHOKEBERRY, ARONIA ARBUTIFOLA  
 PLANTING: RIVER BIRCHES, 35' APART. BLUEBERRIES IN ROWS 5' APART ROWS 10' APART. RED CHOKEBERRY, 4' SPACING.
- ZONE 2 - 15'-35'  
 10 - RED MAPLE, ACER RUBRUM  
 PLANTING 25' APART

**RIPARIAN BUFFER OPERATIONS AND MAINTENANCE:**

THE PLANTING PLAN INSPECTION REPORTS AND MONITORING RECORDS MUST BE AVAILABLE FOR REVIEW AND INSPECTION BY THE PDSEP AND MCD. NEW HANOVER TOWNSHIP IS RESPONSIBLE FOR THE MONITORING AND MAINTENANCE OF THE RESTORED AREAS.

THE FOLLOWING ARE INSPECTION ACTIVITIES AND MONITORING RECORD THAT SHOULD BE PERFORMED BY THE PROPERTY OWNER (NEW HANOVER TOWNSHIP)

ACTIVITY	SCHEDULE
WATER TO PROMOTE PLANT GROWTH AND SURVIVAL, ESPECIALLY DURING THE FIRST TWO YEARS AND AFTER DRY SPELLS.	AS NEEDED
INSPECT SITE FOLLOWING RAINFALL EVENTS, ADD/REPLACE VEGETATION WHERE NEEDED, REMOVE TRASH AND DEBRIS.	REGULARLY (MONTHLY)
MONITOR REESTABLISHMENT OF INVASIVE SPECIES (ESPECIALLY JAPANESE STILT-GRASS) SPOT TREAT WITH HERBICIDE AS NEEDED.	REGULARLY (MONTHLY)
REPLACE MULCH TO MAINTAIN 2-3 INCHES AT BASE OF PLANT.	ANNUALLY, SEMI ANNUALY FIRST YEAR
INSPECT FOR REESTABLISHMENT OF INVASIVE SPECIES, TREAT/ REMOVE AS NECESSARY.	ANNUALLY, SEMI ANNUALY FIRST YEAR
REMOVE ACCUMULATED SEDIMENT AND DEBRIS.	ANNUALLY, SEMI ANNUALY FIRST YEAR
INSPECT SITE FOR EROSION AS WELL AS SEDIMENT AND MULCH THAT HAS BE DISPLACED.	ANNUALLY, SEMI ANNUALY FIRST YEAR
INSPECT RESTORATION AREAS FOR DEAD/DYING VEGETATION.	ANNUALLY, SEMI ANNUALY FIRST YEAR
REPLACE VEGETATION AS NEEDED.	ANNUALLY, SEMI ANNUALY FIRST YEAR
REPAIR TREE SHELTERS.	ANNUALLY, SEMI ANNUALY FIRST YEAR
TEST PH OF PLANTING BED, IF BELOW 5.2 APPLY LIME, IF ABOVE 8 APPLY IRON SULFATE.	ANNUALLY, SEMI ANNUALY FIRST YEAR
REMOVE AND REPLACE MULCH	EVERY 2-3 YEARS



**STANDARD CONSTRUCTION DETAIL #11-1  
EROSION CONTROL BLANKET INSTALLATION**

NOT TO SCALE

NOTES:  
 SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.  
 PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.  
 SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.  
 BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.  
 THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.  
 BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 14 CALENDAR DAYS.

**MAXIMUM BULK DENSITIES**

SOIL TEXTURE	MAXIMUM BULK DENSITIES (G/CM3)
SANDS, LOAMY SANDS	1.60
SANDY LOAMS, LOAMS	1.40
SANDY CLAY LOAMS, LOAMS, CLAY LOAMS	1.40
SILT, SILT LOAMS	1.30
SILT LOAMS, SILTY CLAY LOAMS	1.10
SANDY CLAYS, SILTY CLAYS, SOME CLAY LOAMS (25-45% CLAY)	1.10
CLAYS (>45% CLAY)	1.10

- NOTES:**
- ON-SITE TOPSOIL WITH AN ORGANIC CONTENT OF AT LEAST 4 PERCENT CAN BE PROPERLY STOCKPILED (TO MAINTAIN ORGANIC CONTENT) AND REUSED.
- SPECIFICATIONS:**
- COMPOST MATERIALS SHALL MEET THE REQUIREMENTS OF PENNDOT PUBLICATION 408 SECTION 807.2.
  - COMPOST DERIVED FROM OR OBTAINED FROM MUSHROOM GROWING OPERATIONS SHALL BE AGED AT LEAST 7 YEARS.
  - SUB-SOILING TO RELIEVE COMPACTION:
    - AFTER EXCAVATION, THE SUBSOIL SHALL BE IN A LOOSE, FRAGILE CONDITION TO A DEPTH OF 20 INCHES BELOW FINAL TOPSOIL GRADE. THERE SHALL BE NO EROSION RILLS OR WASHOUTS IN THE SUBSOIL SURFACE EXCEEDING 3 INCHES IN DEPTH.
    - TO ACHIEVE THIS CONDITION, SUBSOILING, RIPPING, OR SCARIFICATION OF THE SUBSOIL WILL BE REQUIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE. WHEREVER THE SUBSOIL HAS BEEN COMPACTED BY EQUIPMENT OPERATION OR HAS BECOME DRIED OUT AND CRUSTED, AND WHERE NECESSARY TO OBLITERATE EROSION RILLS, SUB-SOILING SHALL BE REQUIRED TO REDUCE SOIL COMPACTION IN ALL AREAS WHERE PLANT ESTABLISHMENT IS PLANNED. SUB-SOILING SHALL BE PERFORMED BEFORE COMPOST PLACEMENT.
    - SUBSOILED AREAS SHALL BE LOOSENED TO LESS THAN 200 PSI TO A DEPTH OF 20 INCHES BELOW FINAL TOPSOIL GRADE, WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL VERIFY THAT THE SUB-SOILING WORK CONFORMS TO THE SPECIFIED DEPTH.
    - SUB-SOILING SHALL FORM A TWO-DIRECTIONAL GRID. CHANNELS SHALL BE CREATED BY A COMMERCIALY AVAILABLE MULTISHANKED, PARALLEL LOARM IMPLEMENT (SOLID-SHANK RIPPER). THE EQUIPMENT SHALL BE CAPABLE OF EXERTING A PENETRATION FORCE NECESSARY FOR THE SITE. NO DISC CULTIVATORS, CHISEL PLOWS, OR SPRING LOADED EQUIPMENT WILL BE ALLOWED. THE GRID CHANNELS SHALL BE SPACED 36 INCHES APART, DEPENDING ON EQUIPMENT, SITE CONDITIONS, AND THE SOIL MANAGEMENT PLAN. THE CHANNEL DEPTH SHALL BE A MINIMUM OF 20 INCHES OR AS SPECIFIED IN THE SOIL MANAGEMENT PLAN.
    - LEVEL SUB-SOILED AREAS BY USE OF A YORK RAKE.
    - IF SOILS ARE SATURATED, THE CONTRACTOR SHALL DELAY OPERATIONS UNTIL THE SOIL WILL NOT HOLD A BALL WHEN SQUEEZED. ONLY ONE PASS SHALL BE PERFORMED ON ERODIBLE SLOPES GREATER THAN 3:1; WHEN ONLY ONE PASS IS USED (AND AS DIRECTED BY THE ENGINEER), WORK SHOULD BE DONE AT RIGHT ANGLES TO THE DIRECTION OF SURFACE DRAINAGE, WHENEVER PRACTICAL.
    - EXCEPTIONS TO SUBSOILING INCLUDE AREAS WITHIN THE DRIP LINE OF ANY EXISTING TREES, OVER UTILITY INSTALLATIONS WITHIN 30 INCHES OF THE SURFACE, WHERE TRENCHING/DRAINAGE LINES ARE INSTALLED, WHERE COMPACTION IS BY SPECIFIED (ABUTMENTS, FOOTINGS, OR IN SLOPES) AND ON INACCESSIBLE SLOPES, AS APPROVED BY THE OWNER'S REPRESENTATIVE.
  - FINAL AMENDED SOIL QUALITY:
    - ORGANIC CONTENT (BY VOLUME) - 8 TO 13%
    - FINAL BULK DENSITIES SHALL MEET REQUIREMENTS LISTED ABOVE.
- SOIL AMENDMENT & RESTORATION CONSTRUCTION SEQUENCE:
- ALL OTHER CONSTRUCTION WITHIN THE TRIBUTARY AREA TO THE AREA TO BE AMENDED SHALL BE COMPLETED AND STABILIZED BEFORE BEGINNING SOIL RESTORATION.
  - INITIAL SOIL DISTURBANCE - FOR HIGHLY COMPACTED SITE, PERFORMED WITH EQUIPMENT AS SPECIFIED ABOVE.
  - UNIFORMLY BREAK-UP SUBSOIL - AS SPECIFIED ABOVE.
  - ROCK REMOVAL - PERFORMED WITH A MECHANICAL RIPPER.
  - DISTRIBUTION OF IMPORTED MATERIAL - SPREAD MAXIMUM OF 1 INCH (ADJUST DEPTH OF COMPOST APPLIED TO ACHIEVE FINAL AMENDED SOIL QUALITY SPECIFICATIONS) OF APPROVED COMPOST AND 1 INCH OF SAND ON TOPSOIL TILL COMPOST AND SAND INTO TOPSOIL WITH A ROTARY TILER THAT IS SET TO A DEPTH OF 8 INCHES.
  - LIME AND FERTILIZER APPLICATION - AS DETERMINED BY SOIL TESTING.
  - SOIL INTEGRATION - 2 PASSES WITH ROTOTILER IN PERPENDICULAR DIRECTIONS.
  - GRADING AND ROLLING OF SITE - TO ACHIEVE A UNIFORMLY SMOOTH SITE SURFACE.
  - SEED - AS DIRECTED IN SEEDING SPECIFICATIONS - USE OF HYDROSEED IS ACCEPTABLE.

**SOIL AMENDMENT & RESTORATION**

NOT TO SCALE

DATE: 07/15/22

REVISIONS

MARK: COMMENT: REVISION: DATE

1. MCD REVIEW LETTER DATED 03/14/22

**CEG CEDARVILLE**  
 CIVIL ENGINEERING • ENVIRONMENTAL SERVICES  
 • SURVEYING • CONSTRUCTION  
 159 East High Street, Suite #500 | Pottstown, PA 19464  
 610.705.4500 (Office) | 610.705.4900 (Fax)

**ROBERT E. FLINCHBAUGH**  
 REGISTERED PROFESSIONAL ENGINEER  
 PE044274

SITING IN: NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PREPARED FOR: **NEW HANOVER TOWNSHIP**

PROJECT NAME: **SWAMP CREEK STREAM RESTORATION**

DESIGNED BY: xxx/xxx

DRAWN BY: MJC/MMG

CHECKED BY: BMF

PROJECT NO: NHT-21-205

DATE: 01/12/2021

SCALE: NTS

SHEET 8 OF 9

**C-8**

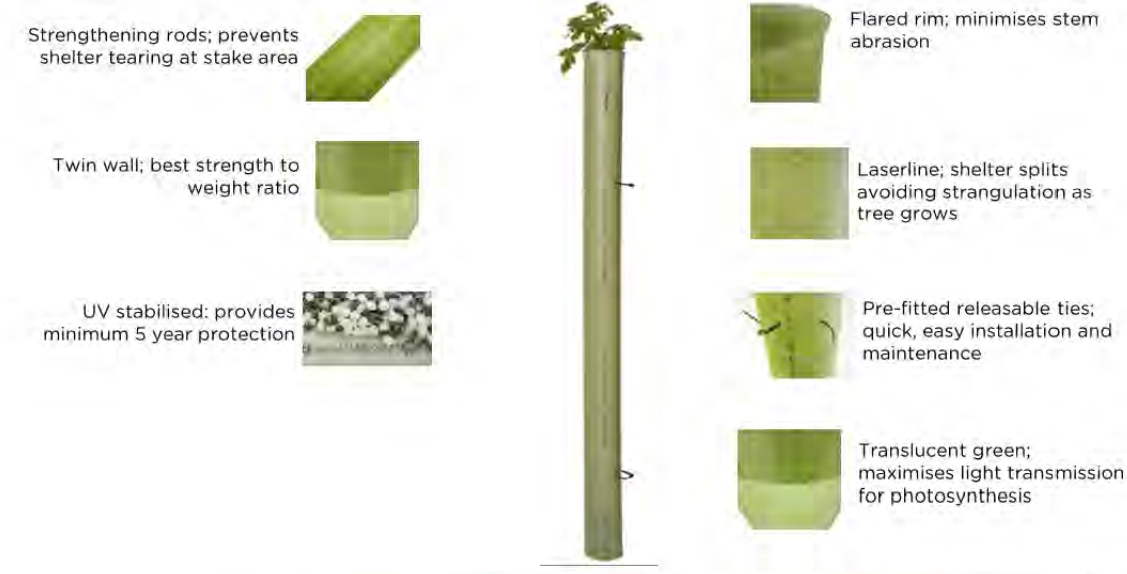


A PGI Company  
Fiberweb Geosynthetics Ltd  
Blackwater Trading Estate  
The Causeway  
Maldon CM9 4GG  
United Kingdom  
T: +44 (0)1621 874201  
F: +44 (0)1621 874299

**Standard Range**

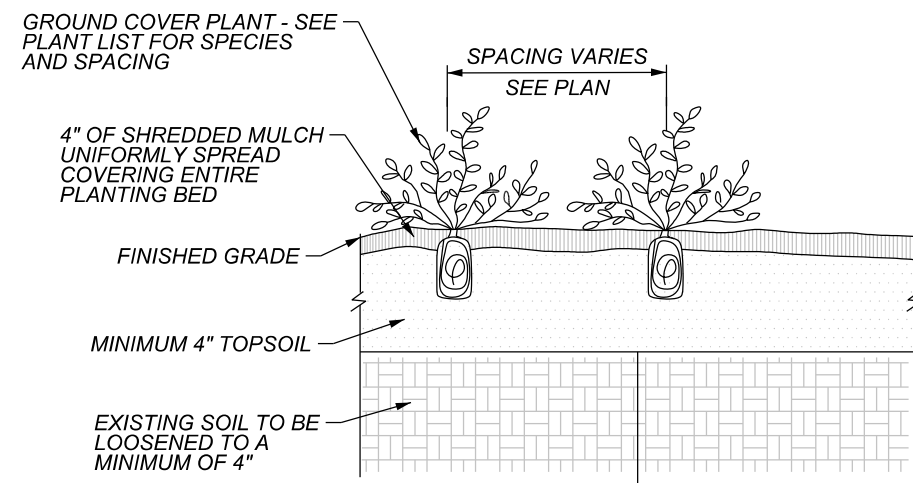
**Product Information Sheet**

**DESCRIPTION** Extruded polypropylene tube which protects and helps establish trees  
**APPLICATION** For the protection of trees against animal browsing, herbicide spray and for the improvement of growth through a microclimate  
**SECTORS** Forestry and Horticulture

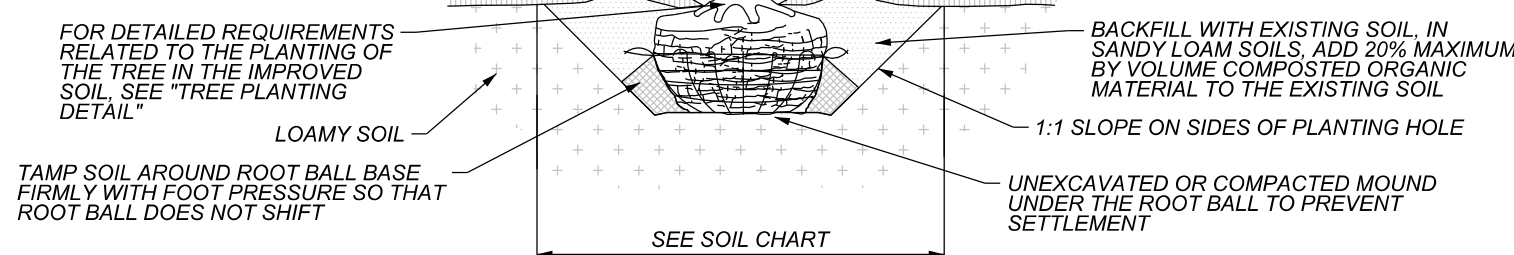
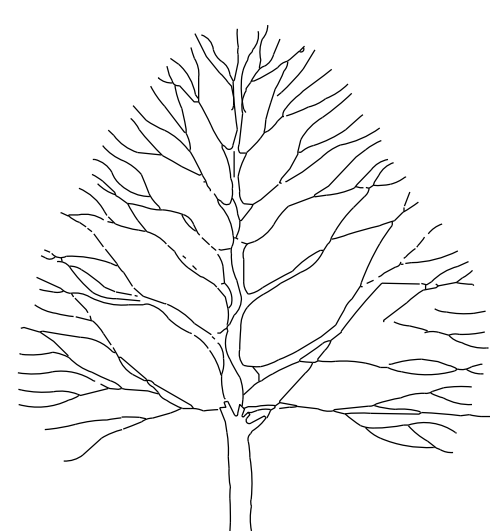


Dimensions	TUBEX Standard Range			TUBEX Standard Plus Range		
	0.6	0.75	1.2	1.2	1.5	1.8
Height	m	0.6	0.75	1.2	1.5	1.8
Diameter	mm	73-105	73-105	80-120	80-120	80-120
No of ties		2 (1 option to have 2)	2	2	2	2
Type of tie		Releasable	Releasable	Releasable	Releasable	Releasable
Size of tie	inch	9	9	9	10	10
Top tie height	mm	435-465	485-515	810-840	1110-1140	1315-1340
Bottom tie height	mm	-	185-215	235-265	235-265	235-265
Av. Weight per tube	g	72	90	146.5	175	221
Packaging						
Nest		5	5	5	5	5
Bundle		100	100	100	60	60
Bag or strap banded		Bag	Bag	Strap Banded	Strap Banded	Strap Banded

**TREE SHELTER SPECIFICATION DETAIL**  
NOT TO SCALE



**NO STANDARD CONSTRUCTION NUMBER  
GROUND COVER PLANTING**  
NOT TO SCALE



- NOTES:**
- TREES WITH POOR QUALITY ROOT BALLS OR ROOT BALLS THAT HAVE BEEN CRACKED OR DAMAGED SHALL BE REJECTED.
  - TREES THAT HAVE GROWN TOO CLOSE TOGETHER IN THE NURSERY, RESULTING IN WEAK TRUNKS SHALL BE REJECTED.
  - TREES WITH CENTRAL LEADER BROKEN SHALL BE REJECTED.
  - TREES THAT DO NOT DISPLAY THE NORMAL CHARACTERISTICS SHALL BE REJECTED.
  - THIS DETAIL ASSUMES THAT THE AREA OF LOAMY SOIL AVAILABLE TO EACH TREE IS A MINIMUM OF 500 SQ. FT.
  - LOAMY SOILS INCLUDE THE FOLLOWING USDA TEXTURAL CLASSIFICATIONS AND HAVE A CLAY CONTENT OF BETWEEN 15 TO 35%. LOAMY SANDY, LOAM AND SILT LOAM. NOTE THAT SOILS AT THE OUTER LIMITS OF THE LOAM CLASSIFICATIONS MAY PRESENT SPECIAL PLANTING PROBLEMS NOT ANTICIPATED BY THIS DETAIL.
  - LOAMY SOILS ARE DEFINED AS GRANULAR OR BLOCKY FRAGILE SOILS. A MIXTURE OF SAND, SILT AND CLAY PARTICLES WITH A MINIMUM OF 1% BY DRY WEIGHT ORGANIC MATTER. THE SOIL MUST NOT BE SO COMPACTED AS TO IMPED ROOT GROWTH OR DRAINAGE. THE SOIL STRUCTURE SHALL NOT BE PLATY OR MASSIVE. THE SOIL MUST BE TESTED FOR TEXTURE, DRAINAGE CAPABILITY, PH AND NUTRIENT VALUES PRIOR TO ADDING ANY SOIL IMPROVEMENTS.
  - EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.

**NO STANDARD CONSTRUCTION NUMBER  
TREE PLANTING (NON-RESTRICTED SOIL CONDITIONS)**  
NOT TO SCALE

**LANDSCAPE SPECIFICATIONS:**

**SCOPE OF WORK:**  
THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISH GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANNING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOL AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

**MATERIALS**

- GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.
- TOPSOIL - NATURE, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5% A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
- LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES.
- LAWNSEED MIXTURE SHALL BE FRESH CLEAN NEW CROP SEED.
- SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
- MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN
- FERTILIZER - FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WATERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
- FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS, AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY CERTIFIED SOIL LABORATORY.
- PLANT MATERIAL - ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).
- IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
- PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
- TREES WITH DEFORCEMENT OF BARK, SUN SCALDS, DISFIGURATION OF FRESH CUTS OF LIMBS OVER 1 1/2", WHICH HAVE NOT BEEN COMPLETELY CALLEDUS, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OF ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
- CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER IS SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
- SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
- TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

**GENERAL WORK PROCEDURES**

- CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
- WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

**SITE PREPARATIONS**

- BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
- ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.
- CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

**TREE PROTECTION**

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
- A FOURTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "VISH-FENCE", OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8") ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
- WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.
- AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCK PILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

**SOIL MODIFICATIONS**

- CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
- LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
- THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
  - TO INCREASE SANDY SOILS ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OF WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
  - TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT MORE THAN 40% CLAY OR SILT BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/ OR AGRICULTURAL GYPSUM. COURSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL. DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
  - MODIFY EXTREMELY SANDY SOILS (MORE THAN 95%) BY ADDING ORGANIC MATTER AND/ OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

**FINISHED GRADING**

- UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE- GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.
- LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1")
- ALL LAWN AND PLANTING AREA SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
- ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN A ND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

**TOPSOILING**

- CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
- ON -SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AS ANALYSIS OF BOTH IMPORTED AND ON -SITE TOPSITPE TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
- ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA):
  - 20 POUNDS GROW POWER OR APPROVED EQUAL
  - 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP

**PLANTING**

- INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY, IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT IN INSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.
- PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.
- ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN- CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.
- ALL PLANTING CONTAINERS, BASKETS AND NON- BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM ROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.
- POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.

**PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:**

- PLANTS: MARCH 15 TO DECEMBER 15
  - LAWN: MARCH 15 TO JUNE 15 OR SEPTEMBER 1 TO DECEMBER 1
- PLANTING REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.

- FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE USUALLY SUSCEPTIBLE TO WINTER DAMAGE, WITH TRANSLANT SHOCK RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:
  - ACER RUBRUM, PLATANUS X ACERIFOLIA
  - BETULA VARIETIES - POPULUS VARIETIES
  - CARPINUS VARIETIES, PRUNUS VARIETIES
  - CRATAEGUS VARIETIES - PYRUS VARIETIES
  - KOELERUTERIA, QUERCUS VARIETIES
  - LIQUDAMBAR STYRACIUM, LITSEA TOMENTOSA
  - LIRODENDRON TULIPIFERA - ZELKOVA VARIETIES

- PLANTING PITS SHALL BE DUG WITH LEVEL OF CONVEX BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
  - PART PEAT MOSS
  - PART COMPOSTED COW MANURE BY VOLUME
  - 3 PARTS TOPSOIL BY VOLUME
  - 21 GRAMS AGRIFORM PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS
    - 2 TABLETS PER 1 GALLON PLANT
    - 3 TABLETS PER 5 GALLON PLANT
    - 4 TABLETS PER 15 GALLON PLANT
    - LARGER PLANTS; 2 TABLETS PER 1/2" CALIPER TRUNK

- FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.
- ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.
- ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE. NO PRUNING SHALL BE CONDUCTED WITHIN THE FIRST YEAR OF PLANTING.
- GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.

- NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS
- ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.
- ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

- TRANSPLANTING (WHEN REQUIRED)**
- ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT. (SEE SPECIFICATION 2.F. ABOVE).
  - IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.
  - PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.

- UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.
- TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.
- IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

**WATERING**

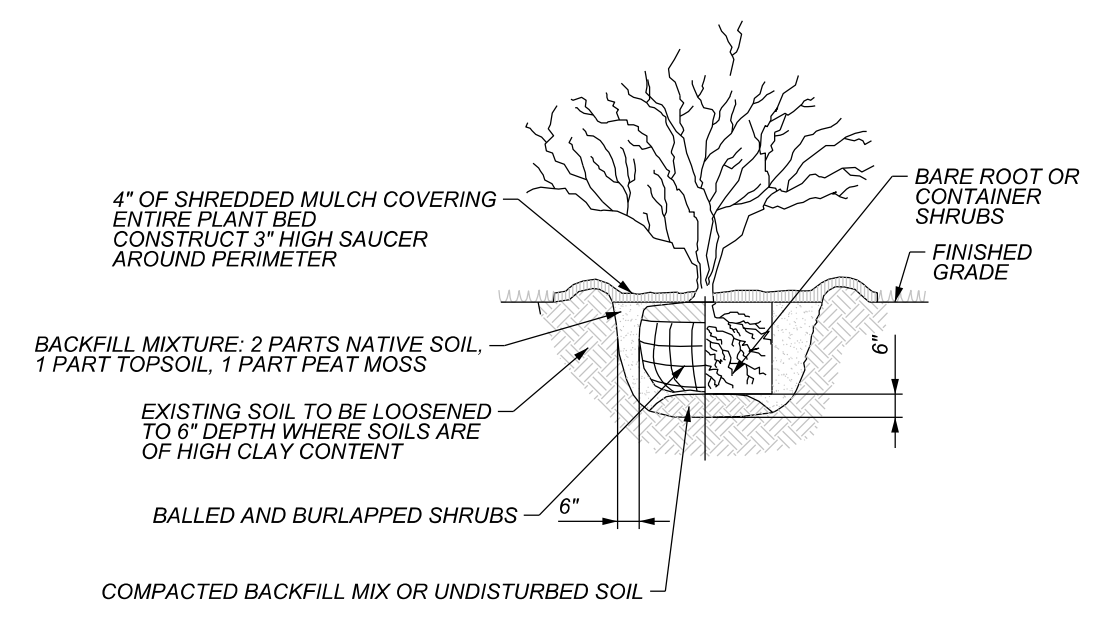
- NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH A MANNER AS TO NOT DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED.
- SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT THE TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.
- IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S OBLIGATION OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

**GUARANTEE**

- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER AT AUTHORIZED REPRESENTATIVE.
- ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANT SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITH EXCEPTION.
- TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING, AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE ON INSECTS AND DISEASE.
- LAWN SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE FROM ERODED OR BARE AREAS.

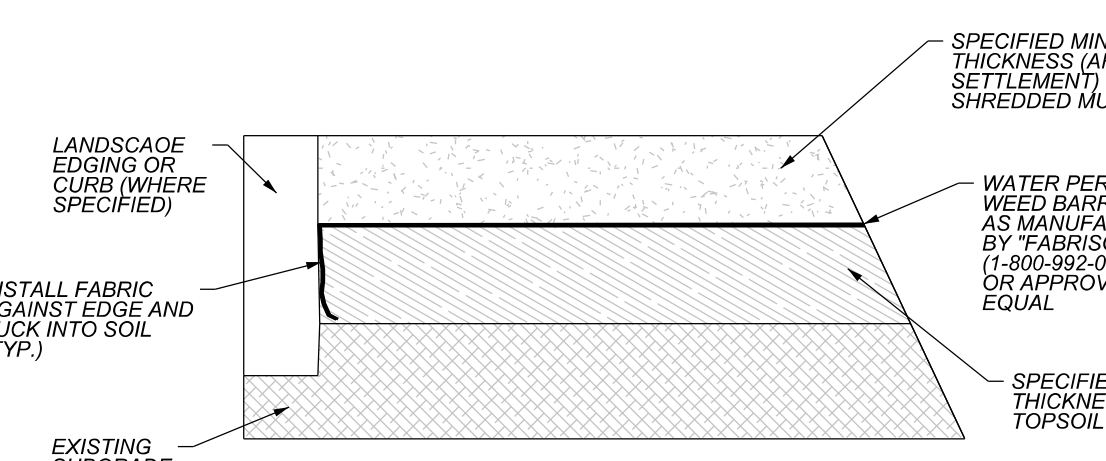
**CLEANUP**

- UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.
- THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.



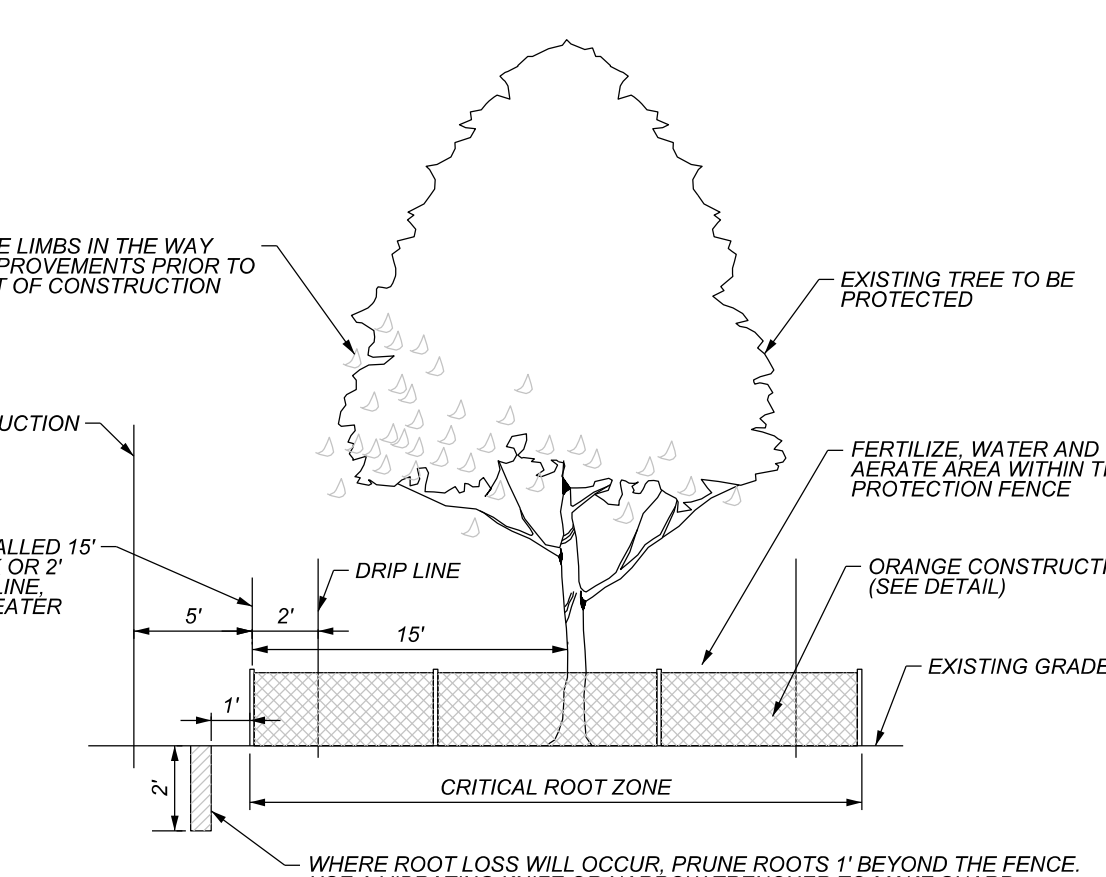
- NOTES:**
- REMOVE BURLAP FROM TOP 1/3 OF BALL OR WITH CONTAINER PLANTS REMOVE POTS AND SLICE BALLS 1" DEEP PER COMMON NURSERY PRACTICE.
  - DO NOT PRUNE EVERGREENS EXCEPT TO REMOVE DEAD AND BROKEN BRANCHES.
  - THIN BRANCHES AND FOLIAGE (NOT ALL BRANCH TIPS) BY 1/3, RETAINING NORMAL PLANT SHAPE (EXCEPT EVERGREEN).
  - SHRUB SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE IN THE NURSERY.

**NO STANDARD CONSTRUCTION NUMBER  
SHRUB PLANTING**  
NOT TO SCALE



- NOTES:**
- WEED BARRIER TO BE CUT TO ALLOW FOR PLANTING OF SHRUBS AS SPECIFIED IN SHRUB PLANTING DETAIL.

**NO STANDARD CONSTRUCTION NUMBER  
WEED BARRIER INSTALLATION**  
NOT TO SCALE



- NOTES:**
- NO ENTRY, STORAGE, DISTURBANCE OR ALTERATION SHALL OCCUR IN AREA WITHIN TREE PROTECTION FENCE.

**NO STANDARD CONSTRUCTION NUMBER  
TREE PROTECTION AND PRUNING**  
NOT TO SCALE

DATE: 07/19/22

REVISIONS

MARK: COMMENT: REVISION LETTER DATED 03/14/22

1. MUCD REVIEW LETTER DATED 03/14/22

CEG CEDARVILLE REGISTERED PROFESSIONAL ENGINEER - ENVIRONMENTAL SERVICES SURVEYING • CONSTRUCTION 159 East High Street, Suite 4500 | Pottstown, PA 19464 610.705.4500 (Office) | 610.705.4900 (Fax)

REGISTERED PROFESSIONAL ENGINEER ROBERT E. FLINCHBAUGH PE044274

SITING IN NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PREPARED FOR: E&S CONTROL LANDSCAPE/PLANTING DETAILS

PROJECT NAME: NEW HANOVER TOWNSHIP SWAMP CREEK STREAM RESTORATION

DESIGNED BY: xxx/xxx

DRAWN BY: MJC/MMG

CHECKED BY: BMF

PROJECT NO: NHT-21-205

DATE: 01/12/2021

SCALE: NTS

SHEET 9 OF 9

C-9

# APPENDIX F

## PRE- & POST- CONSTRUCTION SITE PHOTOS

### PRE CONSTRUCTION SITE PHOTOS















POST-CONSTRUCTION SITE PHOTOS







