



MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL/PROGRESS REPORT

For the Reporting Period: March 10, 2013 to November 30, 2014

- Annual Report Progress Report
 New Permittee Renewal Permittee

Due Date: January 30, 2015

GENERAL INFORMATION					
Permittee Name:	County of Delaware	NPDES Permit No.:	PAI:130545		
Mailing Address:	1521 North Providence Road, Rose Tree Park - Hunt Club	Effective Date:	12/1/2013		
City, State, Zip:	Media, PA 19063	Expiration Date:	11/30/2018		
MS4 Contact Person:	Edward Magargee	Renewal Due Date:	7/3/2015		
Title:	District Manager	Admin. Extended?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Phone:	610-892-9484	Municipality:	Multiple		
Email:	Magargeee@co.delaware.pa.us	County:	Delaware		
Co-Permittees (if applicable): N/A					
WATER QUALITY INFORMATION					
Are there any discharges to waters within the Chesapeake Bay Watershed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Identify all surface waters that receive stormwater discharges from storm sewers within the MS4 urbanized area and provide the requested information (see instructions).					
Receiving Water Name	Ch. 93 Class.	Impaired?	Cause(s)	TMDL?	WLA?
West Branch Chester Creek	TSF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Habitat Modification - Other Habitat Alterations	NO	NO
Hermesprotta Creek	WWF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Habitat Modification - Other Habitat Alterations	NO	NO

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

Rocky Run	HQ-CWF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Agriculture - Cause Unknown	NO	NO
Green Creek	CWF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Habitat Modification - Other Habitat Alterations	NO	NO
Chester Creek	WWF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Habitat Modification - Other Habitat Alterations	NO	NO
Crum Creek	WWF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Hydromodification - Flow Alterations	NO	NO
Little Crum Creek	WWF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Habitat Modification - Other Habitat Alterations	NO	NO
Stoney Creek	WWF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Habitat Modification - Other Habitat Alterations	NO	NO

COMMONWEALTH OF PENNSYLVANIA
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Darby Creek	TSF, MF	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Habitat Modification - Other Habitat Alterations	NO	NO
Ridley Creek	HQ	YES	Urban Runoff/Storm Sewers - Cause Unknown ; Urban Runoff/Storm Sewers - Water/Flow Variability ; Urban Runoff/Storm Sewers - Siltation ; Habitat Modification - Other Habitat Alterations	NO	NO

Identify any Wasteload Allocations (WLAs) identified in TMDLs for the MS4, if applicable. Identify the pollutant(s) and mass load(s):

N/A

GENERAL MINIMUM CONTROL MEASURE (MCM) INFORMATION

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

Provide current contact name and phone number information for the required MCMs (if same as page 1, leave blank):

MCM	Contact Name	Phone
#1 Public Education and Outreach on Storm Water Impacts	Edward M. Magargee	(610)892-9484
#2 Public Involvement/Participation	Edward M. Magargee	(610)892-9484
#3 Illicit Discharge Detection and Elimination (IDD&E)	Edward M. Magargee	(610)892-9484
#4 Construction Site Storm Water Runoff Control	Edward M. Magargee	(610)892-9484
#5 Post-Construction Storm Water Management in New Development and Redevelopment	Edward M. Magargee	(610)892-9484
#6 Pollution Prevention / Good Housekeeping	Edward M. Magargee	(610)892-9484

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

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

***Measurable Goal:** For new permittees a Public Education and Outreach Program (PEOP) shall be developed and implemented during the first year of permit coverage and shall be re-evaluated each permit year thereafter and revised as needed. For renewal permittees, the existing PEOP shall be reviewed and revised as necessary. The permittee’s PEOP shall be designed to achieve measurable improvements in the target audience’s understanding of the causes and impacts of stormwater pollution and the steps they can take to prevent it.*

- For new permittees only, attach the written PEOP or a summary thereof to the first report submitted to DEP.
- If you are not a new permittee, did you complete and submit your written PEOP to DEP? Yes No
If Yes, provide the latest submission date: **This report was submitted during previous Annual Report Submissions under the prev**

3. Date of last evaluation of or revision to the PEOP: **November 1, 2014**

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

We did review our Public Education Program as part of the Conservation District's Annual Work Plan once again. We did not find a reason to revise our target audience. We did update our contacts for the various County owned facilities, and addressed things that have changed since it was revised in 2008.

In addition to our outlined Public Education Program we did take advantage of other opportunities to reach out to other audiences to address the issue of stormwater management in general.

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

Explain the rationale for your answer:

During the above refawarenced permit year, the Delaware County Conservation District formed partnerships, used educational materials and strategies, and reached diverse audiences in order to implement of a public education and outreach program designed to inform the public about 1) the impacts of storm water discharges on local water bodies and 2) the steps that can be taken to reduce storm water pollution. Provided below is a listing of specific activities that were implemented by the Watershed Specialist in support of MCM#1:

- Delivered NPS pollution prevention presentation as part of Garrett Hill Coalition's WREN Rain Barrel Workshop at Radnor United Methodist Church. (3/10/13)
- NPS pollution prevention display table at 2013 Municipal Conference and Tradeshow at Drexel Brook Conference Center. (3/21/13)
- Conducted Benthic Macro-Invertebrate Samplings of Rocky Run Creek (Middletown Township) with Widener University Biology Instructor Jamie Anderson for class program instruction. (3/26/13)
- Distributed Eastern Delaware Co. Storm Water Collaborative/Pennsylvania Resources Council Rain Barrel Workshop information during various DCCD events. (March 2013)
- * Public Meeting held on Open Space / Recreation Issues by Del.Co. Planning Department 3/6/2013
- Conducted 2013 and 2014 Delaware County Envirothon at Ridley Creek State Park (4/30/13, 4/29/14)
- Instructed high school students in conducting physical stream assessments of Trout Run during 2013 Marple-Newtown High School Crum Creek Snapshot Event. (5/17/13)
- Assisted Delaware Co. Planning Dept. in hosting NPS pollution prevention display at Delaware County Riverfront Ramble event in Marcus Hook Borough. (9/21/13)
- Provided rain barrel brochures to Middletown Free Library. (8/15/13)
- Forwarded Storm Water Management Financing Workshop information to municipalities. (9/10/13)
- Distributed NPS pollution prevention materials and project evaluation forms to Kent Park TreeVitalize Watersheds volunteers. (9/27/13-9/28/13)
- Contacted Eastern Delaware Co. Storm Water Collaborative to offer NPS pollution prevention education and outreach informational resources. (10/29/13)
- Reviewed draft signage Friends of Glen Providence Park. (Riparian Buffer Planting) (11/15/13)
- Forwarded "Applying Stormwater Management to Transportation Projects" workshop information to municipalities. (11/20/13)
- Reviewed proofs and ordered stream management educational brochures from PACD (9/6/13)
- Developed stream restoration recommendations for Chester Climate Adaptation Task Force (10/2/13, 10/7/13) and forwarded recommendation to PA Sea Grant (10/9/13)
- Forwarded dam removal educational resources to CRC Watersheds Association (10/23/13)
- Forwarded Emerald Ash Borer Workshop Information to Del Co Municipalities (1/10/14)
- Delivered NPS Pollution Prevention educational program to Chestnutwold Roots & Shoots (1/13/14)
- Forwarded NFWF Delaware River Grant App info to Del. Co. municipalities. (1/15/14)
- Notified Del. Co. Parks & Rec. Dept. about CRC Invasive Plant workshop (1/23/14)
- Reviewed & forwarded, on dates listed below, the following educational workshop announcements to Delaware County municipalities, watershed organizations and Del. Co. Parks and Rec. Dept.:
 - o Eastern Del.Co. Storm Water Collaborative (EDCSWC) Landscapers Workshop (2/11/14)
 - o Pennsylvania Environmental Council (PEC) Green Design Workshop (2/12/14)
 - o EDCSWC & PEC MS4 Workshop (2/18/14)
 - o "Improving Water Quality and Quantity with Pervious Pavement" webinar (2/19/14)
 - o St. Joe's Storm Water Workshop (2/21/14)
 - o Delaware Riverkeeper Network 2014 Schuylkill River Watershed Congress (2/25/14)
 - o CRC Watersheds Assoc. Invasive Plant Workshop at Garrett Williamson Foundation (2/26/14)
- Forwarded MS4 workshop information to Del. Co. municipalities (3/20/14)
- Forwarded "Guide to State Funding Opportunities for Conservation, Recreation and Preservation" to municipalities and watershed orgs (3/24/14)
- Provided PSU pond management informational publications to Friends of Glen Providence Park (4/7/14)
- Provided Springfield Twp. EAC w/ native plant lists for educational sign development (4/24/14)
- Conducted visual monitoring of Darby Ck. (12th Street) dam removal/stream restoration project (4/5/14, 4/9/14, 5/2/14) and provided photo documentation report to Darby Borough (4/11/14)
- Provided general storm water BMP information to Del. Co Parks & Rec. Dept. (5/5/14-5/6/14)
- Crum Creek WQ Snapshot Event materials Marple Newtown High School (5/19/14) and assisted students in conducting physical stream assessment educational exercises (5/22/14, 5/27/14)
- Forwarded Del. Co. Tree Tenders Class announcement to municipalities, watershed orgs. (6/23/14)
- Forwarded Detention Basin Retrofit info to Del. Co. municipalities, county facilities. (8/7/14)
- Provided rain garden informational resources to Haverford Twp. Rain Garden Committee (8/14/14)
- Provided NPS Prevention brochures to Garrett Williamson/Del. Co. 4H Farm (9/3/14, 9/5/14)
- Conducted site visit to Ridley Park Lake and provided Ridley Park Borough with recommendations re: invasive plant control (9/30/14, 10/1/14-10/2/14, 10/8/14, 10/14/14)

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

1. **Website update is in progress and we have converted to a WordPress Format. Update of the Stormwater Management Information page in Year 12. Once the contractor is completed with the format, and training.**
2. **A training program for Developers is in the planning process to better explain the NPDES Construction permitting process on an administrative level in the Spring of 2015.**
3. **Conservation & You Newsletter will be published in the Spring and Fall in 2015.**
4. **Conservation District Board Meetings and County Council Meetings dates for 2015 have been published as a public notice.**
5. **We have reached out to all facility directors with upcoming training opportunities including the latest one by DEP to make announcements on revisions to the MS-4 Permitting Program.**

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

***Measurable Goal:** For new permittees, the lists shall be developed within the first year of coverage under the permit and reviewed and updated as necessary every year thereafter. For renewal permittees, the lists shall continue to be reviewed and updated annually.*

1. For new permittees only, attach your target audience list(s) to the first report submitted to DEP.
2. If you are not a new permittee, did you complete and submit your target audience list to DEP? Yes No
If Yes, provide the latest submission date: **This list was included in our Public Education Program since it was developed and has been included in several annual reports as part of the previous permit. As a County MS-4 our list is limited. It will be attached in the appendix as part of the edited Public Education Program.**
3. Date of last review or revision to target audience list(s): **11/1/2014 The Public Education Program was edited.**

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

***Measurable Goal:** For new permittees, stormwater educational and informational items shall be produced and published in print and/or on the Internet within the first year of permit coverage. In subsequent years (and for renewal permittees), the list of items published and the content in these items shall be reviewed, updated, and maintained annually. Your publications shall contain stormwater educational information that addresses one or more of the 6 MCMs.*

1. For new permittees only, attach your published stormwater educational or informational materials to the first report submitted to DEP.
2. If you are not a new permittee, did you complete and submit your published stormwater educational or informational materials to DEP? Yes No
If Yes, provide the latest submission date: **Stormwater Educational information has been included in the appendix of our annual reports under our previous permit.**
3. Do you have a municipal newsletter? Yes No
If Yes, how often was it published during the reporting period and what MS4-related material did it contain?
YES Conservation & You Bi-Annual Newsletter is targeted specifically to the NPDES Construction Permitting Issue.
4. Do you have a municipal website? Yes No (URL: www.delcocd.org Note : Quick Link on Home Page takes you to our info.http://www.delcocd.org/stormwater_info.htm Planning Department Webpage also addresses issue-<http://www.co.delaware.pa.us/planning/environmental/watershedmanagement.html> County also has the Green Pages section to the County Web page : <http://www.co.delaware.pa.us/green/index.html>)
If Yes, what MS4-related material does it contain?
General public information ads on the reason for stormwater management.
General Information on the MS-4 Program
Links to Stormwater Management Educational Information from a number of sources
Act 167 Summary

5. Describe any other method(s) used during the reporting period to provide information on stormwater to the public:
A fairly comprehensive list is provided in response to item # 5 above.
* **Conservation District Board Meetings are open to the public and the issue of MS-4, NPDES, and PCSM are discussed monthly.**
* **The County did not have any significant construction projects in this reporting period.**
* **The MS-4 Permit was posted for public review in the main County Administration Building.**
6. Date of most recent review and/or update to published stormwater educational materials: * **9/2013 Planning and Conservation District participated in a Treasure Hunt event at Riverfront Days to draw children in to view or display. *Rain Barrel Publication / Resources fact sheet (2013). *Ordered from PACD - Myths & Misconceptions About Stream Erosion (2014). * Produced a series of fact sheets on program we implement to be included in PACD Conservation Education Resource Guide. These will be included in the Appendix along with other representative samples of information we distribute.**
7. Identify specific plans for the publication of stormwater materials for the upcoming year:
* **We have recently overhauled our website to a more modern format. Once this process with the contractor is completed we will receive training to start an extensive update of content.**
* **We have been accumulating Stormwater and Erosion publications for distribution at our numerous public educational events and will continue to do so.**

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

Measurable Goal: All permittees shall select and utilize at least two distribution methods in each permit year. These are in addition to the newsletter and website provisions of BMP #3.

Identify the two additional methods of distributing stormwater educational materials during the previous year (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).

* **NPS pollution prevention display table at 2013 Municipal Conference and Tradeshow at Drexel Brook Conference Center. (3/21/13)**

* **Assisted Delaware Co. Planning Dept. in hosting NPS pollution prevention display at Delaware County Riverfront Ramble event in Marcus Hook Borough. (9/21/13)**

* **Distributed NPS pollution prevention materials and project evaluation forms to Kent Park TreeVitalize Watersheds volunteers. (9/27/13-9/28/13)**

***Delivered NPS Pollution Prevention educational program to Chestnutwold Roots & Shoots (1/13/14)**

* **Notified Del. Co. Parks & Rec. Dept. about CRC Invasive Plant workshop (1/23/14)**

• **Reviewed & forwarded, on dates listed below, the following educational workshop announcements to Delaware County municipalities, watershed organizations and Del. Co. Parks and Rec. Dept.:**

- o **Eastern Del.Co. Storm Water Collaborative (EDCSWC) Landscapers Workshop (2/11/14)**
- o **Pennsylvania Environmental Council (PEC) Green Design Workshop (2/12/14)**
- o **EDCSWC & PEC MS4 Workshop (2/18/14)**
- o **"Improving Water Quality and Quantity with Pervious Pavement" webinar (2/19/14)**
- o **St. Joe's Storm Water Workshop (2/21/14)**
- o **Delaware Riverkeeper Network 2014 Schuylkill River Watershed Congress (2/25/14)**
- o **CRC Watersheds Assoc. Invasive Plant Workshop at Garrett Williamson Foundation (2/26/14)**

MCM #2 – PUBLIC INVOLVEMENT/PARTICIPATION

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

Measurable Goal: A new permittee's PIPP shall be developed and implemented during the first year of coverage under this General Permit. All permittees shall re-evaluate the PIPP each permit year and revise as needed. Your PIPP shall include, but not be limited to:

- a. Opportunities for the public to participate in the decision-making processes associated with the development, implementation, and update of programs and activities related to this General Permit.
- b. Methods of routine communication to groups such as watershed associations, environmental advisory committees, and other environmental organizations that operate within proximity to the permittee's regulated small MS4s or their receiving waters.
- c. Making your periodic reports available to the public on your website, at your municipal offices, or by US Mail upon request.

- 1. For new permittees only, attach your written PIPP or a summary thereof to the first report submitted to DEP.
- 2. If you are not a new permittee, did you complete and submit your written PIPP or summary to DEP? Yes No
If Yes, provide the latest submission date: **A PIPP is attached to this progress report for review.**
- 3. Date of last review and/or update to the PIPP: **1/24/2015**
- 4. Explain how your PIPP addresses items a, b and c of the Measurable Goal:
The PIPP is outlined exactly per the required measurable goals for ease to address this issue. Please refer to Appendix Copy of PIPP.

BMP #2: Prior to adoption of any ordinance (municipal permittees) or SOP (non-municipal permittees) required by the permit, provide adequate public notice and opportunities for public review, input, and feedback.

Measurable Goal: Advertise any proposed MS4 Stormwater Management Ordinance or SOP, provide opportunities for public comment, evaluate any public input and feedback, and document the comments received and the municipality's response.

- 1. Was an MS4-related ordinance or SOP developed during the reporting period? Yes No
- 2. If Yes, describe how you advertised the draft ordinance and how you provided opportunities for public review, input and feedback:
N/A We did not include the need for an SOP in our Individual Permit application that was approved.
- 3. If an ordinance or SOP was enacted/developed or amended during the reporting period, provide the following information:

Ordinance No. / SOP Name	Date of Public Notice	Date of Public Hearing	Date Enacted
N/A			

BMP #3: Regularly solicit public involvement and participation from the target audience groups. This should include an effort to solicit public reporting of suspected illicit discharges. Assist the public in their efforts to help implement your SWMP. Conduct public meetings to discuss the on-going implementation of your SWMP.

***Measurable Goals:** Conduct at least one public meeting per year to solicit public involvement and participation from target audience groups. The public should be given reasonable notice through the usual outlets a reasonable period in advance of each meeting. During the meetings, you should present a summary of your progress, activities, and accomplishments with implementation of your SWMP, and you should provide opportunities for the public to provide feedback and input. Your presentation can be made at specific MS4 meetings or during any other public meeting. Under this MCM, you should document and report instances of cooperation and participation in your activities; presentations you made to local watershed organizations and conservation organizations; and similar instances of participation or coordination with organizations in your community. You also should document and report activities in which members of the public assisted or participated in your meetings and in the implementation of your SWMP, including education activities or organized implementation efforts such as cleanups, monitoring, storm drain stenciling, or others.*

1. Date of the public meeting(s): **This issue was not included in our Individual Permit Application that was approved. The public is not as key to a successful monitoring of illicit discharges as a municipality. Every facility has been directed to have staff inspect facilities as noted in our Operation and Maintenance of Facilities Plan. The Conservation District does inspections of outfalls to double check that issues are not intentionally being over looked. County Council meetings, and Conservation Districts meetings are all open to the public and published annually in the local newspapers.**

2. How were meeting(s) advertised to the public? **All meeting dates are posted in the Delaware County Daily Times listing the dates for all meeting in the Public Notice section. Also noted on our websites, and posted outside of our meeting room.**

3. Indicate where the meeting(s) were held and the number of attendees:
County Council Meetings are primarily held in the County Council Meeting Room in the Government Administration Building, Media. Conservation District Meetings are held at the Rose Tree Park, Hunt Club.

4. What types of MS4-related activities did you solicit public involvement and participation for?

We solicited public involvement for several training sessions and projects listed above in MCM #1 - Item # 5.

1. Upland Park - Tree Planting:

With project planning and coordination support provided by the Delaware County Planning Department, Parks and Recreation Department and Conservation District, and using the Conservation Planting Trailer provided by the SEPA RC&D, the Pennsylvania Horticultural Society was able to secure funding assistance from the Alliance for Community Trees and volunteer assistance from TD Bank to plant 50 shade trees in Upland Park on October 19, 2014. Upland Park is owned and operated by Delaware County, and provides recreational activities for residents from Upland Borough, Chester Township and Brookhaven Borough. Project planning activities began in March 2014 and were completed in October 2014. For more information: <http://neighborhoodmonth.org/event/upland-park-tree-planting/>

2. Glen Providence Park - Tree Planting:

With project planning, coordination support and funding provided by the Delaware County Parks and Recreation Department and Delaware County Conservation District, the Friends of Glen Providence Park and other volunteers were able to plant 40 native trees in Glen Providence Park on October 18, 2014. The project was designed to reduce storm water runoff to Broomall's Run, enhance wildlife habitat conditions and improve aesthetics. The project also complimented emergency stream bank stabilization work that was recently completed along Broomall's Run. For more information: <https://www.facebook.com/glenprovidencepark>

3. Kent Park Tree Vitalize Watersheds project - tree planting and mulching training to volunteers On Friday, September 27 - Saturday, September 28, 2013, the Delaware County Conservation District organized and conducted a field training event at Kent Park in Upper Darby. The field training event was conducted concurrently with a Tree Vitalize Watersheds riparian forest buffer planting project that was implemented during those dates. The Tree Vitalize Watersheds program and Plant One Million campaign are managed by the Pennsylvania Horticultural Society, with funding from the Pennsylvania Department of Environmental Protection's Growing Greener program, as well as Aqua PA for projects located within its source water protection zones.

The riparian forest buffer planting and field training event was attended by a total of 37 staff and volunteers from the Delaware County Parks and Recreation Department, Delaware County Community Service, PECO Energy, Natural Lands Trust and Villanova University. The event was also attended by members of Delaware County Council.

During the field training event, participants received background information regarding the goals and objectives of the overall project. Participants also received training on tree planting, mulching and deer protection techniques, and were provided an opportunity to utilize the various tools and equipment of the SEPA RC&D Conservation Planting Trailer to successfully complete the planting of 100 native trees and shrubs. A local article containing additional information about the Project is available at:

<http://media.patch.com/groups/delco-prs-blog/p/county-council-helps-to-treevitalize-kent-park>

The following non-point source pollution prevention and reduction educational materials were also distributed during the field training event:

- **"Protecting Water Quality from Urban Runoff – Clean Water is Everybody's Business." United States Environmental Protection Agency Publication EPA 841-F-03-003.**
- **"After the Storm – A Citizens Guide to Understanding Stormwater." United States Environmental Protection Agency Publication EPA 833-B-03-002.**
- **"Guide for Identifying and Controlling Common Noxious and Invasive Weeds in Southeastern Pennsylvania." Southeastern Pennsylvania Resource Conservation and Development Council.**

Evaluation Forms were distributed to 13 Villanova University volunteers following completion of the Field Training event and distribution of the above listed educational materials. The completed Forms were included within the Mid Term Report for this project, which was submitted via email to PACD on November 26, 2013.

5. What MS4-related activities did the public participate in?
- Chester City Hazard & Climate Adaptation Planning Project Steering Committee Mtgs. (5/29/13, 11/13/13)
 - Del Co. Solid Waste Advisory Committee Mtgs. (8/20/13, 9/24/13, 10/8/13)
 - CZM Meeting at Ridley Park Marina (9/25/13)
 - CZM Tour of Little Tinicum Island (9/25/13)
 - Kent Park Tree Vitalize Watersheds project - tree planting and mulching training to volunteers (9/27/13, 9/28/13)
 - PA DEP / CCD quarterly Roundtable Meeting. (3/14/13)
 - Assisted w/ Springfield EAC storm water basin plantings Fall 2012 DCCD Mini Grant. (5/31/13)
 - Cobbs Ck. 30% design meeting w/ PWD and Upper Darby Twp. (4/24/13)
 - PA DEP Chapter 102 & 105 E&S Training in Norristown. (6/13/13)
 - William Penn Foundation strategic planning meeting. (8/30/13)
 - CRC Watersheds Assoc. strategic planning meeting. (2/7/14)
 - Pre-permit application meeting for Serpentine Barren restoration at Tyler Arboretum (3/11/14)
 - Del. Co. SWAC meeting (3/11)
 - EDCSWC & PEC MS4 Workshop at Haverford Twp. Education & Rec Center (2/19/14)
 - CRC Invasive Plant Workshop at Garrett Williamson Foundation (2/26/14)
 - Lower Merion Conservancy Storm Water Workshop at St. Joe's University (3/13/14)
 - Delaware County Transportation Management Association (DCTMA) Annual Municipal Conference & Trade Show (4/3/14)
 - Assisted CRC Watersheds Assoc. w/ TVW project site maintenance at Ridley Pk. Borough (4/28/14)
 - CRC Annual MS4 Meeting at Newtown Twp. (9/10/14)
 - Haverford Twp. Rain Garden Workshop w/ EDCSWC, PRC and volunteers (9/20/14)
 - Delaware Co. Coastal Zone Task Force Meeting (9/24/14)
 - Assisted w/ 2014 Swarthmore College TVW riparian plantings (10/22/14)
 - Assisted CRC w/ plant delivery for Cheyney University riparian DCCD Mini-Grant (10/22/14)
 - Attended Delaware County Coastal Zone Task Force meeting in Eddystone (11/19/14)
 - Attended CRC Watersheds Association Annual Awards Dinner to present "Organizational Stewardship Award" to Penncrest High School's Envirothon Program award (11/6/14)
 - Reviewed NFWF Grant Background Information provided by PA Sea Grant (11/13/14)
 - Discussed PA DCNR Grant Award to CRC Watersheds Association w/ Brian Byrnes (11/25/14)
 - Scheduling partnership meeting with Gretchen Groebel of Radnor Conservancy (11/25/14)

MCM #3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDD&E)

BMP #1: You shall develop and implement a written program for the detection, elimination, and prevention of illicit discharges into your regulated MS4s. Your 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.

Measurable Goal: For new permittees, the IDD&E program shall be developed during the first year of coverage under this General Permit and shall be implemented and evaluated each year thereafter. For renewal permittees, the existing IDD&E program shall continue to be implemented and evaluated annually. 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.

1. For new permittees only, attach your written IDD&E program to the first report.
2. If you are not a new permittee, did you complete and submit your written IDD&E program to DEP? Yes No
If Yes, provide the latest submission date: **Has been included in the Appendix of all Annual Reports under the previous permit.**
3. Date of last review and/or update to IDD&E program: **1/24/2015**

BMP #2: Develop and maintain a map of your regulated small MS4. The map must also show the location of all outfalls and the locations and names of all surface waters of the Commonwealth (e.g., creek, stream, pond, lake, basin, swale, channel) that receive discharges from those outfalls.

Measurable Goals: *For new permittees, develop the map(s) of your regulated small municipal separate storm sewer systems and the information on all outfalls from your regulated small MS4 by the end of the fourth (4th) year of permit coverage. For renewal permittees, the existing map(s) of your regulated small MS4 shall be updated and maintained as necessary during each year of coverage under the permit.*

1. Have you completed a map(s) of all outfalls and receiving waters of your storm sewer system? Yes No

2. For new permittees only, attach the completed map to the 4th year Annual Report.
3. Date of last update or revision to map(s): **7/11/12 We have been upgrading our facilities mapping based on a priority of the largest sites first working our way down to sites with only minimal impervious. George W. Hill Correctional Facility, Emergency Services Training Facility, Juvenile Detention Center / 911 Center, Fair Acres Facility have been completed. All other facilities only have limited storm water management systems. Our originally mapping is sufficient for this time for other facilities, but they will be upgraded as time permits for consistency. See attached maps in appendix.**
4. Total number of discharge points in your storm sewer system that:
Discharge directly to surface waters (outfalls): **38**
Discharge to storm sewers owned by others: **0**
5. Total number of outfalls that are mapped at this time: **38 However this number has not been finalized as we continue to review our sites. Clayton Park may be the last to review in greater detail, and may result in a reduction. Some outfall may actually be underdrains for sand traps and greens.**
- 2013/14 – Outfall Numbers per County Owned Facility - Total Number of Outfalls All Facilities 38**
- | | | |
|--------------------|---------------------------------|-------------------------------|
| Rose Tree Park - 3 | Emergency Service Center - 3 | Juvenile Detention Center - 1 |
| Kent Park - 1 | George W. Hill Correctional - 2 | Upland Park - 2 |
| Willow Park - 0 | Catania Park - 1 | Pennock Woods - 1 |
| Martin Park - 1 | Clayton Park - 6 | Smedley Park - 4 |
| Fair Acres - 12 | | |

BMP #3: In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), new permittees shall show, and renewal permittees shall update, the entire storm sewer collection system, including roads, inlets, piping, swales, catch basins, channels, basins, and any other features of the permittee's storm sewer system including municipal boundaries and/or watershed boundaries.

***Measurable Goals:** For new permittees, develop the map(s) by the end of the fourth (4th) year of coverage under the permit and update and maintain the map(s) as necessary each year of permit coverage thereafter. For renewal permittees, update and maintain the map(s) as necessary during each year of permit coverage.*

1. Have you completed a map(s) that includes roads, inlets, piping, swales, catch basins, channels, basins, municipal boundaries and watershed boundaries? Yes No
2. If Yes, is the map(s) on the same map(s) as for outfalls and receiving waters? Yes No
3. For new permittees only, attach the completed map to the 4th year Annual Report.
4. If you are not a new permittee, did you complete and submit your map to DEP? Yes No
If Yes, provide the latest submission date: **Year 4 2007 all Maps were submitted.**
5. Date of last update or revision to map: **7/11/2012 ... 4 revised maps submitted in the appendix.**

BMP #4: Following the IDD&E program created pursuant to BMP #1, the permittee shall conduct outfall field screening, identify the source of any illicit discharges, and remove or correct any illicit discharges using procedures developed under BMP #1.

For all permittees, outfall inspections need to be prioritized according to the perceived chance of illicit discharges within the outfall's contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless of the presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, transporting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance Inventory/Sample Collection field sheet excerpted from the Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments (CWP, October 2004). Adequate written documentation shall be maintained to justify a determination that an outfall flow is not illicit. If an outfall flow is illicit, the actions taken to identify and eliminate the illicit flow also shall be documented.

The results of outfall inspections and actions taken to remove or correct illicit discharges shall be summarized in periodic reports.

1. For new permittees only, were at least 40% of all outfalls screened during dry weather? Yes No

If Yes for #1, indicate the number screened and the percent of all outfalls it represents. If No for #1, indicate reason(s) why this was not completed:

N/A

Are you on pace to screen all outfalls twice during the permit term? Yes No

2. For renewal permittees, indicate the percent of outfalls screened during the reporting period: **31%**

Are you on pace to screen all outfalls once during the permit term? Yes No

3. For all permittees, indicate the percent of outfalls screened that revealed dry weather flows: **0.03%**

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

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

6. Do you use the "Outfall Reconnaissance Inventory / Sample Collection Field Sheet" provided in the permit?

Yes No

If No, attach a copy of your monitoring form.

BMP #5: Enact a stormwater management ordinance (municipal entities) or develop an SOP (non-municipal entities) to implement and enforce a stormwater management program that includes prohibition of non-stormwater discharges to the regulated small MS4.

Measurable Goal: Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance from an Act 167 Plan approved by the Department in 2005 or later, the MS4 Stormwater Management Ordinance; or an ordinance that satisfies all applicable requirements in a completed and signed MS4 Stormwater Management Ordinance Checklist. (For non-municipal permittees, new permittees shall develop and implement a Standard Operating Procedure (SOP) within the first year of coverage).

Renewal permittees must continue to maintain, update, implement, and enforce a Stormwater Management Ordinance that satisfies all applicable requirements. (For non-municipal permittees, the SOP satisfies this requirement. If no existing SOP exists, it should be developed during the first year of coverage).

Measurable Goal: New permittees shall submit a letter signed by a municipal official, municipal engineer, or the municipal solicitor as an attachment to their first year report certifying the enactment of an ordinance that meets all applicable requirements of this permit. Renewal permittees shall update their existing ordinance, if necessary, and submit documentation of completion to the Department. (For non-municipal permittees, submit the SOP to the first report).

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: **Operation and Maintenance Plan**

Storm Water Management Best Management Practices 2006 addresses this issue. Please refer to copy in Appendix.

2. For new permittees only, attach an ordinance (or SOP) and letter from an official, engineer or solicitor that prohibits non-stormwater discharges to the first report submitted to DEP.

3. If you are not a new permittee, did you complete and submit your ordinance (or SOP) and letter from an official, engineer or solicitor that prohibits non-stormwater discharges to DEP? Yes No

4. Were there any violations of the ordinance during the reporting period? Yes No

If Yes, describe what enforcement actions were taken for each violation:

N/A

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.

***Measurable Goals:** During each year of permit coverage, appropriate educational information concerning illicit discharges shall be distributed to the target audiences using methods outlined under MCM #1. If not already established, set up and promote a stormwater pollution reporting mechanism (e.g., a complaint line with message recording) by the end of the first year of permit coverage for the public to use to notify you of illicit discharges, illegal dumping or outfall pollution. Respond to all complaints in a timely and appropriate manner. Document all responses, include the action taken, the time required to take the action, whether the complaint was resolved successfully.*

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?

- **Delivered NPS pollution prevention presentation as part of Garrett Hill Coalition's WREN Rain Barrel Workshop at Radnor United Methodist Church. (3/10/13)**

- * **NPS pollution prevention display table at 2013 Municipal Conference and Tradeshow at Drexel Brook Conference Center. (3/21/13)**

- **Distributed NPS pollution prevention materials and project evaluation forms to Kent Park TreeVitalize Watersheds volunteers. (9/27/13-9/28/13)**

- **Prepared NPS pollution prevention education and outreach informational resources educational materials for Delaware County Riverfront Ramble (9/21/13)**

- **Delivered NPS Pollution Prevention educational program to Chestnutwold Roots & Shoots (1/13/14)**

- **Forwarded Municipal Storm Water Management Financing Workshop information to municipalities. (9/10/13)**

- **Provided listing of DCCD MS4 Public Education and outreach activities to Anne Murphy. (5/7/13, 5/9/13)**

- **Reviewed and worked w/ Del Co Planning Dept. in revising MS4 mapping for 911 Center, Emergency Services Training Facility and Juvenile Detention Center. (6/6/13, 6/7/13)**

- **Contacted Karen Holm re: MS4 activity tracking tool (10/3/14)**

- **Scheduling of County MS4 Screenings w/ Kevin and Michelle (10/3/14)**

- **MS-4 Contact Julie DelMuto re: request for maps of facilities (10/8/14)**

- **Prepared MS4 facility maps & outfall screening field data sheets (11/3/14)**

- **Performed outfall screenings and BMP inspections at Fair Acres (11/5/14)**

- **Completed outfall sheets and labeled MS4 photos Fair Acres (11/6/14, 11/7/14)**

- **MS4 mapping coordination w/ Del Co. Planning Dept. (11/18/14)**

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 #4 – CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

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

Yes No **(If No, complete all remaining questions for this MCM; if Yes, skip to MCM #5).**

BMP #1: Develop your program consisting of all procedures necessary to comply with the requirements of this MCM. Your program shall provide for construction stormwater permitting, construction inspection, and enforcement of installation and maintenance of the necessary E&S control measures. Your program shall describe clearly how your program will be coordinated with DEP's NPDES Construction Stormwater Permitting program.

Measurable Goals: For new permittees, the written program for this MCM shall be developed during the first year of permit coverage; nevertheless, you are responsible for implementation of this MCM during entire term of this permit, including the time you are developing your program.

For all permittees, your program shall be reviewed and updated during each year of permit coverage. The purpose of the written program is to establish clear roles and responsibilities for the implementation of the MCM #4 requirements. An agreement between the permittee, the CCD, and any other resources to be used by the permittee that clearly defines roles for each entity is recommended. If an agreement is made, you shall place and keep a written copy in your file, consistent with the Retention of Records requirements in this Permit. Please note that in accordance with Section A.2.h in Part A of the Authorization to Discharge, as the permittee you are responsible to ensure that implementation of all requirements under this Permit are fulfilled.

1. For new permittees only, attach the written stormwater associated with construction activities program to the first report submitted to DEP.
2. If you are not a new permittee, did you complete and submit your written stormwater associated with construction activities program to DEP? Yes No
If Yes, provide the latest submission date:
3. Date of last update or revision to the stormwater associated with construction activities program:

BMP #2: The permittee shall enact, implement, and enforce an ordinance to require the implementation of erosion and sediment control BMPs, as well as sanctions to ensure compliance.

Measurable Goal: Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance that meets all applicable requirements of this permit. (Non-municipal permittees shall develop and implement an SOP).

Measurable Goal: Permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor as an attachment to their first periodic report certifying the enactment and implementation of a stormwater management ordinance that meets all requirements of this permit.

1. For new permittees only, attach an ordinance (or SOP) and letter from an official, engineer or solicitor that addresses stormwater associated with construction activities to the first report submitted to DEP.
2. If you are not a new permittee, did you complete and submit your ordinance (or SOP) and letter from an official, engineer or solicitor that addresses stormwater associated with construction activities to DEP? Yes No
If Yes, provide the latest submission date:

BMP #3: Develop and implement requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality. While sediment is the most common pollutant of concern for MCM #4, there are other types of pollutants that also can be a concern and the intent of this BMP is to address these other types of pollutants, such as, but not limited to, discarded building materials, washout from concrete trucks, chemicals, litter, and sanitary waste.

Measurable Goal: *New permittees shall establish requirements to address this BMP by the end of the first year of permit coverage. Renewal permittees shall continue to implement existing requirements and update as necessary. This could be implemented by written municipal ordinance/code provisions, by standard notes on the site plans, by any other written format that accomplishes the objectives of this BMP, or by any combination of these measures. The goal of this BMP shall be communicated to construction site operators during pre-construction meetings. This BMP shall be implemented during each year of the MS4 permit. Permittees must prepare and maintain records of site inspections, including dates and results and you must maintain these records in accordance with the Retention of Records requirements in this Permit.*

1. Identify the mechanism(s) in place to regulate construction site operators and wastes produced at construction sites:
2. During the reporting period what has been the results of implementing the mechanism(s) described above?

BMP #4: 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. The permittee shall demonstrate acknowledgement and consideration of the information submitted, whether submitted verbally or in writing.

Measurable Goal: *Permittees shall establish and implement a tracking system to keep a record of any submitted public information as well as your response, actions, and results. This BMP shall be implemented during each year of coverage under this General Permit and information should be submitted with the each periodic report.*

Describe the tracking system established for documenting public information concerning local construction activities and describe responses taken during the reporting period:

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

Are you relying on PA's statewide program for MCM #5 BMPs #1 - #3? Yes No

(If No, complete all remaining questions for this MCM; if Yes, skip to BMP #4)

BMP #1: Develop a written procedure that describes how the permittee shall address all required components of this MCM. Guidance can be found in the Pennsylvania Stormwater Best Management Practices Manual.

Measurable Goal: *The written procedure shall be developed by the end of the first year of permit coverage and be reviewed and updated every permit year thereafter, as needed. The intent of BMP #1 is for the permittee to describe how the listed tasks will be accomplished.*

1. For new permittees only, attach your written procedure for post-construction management to the first report.
2. If you are not a new permittee, did you complete and submit your written procedure for post-construction management to DEP? Yes No

If Yes, provide the latest submission date:

3. Date of last review or update of post-construction management procedure:

BMP #2: 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. This requirement can be met by ensuring that the selected BMPs comply with the municipal Stormwater Management Ordinance that meets the requirements of the permit.

***Measurable Goal:** All qualifying development or redevelopment projects shall be reviewed to ensure that their post-construction stormwater management plans and selected BMPs conform to the applicable requirements. A tracking system (e.g., database, spreadsheet, or written list) shall be maintained to record qualifying projects and their associated BMPs. In your records, you shall note if there are no qualifying projects in a calendar year.*

1. Number of development or redevelopment projects in urbanized area during reporting period:
2. Describe the tracking system in place:
3. Describe the structural and/or non-structural BMPs that were required for these projects:

BMP #3: Ensure that controls are installed that shall prevent or minimize water quality impacts.

***Measurable Goal:** All qualifying development or redevelopment projects shall be inspected 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). Permittees not relying on DEP's statewide QLP to satisfy requirements under this BMP shall summarize construction inspections and results in periodic reports. See BMP #6 for requirements related to post-construction inspection and tracking of PCSM BMPs to ensure that the operation and maintenance plan is being implemented.*

If there were development or redevelopment projects during the reporting period, attach documentation of inspections of PCSM BMPs to this report.

BMP #4: The permittee shall enact, implement, and enforce an ordinance (municipal) or SOP or other regulatory mechanism (non-municipal) to address post-construction stormwater runoff from new development and redevelopment projects, as well as sanctions and penalties associated with non-compliance, to the extent allowable under State or local law.

***Measurable Goal:** Within the first year of coverage under this permit, new permittees shall enact and implement a stormwater management ordinance (municipal) or SOP (non-municipal) that meets the requirements of this General Permit.*

***Measurable Goal:** All permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor as an attachment to their first periodic report certifying the enactment of a stormwater management ordinance that meets the requirements of this General Permit.*

1. Do you have an ordinance (or SOP) to address post-construction stormwater runoff from new and redevelopment projects and does it include sanctions? Yes No

If Yes, indicate the date of the ordinance or SOP: **Once again this issue was not addressed in our individual permit application.. Please also note that the question has two parts. Delaware County does have a SOP for Post Construction Stormwater Run-off, but as part of Operation and Maintenance Plan, but it does not address sanctions. We would however be subject to sanctions by the local municipalities for stormwater issues in which our facilities are located.**

For new permittees only, attach a copy of the ordinance or SOP.

2. If you are not a new permittee, has the ordinance (or SOP) been submitted to DEP with a letter from an official, engineer or solicitor that certifies the enactment of an ordinance or SOP for PCSM activities? Yes No

3. Do you have authority to take enforcement action for failure to properly operate and maintain stormwater practices/facilities? Yes No

BMP #5: Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new and redevelopment. Measures also should be included to encourage retrofitting LID into existing development. DEP's Pennsylvania Stormwater Best Management Practices Manual provides guidance on implementing LID practices.

Measurable Goal: *In your inventory of development and redevelopment projects authorized for construction since March 10, 2003, that discharge stormwater to your regulated MS4s, indicate which projects incorporated LID practices and for each project list and track the BMPs that were used.*

Measurable Goal: *Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID practices. Progress with enacting and updating your ordinances to enable the use of LID practices shall be summarized in the periodic reports.*

1. Identify ordinances enacted or updated during the reporting period to ensure consistency with LID practices:

This does not apply to County Governments we are subject to the ordinances adopted by the municipalities in which our facilities are located.

BMP 6: Ensure adequate operation and maintenance of all post-construction stormwater management BMPs installed at all qualifying development or redevelopment projects (including those owned or operated by the permittee).

Measurable Goal: *Within the first year of coverage under this permit, new permittees shall develop and implement a written inspection program to ensure that stormwater BMPs are properly operated and maintained. The program shall include sanctions and penalties for non-compliance. All permittees shall review and update the inspection program annually and shall continue to implement this BMP.*

Measurable Goal: *An inventory of PCSM BMPs shall be developed by permittees and shall be continually updated during the term of coverage under the permit as development projects are reviewed, approved, and constructed. This inventory shall include all PCSM BMPs installed since March 10, 2003 that discharge directly or indirectly to your regulated small MS4s. The inventory also should include PCSM BMPs discharging to the regulated small MS4 system that may cause or contribute to violation of water quality standard. The inventory shall include:*

- *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., street address);*
- *information (e.g., name, address, phone number(s)) for BMP owner and entity responsible for BMP Operation and Maintenance (O&M), if different from BMP owner;*
- *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 for each BMP;*
- *an assessment by the permittee if proper operation and maintenance occurred during the year and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements.*

1. For new permittees only, attach the written inspection program to ensure that stormwater BMPs are properly operated and maintained.

2. If you are not a new permittee, did you complete and submit your written inspection program to ensure that stormwater BMPs are properly operated and maintained to DEP? Yes No

If Yes, provide the latest submission date: **Included with previous Annual Reports included in Appendix in this report**

3. How do you ensure that stormwater BMPs are properly operated and maintained? Explain if you rely on means other than municipal inspections to ensure adequate O&M (consistent with your stormwater ordinance).
In Year 11 Delaware County had one new PCSM - B.M.P.'s installed. Since the MS-4 Permit was initiated I believe only two constructed PCSM facilities were installed with NPDES Permits. An infiltration basin in the Parking Lot of Rose Tree Tavern, and the other facility was a created wetland / water quality basin that was constructed at Smedley Park. The two B.M.P.'s installed in Years 9, 10, &11 were riparian buffers at Smedley Park, and Kent Park and did not involve construction per se. Unlike many municipalities once a Stormwater Best Management Practice is constructed and operational it is addressed in future years under MCM # 6. We do not have any BMP's that are maintained by a Homeowners Association or Lot Owner. The County has other Stormwater Management Facilities that are addressed in M.C.M. # 6. Delaware County Conservation District staff conducted inspections of the two facilities listed above. While the Facilities Managers conduct routine management of all Stormwater Management Best Management Practices. Included in the appendix is a excel spreadsheet detailing the dates that Conservation District staff was specifically involved in maintenance activities or inspections.
4. Date that inspection program was last reviewed or updated: **Operation and Maintenance Plan Storm Water Management Best Management Practices Revised 1/24/2015**
5. Total number of sites with PCSM BMPs installed as of the date of this report: **2 Sites had BMP installed since March 10, 2003**
6. Total number of sites inspected during this reporting period: **2**
7. Number of sites found to have PCSM BMP deficiencies: **0**
8. Number of enforcement actions taken during this reporting period: **0**

MCM #6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING

BMP #1: Identify and document all facilities and activities that are owned or operated by the permittee and have the potential for generating 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.).

***Measurable Goal:** By the end of the first year of permit coverage, new permittees shall identify and document all types of municipal operations, facilities and activities and land uses that may contribute to stormwater runoff within areas of municipal operations that discharge to the regulated small MS4. Renewal permittees should have completed this list during the previous permit term. For all permittees, this information shall be reviewed and updated each year of permit coverage, as needed. Part of this effort shall include maintaining a basic inventory of various municipal operations and facilities.*

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? **1/24/2015 It is however reviewed annually**
3. When was it last updated? **1/24/2015**
4. How many new facilities and/or activities were added to this inventory during this reporting period? **The County did not have additional construction projects in 2015 that involved the installation of Post Construction Stormwater BMP's or involved NPDES Construction permitting.**

BMP #2: Develop, implement and maintain a written operation and maintenance (O&M) program for all municipal operations and facilities that could contribute to the discharge of pollutants from the regulated small MS4s, as identified under BMP #1. This program (or programs) shall address municipally owned stormwater collection or conveyance systems, but could include other areas (as identified under BMP #1). The O&M program(s) should stress pollution prevention and good housekeeping measures, contain site-specific information, and address the following areas:

- **Management practices, policies, procedures, etc. shall be developed and implemented to reduce or prevent the discharge of pollutants to your regulated small MS4s. You should 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 your regulated small MS4s. You also should review your procedures for maintaining your stormwater BMPs.**
- **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, and salt / sand (anti-skid) storage locations and snow disposal areas.**
- **Procedures for the proper disposal of waste removed from your regulated small MS4s and your municipal operations, including dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, and other debris.**

***Measurable Goal:** During the first year of permit coverage, new permittees shall develop and implement a written O&M program that complies with BMPs #1 and #2. Renewal permittees shall continue to implement their existing program. All permittees shall review the O&M program annually, edit as necessary, and continue to implement during every year of permit coverage.*

1. For new permittees only, attach the written O&M program to the first Annual Report.

2. If you are not a new permittee, did you complete and submit your written O&M program to DEP? Yes No
If Yes, provide the latest submission date: **Included in several previous Annual Reports under initial County MS-4 Permit.**

3. Date of last review or update to O&M program: **1/24/2015**

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 municipal operations to your regulated small MS4s. The program may be developed and implemented using guidance and training materials that are available from federal, state or local agencies, or other organizations. Any municipal employee or contractor shall receive training. This could include public works staff, building / zoning / code enforcement staff, engineering staff (on-site and contracted), administrative staff, elected officials, police and fire responders, volunteers, and contracted personnel. Training topics should include operation, inspection, maintenance and repair activities associated with any of the municipal operations / facilities identified under BMP #1. Training should cover all relevant parts of the permittee's overall stormwater management program that could affect municipal operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.

Measurable Goal: *During the first year of permit coverage, 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. Renewal permittees shall continue to operate under their existing program. All permittees shall review the training program annually, edit it as necessary, and continue to implement it during every year of permit coverage.*

Measurable Goal: *Your employee training shall occur at least annually (i.e., during each permit coverage year) and shall be fully documented in writing and reported in your periodic reports. Documentation shall include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s).*

1. For new permittees only, attach the written training program to the first Annual Report.
2. If you are not a new permittee, did you complete and submit your written training program to DEP? Yes No
If Yes, provide the latest submission date: **1/29/2015**
3. Date of last review or update to training program: **While we were not aware that a specific training program was required we did take the time to develop a plan to address this issue. This plan is included in the appendix.**

4. Identify the date(s) of employee training, the names of attendees, the topics covered, and the training presenters:
- **03/14/2013: Wheeler, Boyle, Magargee – SERO/Round Table – NPDES Construction Permit Issues, presenters DEP**
 - **03/20/2013: Wheeler, Boyle, Magargee – Permit Decision Guarantee and Standard Operating Procedures for NPDES Permitting Meeting. DEP presented**
 - **03/28/2013: Wheeler, Boyle – Completeness Review Checklist Overview for NPDES Permits. presented by Chester County Conservation District staff and DEP**
 - **05/29/2013 – 05/30/2013: Wheeler, Boyle – E & S BMP Manual Training held at Villanova University, presented by DEP.**
 - **08/07/2013: Magargee – PA Dot training to discuss maintenance and PCSM, Delaware CD, DEP & PennDot**
 - **10/16/2013: Wheeler, Boyle, Holm – Temple-Villanova Sustainable Initiative (TVSSI) Pennsylvania Municipal Workshop at Villanova University. presenters numerous**
 - **10/29/2013-10/30/2013: Wheeler, Boyle – Annual 102/105 Training at Ramada Conference Center, State College. presenter DEP**
 - **12/12/2013: Wheeler, Boyle, Magargee SERO/District Round Table – NPDES Construction Permit Issues. presenters DEP**
 - **12/18/2013-12/19/2013: Magargee – CRC MS4 Stormwater Housekeeping workshop for Municipal Officials. Served as a presenter.**
 - **02/11/2014: Vadino, Eastern Delaware County Stormwater Collaborative, Landscapers workshop for MS-4 presenters Various**
 - **02/12/2014: Vadino – PA Environmental Council Green Design Workshop, Presenters various**
 - **02/19/2014: Vadino – Improving Water Quality with pervious pavement, presenters Conewago Creek Watershed Association**
 - **02/28/2014: Vadino – SJU & Lower Merion Conservancy 4th annual Stormwater workshop. Presenters various.**
 - **04/01/2013-04/03/2013: Wheeler, Boyle – Advanced Topic Based Erosion & Sediment Control technical training at the Farm & Home Center in Lancaster. Presenter DEP**
 - **05/22/2014: Wheeler, Boyle, Magargee, Holm - NPDES & PCSM workshop. Presenters Districts & DEP**
 - **06/07/2014: Wheeler, Boyle, Magargee – NPDES Notice of Termination webinar presented by DEP**
 - **09/09/2014: Wheeler, Boyle, Magargee – NPDES Instrument of Filing and Permit Termination webinar, presenter DEP**
 - **09/12/2014: Wheeler, Boyle, Magargee – SERO/District Round Table – NPDES Construction Permit issues. presenters DEP**
 - **10/23/2014: Magargee – Webcast EPA Stormwater Calculators, Presenter EPA**
 - **10/28/2014-10/29/2014: Wheeler, Boyle – Annual 102/105 Training State College, presenter DEP**

BEST MANAGEMENT PRACTICES (BMPs)

Provide an assessment of the appropriateness of the BMPs implemented to date, and identify any steps that will be taken to address deficiencies in the BMPs or make changes to BMPs or other aspects of the SWMP developed by the permittee.

Operation and Maintenance Plans (O&M) were previously submitted in YEAR 3, and enhanced with YEAR 3. Responsibility for Conducting Inspection and Maintenance at various County owned and operated facilities :Contact Information for each facility with Stormwater Management - Best Management Practices

Fair Acres Center - Jack Steward (610)891-5932

Delaware County Prison - Bruce Thomas (610)361-3348, Joseph McCreary, Maintenance Director CEC (610)361-3339

Juvenile Detention Center - Ronald A. Berry (610)891-8660

Watkins Bldg. - 911 Center - Jerry Weinhardt (610) 891-4062

Parks - Marc Manfre (610) 891-4664, and Norm Bennett (610) 566-2730

Emergency Training Center - Walt R. Omlor, Jr. (610) 891-4461

Court House - Jerry Weinhardt (610) 891-4061, & Joe Westfield (610) 891-4062

Each facility is managed as a separate entity. Any maintenance issues discovered will be addressed by staff under the supervision of the individuals noted above if minor. If the extent of the maintenance required exceeds the in-house capability Dennis Carey, Public Works Department will be consulted. Dennis Carey has retired, but remain involved on a part time basis until a replacement is found. The County has 6 - Dry Detention basins, 1 - Wet Pond, 1 - Water Quality Basin (Rain Garden / Bioretention Area), 2 - Underground Infiltration Facility 1 - Riparian (Planted) Buffer, and one concrete lined swale. We have requested each facility manager to notify the Conservation District if any facility requires more than routine maintenance such as debris removal or grass mowing. No issues were reported in Year 11. The Conservation District did conduct another round of BMP Inspections in Year 11. We did not find any significant problems.

During the above referenced permit year, the Watershed Specialist worked with County facility managers to improve or protect receiving water quality by altering facility operations. Many of the improvements that were implemented during this permit year focused primarily upon proper maintenance of the various BMP's that were used:

- Smedley Park: Conducted maintenance activities (visual monitoring, watering, weeding, pruning, cage repair, etc.) on Delaware County's 2010 and 2011 Tree Vitalize Watersheds riparian buffer planting project (6/11/13, 6/12/13, 6/14/13, 8/15/13, 1/17/14, 3/7/14, 4/25/14, 7/16/14)
- Kent Park: Conducted maintenance activities (visual monitoring, watering, weeding, pruning, cage repair, etc.) on Delaware County's 2013 Tree Vitalize Watersheds riparian buffer planting project, and conducted visual monitoring of American Rivers' Darby Creek Dam Removal project at this location (10/4/13, 4/9/14, 4/16/14, 7/18/14, 8/27/14, 8/28/14). Also hired WEEDS, INC. to spray for invasive plants in 2014 to assist in the establishment of the riparian buffer.
- Rose Tree Park: Installed demonstration rain barrel and landscape irrigation system outside of DCCD office building. (4/25/14)

* A large Tree Planting Project was also conducted at Camp Upland Park that will provide shade, and other volume & quality benefits over time. October 11 & 12, 2014. Sponsored by TD Bank and PA. Horticultural Society.

* Glen Providence Park - Tree Planting: With project planning, coordination support and funding provided by the Delaware County Parks and Recreation Department and Delaware County Conservation District, the Friends of Glen Providence Park and other volunteers were able to plant 40 native trees in Glen Providence Park on October 18, 2014. The project was designed to reduce storm water runoff to Broomall's Run, enhance wildlife habitat conditions and improve aesthetics. The project also complimented emergency stream bank stabilization work that was recently completed along Broomall's Run. For more information:

<https://www.facebook.com/glenprovidencepark>
<https://www.facebook.com/glenprovidencepark>

* Glen Providence Park - Growing Greener Grant Application for FGM Assessment, Natural Stream Channel Design and Permitting for Broomall's Run: Through the coordinated and collaborative efforts of its Conservation District, Parks and Recreation, Public Works and Planning Departments, Delaware County submitted a Growing Greener Plus "Watershed Protection" grant application, to the Pennsylvania Department of Environmental Protection, to complete a stream assessment, Natural Stream Channel Design and permitting project for Broomall's Run (tributary to Ridley Creek) in Glen Providence Park. The 2014 Pennsylvania Draft Integrated List of All Waters (formerly 303(d) Report) lists Broomall's Run as "Impaired" for aquatic life, due to siltation caused by urban runoff/storm sewers.

The proposed project will addresses PA DEP Department-Wide, Regional and Watershed Priority Activities. In addition, the project will also address recommendations/action steps contained within a number of existing/already completed watershed/natural resource management plans/studies for the Ridley Creek watershed. The project fits into Pennsylvania's Non-Point Source Management Program Update, which establishes the overall strategy Pennsylvania will use to implement watershed restoration and protection activities.

The above-mentioned departments of Delaware County met with David Burke (PA DEP Regional Watershed Manager) on June 26, 2014 to discuss the above grant application. The completed Growing Greener Plus application was submitted to PA DEP on July 10, 2014.

BMP INVENTORY

List all new structural BMPs installed and ongoing non-structural BMPs implemented in the urbanized area during the reporting period that are being used toward achieving load reductions in the permittee's MS4 TMDL Plan and/or CBPRP. Provide a name or description for each BMP, the area, in square feet (sf) that drains to each BMP (drainage area (DA)) (if applicable), the location of the BMP (latitude and longitude), the name of the water body that receives discharges from the BMP (if applicable), the date the BMP was installed or implemented, and whether the BMP was completed pursuant to an NPDES permit for stormwater associated with construction activities or other NPDES permit (check box if done under an NPDES permit).

BMP Name / Description	DA (sf)	Latitude	Longitude	Receiving Waters	Date Installed or Implemented	NPDES Permit?
N/A		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>
		o ' "	o ' "			<input type="checkbox"/>

OTHER REQUIRED REPORT ELEMENTS

Identify the progress towards achieving the statutory requirements of reducing the discharge of pollutants to the Maximum Extent Practicable (MEP) and complying with water quality standards.

N/A

Provide a summary of stormwater activities planned during the next reporting cycle (not identified previously in this report):

N/A

Provide a summary of notices, intergovernmental agreements and other relevant documents if the permittee is relying on another governmental entity to satisfy any of its permit obligations

N/A

CERTIFICATION

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

Name of Responsible Official

Signature

Telephone No.

Date