



**SOUTH LONDONDERRY TOWNSHIP
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PROGRAM
INSPECTION REPORT**

**South Londonderry Township – 27 West Market Street
Palmyra, PA 17078**

**Pre-Inspection Conference Call: July 30, 2024
Field Inspection Date: August 7, 2024**

Report Date: October 3, 2024

DSB ID: ECAD-5512

**U.S. Environmental Protection Agency, Region 3
Enforcement and Compliance Assurance Division
NPDES Section
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Table 1. Summary of Permit Requirements and Inspection Observations

(The following observations are based on the information provided by the Township).

Program Element	Observations
Overall Program Management	Observation 1: The Township provided annual reports for all years of permit coverage, however for the periods of 2017-2018 and 2018-2019, signatures and dates were not included, and the EPA Inspection Team could not determine if these reports were submitted by the September 30 deadlines.
Illicit Discharge Detection and Elimination (IDDE)	Observation 2: The IDDE program plan provided by the Township did not include all Permit-required components. Observation 3: It was unclear when the Township’s written IDDE program was last evaluated to determine whether updates were necessary. Observation 4: The Township’s MS4 Hydrology map was dated “revised” July 10, 2017. It was unclear when the Township’s MS4 Hydrology Map was last evaluated to determine whether updates were necessary. Observation 5: It was unclear when the Township’s maps were last evaluated to determine whether updates were necessary. Observation 6: The Township did not have a tracking program for identified illicit discharges.
Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment	Observation 7: The post-construction stormwater management best management practices (PCSM BMP) inventory provided by the Township does not include accurate BMP type information. Observation 8: The inventory of Township-owned/operated PCSM BMPs provided by the Township did not include all Permit-required components. Observation 9: The Township’s PCSM BMPs inventory was last updated on May 18, 2015. It was unclear when the Township-owned/operated PCSM BMPs inventory was last evaluated to determine whether updates were necessary. Observation 10: The EPA Inspection Team observed maintenance needs at the 25 Springbrook Drive privately-owned

MS4 Compliance Inspection Report
South Londonderry Township, Pennsylvania

Program Element	Observations
	BMP. The Township stated they have trouble accessing this privately-owned/operated BMP. Observation 11: The Township could not determine proper maintenance of the 110 Northside Drive privately-owned/operated BMP as the Township was unsure if the cattails were part of the BMP design. Observation 12: The EPA Inspection Team observed that the site drawings for the publicly owned BMP at Barnwell Lane and Chesterfield Drive did not include the location of structures.
Pollution Prevention / Good Housekeeping (PPGH)	Observation 13: It was unclear when the Township's SWMP MS4 Pollution Prevention and Good Housekeeping O&M plan and the Township's standalone O&M plan were last evaluated to determine whether updates were necessary. Observation 14: It was unclear when the Township's facilities list was last evaluated to determine whether updates were necessary. Observation 15: At the West Sewer Treatment Plant, concrete bins containing wood chippings were located at an angle potentially causing the drainage to flow downhill out of the front of the bins. Observation 16: The dumpster at the Township's Public Works Yard was missing half of a lid causing small debris and liquid to accumulate around the dumpster's base. The Township did not have a control in place to prevent precipitation from entering the dumpster. Observation 17: The Township's employee training was last updated on September 23, 2015. It was unclear when the Township's employee training program was last evaluated to determine whether updates were necessary.
Pollutant Control Measures and Pollutant Reduction Plans	No areas of concern noted at this time.

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- Appendix A: *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)* (NPDES Permit No. PAG133546, effective July 1, 2018)
- Appendix B: Photograph Log
- Appendix C: Exhibit Log
- Appendix D: Design Plans

INTRODUCTION

On July 30, 2024, and August 7, 2024, EPA Region 3 representatives and EPA contractors Eastern Research Group, Inc. (ERG) (hereinafter, EPA Inspection Team) performed a compliance inspection of the South Londonderry Township's (hereinafter, South Londonderry, or the Township) Municipal Separate Storm Sewer System (MS4). The inspection was conducted to assess the Township's compliance with the requirements of the Commonwealth of Pennsylvania's *National Pollutant Discharge Elimination System (NPDES) General Permit to Discharge Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s)* (NPDES Permit No. PAG133546; hereinafter, the "Permit"). A copy of the Permit is provided in Appendix A.

The purpose of this inspection was to obtain information to assist EPA Region 3 in assessing South Londonderry Township's compliance with the requirements of the Permit, as well as the implementation status of its MS4 program. The presentation of observations in this report does not constitute a formal compliance determination or notice of violation.

The inspection focused on overall program management and the following Permit components:

- Illicit Discharge Detection and Elimination (IDDE);
- Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment;
- Pollution Prevention / Good Housekeeping (PPGH); and
- Pollutant Control Measures and Pollutant Reduction Plans (PRPs)

The EPA Inspection Team obtained information through a records review and interviews with Township staff. Interviews were conducted during the pre-inspection conference call ("pre-inspection call") and during the field inspection. The following primary representatives participated in the inspection:

Township

Representatives: John Eberly, Manager, manager@southlondonderry.org, 717-838-5556
Richie Deibert, Assistant Manager, richie@southlondonderry.org, 717-838-5556
Kara Kalupson, MS4 Engineer (Rettew Associates),
kara.kalupson@rettew.com, 800-738-8395

EPA

Representatives: Chuck Schadel – EPA Region 3, Schadel.Chuck@epa.gov, 215-341-1561
Amrita Gupta – EPA Region 3, Gupta.Amrita@epa.gov, 303-668-2940

State

Representatives: Scott Arwood – Pennsylvania Department of Environmental Protection (PADEP), sarwood@pa.gov, 717-705-4707
Leah Staley – Senior Civil Engineer Hydraulic, PADEP | South Central Regional Office, lestaley@pa.gov, 717-705-4814

Neenu Jeeth – Environmental Engineering Trainee | PADEP South Central Regional Office, njeeth@pa.gov, 717-705-7753

Jacob Rakowsky – Project Manager, Department of Environmental Protection | Clean Water Program PADEP Southcentral Regional Office, jrakowsky@pa.gov, 717-705-4918

EPA

Contractors: Taylor Fontaine – ERG, Taylor.Fontaine@erg.com, 703-956-1977
Cassidy Owen – ERG, Cassidy.Owen@erg.com, 804-314-7688
Kelsey Guy – ERG, Kelsey.Guy@erg.com, 703-633-1103

INFORMATION OBTAINED RELATIVE TO PERMIT REQUIREMENTS

The EPA Inspection Team obtained documentation and other supporting information to evaluate compliance with the Permit prior to, during, and after the remote interview and field inspection. Observations regarding the Township’s implementation of Permit requirements are presented in this report.

On July 18, 2024, the EPA Inspection Team provided the Township with an inspection notification and a records request that listed documents for review for the inspection, with specific items to be provided prior to the inspection. The Township provided the requested documents electronically to the EPA Inspection Team utilizing a shared folder on July 23, 2024, with additional documents provided on August 1, 2, and 19, 2024. The EPA Inspection Team reviewed the documentation and other supporting evidence provided by the Township regarding compliance with the Permit. Referenced documentation used as supporting information is provided in [Appendix C, Exhibit Log](#).

On August 23, 2024, after the field inspections, the EPA Inspection team emailed the Township an additional list of requested documents. The Township provided the requested documents on August 23, 2024.

The following sections of this report describe the Township’s approach to implementing minimum control measures, relevant Permit requirements, and observations made during the inspection process.

PRE-INSPECTION CONFERENCE CALL

On July 30, 2024, the EPA Inspection Team conducted a pre-inspection call with representatives from South Londonderry Township’s MS4 program. The pre-inspection call focused on the overall program management, the three (3) minimum control measures identified above, and the PRP, specifically for areas within the jurisdictional boundary of the Township’s MS4.

FIELD INSPECTION PROCESS

On August 7, 2024, the EPA Inspection Team conducted field inspections of ten (10) operations subject to MS4 program requirement and oversight: five (5) Best Management Practices (BMPs): three (3) detention basins, one (1) porous pavement path, and one (1) infiltration bed; one (1) stream restoration location and one (1) proposed stream restoration location; one (1) outfall; and two (2) high priority municipal facilities: the Department of Public Works (DPW) facility and the Campbelltown West Wastewater Treatment Plant (hereinafter, West Sewer Treatment Plant).

Inspection observations based on both the Conference Call and the field inspections are documented in the sections below. Photographs were taken during the inspection by the EPA contractors, and are provided in Appendix B, Photograph Log. Some photos may be omitted from the log to avoid redundancy but can be made available upon request. The EPA Inspection Team also photographed BMP design plans, included in this report as Appendix D, Design Plans. Note that the time stamps on photographs in the photograph log and design plan appendices are three hours early (i.e., the actual time of each photograph was three hours after each timestamp).

The EPA Inspection Team informed the operator that any information that the site deemed to be confidential business information (CBI) should be identified to EPA representatives during the inspection and it would be handled as CBI according to EPA's CBI procedures.

FIELD INSPECTION OPENING CONFERENCE

The EPA Inspection Team arrived at DPW headquarters in South Londonderry, PA at 8:30 AM (EDT) on August 7, 2024, which served as a central meeting place for the field inspections. Cassidy Owen and Kelsey Guy of ERG displayed their EPA-issued Clean Water Act inspector credentials to the Township representatives at the outset of the field inspection and explained that the purpose of the field inspection was to make observations to complement the Conference Call portion of the South Londonderry MS4 program inspection conducted July 30, 2024.

The weather during the field inspection on August 7, 2024, was slightly overcast with temperatures averaging approximately 75 degrees Fahrenheit. National Oceanic and Atmospheric Administration (NOAA) National Weather Service precipitation data for the date of the inspection and five (5) days prior are provided in the table below.

Table 2. Total Precipitation Preceding and During Inspection

Station Name	Date	Precipitation Amount (inches) ¹
LITITZ 0.3 WNW, PA US US1PALN0022	August 2, 2024	0.09
LITITZ 0.3 WNW, PA US US1PALN0022	August 3, 2024	0.49
LITITZ 0.3 WNW, PA US US1PALN0022	August 4, 2024	0.34
LITITZ 0.3 WNW, PA US US1PALN0022	August 5, 2024	0.00
LITITZ 0.3 WNW, PA US US1PALN0022	August 6, 2024	0.00
LITITZ 0.3 WNW, PA US US1PALN0022	August 7, 2024	1.60

SOUTH LONDONDERRY TOWNSHIP BACKGROUND

The Township administers the MS4 system and the sanitary sewer. The Township's MS4 program is administered and implemented by the Township's Department of Public Works (DPW), predominantly overseen by the Township's Assistant Manager, but also the Township's Manager. The Township staff explained that the MS4 program is primarily funded through the Township's general fund and supplemented by grants, allowing the MS4 to not charge a stormwater fee to residents. The Township contracts Rettew Associates as their Township MS4 Engineer.

- The DPW inspects outfalls and investigates illicit discharges, maintains stormwater infrastructure (i.e., cleans out basins and repairs pipes and sink holes). The Township's contracted engineer, Rettew Associates, is responsible for reviewing stormwater plans, annual reporting, and inspection of construction activities.
- Rettew Associates has served as the Township's engineering firm since January 2022. Rettew Associates also supports Annual Report development.

The Township staffs approximately twenty (20) people, including sewer authority staff, who are involved with stormwater management. The Township's Fire Department and Police Department work closely with the DPW when accidents occur and if there are potential illicit discharges.

Other entities assist the DPW with MS4 Permit compliance and facilitation including the Lebanon County Conservation District and Pennsylvania Department of Transportation.

The Township's MS4 covers approximately twenty-four (24) square miles and serves 8,776 people per the 2020 census. Per the Township's 2022-2023 annual report (refer to [Appendix C, Exhibit 1](#)), the Township's primary receiving waters for the MS4 include Spring Creek, Killinger Creek, Quittapahilla Creek, and several unnamed tributaries. The Township stated that there are no storm sewer interconnections with neighboring MS4s.

¹ Source: NOAA National Climatic Data Center (<http://www.ncdc.noaa.gov/>).

The Township is authorized to discharge stormwater through its MS4 under the current NPDES Permit authorized beginning July 1, 2018, until the Permit expires on March 15, 2023; coverage under the Permit does not expire unless revoked by DEP.

MONITORING, REPORTING AND RECORDKEEPING

The Township discussed with the EPA Inspection Team, and provided a written report submitted to the PADEP, of an incident in May 2024 when a discharge reported by a citizen was investigated (refer to Appendix C, Exhibit 2).

Permit Part A.III.D.1 states, "The permittee shall submit a complete Annual MS4 Status Report using DEP's annual report template (3800-FM-BCW0491) to the DEP regional office that issued Permit coverage approval by September 30 of each year.

- a. For existing permittees, the first annual report submitted to DEP under this permit shall have a reporting period starting from the end of the latest annual or progress report period (under the previous permit) to June 30, 2023. The first annual report is due by September 30, 2023. For new permittees, the first annual report is due by September 30, following the first year of Permit coverage.
- b. Following the first annual report, the reporting period shall thereafter be July 1 - June 30, and the report shall be due by September 30."

Observation 1: The Township provided annual reports for all years of permit coverage. The annual reports for periods 2017-2018 and 2018-2019 did not have dates or signatures on them (refer to Appendix C, Exhibit 3). The EPA Inspection Team could not determine if these annual reports were submitted by the September 30 deadline of their respective reporting years.

MINIMUM CONTROL MEASURE 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

The Township's MS4 Manager administers the Township's IDDE program. The Township receives concerns regarding potential or actual illicit discharges from residents, businesses, and the Police and Fire Departments via the Township's main phone line, or in some cases through 911. The Township's Assistant Manager primarily conducts follow up on these reported concerns through investigation and necessary follow-up actions if an illicit discharge is found. The Township's Assistant Manager investigates the source of any discharge and initiates response actions if necessary. In the event of an illicit discharge violation, the Township's Assistant Manager stated that they and/or members of the Township's Code Enforcement Office join with the Police Department to attempt to educate the violator. Township representatives stated they prefer to use education to follow-up on illicit discharges rather than formal enforcement or fines, if possible.

Rettew Associates developed the Township's MS4 maps included in their PRP: Hydrology, Municipal Storm Sewershed, and Proposed Stormwater BMPs, for the Township dated July 10,

2017, July 10, 2017, and April 19, 2022, respectively (refer to [Appendix C, Exhibit 4](#)). The maps include all the required components specified in the permit. The Township provided the EPA Inspection Team with a report of all Township outfalls inspected in 2022 (refer to [Appendix C, Exhibit 5](#)). The latitude and longitudes in the inspection reports provided correspond with the actual locations of the outfalls.

According to the Township's 2022-2023 annual report (refer to [Appendix C, Exhibit 1](#)), the Township has 23 MS4 outfalls within its regulated boundary. The EPA Inspection Team reviewed the Township provided maps and noted the inclusion of 23 outfalls.

The Township stated that within the last year, they observed two illicit discharges: a blue-colored water reported by a Township resident and a tractor trailer spill of soy lecithin. The Township stated they contacted the State and the County in both instances. The blue-colored water was an overapplied algae treatment (refer to [Appendix C, Exhibit 2](#)). The Borough spoke with the property owner to educate them and help prevent future occurrences. The Borough cleaned the spill of soy lecithin. No NOV was issued as this was an accident on the roadway.

The *South Londonderry Township Stormwater Management Ordinance 223* (dated September 13, 2022) prohibits illicit discharges into the Township's MS4 (refer to [Appendix C, Exhibit 6](#)) and acts as the regulatory mechanism for the Township. Within the Township's written Stormwater Management Plan (SWMP), is their IDDE program (refer to [Appendix C, Exhibit 7](#)). Their IDDE program includes standard operating procedures (SOPs) to track, identify, and address unauthorized non-stormwater discharges.

Dry-weather screenings are typically done by the DPW. The Township's Assistant Manager trained two staff members to conduct dry-weather screening and the MS4 is educating additional staff members through webinars and training (i.e., Local Technical Assistance Program funded by PennDOT).

Permit Part C.I.B.3.a states, "The permittee shall develop and implement a written program for the detection, elimination, and prevention of illicit discharges into the regulated small MS4. The program shall include the following:

- Procedures for identifying priority areas. These are areas with a higher likelihood of illicit discharges, illicit connections or illegal dumping. Priority areas may include areas with older infrastructure, a concentration of high-risk activities, or past history of water pollution problems.
- Procedures for screening outfalls in priority areas. The program shall include dry weather field screening of outfalls for non-stormwater flows, and sampling of dry weather discharges for selected chemical and biological parameters. Test results shall be used as indicators of possible discharge sources.
- Procedures for identifying the source of an illicit discharge when a contaminated flow is detected at a regulated small MS4 outfall.

- Procedures for eliminating an illicit discharge.
- Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems (e.g., on-lot septic systems, sanitary piping) with storm drain systems.
- Mechanisms for gaining access to private property to inspect outfalls (e.g., land easements, consent agreements, search warrants) and for investigating illicit connections and discharges.
- Procedures for program documentation, evaluation and assessment. Records shall be kept of all outfall inspections, flows observed, results of field screening and testing, and other follow-up investigation and corrective action work performed under this program.
- Procedures for addressing information or complaints received from the public.

- (1) For new permittees, the IDD&E program shall be developed during the first year following issuance of this permit and shall be implemented and evaluated each year thereafter.
- (2) For existing permittees, the IDD&E program shall continue to be implemented and evaluated annually.”

Observation 2: The IDDE program plan provided by the Township does not include all Permit-required components (refer to Appendix C, Exhibit 7). Specifically, the plan does not include:

- Procedures for identifying priority areas;
- Procedures for screening outfalls in priority areas;
- Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems with storm drain systems; and
- Procedures for program documentation, evaluation, and assessment.

Observation 3: The written IDDE program (revised June 23, 2016) states the Township’s stormwater ordinance is dated August 11, 2015. Per the Township’s website (<https://www.southlondonderry.org/stormwater.html>) the Township adopted its current stormwater ordinance on September 13, 2022. The Township’s 2022-2023 annual report documents the IDDE program’s annual review occurred in June 2023 and no updates were made. It was unclear when the written IDDE program was last evaluated to determine whether updates were necessary.

Permit Part C.I.B.3.b states, “The permittee shall 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).

- (2) For existing permittees, the existing map(s) shall be updated and maintained as necessary during each year of coverage under this permit.”

Observation 4: The Township provided the EPA Inspection Team with their PRP which includes a MS4 Hydrology Map that identifies the MS4 boundaries, outfalls, and receiving waters (refer to Appendix C, Exhibit 4). The MS4 Hydrology Map was dated “revised” July 10, 2017. It was unclear when the MS4 Hydrology Map was last evaluated to determine whether updates were necessary.

Permit Part C.I.B.3.c states, “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 received stormwater flows from upstream publicly-owned components.

- (1) For new permittees, the map(s) must be developed and submitted to DEP as an attachment to an Annual MS4 Status Report by September 30, 2022 or the fourth (4th) Annual MS4 Status Report following approval of coverage under this General Permit, whichever is later.
- (2) For existing permittees, the existing map(s) shall be updated and maintained as necessary during each year of coverage under this General Permit.”

Observation 5: The Township provided the EPA Inspection Team with their PRP, which included their MS4 maps identifying the MS4 storm sewer collection system (refer to Appendix C, Exhibit 4). The Proposed Stormwater BMPs map, the Stormwater System map, the Hydrology map, and the Municipal Storm Sewershed maps are all dated “revised” July 10, 2017. Per the Township’s 2023 Revised PRP (refer to Appendix C, Exhibit 12) the Proposed Stormwater BMPs map was last updated April 19, 2022. It was unclear when the MS4 Storm Sewershed was last evaluated to determine whether updates were necessary.

Permit Part C.I.B.3.d states, “The permittee shall conduct dry weather screenings of its 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, in accordance with Part A III.D.4 of this permit.

- (1) For new permittees, all of the identified regulated small MS4 outfalls shall be screened during dry weather at least twice within the 5-year period following issuance of this permit....
- (4) Each time an outfall is screened, the permittee shall record outfall observations, regardless of the presence of dry weather flow. All outfall inspections shall be

documented on the MS4 Outfall Field Screening Report form (3800-FM-BCW0521), or equivalent. The report must be signed by the inspector and be maintained by the permittee in accordance with Part A III.B of this General Permit....

- (7) Permittees must ensure that outfalls are properly maintained in accordance with Part C I.B.6.b of this Permit.”

Observation 6: Based on information provided by the Township, the Township does not have a formal tracking program for identifying illicit discharges. The Township stated they are working to track dry-weather screenings.

MINIMUM CONTROL MEASURE 5: POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) IN NEW DEVELOPMENT AND REDEVELOPMENT

The Township’s MS4 Manager administers the Township’s post-construction program with assistance from the MS4 Engineer. In response to the initial records request, the Township provided the EPA Inspection Team with a list of all identified Township-owned/operated and privately-owned/operated PCSM BMPs. The Township last updated the inventory on May 18, 2015. The list identified thirty (30) BMPs (refer to [Appendix C, Exhibit 8](#)).

The Township uses the *South Londonderry Township Stormwater Management Ordinance 223* (dated 9/13/2022) as their legal mechanism for PCSM (refer to [Appendix C, Exhibit 6](#)). Section 301.M requires stormwater management BMPs to be designed, implemented, operated, and maintained to meet all requirements under Title 25 of the Pennsylvania Code. Section 401.D.38 addresses operation and maintenance plan requirements for permanent PCSM facilities, including regular inspections and maintenance requirements. Section 407 requires the developer to provide as-built plans for all stormwater management BMPs to the Township. Section 501.D provides the Township with the ability to take enforcement actions against anyone not complying with Article V – Operation & Maintenance of the ordinance. Section 502.A.2 assures access by the Township for periodic inspections and maintenance.

According to Township representatives, maintenance of privately-owned BMPs is the responsibility of the property owner. If there are identified issues with privately-owned BMPs, the Township’s Assistant Manager communicates to the owner that maintenance is needed, and the owner addresses the issue. Issues are typically identified by concerned citizens or through the Township’s inspections of Township-owned and privately-owned BMPs. If the BMP-owner does not comply, the Township’s ordinance provides the Township the right to access the property, perform required maintenance, and retroactively bill the owner for maintenance and repair costs.

The Township’s Department of Public Works is tasked with inspecting and maintaining the Township-owned/operated BMPs. The Township’s Assistant Manager maintains an inventory of the BMPs owned/operated by the Township or private entities.

Permit Part C.I.B.5.c states, “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.

An inventory of PCSM BMPs shall be developed by new permittees by the end of the first year of Permit coverage and shall be continually updated during the term of coverage under the Permit as development projects are reviewed, approved, and constructed. Existing permittees shall update and maintain its current inventory during the term of coverage under the Permit. The permittee must track the following information in its PCSM BMP inventory:

- All PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003.
- The exact location of the PCSM BMP (e.g., latitude and longitude, with street address).
- Information (e.g., name, address, phone number(s)) for BMP owners and entities responsible for BMP O&M, if different from BMP owners.
- The type of BMP and the year it was installed.
- Maintenance required for the BMP type according to the Pennsylvania Stormwater BMP Manual or other manuals and resources.
- The actual inspection/maintenance activities conducted for each BMP.
- An assessment by the permittee if proper O&M has occurred during the year and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements.”

Observation 7: The inventory of Township-owned/operated PCSM BMPs provided by the Township lists no detention basins, only retention basins (refer to [Appendix C, Exhibit 8](#)). However, the EPA Inspection Team observed three (3) of the 28 listed basins and determined all three to be detention basins. The PCSM BMP list provided by the Township does not include accurate BMP type information. The following detention basins are identified by the Township as retention basins in their BMP inventory:

- 25 Springbrook Drive Detention Basin
- 110 Northside Drive Detention Basin
- Barnwell Lane and Chesterfield Drive Detention Basin

Observation 8: The inventory of Township-owned/operated PCSM BMPs provided by the Township does not include all Permit-required components (refer to [Appendix C, Exhibit 8](#)) including:

- The exact location of the PCSM BMP. The PCSM BMP list only provides the addresses of BMPs, not latitudes nor longitudes.
- Information for BMP owners. The PCSM BMP list only provides the names of owners. Owner addresses and phone numbers are not included in the inventory.
- The year of BMP installation is not included in the inventory.

- The actual inspection/maintenance activities conducted for the BMP.
- An assessment by the permittee to determine if proper O&M has occurred during the year and if not, what actions the permittee has taken to address compliance with O&M requirements.

Observation 9: The inventory of Township-owned/operated PCSM BMPs provided by the Township is dated updated May 18, 2015. It was unclear when the Township-owned/operated PCSM BMPs inventory was last evaluated to determine whether updates were necessary.

Observation 10: At the time of the inspection, the EPA Inspection Team observed a detention basin located at 25 Springbrook Drive with maintenance issues (refer to [Appendix B, Photographs 1 and 2](#)). The EPA Inspection Team observed overgrown grass and small trees growing within the basin and around the base of the outlet riser structure. The Township stated they do not have access to this privately-owned BMP and that they perform BMP inspections from outside the fenced area. The EPA Inspection Team observed grass clippings stored uphill of a stormwater inlet outside the basin (refer to [Appendix B, Photograph 3](#)).

Observation 11: At the time of the inspection, the EPA Inspection Team observed a detention basin located at 110 Northside Drive (refer to [Appendix B, Photographs 4 through 15](#)). The EPA Inspection Team observed tree growth at one inlet in the northwestern basin (refer to [Appendix B, Photograph 6](#)). The EPA Inspection Team also observed cattails growing near the middle of the northwestern basin (refer to [Appendix B, Photographs 7 and 8](#)). The Township stated that they were not sure if the cattails were intentional. However, the cattails are not shown on the building plans for the BMP (refer to [Appendix D, Photograph 1](#)).

Observation 12: At the time of the inspection, the EPA Inspection Team observed a detention basin located at Barnwell Lane and Chesterfield Drive (refer to [Appendix B, Photographs 16 through 20](#)). During the inspection, the Township provided the EPA Inspection Team with design plans for the detention basins (refer to [Appendix D, Photographs 2 and 3](#)); however, the designs lack locations for basin structures, so it could not be determined if the basin was constructed as designed.

MINIMUM CONTROL MEASURE 6: POLLUTION PREVENTION / GOOD HOUSEKEEPING (PPGH)

The Township's DPW administers the Township's PPGH program. The Township identified the following high priority PPGH facilities within the Township's MS4 area: DPW facility with salt storage and the West Sewer Treatment Plant.

The DPW performs maintenance in contained areas or indoors, checks and maintains inlets, and provides reports, as necessary. The Township stated that if more than three inches of rain

occurs or the Township receives a complaint, the Township performs additional checks. If timing allows, the DPW cleans out stormwater infrastructure before and after storm events.

The Township uses video inspections of piping and other infrastructure to determine if sediment removal is necessary. A vacuum truck is used as needed to remove sediment and the removed sediment and debris is stored at the West Sewer Treatment Plant in a concrete bin until the Township's waste contractor picks it up and disposes of it.

The Township does not conduct street sweeping. This is conducted by another borough within Lebanon County, and South Londonderry stores the waste produced by sweeping in a concrete bin along with the sediment and debris from piping and infrastructure maintenance at the West Sewer Treatment Plant.

Vehicle fueling for municipal vehicles is typically done at the fueling station in the Public Works yard but can be done at the West Sewer Treatment Plant yard for diesel needs, which contains an underground gasoline storage tank and pump.

The Township developed an O&M Program plan for the Township's PPGH program (refer to Appendix C, Exhibit 9). At the time of the inspection, the Township did not have a log for work orders as the Township currently manages all tasks as they come in. The Township requests approval from the Township's Board of Supervisors for any expensive repairs that the DPW cannot perform themselves; emergency repairs do not require approval.

Permit Part C.I.B.6.a requires the Permittee to, "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 regulated small MS4. This includes activities conducted by contractors for the permittee. Activities may include the following: street sweeping; snow removal/deicing; inlet/outfall cleaning; lawn/grounds care; general storm sewer system inspections and maintenance/repairs; park and open space maintenance; municipal building maintenance; new construction and land disturbances; right-of-way maintenance; vehicle operation, fueling, washing and maintenance; and material transfer operations, including leaf/yard debris pickup and disposal procedures. Facilities can include streets; roads; highways; parking lots and other large, paved surfaces; maintenance and storage yards; waste transfer stations; parks; fleet or maintenance shops; wastewater treatment plants; stormwater conveyances (open and closed pipe); riparian buffers; and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, constructed wetlands, etc.).

- (1) New permittees shall create an inventory of all operations and land uses that may contribute to pollution in stormwater runoff within areas of operations that discharge to

the regulated small MS4 by the end of the first year of permit coverage, and review and update the inventory annually thereafter.

- (2) All permittees must review and update the inventory each year of permit coverage, as necessary.”

Observation 13: The Township’s Stormwater Management Plan contains their MS4 Pollution Prevention and Good Housekeeping O&M plan, dated 2022 (refer to Appendix C, Exhibit 9). The Township’s standalone O&M program is dated “Revised 2022.” It was unclear when the O&M plan was last evaluated to determine whether updates were necessary.

Observation 14: The Township last updated their list of Township-owned/operated facilities that have the potential for generating pollution in stormwater runoff inventory (per their SWMP’s MS4 Pollution Prevention and Good Housekeeping O&M plan) in 2022 (refer to Appendix C, Exhibit 9). It was unclear when the facilities list was last evaluated to determine whether updates were necessary.

Permit Part C.I.B.6.b requires the Permittee to, “Develop, implement and maintain a written O&M program for all operations that could contribute to the discharge of pollutants from the regulated small MS4, as identified under BMP #1. This program shall address stormwater collection or conveyance systems within the regulated MS4. The written O&M program shall stress pollution prevention and good housekeeping measures, contain site-specific information, and include the following:

- Management practices, policies, and procedures shall be developed and implemented to reduce or prevent the discharge of pollutants to the regulated small MS4s. The permittee shall consider eliminating maintenance area discharges from floor drains and other drains if they have the potential to discharge to storm sewers.
- Maintenance activities, maintenance schedules, and inspection procedures to reduce the potential for pollutants to reach the regulated small MS4s.
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, salt / sand (anti-skid) storage locations and snow disposal areas. Controls for solid chemical products stored and utilized for the principal purpose of deicing roadways for public safety must be consistent with the BMPs for existing salt storage and distribution sites contained in the PAG-03 NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.
- Procedures for the proper disposal of wastes, including dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, street sweepings, and other debris.

- (1) New permittees shall develop and implement a written O&M program by the end of the first year of General Permit coverage and review and update the program each year thereafter.
- (2) All permittees must review and update the written O&M program each year of General Permit coverage, as necessary."

Observation 15: The EPA Inspection Team visited the Township's West Sewer Treatment Plant (refer to Appendix B, Photographs 21 through 29) and observed a lack of proper O&M practices. The Township placed concrete bins made of jersey walls containing wood chippings at an angle such that drainage could flow downhill out the front of the bins (refer to Appendix B, Photographs 22 through 24).

Observation 16: At the time of the inspection, the EPA Inspection Team visited the Public Works Department Facility (refer to Appendix B, Photographs 30 through 50). The EPA Inspection Team observed that the dumpster at the Public Works Facility was missing half of its lid (refer to Appendix B, Photograph 30 and 31) allowing precipitation to accumulate in the dumpster. The EPA Inspection Team observed no drain holes at the bottom of the dumpster, but there was liquid around the bottom of the dumpster. The Township did not have a control in place to prevent precipitation from entering the dumpster.

Permit Part C.I.B.6.c requires the Permittee to, "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. The program may be developed and implemented using guidance and training materials that are available from federal, state or local agencies, or other organizations. All relevant employees and contractors shall receive training (i.e., public works staff, building, zoning, and code enforcement staff, engineering staff, police and fire responders, etc.). Training topics shall include operation, inspection, maintenance and repair activities associated with any of the operations identified under BMP #1. Training must cover all relevant parts of the permittee's overall stormwater management program that could affect operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.

- (1) New permittees shall develop and implement a training program that identifies the training topics that will be covered and what training methods and materials will be used by the end of the first year of permit coverage.
- (2) All permittees must review and update the training program each year of permit coverage, as necessary.
- (3) Employee training shall occur at least annually and shall be documented in writing and reported in Annual MS4 Status Reports. Documentation shall include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s)."

Observation 17: The Township's Employee Training presentation provided to the EPA Inspection Team by the Township is dated September 23, 2015. It was unclear when the training was last evaluated to determine whether updates were necessary.

POLLUTANT CONTROL MEASURES AND POLLUTANT REDUCTION PLANS (PRP)

Rettew Associates developed the Township's Chesapeake Bay Pollutant Reduction Plan (PRP), dated September 15, 2017, for total nitrogen (TN), total phosphorus (TP), and total suspended solids (TSS). PADEP approved the Township's PRP on June 28, 2018. The Township provided the project plans and pollutant reduction calculations to the EPA Inspection Team after the onsite inspection (refer to [Appendix C, Exhibits 10 and 11](#)). The Township revised their PRP on March 21, 2023, but the EPA Inspection Team could not determine if PADEP approved the revision (refer to [Appendix C, Exhibit 12](#)).

The Township's Killinger Creek Restoration Project is a riparian buffer between Brant and Hinkle Roads on the northeast side of Township. The Township completed Phase I approximately six (6) weeks prior to this field inspection. At the time of the inspection, the Township stated they were in the bidding process for Phases II and III of the Killinger Creek Restoration Project.

Rettew Associates stated, based on their conversation with PADEP, that the Township has met about 95% of their pollutant loading reductions with the Killinger Creek Restoration Project – Phase I. The Township stated that the two additional projects, Killinger Creek Restoration Project – Phases II and III, will fulfill the rest of the PRP requirements.

FIELD CONDITIONS

MINIMUM CONTROL MEASURE 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) (FIELD INSPECTIONS)

Outfall R28, near the Barnwell Land and Chesterfield Drive Township Owned/Operated Detention Basin

Address/Location: 40.275790°, -76.576954°

Relevant Minimum Control Measure (MCM): IDDE

Entry Time: 11:45 AM (EDT) August 7, 2024

Exit Time: 11:55 AM (EDT)

Description: The outfall receives stormwater from the detention basin near Barnwell Lane and Chesterfield Drive. The basin receives and detains runoff during storm events.

Conditions: The EPA Inspection Team observed the following conditions at Outfall 28:

- 1) The Township listed the detention basin incorrectly as a retention basin in their BMP inventory (refer to [Observation 7](#) and [Appendix C, Exhibit 8](#)).
- 2) The EPA Inspection Team observed recently cut back vegetation and mowed grass (refer to [Appendix B, Photographs 51 through 53](#)).

- 3) The Township stated they inspect all outfalls for sediment, dry-weather flow, erosion, and vegetation management during their outfall inspections. The Township stated they are in the process of incorporating outfall inspections into their geographic information system program for records keeping. The township currently does not document inspections they conduct at the outfalls (refer to Observation 6).

MINIMUM CONTROL MEASURE 5: POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) IN NEW DEVELOPMENT AND REDEVELOPMENT (FIELD INSPECTIONS)

25 Springbrook Drive Detention Basin (Privately-owned/Operated BMP)

Address/Location: 40.279629°, -76.585912°

Relevant Minimum Control Measure (MCM): PCSM

Entry Time: 9:24 AM (EDT) August 7, 2024

Exit Time: 9:38 AM (EDT)

Description: The detention basin receives and detains runoff from surrounding residential areas during storm events. The Township listed the basin incorrectly as a retention basin in their BMP inventory (refer to Appendix C, Exhibit 8).

Conditions: The EPA Inspection Team observed the following conditions at the basin:

- 1) The EPA Inspection Team observed overgrown grass and small trees growing within the basin and around the base of the outlet riser structure (refer to Observation 10 and Appendix B, Photographs 1 and 2). The EPA Inspection Team observed grass clippings stored uphill of a stormwater inlet, outside of the basin (refer to Observation 10 and Appendix B, Photograph 3).
- 2) The EPA Inspection Team observed that the basin outlet was inaccessible with a locked gate surrounding the entire basin (refer to Observation 10 and Appendix B, Photograph 2). The Township stated they inspect the basin from outside the gate.
- 3) The Township stated they inspect the BMP for sediment, damming, tall grass, trees, etc. Upon the Township's last inspection of this BMP, the Township noted a small accumulation of sediment at the inlets and the Township reached out to owner to request maintenance (i.e., removal) of the trees growing within the BMP. The Township mailed a letter to the BMP owner requesting maintenance, followed by a Notice of Violation 30 days later due to a lack of response from the owner (refer to Appendix C, Exhibit 13). According to the Township representatives, next steps will include the Township conducting the necessary work themselves and fining the owner the costs of maintenance plus additional fees.
- 4) The EPA Inspection Team observed that the outflow structure and spillway were maintained, located, and configured as designed compared to the feature's building plans (refer to Appendix D, Photograph 4).

110 Northside Drive, Palmyra, PA 17078 (Privately-owned/Operated BMP)

Address/Location: 40.283136°, -76.591255°

Relevant Minimum Control Measure (MCM): PCSM

Entry Time: 10:09 AM (EDT) August 7, 2024

Exit Time: 10:50 AM (EDT)

Description: Two detention basins, one to the west and one to the south, adjacent to the Cedar Shopping Center parking lot. The Township listed the basins incorrectly as retention basins in their BMP inventory (refer to Observation 7 and Appendix C, Exhibit 8).

Conditions: The EPA Inspection Team observed the following conditions at the detention basins:

- 1) The EPA Inspection Team observed that the inlets, outflow structures, and spillways were maintained (refer to Appendix B, Photographs 4 and 5), except for tree growth at one inlet (refer to Appendix B, Photograph 6). The EPA Inspection Team observed the inlets, outflow structures, and spillways located and configured as designed for both basins (refer to Appendix D, Photograph 1). When asked about cattails growing near the middle of the northwestern basin (refer to Observation 11 and Appendix B, Photographs 7 and 8), the Township stated they were not sure if the cattails were intentional. The cattails are not shown on the building plans.
- 2) The EPA Inspection Team observed active flow within the western basin's riser and from the two southern outlets (refer to Appendix B, Photographs 9 through 11). Flows into the western basin were clear.
- 3) The EPA Inspection Team observed the southern basin to be well maintained (refer to Appendix B, Photographs 12 through 15). There was also active flow within this basin (refer to Appendix B, Photographs 13 and 14). The Township stated that typically all inlets to both basins are dry. It was lightly raining at the time of the inspection.

Barnwell Lane and Chesterfield Drive Detention Basin (Township-owned/Operated BMP)

Address/Location: 40.275842°, -76.576507°

Relevant Minimum Control Measure (MCM): PCSM

Entry Time: 11:45 AM (EDT) August 7, 2024

Exit Time: 11:55 AM (EDT)

Description: A detention basin south of Barnwell Lane. An inlet from Barnwell Lane collects stormwater and feeds into riprap before flowing southwest into the detention basin. An inlet at the furthest southwest edge of the basin directs stormwater to Outfall R28, which discharges to an unnamed tributary.

Conditions: The EPA Inspection Team observed the following conditions at the basin:

- 1) The EPA Inspection Team observed mowed grass and no trash/debris within the riprap and basin (refer to Appendix B, Photographs 16 through 20).

- 2) The EPA Inspection Team observed that the structures and spillway were well maintained, but the EPA Inspection Team could not determine if the site was constructed as designed from the building plans (refer to Observation 12 and Appendix D, Photographs 2 and 3).

Springbrook Farms Porous Pavement (Privately-owned/Operated BMP)

Address/Location: 40.280844°, -76.578960°

Relevant Minimum Control Measure (MCM): PCSM

Entry Time: 10:56 AM (EDT) August 7, 2024

Exit Time: 11:06 AM (EDT)

Description: A porous pavement walking pathway around and through the community of Springbrook Farms.

Conditions: The EPA Inspection Team observed the following conditions at the porous pavement pathway:

- 1) The EPA Inspection Team observed that the porous pavement was well maintained (i.e., no accumulation of sediments in the pavement). The EPA Inspection Team observed that the structure was located and configured as designed (refer to Appendix D, Photograph 5). The EPA Inspection Team did not collect a photograph of the porous pavement; however, a Google Street View image (dated October 2023) is included as Appendix B, Photograph 54. The BMP in this photograph appeared as it did on the date of the EPA inspection.
- 2) The Township stated they had not performed maintenance (i.e., cleaning) of the pathway since installation. The Township stated that the porous pathway the Township based their designs on had not needed to be cleaned since installation several years ago.

MINIMUM CONTROL MEASURE 6: POLLUTION PREVENTION / GOOD HOUSEKEEPING (FIELD INSPECTIONS)

West Sewer Treatment Plant

Address/Location: 40.281196°, -76.589417°

Relevant Minimum Control Measure (MCM): PPGH

Entry Time: 9:46 AM (EDT) August 7, 2024

Exit Time: 10:03 AM (EDT)

Description: The West Sewer Treatment Plant's yard is used for the storage of aggregate materials, street sweeping materials, and vacuum truck debris.

Conditions: The EPA Inspection Team observed the following conditions at the Wastewater Treatment Plant's yard:

- 1) The EPA Inspection Team observed one 1,000-gallon double-walled aboveground storage tank of diesel fuel with a spill kit (refer to [Appendix B, Photograph 25](#)).
- 2) The EPA Inspection Team observed approximately eight concrete bins made from jersey walls that contained aggregate materials, as well as cold patch and street sweepings (refer to [Appendix B, Photograph 21](#)).
- 3) The EPA Inspection Team observed street sweeping waste materials as well as cold patch in bins, each with an absorbent boom (refer to [Appendix B, Photographs 27 and 28](#)). The cold patch was covered with a tarp (refer to [Appendix B, Photograph 28](#)).
- 4) The EPA Inspection Team observed two (2) bins with slopes angled such that drainage could flow downhill out of the front of the bays (refer to [Observation 15](#) and [Appendix B, Photographs 22 and 23](#)). The bins contained wood chippings. The EPA Inspection Team did not observe evidence of sediment migration past the graveled perimeter (refer to [Appendix B, Photograph 24](#)).
- 5) The EPA Inspection Team observed an uncontained stockpile of topsoil (refer to [Appendix B, Photograph 22](#)), as well as (3) three uncontained stockpiles of aggregate rocks (refer to [Appendix B, Photographs 21 and 29](#)). The Township stated that the northern most pile of aggregate rocks was dropped off two (2) days before the field inspection by a contractor and residents were taking it for personal use. The Township estimated approximately one-third of the rocks remained of the estimated initial 100 tons.
- 6) The EPA Inspection Team observed Spring Creek approximately 400 feet southwest of the stockpiles in the yard (refer to [Appendix B, Photograph 23](#)).

South Londonderry Township Public Works Department Facility & Yard

Address/Location: 27 West Market Street, Palmyra, PA 17078

Relevant Minimum Control Measure (MCM): PPGH

Entry Time: 8:30 AM (EDT) August 7, 2024

Exit Time: 9:22 AM (EDT)

Description: The South Londonderry Township Facility DPW is the primary Township DPW facility used to store vehicles and materials, fueling operations, and to conduct maintenance on municipal vehicles. The DPW facility also houses the Township's salt storage structure, a vehicle washing garage, a vehicle maintenance shop, the equipment storage area, an underground storage tank for fueling, and offices for DPW and MS4 personnel.

Conditions: The EPA Inspection Team observed the following conditions at the Township's DPW:

- 1) The EPA Inspection Team observed roof downspouts connected to the storm sewer system (refer to [Appendix B, Photograph 32](#)). The connections ran through the parking lot, combining with parking lot storm water inlets, and discharging to what the Township referred to as an infiltration field with perforated piping running under the

field (refer to [Appendix B, Photographs 33 through 37](#); and [Appendix D, Photograph 6](#)). The Township stated the infiltration field is about five (5) years old. Storm water infiltrates into the ground or makes its way to the outfall (refer to [Appendix B, Photograph 36](#)). The EPA Inspection Team observed the infiltration field and its outfall to be maintained; one large plant grew in the riprap at the outfall (refer to [Appendix B, Photographs 37](#)).

- 2) At the time of the inspection, the EPA Inspection Team observed that the dumpster at the Public Works Yard was missing half of a lid (refer to [Observation 16](#) and [Appendix B, Photographs 30 and 31](#)). The EPA Inspection Team observed no drain holes in the dumpster, and small debris and moisture around the base of the dumpster.
- 3) The Township has a large, fully enclosed garage where all vehicle maintenance is performed. Inside the garage, the EPA Inspection Team observed floor drains throughout the garage (refer to [Appendix B, Photographs 38 and 39](#)). The Township stated the drains connect to an oil water separator and the fluids are then piped to the wastewater treatment plant.
- 4) The EPA Inspection Team observed two (2) five-gallon buckets inside the garage, about two feet from an eastern wall garage door (refer to [Appendix B, Photograph 40](#)). The buckets had an unknown liquid in them.
- 5) The EPA Inspection Team observed the Township's chemical storage within the garage's most northeast corner (refer to [Appendix B, Photograph 41](#)). The EPA Inspection Team observed a 55-gallon barrel of synthetic diesel oil and a 55-gallon barrel of Tsunami specialty cleaner (refer to [Appendix B, Photographs 42 and 43](#)).
- 6) Outside, the EPA Inspection Team observed a fuel pump at the southeastern corner of the garage (refer to [Appendix B, Photograph 44](#)). A spill kit was present at the pump, as well as just inside of the garage (refer to [Appendix B, Photographs 44 and 45](#)). South of the pump, the EPA Inspection Team observed a concrete pad providing access to the underground gasoline storage tank (refer to [Appendix B, Photograph 46](#)). A stormwater inlet was located approximately 30 feet downgradient from the fueling area (refer to [Appendix B, Photographs 44 and 47](#)).
- 7) Prior to the closing conference, the EPA Inspection Team returned to the DPW garage and observed the salt storage structure located in a separate garage bay at the northeastern most enclosed bay (refer to [Appendix B, Photographs 48 and 49](#)). The structure was fully enclosed by three walls and a garage door. Upon the Township opening the garage, the EPA Inspection Team observed piled salt pushed back neatly from the garage door entrance. The EPA Inspection Team did not observe any indication of salt migration from the structure.
- 8) The EPA Inspection Team observed outdoor MS4 vehicle and equipment storage, covered and within three walls (refer to [Appendix B, Photograph 50](#)).

POLLUTANT CONTROL MEASURES AND POLLUTANT REDUCTION PLANS (PRP)

Killinger Creek Restoration Project Site – Phase I

Address/Location: 40.288717°, -76.561878°

Relevant Minimum Control Measure (MCM): PRP

Entry Time: 11:16 AM (EDT) August 7, 2024

Exit Time: 11:37 AM (EDT)

Description: The creek restoration project lies on the segment of Killinger Creek between Brandt Road North and Hinkle Road, running along the borders of South Annville Township and South Londonderry Township. South Londonderry Township owns the property the restoration occurred on.

The Township chose the site for restoration of the creek based on impairments by nutrients (i.e., phosphorus and nitrogen) and sediment. Additionally, the site had unstable vertical banks leading to sediment and aggregate concerns downstream. Rock bridges were implemented to control the stream's flow better during weather events. The project runs for 1,700 feet along the creek. The Township completed the project six weeks prior to the EPA inspection.

The Township stated the Chesapeake Bay Foundation, along with a local university group, partnered to sample the site before and during the restoration, with plans to take a final sampling now that the project is finished.

Conditions: The EPA Inspection Team observed the following conditions at the Killinger Creek restoration site:

- 1) The EPA Inspection Team observed protected, planted vegetation along the restored banks (refer to [Appendix B, Photographs 55 through 57](#)).
- 2) The EPA Inspection Team observed a clear channel of the stream, along with planned rock bridges, implemented to assist with water flow and to decrease erosion (refer to [Appendix B, Photographs 55, 57, and 58](#)).

Planned Site for Killinger Creek Restoration Project – Phase II

Address/Location: 40.285678°, -76.560868°

Relevant Minimum Control Measure (MCM): PRP

Entry Time: 11:39 AM (EDT) August 7, 2024

Exit Time: 11:40 AM (EDT)

Description: The Township plans to start the Killinger Creek Restoration Project – Phase II of the project at the same Phase I starting point, Hinkle Road, but to work the restoration south and west towards Horseshoe Pike. The EPA Inspection Team was unable to get out of the vehicle at this location but did stop the vehicle to take a picture of the proposed site to the south of Hinkle Road (refer to [Appendix B, Photograph 59](#)).

Conditions: The EPA Inspection Team observed the following conditions at the planned Killinger Creek Restoration Project – Phase II site:

- 1) The EPA Inspection Team observed the proposed site overgrown with vegetation and that a view of the creek was not obtainable (refer to Appendix B, Photograph 59).

CLOSING CONFERENCE

After the site walk, the EPA Inspection Team met with the site representatives for a closing conference. The EPA Inspection Team shared preliminary observations with the Township. The EPA Inspection Team reiterated to the Township that all preliminary observations discussed were not compliance determinations. Any and all preliminary observations shared were subject to further investigation by EPA upon the additional review of records and documentation. Additional observations may be contained in this inspection report that were not identified at the time of the closing conference after EPA reviewed additional materials following the inspection.

The inspection concluded at approximately 12:01 PM.