



ANNUAL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STATUS REPORT FOR THE PERIOD July 1, 2021 TO JUNE 30, 2022

GENERAL INFORMATION					
Permittee Name:	Middlesex Township Cumberland County	NPDES Permit No.:	PA133526		
Mailing Address:	350 N Middlesex Road	Effective Date:	August 1, 2018		
City, State, Zip:	Carlisle, PA 17013	Expiration Date:	July 31, 2023		
MS4 Contact Person:	Elieen Gault	Renewal Due Date:			
Title:	Township Manager	Municipality:	Middlesex Township		
Phone:	717-249-4409	County:	Cumberland		
Email:	egault@middlesextwp.com				
Co-Permittees (if applicable):					
Appendix(ces) that permittee is subject to (select all that apply):					
☐ Appendix A ☒ Appendix B ☐ Appendix C ☒ Appendix D ☒ Appendix E ☐ Appendix F					
WATER QUALITY INFORMATION					
Are there any discharges to waters within the Chesapeake Bay Watershed? ☒ Yes ☐ No					
Identify all surface waters that receive stormwater discharges from the permittee's MS4 and provide the requested information (see instructions).					
Receiving Water Name	Ch. 93 Class.	Impaired?	Cause(s)	TMDL?	WLA?
Conodoguinet Creek	WWF	No		Yes	No
Conodoguinet Creek Tributary (Reach 63)	CWF	No		Yes	No
Conodoguinet Creek Tributary (Reach 69)	CWF	No		Yes	No
Conodoguinet Creek Tributary (Reach 44)	CWF	No		Yes	No
Hogestown Run	CWF	Yes	Siltation; Organic Enrichment/Low D.O. Pathogens	Yes	No
Hogestown Run Tributary (Reach 99)	CWF	Yes	Siltation; Organic Enrichment/Low D.O. Pathogens	Yes	No
Letort Spring Run	HQ-CWF	No		Yes	No
Letort Spring Run Tributary (Reach 21)	HQ-CWF	No		No	No
Wertz Run	WWF	Yes	Siltation	Yes	No
Wertz Run Tributary (Reach 22)	WWF	No		Yes	No
Wertz Run Tributary (Reach 13)	WWF	No		Yes	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	Township Manager	Eileen Gault	(717)249-4409
#2 Public Involvement/Participation	Township Manager	Eileen Gault	(717)249-4409
#3 Illicit Discharge Detection and Elimination (IDD&E)	MS4 Coordinator	Gerald Steigelman	(717)249-4409
#4 Construction Site Storm Water Runoff Control	Township Zoning Officer	Mark Carpenter	(717)249-4409
#5 Post-Construction Storm Water Management in New Development and Redevelopment	Township Zoning Officer	Mark Carpenter	(717)249-4409
#6 Pollution Prevention / Good Housekeeping	Township Road Master	Zach Zook	(717)249-4409

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: 4/2022 Were updates made? ☐ Yes ☒ No
- What were the plans and goals for public education and outreach for the reporting period?

The following goals were outlined in last year's report as targets for this 2021-2022 reporting period:

Stated Goal	Achievement
Develop additional newsletter information and/or one piece of handout literature	New flyer and newsletter articles were produced.
Refine routine (non-emergency) stormwater complaint receipt and response plan	The written plan was not updated. The staff was immediately responsive to complaints received via both email and phone.
Make a public presentation at a regularly-scheduled Board of Supervisors meeting	Presentation completed at the 4/6/2022 Board of Supervisors Meeting

- 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:
 - Continue Newsletter articles
 - Provide one staff lunch-and-learn

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

- For new permittees only, have the target audience lists been developed and implemented within the first year of permit coverage?
☐ Yes ☐ No
- Date of latest annual review of target audience lists: 4/2022 Were updates made? ☐ Yes ☒ No

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

- 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
- Date of latest annual review of educational materials: 4/2022 Were updates made? ☐ Yes ☒ No
- Do you have a municipal website? ☒ Yes ☐ No (URL: <https://middlesextwp.com/ms4/>)

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

- **Link to the Pollutant Reduction Plan**
- **Questions and Answers about stormwater**
- **Links to PA DEP'S Submit an Environmental Complaint form**
- **Links to "When It Rains It Drains" Brochure**

No changes were made to website during this reporting period

4. Describe any other method(s) used during the reporting period to provide information on stormwater to the public:
- **No other methods beyond the Board of Supervisors Meetings, Township newsletter articles, and the new flyer were completed this reporting period**
5. Identify specific plans for the publication of stormwater materials for the upcoming year:
- **The Township will continue to provide newsletter articles relating to stormwater pollution prevention.**

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).

- **MS4-Stormwater is a standing Agenda item at the Board of Supervisors meetings.**
- **There was a public presentation at the Supervisors meeting on 4/6/2022; and**
- **The new "What you can do to clean stormwater" flyer is available in the Township business office lobby.**

MCM #1 Comments:

Please see the following attachments that document MCM#1 activity for the reporting period:

- **1a-Newsletter Summer 2021 (Three Articles)**
- **1b-Newsletter Fall 2021 (Three Articles)**
- **1c-Newsletter Spring 2022 (One Article)**
- **1d-Board of Supervisors MS4 Public Meeting (2022-04-06)**
- **1e-MS4 Flyer: "What you can do to clean stormwater"**

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: **4/2022** Were updates made? ☐ Yes ☒ No

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

1. Was an MS4-related ordinance, SOP, PRP or TMDL Plan developed during the reporting period? ☐ Yes ☒ No
2. If Yes, describe how you advertised the draft document(s) and how you provided opportunities for public review, input and feedback:
3. If an ordinance, SOP or plan was developed or amended during the reporting period, provide the following information:

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

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

1. At least one public meeting or other MS4 event must be held during the 5-year permit coverage period to solicit participation and feedback from target audience groups. Was this meeting or event held during the reporting period?

☒ Yes ☐ No

If Yes, Date of Meeting or Event: **4/6/2022 (Plus there is a designated time in each Board of Supervisors meeting dedicated to MS4/Stormwater for public comment. See Attachment 2a)**

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.

The Township advertised (sponsored) and participated in the Penn State Extension's Master Watershed Steward Program 9/11/2021 at the Letort Falls Park.

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.

The public is given opportunity to provide comment, complaints and suggestions relating to stormwater and MS4 as part of the regularly scheduled Board of Supervisors meeting. The Penn State Extension's Master Watershed Steward Program allowed the participating residents to identify and study the macroinvertebrates that live in the Conodoguinet Creek. Macroinvertebrates are an excellent indicator of the stream health, and stream health is the ultimate purpose of MS4.

MCM #2 Comments:

Please see the following attachment that documents the MCM#2 activity for the reporting period.

- **2a Board of Supervisor Meetings with MS4-Stormwater Discussion Summary**

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: **11/2021** Were updates made? ☐ Yes ☒ No

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

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

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

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

2. Date of last update or revision to map(s): **6/2022**

3. Total No. of Outfalls in MS4: **42** Total No. of Outfalls Mapped: **83**

4. Total No. of Observation Points: **32** Total No. of Observation Points Mapped: **32**

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): **6/2022**

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

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

1. How many unique outfalls (and if applicable observation points) were screened during the reporting period? **83**
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: **13%**
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.
- **No illicit discharges were identified. Fluid discharges were water. No corrective action was required**
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: **Middlesex Township Stormwater Ordinance (Ord. No. 6-2011)**
2. If Yes to #1, is the ordinance or SOP consistent with DEP's 2022 Model Stormwater Management Ordinance (3800-PM-BCW0100j) with respect to authorized non-stormwater discharges? ☒ Yes ☐ No
- If Yes to #2 and the ordinance or SOP has not been submitted to DEP previously, attach the ordinance or SOP.

3. Were there any violations of the ordinance or SOP during the reporting period? ☐ Yes ☒ No
If Yes to #3, complete the table below (attach additional sheets as necessary).

Violation Date	Nature of Violation	Responsible Party	Enforcement Taken

4. Did you approve any waiver or variance during the reporting period that allowed an exception to non-stormwater discharge provisions of an ordinance or SOP? ☐ Yes ☒ No
If Yes to #4, identify the entity that received the waiver or variance and the type of non-stormwater discharge approved.

BMP #6: Provide educational outreach to public employees, business owners and employees, property owners, the general public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.

1. Was IDD&E-related information distributed to public employees, businesses, and the general public during the reporting period? ☒ Yes ☐ No
If Yes, what was distributed? **Maintenance employees accompanied consultant inspectors performing dry-weather screenings and received in-the-field training on inspecting outfalls and field testing discovered flows. A new flyer, "What you can do to clean stormwater" informs the public what discharge is illicit and how they can prevent pollution.**
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:

Middlesex concentrated on MCM3 this reporting period.

The MS4 Coordinator continued to follow up on reports of potential illicit discharges (PID). Two reports were received. One PID was at the Carlisle Sports Emporium where biologically safe dye is introduced into the water to prevent algae growth. The water is in a closed circulation system; It is not discharged to the stormwater system. It was determined there was no illicit discharge. The other report was automotive fluid discharge into a stormwater inlet at Sheetz convenience store. The discharge was determined to be illicit; it was reported to DEP. Fines were applied and environmental cleanup was performed.

Outfall dry-weather screening was performed on the Township's 83 outfalls. Eleven outfalls had dry-weather flows. The discharges were tested and determined to be water, not illicit discharges.

The Township also expanded storm sewer system mapping. Errors and duplicate records in the original mapping and underlying data were corrected, and recorded land development plans were used as the basis to add inlets, pipes, swales, and basins. The Township map revisions compared to the original map are recorded in table below.

MS4 Map Updates

Stormwater Feature	2017	2022	Change
Inlets	409	1267	858
Pipe Discharges	225	351	126
Stormwater Pipe	4.3 Miles	24.4 Miles	20.1
Swales	14.1 Miles	12.3 Miles	-1.8
Outfalls	64	83	19
Stormwater Basins	Not captured	77	77

Please see the following attachments that document the MCM#3 activities for the reporting period:

- 3a-Potential Illicit Discharge-Carlisle Sports Emporium (2021-08-05)
- 3b-Illicit Discharge - Sheetz (2021-08-16)
- 3c-Middlesex Outfall Screenings 2021
- 3d-MS4 Maps (200 scale)

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: **Middlesex Township Stormwater Ordinance (Ord. No. 6-2011)**

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: **(N/A- Statewide Program)**

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: **(N/A- Statewide Program)**

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: **(N/A- Statewide Program)**

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:

(N/A- Statewide Program)

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: **(N/A- Statewide Program)**

MCM #4 Comments:

E&S enforcement relies on Cumberland County Conservation District and coordinate with them. The Memorandum of Understanding was submitted with the Permit application and is still valid. Therefore, no answers were provided for BMP#4 through BMP#8.

Please see the following attachments that document the MCM#4 activities for the reporting period:

- **4a-Middlesex Township Building Permit Report 7-1-2021 to 6-30-2022**
- **4b-Middlesex Township Municipal Notice to Conservation District for Earth Disturbance (Burger King)**
- **4c-Township Engineer's Summary of Construction Stormwater Inspections**

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: **2011:Middlesex Township Stormwater Ordinance (Ord. No. 6-2011)**

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: **2011:Middlesex Township Stormwater Ordinance (Ord. No. 6-2011)**

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.

*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. **Middlesex Township relies on PA's statewide program.***

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. (Skipped because Middlesex relies on PA's statewide program)

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	Detention Basin	6.9	1000 Claremont Road, LLC; c/o Allaire Health Group	40.21299	-77.161851	1995	research in progress	
2	Detention Basin	4.6	AUM, LLC (Best Western)	40.226817	-77.148311	2005	research in progress	
3	Detention Basin	0.4	Carleez LLC & Spartan South Realty; c/o Sheetz Realty	40.23351	-77.120505	2017	research in progress	PAI032116002
4	Detention Basin	2	Carleez LLC & Spartan South Realty; c/o Sheetz Realty	40.233343	-77.120654	2017	research in progress	PAI032116002
5	Detention Basin	1.4	Carleez LLC & Spartan South Realty; c/o Sheetz Realty	40.232903	-77.120532	2017	research in progress	PAI032116002
6	Detention Basin	0.3	Carleez LLC & Spartan South Realty; c/o Sheetz Realty	40.233243	-77.119065	2017	research in progress	PAI032116002
7	Subsurface Detention Basin	0.1	Carlisle Realty Holdings, LP; c/o EG America(Jack Williams Tire & Auto)	40.221142	-77.162082	2019	research in progress	
8	Detention Basin	0.9	Carlisle Realty Holdings, LP; c/o EG America(Jack Williams Tire & Auto)	40.221168	-77.16234	Pre-2003	research in progress	

9	Detention Basin	2	Cumberland County (Prison)	40.215525	-77.161492	2008	research in progress	PAI032108001
10	Detention Basin	5.8	Cumberland County (Prison)	40.214686	-77.162387	2008	research in progress	PAI032108001
11	Detention Basin	4.1	Cumberland County (Pub Safety & Aging Bldg.)	40.212257	-77.158978	2010	research in progress	PAI032108016
12	Detention Basin	0.9	Cumberland County (Pub Safety & Aging Bldg.)	40.212983	-77.160896	2010	research in progress	PAI032108016
13	Detention Basin	1.7	Cumberland County (Pub Safety & Aging Bldg.)	40.213332	-77.161186	2010	research in progress	PAI032108016
14	Detention Basin	3.8	David E. Lutz, Trustee (Sheetz 1908 H-burg Pk)	40.2222	-77.162894	2018-2019	research in progress	PAI032116002
15	Detention Basin	14	DGK Real Estate, LP(Cumberland Range: non-urban)	40.260676	-77.13613	2018	research in progress	
16	Detention Basin	0.3	Edward A & Yvette Piccolo (Cumberland Range: non-urban)	40.258531	-77.141595	2014	research in progress	
17	Detention Basin	0.5	Edward D & Kathleen E Fitting (Raudabaugh Estates: non-urban)	40.240492	-77.14119	2011-2012	research in progress	
18	Detention Basin	2.3	Evandale Christ Family (Holiday Inn Express)	40.227099	-77.152505	2008	research in progress	PAI032111008

19	Detention Basin	3	Evandale Christ Family (Rutter's Farm Store)	40.226656	-77.153447	2008	research in progress	PAI032108002
20	Detention Basin	6.8	Evandale Christ Family (Rutter's Farm Store)	40.226353	-77.153627	2008	research in progress	PAI032108002
21	Detention Basin	0.5	Gardy D Kimmel, Jr (Raudabaugh Estates: non-urban)	40.240699	-77.142061	2011-2012	research in progress	
22	Detention Basin	1.3	Giant Co., LLC	40.225886	-77.150853	Pre-2003	research in progress	
23	Detention Basin	1.9	Giant Co., LLC (U-Gro)	40.226552	-77.151368	Pre-2003	research in progress	
24	Detention Basin	26.9	Giant Co., LLC	40.223475	-77.152942	Pre-2003	research in progress	
25	Detention Basin	7.8	Giant Co., LLC	40.223798	-77.151408	Pre-2003	research in progress	
26	Detention Basin	62.3	Icon Owner Pool 4 Northeast/Midwest (Crossroads Business Center: Apple)	40.227227	-77.132343	pre-2003	research in progress	
27	Infiltration Basin	47.5	Icon Owner Pool 4 Northeast/Midwest (Roadway Dr near Amazon)	40.229511	-77.111822	1994	research in progress	
28	Detention Basin	4.6	Jakub Janicki (Cumberland Range: non-urban)	40.25851	-77.141292	2014	research in progress	
29	Detention Basin	4	John A and Lisa Conway (Appalachian Estates)	40.199359	-77.121655	2008	research in progress	

30	Detention Basin	1.1	Keystone Arms Phase LLC; c/o Boyd Wilson LLC	40.21635	-77.169427	2007	research in progress	PAD210054
31	Detention Basin	24.1	Keystone Arms Phase Two LP; c/o Boyd Wilson LLC	40.218405	-77.162303	2007	research in progress	PAD210054
32	Detention Basin	3.5	Keystone Arms Phase Two LP; c/o Boyd Wilson LLC	40.21514	-77.166992	2007	research in progress	PAD210054
33	Detention Basin	0.9	Keystone Arms Phase Two LP; c/o Boyd Wilson LLC	40.215561	-77.166384	2007	research in progress	PAD210054
34	Detention Basin	1.8	Liberty Property, LP; c/o/ Prologis, LP (XPO Logistics)	40.23427	-77.120341	2018	research in progress	PAI032116004
35	Detention Basin	2.9	Liberty Property, LP; c/o/ Prologis, LP (XPO Logistics)	40.238658	-77.116504	2018	research in progress	PAI032116004
36	Detention Basin	47.1	Liberty Property, LP; c/o/ Prologis, LP (XPO Logistics)	40.237459	-77.120749	2018	research in progress	PAI032116004
37	Above Ground	4.2	Longia Westgate Development, LLC (Cumberland Range: non-urban)	40.261145	-77.134177	2018	research in progress	
38	Detention Basin	3.6	Mountaineer Properties, LLC	40.230274	-77.111098	Pre-2003	research in progress	
39	Subsurface Detention Basin	8.8	Multiple Land owners (Keystone Arms)	40.216613	-77.166929	2007	research in progress	PAD210054
40	Subsurface Detention Basin	11.7	Multiple Land owners (Keystone Arms)	40.217514	-77.167205	2007	research in progress	PAD210054

41	Detention Basin	10	North Point Carlisle Industrial, LLC	40.232115	-77.122793	2019-2020	research in progress	PAD210027
42	Detention Basin	15.4	North Point Carlisle Industrial, LLC	40.232969	-77.121608	2019-2020	research in progress	PAD210027
43	Detention Basin	8.1	North Point Carlisle Industrial, LLC	40.230335	-77.1177	2019-2020	research in progress	PAD210027
44	Infiltration Basin	207.3	Old Dominion Freight Line, Inc.	40.241859	-77.110487	1992-1993	research in progress	
45	Detention Basin	66.5	Pennsylvania Turnpike Commission	40.228592	-77.148422	2008	research in progress	PAI032115006
46	Detention Basin	0.6	Pennsylvania Turnpike Commission	40.229161	-77.151819	2017	research in progress	
47	Detention Basin	17.5	Pennsylvania Turnpike Commission	40.226593	-77.165106	2016	research in progress	
48	Detention Basin	0.6	PFJ Southeast, LLC (Flying J)	40.237292	-77.123354	1994-1995	research in progress	
49	Subsurface Detention Basin	5.7	PFJ Southeast, LLC (Flying J)	40.235624	-77.122628	1994-1995	research in progress	
50	Subsurface Detention Basin	3.9	PFJ Southeast, LLC (Flying J)	40.236697	-77.122979	1994-1995	research in progress	
51	Subsurface Detention Basin	1.8	PFJ Southeast, LLC (Flying J)	40.236423	-77.123963	1994-1995	research in progress	
52	Detention Basin	0.7	PFJ Southeast, LLC (Flying J)	40.236394	-77.124489	1994-1995	research in progress	
53	Subsurface Detention Basin	2.5	PFJ Southeast, LLC (Flying J)	40.23726	-77.122872	1994-1995	research in progress	
54	Detention Basin	2.3	PFJ Southeast, LLC (Flying J)	40.235217	-77.124235	1994-1995	research in progress	

55	Detention Basin	2.7	PFJ Southeast, LLC (Flying J)	40.234863	-77.124354	1994-1995	research in progress	
56	Detention Basin	9.9	Placeston Properties, LLC (Roadway Dr.)	40.231454	-77.110958	1999-2000	research in progress	
57	Detention Basin	113	Roadway Express, Inc. ; c/o NKA YRC, Inc.	40.229082	-77.13061	1994-1995	research in progress	
58	Subsurface Detention Basin	0.5	Robert L & Rena F Brunner (Dollar General)	40.255333	-77.172611	2016	research in progress	
59	Subsurface Detention Basin	0.7	Robert L & Rena F Brunner (Dollar General)	40.255722	-77.172214	2016	research in progress	
60	Detention Basin	4.9	Ronald Simons, Et. Al.(Harmony Hall Court)	40.220373	-77.159869	Pre-2003	research in progress	
61	Detention Basin	0.9	Rudolph M & Stephanie M Janiczek (Raudabaugh Estates: non-urban)	40.239962	-77.142385	2011-2012	research in progress	
62	Detention Basin	8.6	SAIA Motor Freight Line, LLC	40.230338	-77.130711	1994-1995	research in progress	
63	Detention Basin	2.8	Shady Lane Hotel Assoc., LP (Comfort Inn)	40.225861	-77.147947	2015	research in progress	PAI032113003
64	Detention Basin	1.2	Stephen D and Lisa M Bourne (Appalachian Estates: non-urban)	40.196903	-77.121574	2008	research in progress	
65	Subsurface Detention Basin	0.3	Store Master Funding II, LLC (Hardees)	40.199432	-77.155504	2017	research in progress	PAI032115005

66	Subsurface Detention Basin	0.7	Store Master Funding II, LLC (Hardees)	40.199303	-77.155076	2017	research in progress	PAI032115005
67	Subsurface Detention Basin	0.3	Store Master Funding II, LLC (Hardees)	40.199574	-77.154965	2017	research in progress	PAI032115005
68	Detention Basin	5.2	Toigo Organic Farms, LLC	40.224817	-77.124311	2016	research in progress	PAD210050
69	Detention Basin	4.7	Toigo Organic Farms, LLC	40.224455	-77.125207	2016	research in progress	PAD210050
70	Detention Basin	4.6	Toigo Organic Farms, LLC	40.22409	-77.126323	2016	research in progress	PAD210050
71	Detention Basin	6.4	Toigo Organic Farms, LLC	40.222983	-77.125732	2016	research in progress	PAD210050
72	Detention Basin	1.8	Toigo Organic Farms, LLC	40.222901	-77.126042	2016	research in progress	PAD210050
73	Detention Basin	30.6	Toigo Organic Farms, LLC	40.224482	-77.127693	2016	research in progress	PAD210050
74	Detention Basin	1.3	Toigo Organic Farms, LLC	40.223596	-77.125627	2016	research in progress	PAD210050
75	Detention Basin	43.7	Toigo Organic Farms, LLC	40.222237	-77.124516	2016	research in progress	PAD210050
76	Detention Basin	0.8	USRP Funding 2001-ALP; c/o Operating, LP (Burger King)	40.234113	-77.140757	Pre-1995	research in progress	
77	Detention Basin	21	YRC, Inc. (Roadway Dr.)	40.231808	-77.115226	1999	research in progress	
78								
79								

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). (Skipped because Middlesex relies on PA's statewide program)

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:

New and redevelopment projects are subject to the Stormwater Management Ordinance via cross reference from the Subdivision and Land Development Ordinance. The Stormwater Ordinance establishes guidelines and standards. To date compliance inspections have been performed by the Township Engineer(consultant). The consultant review letters serve as documentation of deficiencies, enforcement and corrective action required. Stormwater basins inspected by the Township Engineer were functional during this reporting period. The Engineer's summary is attached to this report.

Please see the following attachment that documents the MCM#5 activity for the reporting period.

- 5a-Township Engineer's Report on PCSM Functionality

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? **6/2022**
3. When was it last updated? **Update was not required**

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: **6/30/2022 (reviewed; no update required)**

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

1. Have you developed an employee training program? ☒ Yes ☐ No
2. Date of last review or update to training program: **6/30/2022** Date of latest training: **1/25/2022**

3. Training topics covered:

Pesticide license training and in-the-field training for dry-weather outfall screenings and use of the outfall inspection data collection tool.

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

Pesticide trainings were online webinars with testing. In-the field dry-weather outfall screening trainings were provided by the Township MS4 consultant, Skelly and Loy (trainers: Jared Mummert, Calvin Bush, Ben Burlew, Alex Auger, and Nate Beck)

5. Names of training attendees:

**Scott Shepler
Chad Davis
Kevin Sheriff
Merle McCoy
Scott Werner
Dee Geistwhite
Zachary Zook**

MCM #6 Comments:

Middlesex Public Works staff continued to perform the routine maintenance for the Township. Activities that solely correspond to MS4 activities are highlighted on the attached Work Log for MS4 Report 2021-2022. However, the majority of listed work items are performed with special attention for stormwater pollution prevention whether it be proper techniques and calibration for herbicide and deicer application, vegetation control, construction site sweeping and good housekeeping, vehicle maintenance, road line painting, or storm cleanup.

Anderson Park is the only municipally-owned real estate other than road rights-of-way within the MS-4 regulated area. The Township Staff has continued to follow the SOP for MS4 site Maintenance for the property and log compliance with Trash, Pet Waste and Vegetation Control.

Please see the following attachments that document the MCM#6 activity for the reporting period.

- **6a MS4 Training Log 2021-2022**
- **6b Work Log for MS4 Report 2021-2022**
- **6c Anderson Park Maintenance MS4 Log 2021-2022**

POLLUTANT CONTROL MEASURES (PCMs)

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

Task	Date Completed	Attached	Anticipated Completion Date
Storm Sewershed Map(s)		☐	
Source Inventory		☐	
Investigation of Suspected Sources		☐	
Ordinance/SOP for Controlling Animal Wastes		☐	

PCM Comments:

POLLUTANT REDUCTION PLANS (PRPs) AND TMDL PLANS

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

Type of Plan	Submission Date	DEP Approval Date	Surface Waters Addressed by Plan
☐ Chesapeake Bay PRP (Appendix D)			Chesapeake Bay
☐ Impaired Waters PRP (Appendix E)			
☐ TMDL Plan (Appendix F)			
☒ Combined Chesapeake Bay / Impaired Waters PRP	9/14/2017	7/23/2018	Chesapeake Bay, Wertz Run, and Hogestown Run
☐ Combined PRP / TMDL Plan			

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

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

Type of Plan	TSS Load Reduction (lbs/yr)	TP Load Reduction (lbs/yr)	TN Load Reduction (lbs/yr)
☐ Chesapeake Bay PRP (Appendix D)			
☐ Impaired Waters PRP (Appendix E)			
☐ TMDL Plan (Appendix F)			
☒ Combined Chesapeake Bay / Impaired Waters PRP	124,415	58	574
☐ 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.

Project 4: Pipes were added under the Open Vegetated Channels at Wolf's Bridge Road north and south of West Middlesex Road

Project 6: A raingarden was added at the entrance to the Fraternal Order of Eagles along Wolf's Bridge Road.

Documentation of the approval from PA DEP was included in the 2020-2021 Annual MS4 Status Report and therefore, is not duplicated as an attachment to this report.

5. Summary of progress achieved during reporting period.

Construction of the roadside open vegetated channels was continued. Project 6 was reported last year because it was substantially complete near the end of that reporting period. Project 6 is not repeated in the project summary table of this report. Final construction of the swales listed in the PRP as Project 6 were finished at the end of July 2021. Repairs were made to Project 6 in August 2021 following an intense rain event. Pictures of the repair in progress are provided in Attachment 7b.

Project 3 was completed this reporting period. Project 3 is also a series of open vegetated channels along Wolf's Bridge Road. See Attachment 7b.

The design of Project 8, the stream restoration project at north west of the intersection of Wolf's Bridge Road and West Middlesex Road was completed and submitted to PA DEP and the Army Corps of Engineers for approval. See Attachment 7a for the completed project plans.

The design of Project 7, the rain garden at Anderson Park was initiated

6. Anticipated activities for next reporting period.

Construction of open vegetated channel Projects 1, 2, and 4, and rain garden Project 7 are scheduled for construction.

Please note that the construction schedule of Project 8, the stream restoration project, is subject to the timing of receipt of permit approval. The Township is uncertain if the construction of all projects will be complete prior to the end of the Township's current permit term.

PRP/TMDL Plan Comments:

Middlesex Township continued to make progress on construction of the PRP projects as reported above.

Please see the following attachments that document the PRP activity for the reporting period.

- 7a-Middlesex PRP Project 8 UNT Wertz Run Stream Restoration (2021-12-03)
- 7b-Middlesex PRP BMP Construction Photo Log

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)
3	Open Vegetated Channel (Project 3)	6.5	75	2113	LF	40°15'20"	77°09'57"	2021/2022	☒	☐	3,390
6						° ' "	° ' "		☐	☐	
9						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	
						° ' "	° ' "		☐	☐	

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?
						° ' "	° ' "				☐
						° ' "	° ' "				☐
						° ' "	° ' "				☐
						° ' "	° ' "				☐
						° ' "	° ' "				☐

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).

Eileen Gault, Township Manager

Name of Responsible Official

(717) 249-4409

Telephone No.

Eileen M. Gault

Signature

09/30/2022

Date